Regional planning in France during rapid urbanization period(1945-1970) : evolution, effect and inspiration for regional planning in China

Shuangshuang Tang

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ÉCOLE DOCTORALE « VILLE, TRANSPORTS ET TERRITOIRES »

Thèse de Doctorat de l'Université Paris-Est

L'AMENAGEMENT DU TERRITOIRE EN FRANCE PENDANT LA PERIODE D'URBANISATION RAPIDE (1945-1970) : EVOLUTION ET EFFETS, LEÇONS POUR LES POLITIQUES D'AMENAGEMENT DE LA CHINE

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RESUME

Dans l'histoire contemporaine de la France, on désigne couramment par ‘Les trente glorieuses’ la période qui, courant de 1945 à 1975 environ, fut marquée par un développement économique intense et une évolution sociale et politique rapide et profonde. Cette période fut aussi celle d'une forte urbanisation.

De nombreuses politiques relevant de l'aménagement du territoire ont alors été mises en œuvre, ayant généralement pour objectif ‘l’équilibre’ du territoire français. De manière comparable, la Chine est entrée dans une phase d’urbanisation rapide depuis les années 1990. Simultanément, une série de planifications régionales ayant pour l’objet de ‘l’équilibre’ ont commencé à émerger. Dans cette perspective, les expériences françaises en matière d’aménagement du territoire sont importantes et utiles pour éclairer une recherche approfondie sur la Chine d’aujourd’hui et de demain. C'est l’objectif principal de la thèse.

Afin d’atteindre cet objectif, la thèse est divisée en deux parties. Premièrement, résumer le processus d’évolution de l’aménagement du territoire français au cours des ‘trente glorieuses’, et en apprécier a posteriori les effets sur le développement du pays. Deuxièmement, faire un bilan du processus de développement lancé en Chine après 1978 (le début de la réforme faisant suite à de nombreuses années d'agitation politique), identifiant les planifications régionales et les problèmes qu'elles traitent, pour enfin tirer quelques enseignements pour la Chine de l’expérience française.

Au terme de la synthèse, de l’analyse et de l’évaluation de l’aménagement du territoire français pendant ‘les trente glorieuses’, nous trouvons que leurs contenus et leurs effets sont complexes, et qu'ils ont changé au fil des ans avec l’évolution du contexte économie, social et politique. Les politiques d’aménagement du territoire ont exercé un effet positif éminent sur le processus de développement et ses suites. A cette fin, la planification régionale a du identifier les facteurs décisifs et résoudre les problèmes majeurs au cours des différentes phases de développement.

Afin de désigner et de mieux résoudre les problèmes de la Chine pendant la période actuelle de développement rapide qui est aussi une phase d’urbanisation rapide, nous proposons quelques propositions à la fin de la thèse. Elles touchent : 1. le choix de l’objectif majeur de l’aménagement du territoire ; 2. l’offre de services publics aux migrants par le gouvernement ; 3. le maintien de la position compétitive des grandes villes ; 4. la recherche de l’équilibre des agglomérations urbaines ; 5. le développement de l’espace rural ; 6. la création de pôles de croissance ; 7. les choix de localisation et d’aménagement du logement social.

ABSTRACT

The ’30 glorious years’ is a period of great development (i.e. economy, society, and politics), when France went through and completed the phase of rapid urbanization. During the period, a considerable number of regional planning with the aim of ‘balance’ was established and implemented in France. In similar, after a long period of development, China met the period of rapid urbanization in the late 1990s and a series of regional planning with the ‘balance’ feature begin to emerge almost at the same time. The experiences regarding regional planning in France are quite meaningful to do some further research, in order to draw some useful lessons for China nowadays and in the future, which is the main purpose of the thesis.

For reaching the goal, the whole thesis could mainly be divided into two parts: 1. Summarize the evolution process of French regional planning during the ’30 glorious years’, and analyze the effect and development after implementation of regional planning during and after the important period; 2. Conclude the development of China after the open-up policy, the existing regional planning and certain related problems, and present several implication for China finally, based on the experiences of France.

After summarizing, analyzing and evaluating French regional planning during the ’30 glorious years’, we find that the content of regional planning changed with the evolution of background (i.e. economy, society, and politics). And the regional planning with obvious, positive effect all belonged to these which follow and predict the process and the inherent law of development. Therefore, regional planning should catch and foresee the decisive factor and solve the major problems during different phases of development. In order to make China avoid of or solve some important problems during the period of rapid development (also a period of rapid urbanization), we propose some implications for China’s regional planning in the end. It includes: 1. the major objective of regional planning; 2. the provision by government for migrants; 3. the method for big cities to keep their vitality; 4. the ‘balance’ development of urban agglomeration; 5. the healthy development of rural area; 6. the creation of growth pole; 7. the choice of location for public housing.

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Chapter 1

1.1 Introduction

Regional planning was born with the aim of solving unbalanced development in different regions and creating employments there at the early stage in the 20th century. However, its content evolved along with the changing background, particularly with the process of urbanization. Urbanization is a historical period during which a country (or an area) evolves from an agricultural, rural society to an industrial/service and urban society. Within the irreversible process, the rapid development phase (the urbanization level shifting from 30% to 70%) is a remarkably changing period, which accompanies the rapid growth of population, rural-to-urban migration, industrialization and rising standards of living condition (Lowry, 1990). The period is also the stage when many related problems emerge, which further widen the gap of development between the developed region and less-developed region, between rural and urban area. For example, the development of industrialization is not consistent with the process of urbanization; the huge unbalances between the rural and the urban areas or among different regions still exists. Migration continues to crash into big cities, which causes some urban problems (i.e. social, environmental ones). Besides, the flow of population along with the flow of some other factors (i.e. capital, information) would result in a new round of unbalance (especially. in the rapid changing phase). Therefore, during the period, government wants to carry out some measures to guide a proper urbanization process and to keep a balanced situation (though the concept of 'balance' needs to be clarified and evolves in different periods) to a certain degree. Regional planning, which functions as the organization and adjustment tools of space, could influence some phenomenon in the rapid period of urbanization (i.e. migration, urban system, and rural-urban development etc), which is further expressed in the 'territory'[1].

China is the most populous country in the world, whose development always catches the world's attention. The urbanization of China is one of the most important events which influence the social process of human beings in the 21st century (Stiglitse, 2000). Since the China's 'open-up' policy in 1978, the process of industrialization accelerated rapidly along with the gradually-ameliorated market system. After decades' stagnation, China's urbanization process restarted in the 1980s, sped up in the 1990s and entered into a rapid period in the 21st century. And the trend will continue in the next decades. However, during the current period, some problems in the process emerge which are urgent to be solved, for example: the unbalances between the West

[1] It comes from the Latin words (i.e. terra and territoirium), which highlight the politico-economic dimension and political-strategic dimension of territory (Stuart Elden, 2010). In particular, Francophone geography (e.g. Raffestin, Bonnemaison, Debarbieux, Di Meo) has long theorized territory as a social space, produced by specific social practices and meanings which turns territory into both a 'semiotized' and a 'lived' space (Marco Antonsich, 2010). And it is defined by Merriam-Webster dictionary as: a geographic area belonging to or under the jurisdiction of a governmental authority.

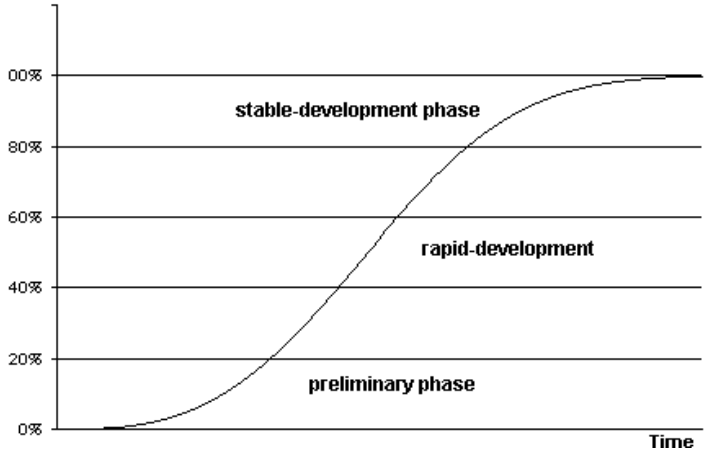
and the East, as well as between cities and the rural areas are always significant; a large number of young labor-force (esp. the rural migrants) from China's central and western regions crash into the eastern part of China. And these phenomenons are closely connected. Therefore, to avoid aggravating the problems, it is important and urgent for China to find some useful tools during the rapid urbanization period. And doing some research on the experiences of other countries which have already passed the phase of rapid urbanization is one of the efficient methods.

France had some similar situation (mentioned below) with China among the major developed countries in Europe and America. During the '30 glorious years (from 1945 to the 1970s)', France basically accomplished the industrialization, urbanization and agricultural modernization at the same time. After the 30 years, many fields in France were improved remarkably, such as the economic development, the living standard, the position of country etc. At the same time, it is a golden period for regional planning, when a considerable number of regional planning procedures were prepared and implemented. Although problems and debates always existed, the planning led and intervened in the historic process. Thus, it's meaningful for China to have some research on French regional planning during the '30 glorious years' and to evaluate the effect after its implementation during and after the period, which has both practical and inspiring significance for China.

1.2 Why Compare France and China

1.2.1 The rapid development period of urbanization

In the 20 century, most countries experienced a rapid process of urbanization. Based on the 'Northam Curve' theory, the process could be divided into three successive development phases, which is illustrated as an 'S' curve: the preliminary phase (the urbanization level: <30%), the rapid-development phase (urbanization level: 30%-70%), and the stable-development phase (>70%).

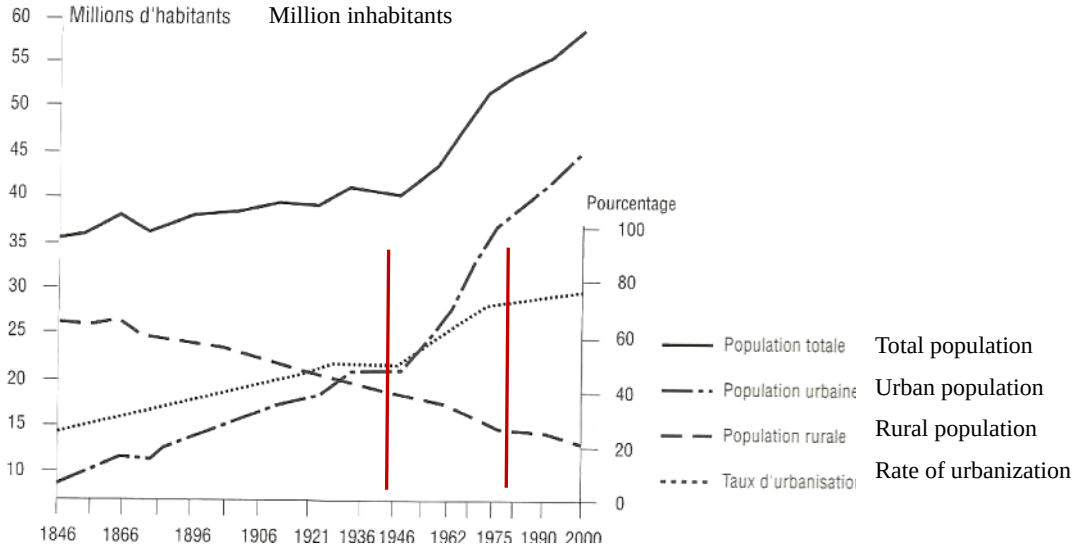


Graph: The 'Northam' Curve

In some developed European countries, with the reconstruction after the World War II, they

generally went through a rapid-development period of urbanization and economy. In France, although its urbanization level passed the level 30% after 1900, there was still nearly half of the rural population until the end of the World War II, and nearly 1/4 of labor-force in the field of agriculture there. And it is widely considered that the most rapidly-developing period in France was from 1945 to the early 1970s (the so-called the '30 glorious years'). Therefore, it is a period of massive urbanization in consistent with the rapid economic/society development.

Graph: Evolution of urban and rural population, 1846-1999



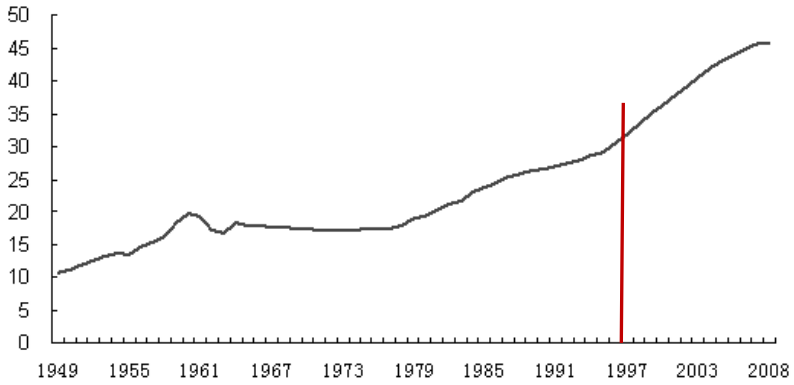
Source: Insee

In China, the urbanization process lagged behind the developed countries and many developing countries. The process was delayed due to the economic standstill and the migration limitation (e.g. the household registration system) in China for several decades. With the decades of economic development after the 'open-up policy' (1978), its urbanization level grew and reached about 30.0% in 1997 finally. On the other hand, with a continuous stable development after 1978, China has entered into a rapid-developing period with an average growth rate (GDP) of 8.1% (1979-2008). Therefore, similar with the situation of France during the '30 glorious years', the phases of both urbanization and economy are in a rapid-development period in the 21st century.

Table: Proportion of urban population in the world, 1950-2000, %

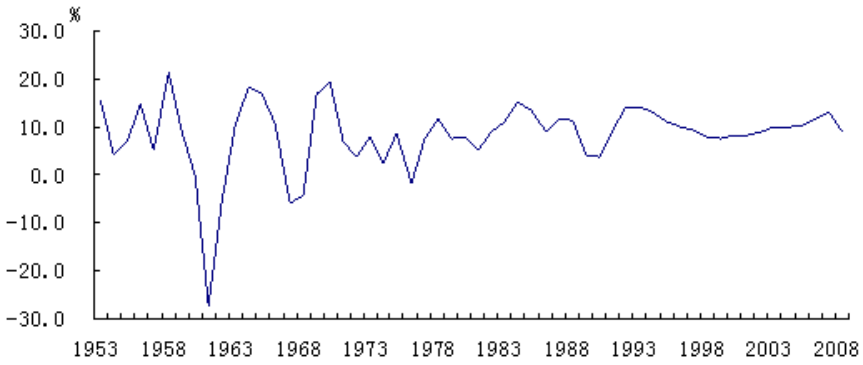
	1950	1975	2000
World	29.8	37.9	47.2
Developed-country	54.9	70.0	75.4
Developing-country	17.8	26.8	40.4
France	55.4	72.9	75.5 (1999)
China	11.2	17.3	36.2

Source: Department of Economic and Social Affairs (Population Division), Word Urbanization Prospects (the 2001 revision), New York, United Nations, 2002; Insee; China's City Statistical Yearbook



Graph: Urban population/total population, 1949 -2008, %

Sources: National Bureau of Statistics of China, the report of 60th anniversary of P. R.C



Graph: The growth rate of GDP, 1953-2008, %

Sources: National Bureau of Statistics of China, the report of 60th anniversary of P. R.C

In addition, the urbanization process is related closely to the change of employment structure. On the basis of the theory, agricultural employment was gradually converted into non-agricultural employment during the development phase of urbanization, which is showed as a corresponding quantitative relation according to the model of 'Chenery' (1975).

Table: The relation of non-agricultural employment and urbanization, the 'Chenery' model, 1975

Proportion of non agricultural-employment (%)	15.9	25.2	30.0	39.5	43.8	48.9	55.7	65.8	71.2
Urbanization level (%)	12.8	22.0	36.2	43.9	49.0	52.7	60.1	63.4	65.8

Source: H. Chenery and M. Syrquin, Patterns of development, 1950-1970, Oxford: Oxford University Press, 1975

However, different from the situation in France, there is a huge deviation between the GDP structure and the employment structure in China, due to the long-term industry preference policy (e.g. heavy industry) and the migration limitation policy (e.g. the household registration system: the 'hukou' system). And the employment structure impedes the urbanization process to some extent.

Table: French and China's non-agricultural employment and urbanization level, %

France	**1950**	**1962**	**1975**

Non-agricultural employment	70.2	80.1	90.5
GDP of non-agriculture	85.0	90.0 (1960)	95.0
Urbanization level	55.4	63.2	72.9
China	**1997**	**2005**	**2010**
Non-agricultural employment	50.1	55.2	63.3
GDP of non-agriculture	81.3	87.5	89.9
Urbanization level	29.9	43.0	47.5

Source: Insee; China Statistical Yearbook

1.2.2 The unbalanced situation

Similar with the unbalanced situation between the western part and the eastern part, between the Paris region and the other provinces in France (in the preliminary period after the World War II), China could be divided into four major parts based on the disparities in the development (as shown in the table below). Among them, the three urban agglomerations (the Yangtze Delta region, the Bohai-Sea region and the Pearl River delta region) are the most highly-developed urban areas.

This unbalanced situation result in a series of problems, especially under the background of the massive urbanization period. Therefore, the situation promoted the emergence of regional planning which aimed at the 'balanced development' afterwards in the two countries. In France, this kind of regional planning emerged since the 1950s. And in China, a large-scale of the regional planning with the aim of 'coordinated-development' has been carried out since the year 1999.

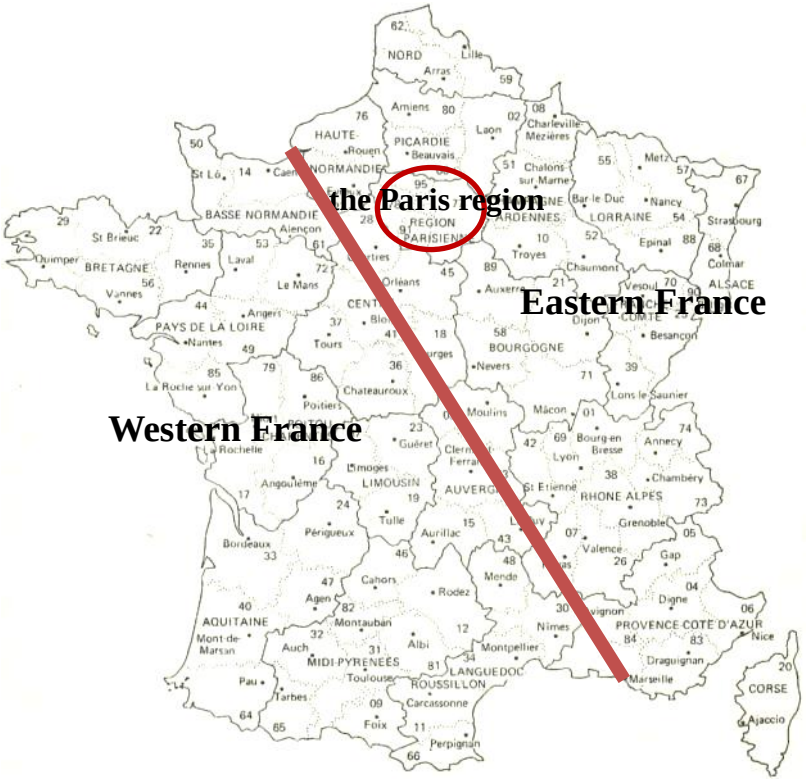


Figure: The western and eastern part of France

Table：The basic indices of the 'Eastern Area' and the 'Western Area' in France (based on 1000)

	Population (1954)	Labor index (1946-1948)	Output value (1951)	Income (1951)	Non-agriculture employment (1954)
Western region	388.0	267.1	299.1	318.7	55.7
Eastern region (excl. the Paris region)	435.2	451.5	450.6	424.9	78.6
Eastern region (incl. the Paris region)	606.2	729.6	699.0	678.8	84.4

Note: the western region and eastern region do not include all regions, only as a reference

Labor index: according to the index by insee in 1951

Source : Ernest Labrousee, Fernand Braudel, Histoire économique et sociale de la France (1950-), Rongkang Xie, Wenjie Huang (translators), Shanghai : Fudan University Press, 1990

Figure: Four different regions of China and three most developed areas

Table: The basic indices of four different regions, 2010, %

	Eastern Region	Central Region	Western Region	North-eastern Region
Land Area	9.5	10.7	71.5	8.2
Population	38.0	23.8	27.0	8.2
GDP	53.1	19.7	18.6	8.6
GDP/capita (yuan)	46354	24242	22476	34303
Fixed assets investment	42.7	23.2	22.8	11.3
Mileage of Highway	35.8	27.1	28.7	8.5
Income of urban household (yuan)	23273	15962	15806	15941
Income of rural household (yuan)	8143	5510	4418	6434

Source: China Statistical Yearbook

1.2.3 The strong power of the nation

Although the political systems of the two countries are totally different, the political power of the state was both strong during the comparison period, which improved the efficient implementation of regional planning.

France has a centralized tradition for a long-term in comparison with some other European countries. After the establishment of the 5th Republic (1958), the power of the president was

strengthened furthermore compared with the previous period. It is commonly considered that the period (from the 1960s to the early 1970s) was a golden time for regional planning. The centralized political system (with the Keynesian characteristic) guaranteed the efficient implementation of regional planning during that period. However, the process accompanied the evolution of decentralization between the state and the local community. Since the 1960s, the relation between the nation and the local community began to be adjusted, which gradually caused the reduction of the state's power and the decentralization action of political power finally in the 1980s[2].

In China, the centralized tradition lasted for several thousand years, and continued after the creation of P.R.C (in 1949). After the 'open-up policy' (in 1978), the emphasis of the state turned from the political movement to the economic development. And since the 1980s, the relation between the central and the local government was gradually reformed which encouraged and improved the initiatives of local government. The most obvious change emerged in the reformation of the financial system and the tax sharing system (in 1994). The progressive decentralization of China's fiscal system has improved the local initiatives. The central government, the local government and companies became the three main bodies nowadays. However, although the local government has more right of autonomy than before, the power of the central government is still quite strong (e.g.by the way of appointing and removing the local governors).The central government has begun to propose the guideline of development (the local government draws up and carries out the specific measures) and concern more about some weak fields (e.g. the western region, the rural area) in China since the late 1990s.

However, compared with the background of the rapid urbanization period in France, the situation in China is more complicated. At that time, France faced the context of the pre-European integration and the pre-internationalization, which was under the influence of the 'Keynesian' thought. The urbanization was well consistent with the industrialization process. And the attention of government was gradually from the economic development to the social issues along with the evolution of background. But in China nowadays, it has confronted with the background of globalization, the development inconsistency of urbanization and industrialization due to a long-term isolation between the rural and urban areas, the unbalance among different regions (i.e. at the different stages of the economic development) , the severe problems concerning environment etc. Moreover, in the new context, the idea regarding regional planning also evolved. As Neil Brenner (2004) said, regional planning nowadays has been turning 'from spatial Keynesianism to competitiveness of territory'. And DATAR (délégation à l'aménagement du territoire et à l'action régionale, the general delegation of regional planning and regional action, France) changed its name to DIACT (délégation interministérielle à l'aménagement et à la compétitivité des territories, inter-ministerial delegation of planning and territorial competitiveness, France) from 2005 to 2009, which indicated the trend to a certain degree.

[2] The real action of decentralization began in 1982, which was under the presidency of M. François Mitterrand

However, the French experience is still useful for the contemporary development in China, a considerable part of which reflect the universal pattern in the rapid urbanization and the development phase.

1.3 Major Questions, Structure of Thesis and Research Method

With the purpose of drawing French experiences for China, some major questions are proposed in the thesis, which are closely related to the rapid phase of urbanization:

- How did French regional planning evolve during the '30 glorious years'?
- What is the major effect after the implementation of French regional planning (during and after the '30 glorious years') and the causes?
- What is the development situation of China's regional planning and its existing effect?
- What is the possible inspiration of French experiences for China nowadays or in the future?

To solve the questions, the whole thesis could be generally divided into three major parts and eight sub-chapters.

Part 1	Chapter 1	Introduction
	Chapter 2	Concept, related theories and literature review
Part 2	Chapter 3	Background of the '30 glorious years'
	Chapter 4	Brief review and general trend of French regional planning during the '30 glorious years'
	Chapter 5	French regional planning during the '30 glorious years'
	Chapter 6-9	Actual changes after the implementation of French regional planning
	Chapter 10	Conclusion of Chapter 6-9
Part 3	Chapter 11	Situation of China after the 'open-up' policy (1978-1999, 2000-)
	Chapter 12	Inspiration of French experiences for China
Part 4	Chpater 13	General Conclusion

The major parts of thesis are organized as follows. After describing the background of the '30 glorious years' in France, we follow the 'time-series' method to introduce French regional planning during the '30 glorious years' and to analyze the development scenarios during and after the research period. The structure of classification relates to the perspective of urbanization to a certain degree (four inter-related parts: economic distribution, migration, urban system, evolution of rural & urban area). Afterwards, we briefly introduce the evolution process of China's regional policy/planning and evaluate its effect after the 'open-up' policy in the year 1978 and in the 21st century. In the end, the inspiration of French experiences is proposed for China based on the development situation of both countries.

French regional planning	Level of industrial lay-out	→	Scenarios after implementation of French regional planning	Effect of industrial and service de-concentration
	Level of urban system			Evolution of migration
	Level of rural and coastal area			Evolution of urban system; Position of Paris and the balanced-metropolis
	Level of transportation and telecommunication			Effect in rural areas

Why compare China and France

France	Development background	↔	China	Development background
	Evolution of regional planning			Evolution of regional planning
	Effect of regional planning during and after the '30 glorious years'			Past and existing effect of China after the 'open-up' policy and in the 21st century

↓

Inspiration of French experiences for China

To analyze the major part of thesis, we mainly carry out the following ways:

- Summarize the historical documents and existing research literature (the 'time-series' way), and conclude the law of its evolution (regional planning), which is related to the change of background (i.e. the economic, social, political field).
- Compare the objectives of regional planning and the scenarios after the implementation, and compare the different phases of regional planning, effect and background.
- Conclude the law and the regulation of development in France about the evolution of regional planning, its effect and the changing background.

In the thesis, we use some specific study methods and combine with the analysis of related concept and theories.

- Case study: the case of Toulouse and the Midi-Pyrenees region, the case of the Paris basin and the Paris region. It includes the analysis of related documents, research literature and some interviews.
- Comparative study: compare the different phases of regional planning and background.
- Evaluation study: evaluate the objectives of regional planning and the implementation results.
- Correlation study: mainly in the part regarding migration.

Chapter 2: Concept, Theory and Literature Review

In the chapter, we introduce the major concepts and theories mentioned in the thesis, and review the existing paper and books regarding the same or related topic, in order to do further research in the later chapters.

2.1 Concept

First of all, we present some major concepts in the thesis: regional policy, regional planning and urbanization. The first two phrases relate closely with each other. Although the concepts are relatively comprehensive, we emphasize the content regarding spatial factors and the relation to the urbanization process in the thesis.

2.1.1 Regional policy

'Regional policy' is a kind of policy with the regional features, which contains the meaning of both 'region' and 'policy'. The basic idea is 'government interventionism' with the aim of solving the regional problems and coordinating the regional disparity[3].

For example, the major Italian regional policy (Cassa per il Mezzogiorno, set up in the mid-1950s) was to foster the economic development in southern Italy. The regional policy in UK (set up during the economic depression period in the 1930s) focused on the 'assisted area (esp. in the north)'[4].

Regional policy has a general as well as a narrow definition. Different from the narrow definition (only focused on regional economic problems), the general one involves the regional economic policy, the regional social policy, the regional environmental policy etc. Friedman (1966) considered that regional policy is to handle with the local problems (where to develop), which reflects the national requirement for the regional issues[5]. Armstrong and Taylor (1985) defined regional policy as a set of policy tools in order to achieve certain goals[6]. Hansen *et al.* (1990) proposed the concept 'regional policy in a changing world', which included all the actions of the governmental level in order to change the spatial distribution of economic and social phenomenon, such as population, income and infrastructure. It not only includes the regional development policy, but also involves the transportation policy, the energy policy, the trade policy etc.

[3] Keyun Zhang, Regional economic policy: Theory and practice of EU countries, Beijing: China Light Industry Press, 2001
[4] Wikipedia: regional policy
[5] John Friedmann, Regional Development Policy: A Case Study of Venezuela, The MIT Press, 1966, p 5
[6] Harvey Armstrong and Jim Taylor, Regional Economics and Policy, Philip Allan, 1985, p 196

2.1.2 Regional planning

Regional planning

Regional planning appears during the period of the industrial decline[7]. Since the 1930s, industrial countries began to manage the regional space with the thought of 'Keynesianism'. It is also created for solving regional problems. However, compared to 'regional policy', it further emphasizes the way of spatial distribution.

According to Lambert M. Surhone *et al.* (2010), regional planning is a branch of land use planning and deals with the efficient placement of land-use activities, infrastructure, and settlement growth across a larger area of land than an individual city or town. In addition, 'Regional Planning Act (1965)' which was enacted in Germany defined regional planning as a kind of spatial planning to improve economic, social and cultural conditions concerning the present natural condition and the interregional relations, which goal is to supply a good spatial structure for the individual development in a free society[8]. US planning field defined it as a kind of layout planning regarding the rural-urban space. However, in recent years it focuses more on the social field rather than the material construction and the physical planning[9].

In China, the planning textbook 'regional planning introduction' defined it as an overall strategic plan regarding the whole economy in a certain area[10]. In addition the economic perspective, Mao and Fang (1997) considered it as an overall plan of economic, social and technological development within a certain time and space[11].

L'aménagement du territoire

'L'aménagement du territoire' is a typical French phrase, which has no exact equivalent word in English (regional planning) and in Germany (raumordnung). From an etymological point of view, the word 'territoire' means region, which concept is more than the scale of city. And the word 'aménagement' indicates the meaning of management and plan. The whole phrase has a 'comprehensive' feature.

'Aménagement' means the deliberate intervention in order to assure the rational enhancement and the harmonious development which aims at an optimal utilization of resources and the

[7] Nicole de Montricher, L'aménagement du territoire, Paris : édition la découverte, 1995, p 3
[8] Qizhi Mao, Germany's space planning system, Urban Planning Overseas, 1990(5)
[9] Tingwei Zhang, On Chinese planner joining the international planning community-from physical development planning to social development planning, Urban Planning Review, 1997(1)
[10] Chongqing Architecture University, Tongji University, Regional Planning, Beijing: China Architecture & Building Press , 1996, P1
[11] Hanying Mao and Chuanglin Fang, The basic thought of regional development plan in new period and its improving way, Acta Geographica Sinica, 1997(1)

amelioration of the relevant population.[12]

In French, 'l'aménagement du territoire' is considered as: the public management in regional space, or public policy reflected in the geographical space (dealing with the distribution of spatial resources comprehensively and systematically[13]), which interferes and adjust the spatial distribution of population and activities by public bodies. Its objective is the economic development and the good social welfare, which is expressed in the books of both M. Eugene Claudius-Petit (former minister of French Construction and Urban Planning Ministry) and M. Jean-Francois Gravier. Some related definitions are as follows.

'l'aménagement du territoire' has a goal of searching for a better distribution of the population in relation to the natural resources and the economic activities; it is oriented not only toward the simple economic goals, but also toward the welfare and full development of the population's potentiality .

——Eugene Claudius-Petit, Pour un plan national d'aménagement du territoire, 1950

Organize the land so as to improve the economic growth and the service of social promotion.

——Gravier, 1964

'L'aménagement du territoire' is to promote the development of regional resources and to improve the living conditions and the working condition of inhabitants, in order to ease the regional development disparities in the field of economy and society based on the voluntary orientation and the concentration of facilities and activities.

——Joseph Lajugie, espace régional et aménagement du territoire, ed. Dalloz, 1979

After World War II, the importance of 'l'aménagement du territoire' began to be paid attention by French government. Afterwards, a series of 'aménagement du territoire' policies were carried out, and its committee organization (general delegation of regional planning and regional action, DATAR, la delegation à l'aménagement du territoire et à l'action régionale) was created in the year 1963.

2.1.3 Urbanization

The concept of urbanization firstly appeared in Karl Marx's book 'critique of political economy (1858)', who considered that the modern history is a process of rural-urbanization, rather than an urban-ruralization period in ancient times[14]. As we know, urbanization is closely related to a series of evolutions, including economic, social, demographic, cultural, and political dimensions etc, which has no unified explanations.

[12] Economie et Humanisme, Democratie, planification, amenagement, Paris : Les Editions Ouvrieres, 1964, p 161
[13] Joseph Lajugie, Qu'est-ce que l'amenagement du territoire, Paris: Librairies Techniques, 1965, p 8-10
[14] Collected Works of K. Marx and F. Engels (Chinese edition),Vol 46, p 480

On the whole, the definition of urbanization can be divided into the following parts:

From the view of demography, urbanization means that the phenomenon and the process of population migrating from the rural area to the urban area, which leads the growth of the urban population. For example, 'British Encyclopedia' defines 'urbanization' as a process of population gathering in urban areas, which results in the increasing number of cities & townships and the growth of urban population. However, urbanization in the sociology field involves more the content of 'lifestyle changing from the rural type to the urban one', which means a process transforming gradually from an agricultural society to an industrial society. Hiroshi Morikawa (1989) considered that urbanization refers to a changing process of rural population's lifestyle, which could be reflected in the increase of urban population, the expansion of urban built-up areas, and the change of landscape, society, lifestyle etc. In addition, the meaning from the economic viewpoint embraces some content regarding the economic structure evolution, i.e. the industrial transformation from agriculture to manufacture, and from manufacture to service etc. The traditional concept associates the urbanization process to the industrialization. Besides, different from the other considerations, Geography academics introduce the concept of space, considering that urbanization is a concentrated process of population and industrial, services activities in urban areas. Furthermore, some scholars (i.e. Lampard, 1964; McGee, 1971; and Friedman) considered 'urbanization' as a microcosm of society, a reflection of multidimensional phenomenon with spatial, institutional, economic, demographic and social characteristics.

2.2 The Related Theories

The topic involves many theories at the regional level. And we mainly emphasize three fields among them in the thesis: economic factor (i.e. relate to economic layout), demographic factor (relate to the social process, i.e. migration and living condition), and geographic factor (i.e. spatial distribution, urban system). We hope it could well explain the evolution of regional planning/policy afterwards.

2.2.1 Regional economy and regional economic geography

The theory of regional economy was prevalent after World War II. At that time, a number of countries (especially the developing countries) faced the development requirement and many regional problems, which were urgent to be solved. In addition, from the end of World War II to the 1970s, the economic interventionism (Keynesian economics is representative) prevailed in the face of the economic liberalism. Government intervention became an important and necessary 'tool' for regional development during that period, in order to prevent the 'Matthew Effect' of development. Some related theories emerged, such as François Perroux (1955)'s 'growth pole theory', the theory of A.O Hirschman (1958), Gunnar Myrdal (1957)'s 'theory of cumulative

causation', Jeffrery G Williamsom (1965)'s 'inverted U theory' and John Friedmann (1966, 1969)'s 'core-periphery theory' etc.

According to the theory of Fran ǫis Perroux, development firstly emerges in some growth poles, expands by the attraction and radiation effect, and affects the whole region finally. A. O.Hirschman (1958) deepened Perroux's 'growth pole theory'. He considered that the growth pole could create the polarization effect and the trickle-down effect. At the beginning, the growth pole produces the polarization effect, attracting capital, technology, labor and other resources in the backward areas, which widens the disparities among different regions. However, along with the development, the growth pole is subject to 'agglomeration diseconomy'. At that time, the trickle-down effect is stronger than the polarization effect, which narrows the gaps of different regions. Moreover, John Friedmann (1966, 1969) stressed the spatial system, which is divided into the core and the periphery area. According to his theory, the development includes four phases, which explains the development process from the unrelated, isolated development to the combined one, from the unbalance to the inter-linked and balanced regional system.

Gunnar Myrdal (1957) argued that the gap of regional economic development is widened by the 'diffusion effect' and the 'polarization effect', which effect results in an 'accumulative cycle', and it needs the measures of government. However, according to the 'inverted U-curve theory', the gap of regional development is widened in the early stage and narrowed finally.

In addition, on the basis of these theories, some regional development models emerged with the application purpose, such as 'gradient-propelled development model' (take advantages of the developed area to narrow regional disparities by the diffusion effect), 'growth pole model' (improve development by fostering 'growth pole'), 'point-axis model' (add the content of 'axis' by the construction of infrastructure etc), 'network development model' (the final development phase, including the flowing network of goods, capital, technology, labor or other production factors and infrastructure network).

However, since the early 1970s, the mainstream position of the Keynesian economics was challenged greatly by the neo-liberal economics. Some researches with the micro-economics perspective emerged. Compared to the previous stage, these theories were not the special guidance for regional policy, but brought out some new ideas in the new background, which were available as a policy reference[15]. They emphasized more the content about market forces, which would slow down the development of early developed region and speed up that of the less-developed region by the influence of diminishing marginal utility.

For example, P. Krugaman (1991, 1995) studied the agglomeration phenomenon, and argued that: the industrial concentration (geographic) causes the radiation of regional growth. He proposed some economic spatial model, such as the trade model, the industrial agglomeration model and the monopolistic competition model. M. Porter considered the competitive advantage of region or nation (especially the innovative mechanisms) is the main 'push' for the economic

[15] Guoxia Ma and Guohui Gan, Progress of Spatial Research on Regional Economic Development, Progress in Geography, 2005(3)

concentration mechanism, rather than the traditional comparative advantage (i.e. natural or historic factors). F.E. Bergman and F.J. Feser proposed that the external economy, the innovation environment, the cooperative competition and the path-dependence were the theoretical basis for the formation of aggregated advantage. Besides, some scholars proposed the convergence theory (considered as the modern version of 'New-Classical Theory of Economic Growth'), considering that not all the regions could reach the same kind of balance situation, and the convergence model is related to some factors, such as technology, resources, capitals etc (Baumol, 1986; Barro and Sala-I-Martin, 1991)

In addition, as the world becomes increasingly globalized, some researches such as the choice for the investment location of multinational firms, the relationship between the foreign investment/regional development and the network structure (i.e. Peter Dicken's global production network) have become the hot spots in research. Moreover, with the change of industrial organization (from the Fordism production mode (mass production) to the Neo and Post-Fordism mode (flexible specialization)), flexible specialization, industrial cluster, technology and knowledge become more important.

Moreover, in the field of space, some theories emerged in the 1990s in order to solve the urban or regional problems (not only concern about the economic growth, but emphasize the coordinated development among economic, social and environmental factors), i.e. the theory of new urbanism, the strategy of 'smart growth' for sustainable development. The 'new urbanism' emphasizes the 'human centered' idea, which aim includes local culture, living quality, urban design etc. And the theory of 'smart growth' proposed 10 principles, including: mixed function of land, compact mode of development, diversified mode of residence, the creation of comfort walking environment, the protection of public areas and culture, the promotion of urban characteristics and the mode of public traffic and the encourage for public participation.

2.2.2 The migration theory

Theory related to the economic development

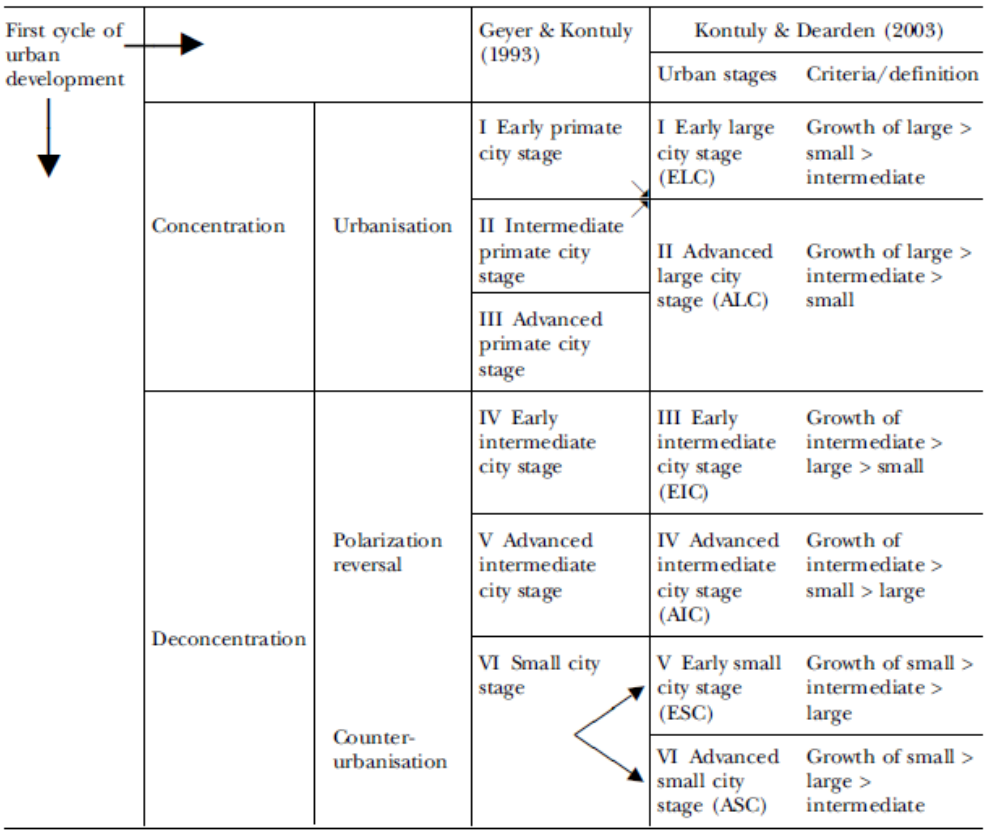
Based on many theories, the migration is closely related to the economic/social development and it is a typical phenomenon in the urbanization process.

The rural-urban migration could be explained by the famous 'theory of economic growth' created by W.A.Lewis (1954).According to the theory, the wage differential caused by urban modern sector and rural traditional sector lead the rural surplus labor-force migrating from the agriculture to the industry sector. The process of economic development could also be seen as a model of urbanization: a process that workforce transferring between the two sectors. However, on the basis of some developing countries' experiences (i.e. the rural-urban migration causes the huge pressure and problems in cities, which leads the outflow of rural labor force; the agricultural

modernization lags behind the industrial modernization), the theory was modified afterwards, such as the 'Todaro model'. According to the labor surplus model, urbanization augments national income through short-run efficiency gains due to shifts of labor from low to high marginal productivity employment and long-run growth effects due to higher accumulation rates in urban sectors (Zhang *et al.*, 2003).

Moreover, the hypothesis of the mobility transition proposed by W. Zelinsky (1971) described the whole process of migration in comparison with the previous theory. He divided the process into five phases, and hypothesized the demographic transition changed from 'one society where mobility is severely limited into one where mobility is a necessary and desirable component of society'. According to the theory, the rural-to-urban mobility slows down in the stage four and is gradually replaced by the mobility between cities, or the inter-urban mobility. And population move in search of employment and opportunities in the previous phases and they become in pursuit of a better quality of life in the last phase.

In addition, some researches focus on the direction of migration. H.S Geyer and T Kontuly (1993) proposed the six successive stages of 'differential urbanization' (three primate city stages, two intermediate city stages, one small city stage). The model is based on the polarization reversal in less developed countries (Richardson, 1980) and the counter-urbanization in the developed regions (Champion, 1989). According to the theory, migration gathered in different size of cities along with the whole process (from concentration to de-concentration), which is from big cities (expansion of primate-city) to medium-sized cities (growth of intermediate-city), and finally to small cities (growth of small-city). At the last phase, the settlement system began to experience a period of 'counter-urbanization'. And the theory was modified by Kontulty and Dearden (2003) afterwards.



Source: Debnath Mookherjee, differential urbanization model: the case of a developing country, india (1961—91), Tijdscjrift voor Economische en sociale geografie, 2003, Vol. 94, No.1, pp. 38—48

Besides, the theory of 'urban life-cycle' was popular, which is a process from centralization to suburbanization and to counter-concentration of the local population finally (Hall and Hay, 1980; Korcelli, 1983; Morrill, 1992; Van den Berg *et al.*, 1982). Some scholars focused on the phenomena of 'counter-concentration' in the new era (Beale, 1977; Berry, 1976; Wardwell, 1980; Gordon, 1979; Morrill, 1980; Vining and Kontuly, 1978).

In addition, in the new era, settlements are defined as the labor market areas rather than as the administrative regions (Fielding, 1989). And the new phenomena (migration turnarounds) could also be explained by the 'regional-restructuring' perspective, for example a new international division of labor (Bluestone and Harrison, 1982; Castells, 1985; Frey and Speare, 1988; Novelle and Stanback, 1984). Besides, although the counter-concentration could be explained by the environmentalism concern, the link between the production and the urbanization is certain. And the environmentalism could also lead to the concentration in certain cities (Kontuly and Geyer, 2003), such as Toronto, London and Paris.

Influencing factors of migration

The influencing factors of migration change with the process of social and economic development. The notion, widely accepted since Ravenstein's laws of migration, is that: migration is connected with the regional differentials in economic development. It was also explained by the

‘push and pull’ theory, which was proposed by D.J.Bagne in the 1950s. According to the theory, the migration of labor was caused by the differences of income, which was in correspondence with the rapid urbanization process during that period. However, with the economic/social development, more factors were added. And finally, the factors influencing migration can be divided into two major aspects: economic factors and non-economic factors (the so-called ‘quality of life’), including wage differentials, job opportunities, unemployment rates, the provision of local public services, location-specific amenities (Greenwood and Mueser, 1991) , living cost (e.g. Cebula, 1979, 1993; Cebula and Belton, 1994; Saltz, 1998) etc. It can also be seen as a reflection of the development process.

For example, some scholars began to emphasize the relationship between employment/job growth (Charney, 1993; Partridge and Rickman, 2006) or unemployment (Pissardies and Wadsworth, 1989; Gordon, 1985; Herzog *et al.*, 1993; Millington, 1995) and migration. Moreover, some scholars focus on housing tenures, such as house prices (Forrest, 1987; Gordon, 1990; Gabriel *et al.*, 1992; Forrest and Murie, 1992), municipal housing relocation (Hughes and Mccormick, 1981, 1985; Minford *et al.*, 1988; Kitching, 1990; Doogan, 1996).

However in recent years, the positive factors of ‘quality of life’ (e.g. Clark and Hunter, 1992; Cebula, 1993; Conway and Houtenville, 1998; Cebula, 2005) and the negative factors of ‘quality of life’ (Cebula and Alexander, 2006) have been paid more attention among a series of researches. These determinants proved by some previous studies mainly include: climate (Cebula, 2005; Clark and Hunter, 1992; Conway and Houtenville, 1998), waste/pollution (e.g. Cebula and Alexander, 2006), availability of parks, violent crime rate (Cebula, 2005) etc.

In addition, migration also related to certain public policy, which influenced the change of the two major factors. Such determinants emerging in the prior studies include: public expenditures, such as spending on public education (e.g. Charney, 1993; Cebula and Alexander, 2006), public housing (Hughes and Mccormick, 1981; Boyle and Shen, 1997), defense spending, national subsidy (Charney, 1993) welfare benefit (Cebula *et al.*, 1973; Schacter and Althaus, 1989; Charney, 1993); and tax burdens (Cebula, 1990; Charney, 1993; Saltz, 1998; Cebula and Alexander, 2006).

2.2.3 Urban system

Urban system

The mono-centric model prevailed for a long period. Walter Christaller (1933) proposed the central-place theory, positing that each commodity has a given threshold of minimum demand as well as a fixed geographical domain beyond which people are unwilling to pay for it (Batten, 1995). According to Christaller’s theory, the growth potential is related to city size. Losch (1941) showed that the spatial structure of supply was dependent on the interaction of economies of scale

and transport costs (Parr *et al.*, 2000). The original central-place theory was applied to towns serving as a rural market (Fujita, 1999), and the theory developed in the new era, such as the financial-service centre, central information centre.

However, the model has been challenged by the network model afterwards. For example, Hohenberg and Lees (1985) proposed the idea of 'nodality' in a network linking settlements. And the most famous experience is the Randstad area. Efficient corridors of infrastructure link knowledge-intensive centers to larger metropolises (Batten, 1995).

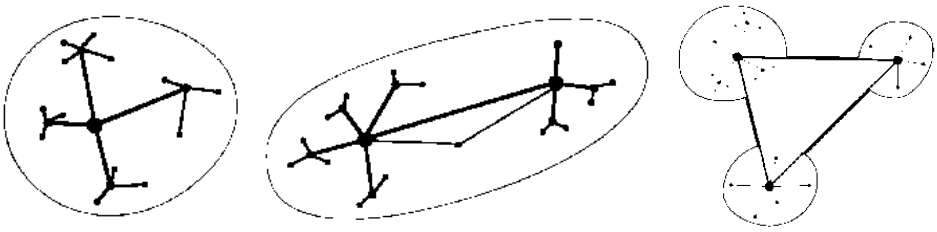


Figure: Three urban configurations: the mono-centric city, the corridor city and the network city
Source: David F. Batten, Network cities: creative urban agglomerations for the 21st century, Urban Studies, Vol. 32, No. 2, 1995, pp. 316

Central place system	Network system
Centrality	Nodality
Size dependency	Size neutrality
Tendency towards primacy and subservience	Tendency towards flexibility and complementarity
Homogeneous goods and services	Heterogeneous goods and services
Vertical accessibility	Horizontal accessibility
Mainly one-way flows	Two-way flows
Transport costs	Information costs
Perfect competition over space	Imperfect competition with price discrimination

Table: Central place versus network systems
Source: David F. Batten, Network cities: creative urban agglomerations for the 21st century, Urban Studies, Vol. 32, No. 2, 1995, pp. 320

The world city

The view of world cities as the 'key nodes' of the international urban system is wildly accepted, which is considered to control and coordinate global finance (Thrift, 1986), producer and business services. John Friedmann and Goetz Wolff (1992) claimed that world cities are 'control centers of the global economy' and share a set of distinct structural characteristics. They are cities through which regional, national and international economies are articulated with the global capitalist system of accumulation (Friedmann, 1995). Saskia Sassen (1991) considered the three great metropolitan centers (New York, London and Tokyo) could comprehensively explain the hypothesis of the world city. And she proposed these cities function as highly concentrated command posts in the organization of the world economy, key location for finance and specialized

service firms, sites of production and market for the products and innovations produced (Sassen, 1991). And the world-system analysis relate closely to network function, such as flows, exchanges, nodes etc.

2.3 Literature Review

Before the main body of thesis, we review the related research regarding regional planning in both France and China.

2.3.1 Regional Planning (L'amenagement du territoire)

The process of French regional planning has been paid attention by the scholars as well as the policy makers. Some researchers introduced the process of French regional planning since the year 1945 by different ways.

Some scholars described French regional planning comprehensively. For example, Niles M. Hansen (1968) analyzed French regional planning in the 1950s and 1960s. He chose some important aspects of French regional planning during the research period, such as French de-concentration policy, the institutional framework, the policy of 'balanced cities (metropoles d'equilibre)'. And he divided France and analyzed some areas separately, such as Paris, the lagging regions and the intermediate regions. Nicole de Montricher (1995) firstly described the institutions of French regional planning, simply introduced its development by the way of space management (la gestion de l'espace) and existing experiences (l'experience acquise). In addition, he mentioned French regional planning in the context of Europe, who introduced the three kinds of regional planning in Europe and described the regional planning in Europe since the 'integration' in the 1980s. Yves Madiot comprehensively introduced the development of French regional planning (from 1945 to 1990s) and the relation between the state and the local collectivities. Besides, he described the relation of France and the European committee in the field of regional planning during the same period. Pierre Deyon and Armand Fremont (2000) described the development of French regional planning from 1945 until nowadays. They divided the period of 'the 30 glorious' into three phases: the premier initiatives, the golden age, and the period of crises. Pierre Merlin (2007) divided French regional planning into several parts: the localization of activities, regional balance, rural planning, space protection and tourism. In addition, Claude Lacour and Allette Delamarre (2010) simply introduced the 40 years' French regional planning since the 1950s, based on the time sequence. Yves Jean and Martin Vanier (2008) analyzed the regional planning in different region of France and in different aspects (i.e. transport, society, environment, etc) in addition to the general introduction of the process of French regional planning.

Some researchers chose certain perspective to describe the process. For example, Armand

Fremont (2005) introduced the development of French regional planning (esp. the actions in the region Normandie) in the geography perspective. And Philippe Subra chose the geo-political perspective to analyze the process of French regional planning (esp. after the '30 glorious years'). Jacques de Laversin (1970) chose the perspective of the relation between French regional planning and the process of regionalization. Jacques Manesse (1998) considered the political instruments (i.e. organization, central institution, regionalization, local actors etc) in French regional planning. Jean Girardon (2010) also emphasized the politics domain (from 1945 to nowadays).

In addition, Gerard Marcou *et al.* (1994) described and compared the regional planning between France and Germany, i.e. the organization, the orientation and the instruments, and certain planning.

Besides, there are some collections of paper about French regional planning. For example, «L'amenagement du terrtoire fran çais: hier et demain » collected some significant papers about different aspects (i.e. industry, university, transportation, and some related and specific cases) of French regional planning in the 20 century. Among them, Aliette Delamarre (1996) emphasized the actors and intervention method of French regional planning since the 1950s. «L'aménagement du territoire (1958-1974) » was based on a seminar in 1996 (focus on the golden times of French regional planning), which was divided into four parts: inspiration, concepts and institution; major action and strategies; the research on the new balance; and local action. Besides, «La politique d'aménagement du territoire : racines, logiques et r ésultat » gathered some paper related to French regional planning, including the different domains (i.e. rural planning, environment etc) and the practices in several regions. Among them, Jean Robert (2002) simply described the development of French regional planning and analyzed its effect afterwards.

2.3.2 Literature Review of Regional Policy in China

Regional policy of China

The research about regional policy of China is limited, which includes four major aspects: 1. Review the past regional policies in China, and evaluate the effect. The way of evaluation focuses on the necessity of regional policy, the economic disparity and the development of regions (i.e. Lu *et al.*, 1999; Liu and Jia, 2005; Hu, 2006; Wei, 2009). They generally confirmed the impact of regional policy after 1978 which improved the rapid development, but caused the larger disparity in different regions of China, and they found that the effect of regional planning with the aim of 'balanced' development (since the late 1990s) was still limited and not obvious. 2. Analyze the necessity and cause of certain regional policy in China, for example the 'western region development strategy' (i.e. Xie, 2000), the strategy in the central region (i.e. Wang, 2007) and in the north-eastern region (Jin and Chen, 2010). For example, Jin and Chen (2010) argued that the effect of regional policy in the north-eastern region could be expressed in these fields (economic

development, structure adjustment, social benefit, system innovation), but some problems existed, i.e. the policy was relatively old (the comparative advantage was limited, not involving some policies about talents, research etc); not concern about the disparity of regional planning in different areas. 3. Analyze the function of government in regional policy, i.e. some researchers emphasized the monetary and fiscal aspects, the relations between the central government and the local government (i.e. Wang, 1999; Chen and Wang, 2006; Hu, 2006) etc. 4. Draw on the experiences of foreign regional policy, the main reference countries include: the United States, Britain and Japan. Generally, the scholars describe and analyze the regional policy abroad, and make some suggestions for China. For example, Zhang (2001) made a general analysis of basis theories regarding regional policy and introduced the foreign experiences in his book «Regional economic policy: theory and practice of the European Union». However, he focused more on the practices in the countries of EU, not relating them closely to the current situation of China.

Regional planning of China

The studies regarding the regional plan in China can be divided into the following categories: 1. Analyze the nature & conceptual statement of regional planning (i.e. Fong, 1999; Fang, 2000) and the evolution of theories (i.e. Fang and Chen, 2007).2. Summarize and analyze the evolution and problems of regional planning in China, and propose some solutions for the existing problems (i.e. the structure of plan, the preparation of plan, the relationship with other plan/program etc); or propose the new preparation methods of regional planning (i.e. Wu, 2000). 3. Evaluate the regional planning of some specific region in China, such as the metropolitan plan, provincial and town system planning; or evaluate only a few aspects of them. For example, Zhang (2004) analyzed the aspect 'government cooperation' in Grand Beijing Plan. 4. Some researchers analyzed the theories, preparation and implementation trend of regional planning, which were related to the new background (for example, globalization, the urban and rural strategy in China), such as Cui (2002) and Wang (2005). 5. Summarize the theory, methodology and the management of foreign regional planning (Zhang and He, 2010; Xie and Xiang, 2005); or analyze certain foreign regional planning, for example the master plan of Grand Paris. For example, Zhang and He (2010) found that the regional planning in the western countries went through a process from 'technical control' to 'guidance of public policy'.

2.4 Conclusion

In the whole thesis, we emphasize that 'regional planning' and 'regional policy' closely relate to spatial aspect. Besides, we define that 'urbanization' connects to the demographics, economics and geography content. From the perspective of rural-urban relationship, we mainly consider the following parts (employment and migration, urban system and rural-urban settlement, rural and

urban space), which could reflect the urbanization process to a certain degree.

For the literature review, although many French scholars had research on regional planning (l'aménagement du territoire), they did not specially focus on its evolution during the '30 glorious years' and analyze the effect from the perspective of urbanization (relate to the process of rapid urbanization). Besides, quite limited research connected it to the development of other countries for comparison or inspiration.

In China, few research regarding regional policy or planning concentrate the background of rapid urbanization, and the analysis of effect mainly focused on the economic field. In addition, the foreign experience mainly came from UK, EU and Japan. The reference from French experience was limited, and did not concentrate on the special period in France (the '30 glorious years'), which could well compare with the current development period in China (rapid development and urbanization).

Thus, after the literature review, we consider that it is necessary and meaningful to introduce and analyze the regional planning in France during the '30 glorious years' for China, in order to lead a proper development in the changing background.

Chapter 3: The Background of the 30 Glorious Years

In order to further understand the evolution of French regional planning, we briefly present the background of the '30 glorious years' in the chapter.

3.1 The Brief Background of the '30 Glorious Years'

3.1.1 Overall and the Economical Aspect

The '30 glorious years' of France (les trente glorieuses) is a period from 1945 to around 1975 (from the end of the World War II to the period before the oil crisis in the 1970s). The phrase comes from a book written by Jean Fourasti é (the so-called '30 glorious years', les trente glorieuses), which echoes the famous three glorious days (27, 28, 29 July, 1830) in the French history. During these 30 years, compared with the other periods (as shown in the figures: the growth rate, economic added-value, productivity, GDP), France had some important and revolutionary development in several aspects (i.e. economic, social field). Some scholars considered that: after the '30 glorious years', France became a powerful industrial country and one of the world top export countries.[16]

Table: French growth rate during different periods, %

	1820—1870	1870—1913	1913—1950	1950—1973	1973—2000
Growth rate (%)	1.27	1.63	1.15	**5.05**	2.10

Source: Angus Maddison, 'The World economy, a millennium perspective', OCDE, Centre du d éveloppement, 2001

Table: The economic added value of France during different periods, %

Added Value (%)	1929—1951	1951—1973	1973—1984
Amount of employment	-0.30	**+0.15**	-0.30
Labor productivity	+0.30	+0.40	+0.70
Profession migration	+0.10	**+0.50**	+0.30
Amount of capital	+0.15	+1.30	+1.30
GDP	+0.90	**+5.40**	+2.20

Source: Jean-Francois Eck, Histoire de l'économie fran çaise depuis 1945, Armand Colin Editeur, Paris, 1988

Table: The growth of productivity in France, 1952-1978, %

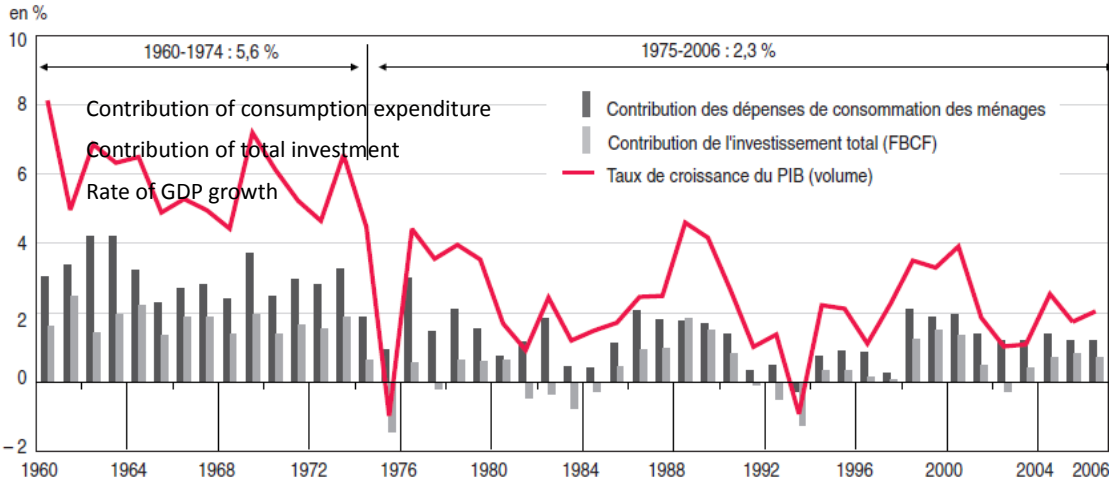
	1952—1972	1973—1978

[16] Jean Charpentier and Francois Lebrun (dir.), Histoire de France, Paris : Seuil, 1987

Energy	8.8	3.2
Intermediate industry	6.7	1.6
Agriculture	6.3	3.9
Consume industry	6.2	3.6
Equipment industry	5.7	3.5
Food industry(IAA)	4.4	3.1
Transportation and telegraphy	4.3	2.6
Construction and public project (BTP)	3.8	1.2
Commerce	3.3	1.8
Service	2.7	1.8 (the tertiary industry)

Source: INSEE, Fresque

Table: The growth rate of GDP



Source: Jacques Bournay, pierre –Alain Pionnier, L'économie française ruptures et continuités de 1959 à2006, INSEE

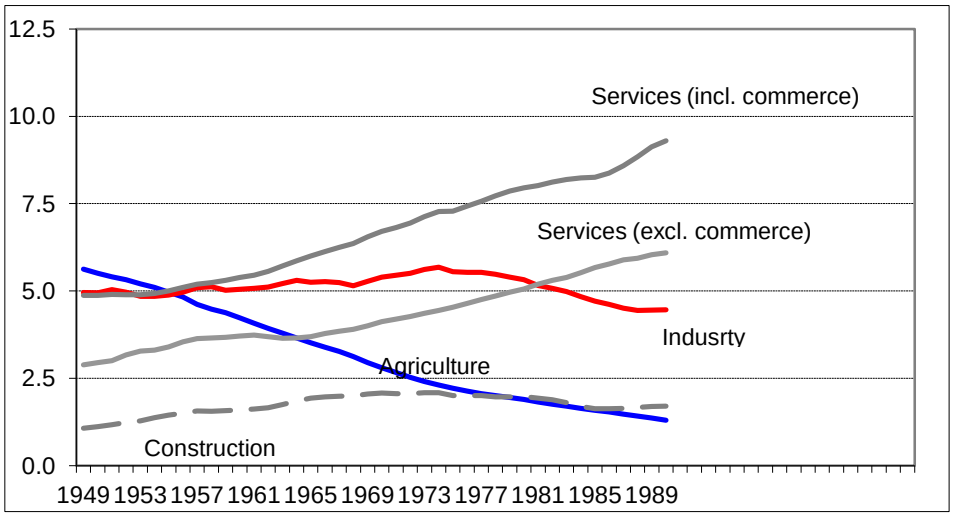
In the past several centuries, the employment structure in France remained in the order of 'agriculture, industry, service' for a long period. However, during the '30 glorious years', the structure changed significantly: the proportion of three industrial categories turned from '36.0: 32.0: 32.0' (in 1946) to '10.1:38.5:51.4' (in 1975). The same shift is also reflected in the structure of GDP.

Table: The change of employment structure in France, %

Year	Agriculture	Industry	Service
1946	36.0	32.0	32.0
1954	27.3	35.4	37.3
1962	19.9	38.0	42.1
1968	15.7	39.6	44.7
1975	10.1	38.5	51.4
1982	8.2	34.2	57.6

Source: Sous la direction de Jacques Dupaquier, Histoire de la population française, Vol 4, PUF, 1988

Graph: Evolution of employment by category



Source: INSEE, comptes natioaux – base 2000

After the World War II, France emphasized the development of the basic industry and the reconstruction of infrastructure and housing during the first development phase. In the agriculture sector, a series of 'agricultural modernization' policies improved the growth of productivity, which resulted in a number of surplus workforces from rural areas into urban areas. And industry became the emphases of the government and entered into a period of mass development. During the period, the rapid-development of industry related closely to the following aspects: 1. High-rate of capital accumulation after the World War II; 2. Emphasis on research and education; 3. Establishment of the European Economic Community and the expansion of foreign trade (since the 1960s, France's foreign trade had been dominated by the industrial products); 4. Other aspects, i.e. the company consolidations, the development of specialization and the national policies. On the other hand, the development of energy industry (i.e. the production of gas in the South-East, the control of electricity price among different regions) guaranteed the process of industrial de-concentration, which improved the entire development of France to some extent.

Table: The industry investment, Unit: million francs, on the basis of the price, 1970

	1950	1955	1960	1965	1970	1975
Intermediate industry	5116	4425	7853	10216	15410	14485
Equipment industry	2340	2521	3530	5662	10876	13413
Consumption industry	1489	2017	2973	4301	6137	5975
Total	8945	8963	14356	20179	32420	33873

Source: INSEE

In addition, during the period, the industrial structure evolved dramatically, from the labor-intensive industry, the capital basic industry to the one with more technology features (with the advancement of techonology), such as from steel, coal, electricity industry (as shown in the 'plan Monnet') to electronic, chemistry and aerospace industry (as shown in 'Plan V and Plan VI'). On one hand, the French traditional industry (i.e. the textile industry, coal industry and metallurgy industry) declined and became more specialized after the reconstruction period, for example the

coal industry in the northern region, the foundry industry in Champagne-Ardenne, the cotton industry in Vosges etc. And some traditional small and medium companies in rural areas gradually disappeared with the out flow of rural surplus labor (esp. workers, crafts). On the other hand, the advancement of technology promoted the development of some new industries, such as the machinery industry, the electrical and electronic industry and the automotive industry.

Along with the development of industry, service became the sector with a significant growth during the '30 glorious years'. During the period from 1962 to 1975, the new-created employment in the service sector accounted for about 75.7% in total[17] (esp. in banking, insurance), which was in consistent with the growth of woman's employment. Moreover, the growth of income and consumption also improved the development of some sectors in the field of service, such as insurance, tourism and some non commercial (public) service (mainly education and health).

Table: The proportion of GDP in France during the different periods, %

	1949	1974	1989
Agriculture	16.9	6.0	3.5
Industry	29.0	29.0	23.9
Construction	5.1	7.3	5.3
Commerce	14.6	11.2	11.0
Commercial Service	18.6	28.5	37.0
Non-Commerial Service	10.8	13.3	15.8

Source : Insee, Premiere, n 127, avril 1991

Besides, although it was late compared with some neighbor countries, the construction of modern infrastructure also improved the whole development of France during the period. The massive construction mainly concentrated after the establishment of the 5th Republic, including the motorways (esp. highways), railways (i.e. to strengthen the links among some major cities, and the links with Paris; the construction of high-speed railway since the 1970s), aerial lines, big ports, telecommunication etc.

3.1.2 The Social Aspect

After the World War II, the phenomenon of massive urbanization, 'baby boom' and immigration emerged together (esp. after the year 1955). For example, from 1955 to 1960, around 155 thousand population immigrated into France each year[18]. The crash of population into cities caused more demand of social facilities, such as hospital, housing and school. Since 1954, many aggregated housing zones (les 'grandes ensembles', esp. the public housing) were constructed in the new areas of cities (with the modern, sanitized, standardized and suburban features) in order to meet the urgent demand. However, the massive urban construction and a large-scale of migration into cities and the periphery area (esp. the big cities like Paris) brought some serious urban

[17] Maurice Parodi, l'économie et la societe française depuis 1945, Armand Colin collection, Paris, 1981, pp 135
[18] Jean Charpentier and Francois Lebrun (dir.), Histoire de France, Paris : Seuil, 1987

problems at the same time, such as the congestion and the pollution. Besides, with the general raising of income, French people have more requirements of the good living condition (e.g. the emphasis on environment, the eager of nature etc).Since the 1960s, the number of population back into small and medium-sized cities, rural areas grew gradually, which went along with the emerging phenomenon of 'peri-urbanization'.

Table: The number of French housing construction, unit: thousand

Period	Number
1946—1949	10
1954—1962	261
1962—1968	348
1968—1975	445

Source: Annuaires de l'Insee

Moreover, the structure of employment changed with the growth of economy. The development of the 'Fordism' production and the tertiary industry generally improved people's living condition, the number of 'middle-class' increased rapidly. However, the number of traditional middle class (such as merchant, independent workers) declined, while that of new middle class (such as scientific and technical personnel, senior and middle manager etc) rose. Besides, during the same period, a large number of women entered into the market of employment (esp. in services sector). The table below reflets the evolution of labor force.

Table: Distribution of employment by socio-professional group, 1968-1972

	1968			1972		
	Production	Service	Total	Production	Service	Total
Engineer and techinical staff	1.7	4.6	6.3	1.8	4.9	6.7
Technician	3.9	3.2	7.1	4.4	3.4	7.8
Supervisory staff	3.6	2.1	5.7	3.9	2.9	6.8
Personnel or qualified worker	30.9	16.4	47.3	29.2	17.9	47.1
Personnel or non-qualified worker	27.2	5.8	33.0	25.1	5.9	31.0
Others	0.6	--	0.6	0.6	--	0.6

Source : INSEE, Ministère du travail, M. Cezard, structure des emplois en 1972, les collections de l'Insee, vol. D 2

Table: Evolution of different socio-professional categories, 1954, 1962, 1968, 1975

	Annual rate of variation, %			Structure, %	
	1954-1962	1962-1968	1968-1975	1954	1975
Farmer	-3.3	-3.5	-5.6	20.7	7.6
Agricultural worker	-4.2	-5.6	-6.1	6.0	1.7
Industrial and commercial employer	-1.5	-0.7	-1.9	12.0	7.8

Liberal profession and senior manager	+4.1	+4.5	+5.6	2.9	6.7
Middle manager	+3.8	+4.9	+4.7	5.8	12.7
Employee	+1.9	+3.8	+3.6	10.8	17.7
Worker	+1.1	+1.5	+0.9	33.8	37.7
Service personnel	+0.4	+1.8	+0.9	5.3	5.7
Others	+1.2	-1.2	-0.1	2.7	2.4

Source: INSEE, recensement de 1954 et 1962, sondage au 1/4 en 1968, sondage au 1/5 en 1975

In addition, with the growth of income, the French society entered into a period of 'mass consumption'. The demand of some consumer goods (such as cars and electrical equipments) grew rapidly, which led the change of production structure and a demand of higher living standard to some extent, for example the requirement of holidays (i.e. the average annual holiday increased from three weeks in 1956 to four weeks in 1969) and second housing.

Table: The ownership rate of car, refrigerator, washing machine, by household

	1953	**1972**
Car	21.0	61.1
Television	6.1	77.5
Refrigerator	17.4	85.2
Washing machine	17.6	63.8

Source : enquêtes conditions de vie : les collections de l'insee, données sociales édition 1974, institut national de la statistique et des études économique

3.1.3 The Political Aspect

In general, there are two dramatic changes in the political background during the '30 glorious years' in France.

- **The change of the national political system**

The '30 glorious years' went through the evolution from the 4th Republic (1946-1958) to the 5th Republic (1958-). The 4th Republic has a typical parliamentary system. The National Assembly has more power (i.e. the legislative right, the right of establishment and dissolution of cabinet), while the power of Senate and the President are relatively limited. However, this kind of political system causes the partisan disputes and the frequent change of government, which could not guarantee the establishment and implement of the stable policies to some extent. Afterwards, multiple domestic and international pressures (such as the war of Algeria) led to its collapse, and it was finally replaced by the 5th Republic led by Charles de Gaulle in the year 1958. Compared with the previous political system, the 5th Republic weakens the power of Parliament, and strengthens that of the President (as the head of the state, the army commander and the president of Republic). However, during that period, the role of parliament and political party was not strong in the field of 'territory'. This kind of content had not been introduced into the political debate until the 1970s

(after the event of May 1968).

In general, although France underwent the 'may storm' in 1968 and the downfall of Charles de Gaulle in 1969, this kind of political system guaranteed the stability of government and the implementation of regional planning for a certain period during the '30 glorious years'. And it can be said that this period (esp. from 1958 to the oil crisis) is a golden time for French regional planning.

- **The change of relationshop between the national and the local government**

French traditional administrative system included three levels (until 1960s): nation (Etat), province (departement) and town (commune). For a long time, province was the only administrative level where the national government established its local administration, and the key level for managing towns. Since the 1950s, France started to adjust the local administration system with the purpose of improving local development. In the 1960s, France formulated 22 'regional development plan', which made region (région) as a new administrative unit. However, at that time, region was not a legal local administrative level. In the 1970s, France entered into a 'fiscal deflating' period. The sharp decline of national direct investment influenced the control ability of public policy significantly, which made the national government rethink the relation with the local government. According to the law of 1972 (5, July), each region started to establish the regional council (le conseil regional) which is parallel with the national government. And after the promulgation of 'decentralization act' in the year 1982, the legal administrative status of region was finally established in France, regional counselors were directly elected.

Actually, since the 1960s, the national government had began to improve the local initiatives and to strength the cooperation with the local government and the private investment, such as in the field of the transportation facilities, the development zone (zone d'aménagement concerté, ZAC) etc. And during the period of the V plan (1969—1974), the national government further attempted to cooperate with the local government in a way of contract, which was reflected in the content of regional planning since the 1970s, such as the 'contract of the medium-sized city'.

3.1.4 The Unbalance Development Aspect

- **Paris and other parts of France**

Paris is considered to be the centre of politics, economy and culture in France. And the position of absolute 'core' lasted for a long time. After the World War II, the concentration of Paris was further strengthened.

First, Paris ushered a new round of in-migration (from abroad and other provinces). From 1954 to 1962, the population of the Paris region increased by 15%, compared with 8% of the whole France[19]. Moreover, the growth of population was not only reflected in 'quantity', but also in

[19] M C MacLennan, The Journal of Industrial Economics, Vol 13, Supplement: Papers on Regional Development

'quality'. According to the data of INSEE, nearly 40% of the population with a high-school degree and above stayed in the Paris region in the early 1960s[20], and about 50% of engineers, academics and skilled workers lived there. Besides, the living condition between the Paris region and the other provinces was quite unbalanced. In 1962, the average annual salary in the Paris region was 12452 francs, against the French average of 9466 francs. In 1964, the population in the Paris region owned 22% of personal and commercial automobiles and 39% of telephone in France[21].

Second, the excessive weight of Paris was not only in the domain of population; the economic unbalance was even more obvious. This kind of over-concentration emerged in the field of industrial distribution (esp. the advanced manufacturing sector). For example, about 60% of the automobile and aerospace companies and nearly 50% of the machinery and pharmaceutical companies were concentrated in the Paris region. Besides, in 1955, 54.8% of national companies with an annual business volume above 10 million francs[22], and 75% of top 500 companies' headquarters were located in the Paris region (1958)[23]. In 1960, the Paris region produced about 48% of direct production tax and 40% of indirect tax in France[24]. In 1965, the annual income per inhabitant in the Paris region was about 50% higher than that of provinces[25]. In addition, the high concentration was also reflected in the layout of transportation and communication network: they all expressed as a polarization structure.

It could be said that, the Paris region deprived of the development elements from the other regions to some extent. For example in 1954, the Paris region only accounted for 17.5% of total population in France, which produced 25.4% of the whole revenue. Besides, the Paris region could gain more national investment compared with others. For example, in 1964, the Paris region received 24.6% of the allocations for national education, 31.0% for health and welfare, 38.9% for specially supervised education, and 55.5% for cultural affairs[26], although the Paris region intensely contributed to the national budget, i.e. the transfers of public money to other regions.

■ The East and West of France

Followed by the economic-geographical pattern in France since the 19th century (the industrial revolution), the whole France could be divided into two significantly different parts (the east and the west) by the line of 'Le Havre-Marseille'. The eastern part (including Haute-Normandie, Picardie, Nord-pas-Calais, Rhone-Alpes, Bourgogne, Franche-comté, Provence-Alpes-cote d'Azur, Champagne-Ardennes, Alsace, Lorraine) was a major industrial area in France. While the western part (including Basse-Normandie, Bretagne, Loire, Centre, Limousin, Poitou-Charentes, Aquitaine,

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(1965), pp. 62—75

[20] Jerome Monod, Philippe de Castelbajac, L'Amenagement du Territoire, PUF

[21] Regionalisation du budget, 1966

[22] Ernest Labrousee, Fernand Braudel, Histoire économique et sociale de la France (1950-), Rongkang Xie and Wenjie Huang (translators), Shanghai : Fudan University Press, 1990

[23] Localisation des centres de decision des enterprises Bureaux-Provinces, 1977

[24] Institute d'amenagement et d'urbanisme de la region ile-de-France, 40 ans en Ile-de-France (retrospective 1960-2000), Paris : IAURIF, 2001, pp 15

[25] Yves Durrieu, Regionaliser la France: capitablsme ou socialism, Mercure de France, 1969, pp. 116

[26] Regionalisation du budget, 1964

Languedoc, Pyrenees) belonged to a traditional agricultural area, which was named as the 'French desert' by M. Jean-Francois Gravier in his book.

In the initial phase after the World War II, the disparity between the two major parts of France was still obvious. In the eastern regions (in the first period of '30 glorious years'), industry accounted for the majority, with a high proportion of employment in industry and a high rate of productivity. Besides, it had a relatively large population, the dense transportation network, some important metropolises (e.g. Paris, Marseille, Lyon and Lille) and ports, four major industrial areas (Paris, Nord-Pas de Calais, Lorraine and Rhone-Alpes) and some important areas of coal and iron ore. In contrast, the western regions were relatively less-urbanized, which had a larger-proportion of farmers, the less-developed industry and relatively sparse transportation network. It was also lacking of metropolitan centers at the national level.

As shown in the tables below, the obvious gap between the eastern and the western part of France could be reflected by some indices, i.e. the economic volume, the industrial and employment structure, the industrial productivity.

Table: The industrial structure of French 'Eastern Area' and 'Western Area' , 1954

	Agriculture	Industry, Construction and Public project	Service
Western region	44.3	23.7	32.0
Eastern region (excl. the Paris region)	21.4	42.2	36.4
Eastern region (incl. the Paris region)	15.6	42.8	41.6
France	26.8	35.3	37.9
France (excl. the Paris region)	34.0	32.5	33.5

Note: the western region and eastern region not include all the regions, only as a reference

Source: Ernest Labrousee, Fernand Braudel, Histoire économique et sociale de la France (1950-), Rongkang Xie and Wenjie Huang (translators), Shanghai : Fudan University Press, 1990

Table: The basic Indices of French 'Eastern Area' and 'Western Area', based on 1000

	Population (1954)	Labor index (1946-1948)	Output value (1951)	Income (1951)
Western region	388.0	267.1	299.1	318.7
Eastern region (excl. the Paris region)	435.2	451.5	450.6	424.9
Eastern region (incl. the Paris region)	606.2	729.6	699.0	678.8

Note: the western region and eastern region not include all the regions, only as a reference

Source : Ernest Labrousee, Fernand Braudel, Histoire économique et sociale de la France (1950-), Rongkang Xie, Wenjie Huang (translators), Shanghai : Fudan University Press, 1990

Table: The level of specialization of most regions, except construction and public project, 1954

Eastern Region		Western Region	
Région parisienne	1.334	Centre	0.710

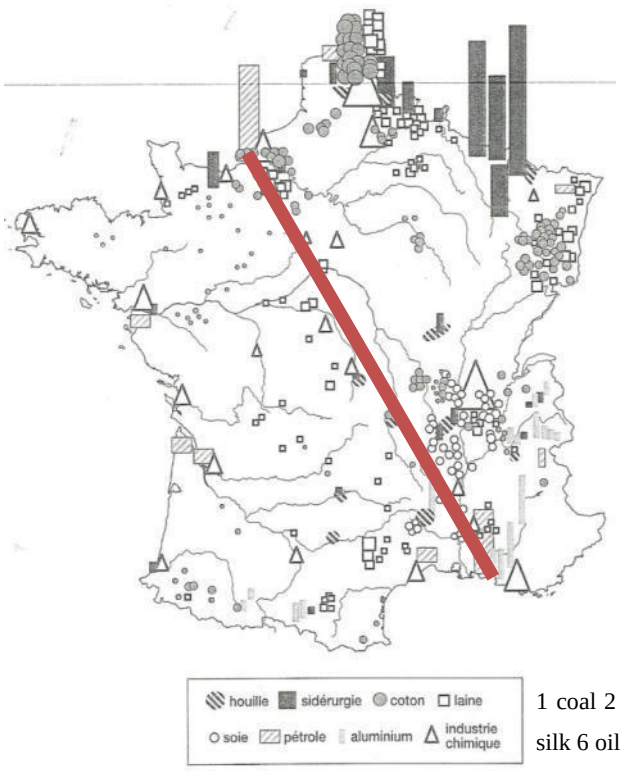
Rhône-Alpes	1.268	Basse-Normandie	0.466
Champagne –Ardennes	1.083	Pays-de-la-Loire	0.665
Picardie	1.031	Bretagne	0.425
Haute-Normandie	1.000	Poitou-Charentes	0.543
Alsace	1.223	Auvergne	0.794
Franche-Comté	1.254	Aquitaine	0.672
Bourgogne	0.818	Midi-Pyrénées	0.665
Provence côte d'Azur	0.643	Languedoc-Roussillon	0.649

Source : Ernest Labrousee, Fernand Braudel, Histoire économique et sociale de la France (1950-), Rongkang Xie, Wenjie Huang (translators), Shanghai : Fudan University Press, 1990

Note: Except Nord, Lorraine, Limousin and Corse; 'specialization level=1' means that the industrial proportion of the region is the same as that of the whole France

In addition, based on a study of l'Insee (from 1951 to 1958)[27], the income per capita of six regions in the south-west was only half of that in the Paris region and quite lower (-30%) than that in some eastern regions (e.g. Nord, Rhone-Alpes, Lorraine and Haute-Normandie). And the less-developed departments all belong to the western part of France, such as la Haute-Saone, les Hautes Alpes, la Nievre, le Var and l'Yonne. Besides, the unbalanced situation also could be reflected by some other indices, such as the possession rate of commodity (i.e. car, television, refrigerator etc), the education resources and the construction of new housing (after the World War II). In addition, in the field of transport, the areas poorly equipped were mainly concentrated in the western part of France, such as the Bretagne region, the Massif Central and some mountainous departments in the South-East (i.e. Hautes-Alpes, Basses-Alpes, Var and Alpes-Martimes).

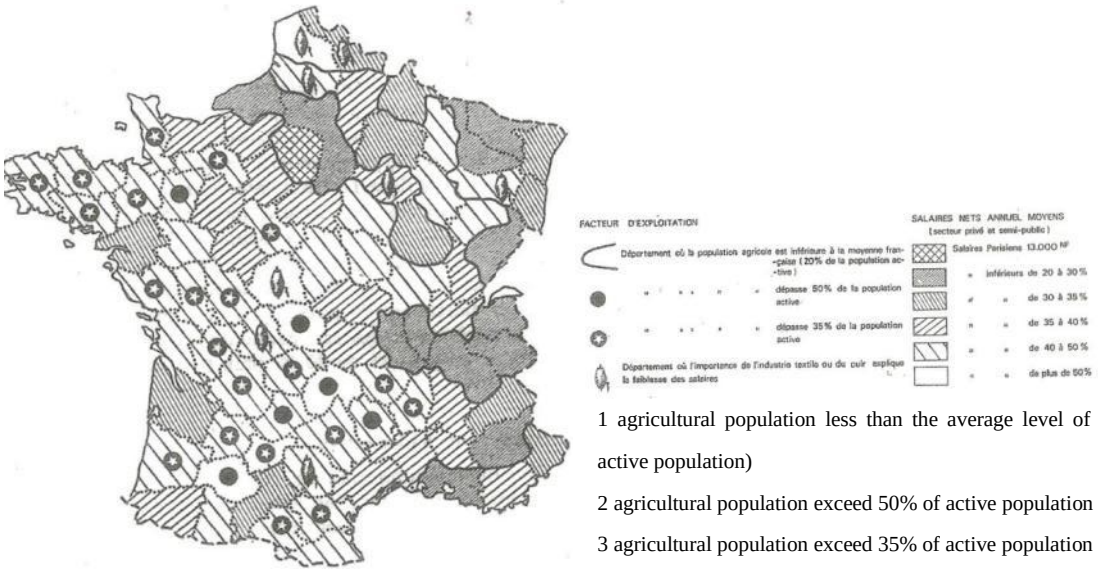
[27] Evolution régional des revenus des particuliers de 1955-56 a 1958, Etudes et Conjoncture, May, 1961



1 coal 2 steel industry 3 cotton 4 wool 5 silk 6 oil 7 aluminum 8 chemical industry

Figure: The French industry, 1930

Source: P. Pinchemel, Geographie de la France, A. Colin, 1964 et Ch. Maraze, Les Francais et la Republique, Armand Colin, 1956



1 agricultural population less than the average level of France (20% of active population)

2 agricultural population exceed 50% of active population

3 agricultural population exceed 35% of active population

4 textile and leather industry is important

Figure: Disparities of employee, 1962-1963

Source : Yves Durrieu, Regionaliser la France: capitalisme ou socialisme, Mercure de France, 1969, pp. 116

3.2 Development of Urbanization, Industrialization and Agricultural Modernization in France

During the 30 years after the World War II, France basically completed its urbanization, industrialization and agricultural modernization (the three of them connected each other closely) process. The three kinds of process directly influenced each other during the same period, which resulted in the huge change of the employment structure and the spatial lay-out in France. Therefore, we emphasize the process and describe it separately besides the presentation of general background.

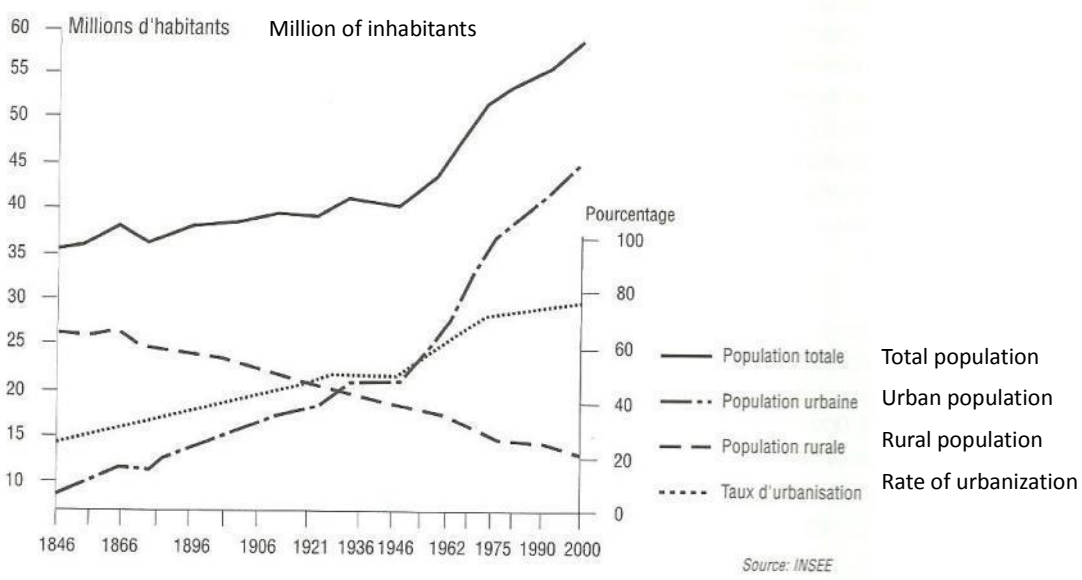
3.2.1 The Development of Urbanization

On the whole, the process of French urbanization lagged behind that of UK and Germany. Until the end of the World War II, there was still nearly half of the rural population in France, and about 1/4 of labor-force in the field of agriculture. After the World War II, with the support of 'Marshall Plan' and the internal/external demand, a large number of rural labor forces began to migrate from the rural areas to cities. From 1954 to 1968, 4.34 million farmers left their rural lands, of which the youth (20-34 year old) accounted for 37.5%[28]. Among the total rural population, the agricultural workers, the youths and the young women were more inclined to leave their rural hometowns.

Compared with some other Western European countries, the scale of migration from rural to urban areas was smaller, and the duration was longer in France. After the World War II, with the rapid-development of industrialization and the modernization of agriculture, the process of urbanization entered into a fast-growth period, which was based on the 'Northam Curve' theory (the period with an urbanization level from 30% to 70% is considered as a rapid phase of urbanization). The degree of urbanization reached 72.9% in 1975 in comparison with 55.4% in 1950. In the 1970s, France basically completed the rapid-process of urbanization, and entered into a stable period.

Table: Evolution of urban and rural population, 1846-1999

[28] Jean-Claude Gégot, La population française: aux XIXe et XXe siècle, Paris: Ophrys, 1989, pp 33



Source: INSEE

Table: French urban/rural population, unit: ten million

	1950	1954	1962	1968	1975
Total population	41740	42705	46425	49712	52592
Urban population	23124	24456	29370	34834	38351
Rural population	18616	18249	17055	14878	14241
Level of urbanization (%)	55.4	57.3	63.2	70.1	72.9

Source: INSEE, Ined

3.2.2 The Development of Industrialization

The process of urbanization was closely related to the development of industrialization. Compared with some Western European country, the industrialization in France developed slowly for quite a long time, just like its process of urbanization. As shown in the table below, the employment of primary industry remained the largest part for decades.

Table: French employment structure of the three industry, unit :%

	1821	1872	1911	1949	1962	1975
Primary industry	62.6	49.4	38.8	29.8	19.9	9.5
Secondary industry	22.4	29.8	33.8	37.8	38.2	39.2
Tertiary industry	15.0	20.8	27.4	32.4	41.9	51.3

Source : O. Marchand et Claude Thelot, Le Travail en France: 1800-2000, Paris, Nathan, 1979. Tableau de l'économie française, pour le chiffre 2003, INSEE

However, during the '30 glorious years', along with the rapid-growth of urbanization, the industry sector developed quickly, which was reflected in the field of productivity and industrial structure (from the labor-intensive industry, capital industry to the technology one). Based on the common theory of industrial development, by the influence of scale-economics and agglomeration-economics, the process of urbanization was improved by industrialization at the initial phase, and by the development of both industry and service sector from the mid-term period.

With the evolution of economic structure, more migration went into the service sector. This process could be proved by the French experience.

During the period, the structure of employment and GDP in France changed dramatically. The proportion of employment structure turned from '29.8:37.8:32.4' in 1949 to '11.2:45.7:43.2' in 1974. And that of GDP changed from '15:42:43' in 1950 to '5:30:65' in 1975. According to the 'Chenery Model (1988)', the change of urbanization level was slightly later than that of employment structure in the first phase, but became consistent afterwards. Finally, France completed the industrialization shift and entered into a post-industrialization era, when the process of urbanization became stable.

3.2.3 The Development of Agricultural Modernization

In a closed national economy, the limit to urbanization is set by the size of the agricultural surplus produced by the rural population (Lowry, 1990). The high productivity of agriculture results in the relatively large expansion of urban land and a number of surplus rural labor-force.

France is a big agricultural country for centuries. The mode of 'smallholder' economy was carried out for almost 100 years after the French revolution. After the World War II, the government paid more attention on the field of agriculture and the rural area, which adopted a series of rural policies during the '30 glorious years'. These policies were in correspondance with the evolution of development background. And the agricultural modernization improved the orderly process of urbanization in France to some extent.

At the beginning (1945-late 1950s), France started to promote the agricultural mechanization (as shown in the Plan Monet, 1947-1952) and basic rural infrastructure (such as electricity and water facilities) strongly, which improved the agricultural productivity, ensured the supply of agricultural products, and brought out a massive surplus rural labor to other sectors (especially the industry sector at that time). However, since the middle 1960, facing more diversified rural issues (such as the sharp decline of agricultural employment, the aging problems, the demand of agricultural industry and the rural tourism etc), the rural policies began to concern about the renovation of rural area (incl. both economic and social field) and the protection of environment. The objectives of the rural infrastructure renovation turned from the basic facilities in the first phase to improve the rural living conditions afterwards, such as housing, education/medical facilities and reception facilities for urban residents. In addition, the agriculture-alimentary industry and tourism became the new value-added industry in the rural area. And the rural area gradually became one of the amenity places for consumption, leisure and accommodation, which attracted more urban residents in the new era.

Table: Evolution of out-put value of agriculture and agriculture-alimentary industry, unit: one billion francs

	1960	**1970**	**1975**	**1980**
Out-put value of agriculture	36	47	68	100

Out-put value of agriculture-alimentary industry	13	32	61	112

Source : SCEES Graph, Agri, 87

Table: Evolution of the number of people in rural area, unit: thousand

Socio-professional category	1962		1968		1975		1982	
	N	%	N	%	N	%	N	%
Farmer	1377	37.9	1093	36.1	778	27.6	671	21.2
Agricultural worker	341	9.4	232	7.7	147	5.2	110	3.5
Industrial or commercial enterpriser	449	12.4	366	12.1	331	11.7	365	11.6
Liberal profession (profession libérale) and senior manager	53	1.5	54	1.8	102	3.6	175	5.5
Middle manager (cadre moyen)	126	3.5	129	4.3	194	6.9	325	10.3
Employee	125	3.4	123	4.0	166	5.9	180	5.7
Worker	1039	28.6	928	30.7	1000	35.4	1212	38.4
Service personnel	50	1.4	47	1.5	50	1.8	55	1.7
Others	71	1.9	54	1.8	54	1.9	66	2.1

Source : SEGESA

It has to be noted that the rural land in France was quite fragmented (i.e. most small farms had less than 20 ha of farm land) after the French Revolution for a long time. During the '30 glorious years', the aggregation of rural land underwent the progress of the agricultural modernization and the urbanization in France (especially after the establishment of 'Agricultural Guidance Act' in 1960). The government adopted a series of policies to promote the compulsory concentration of agricultural land ('remembrement'), which effect was obvious. As shown in the table below, the proportion of farms (<50 ha) decreased from 79.3% in 1955 to 66.2% in 1970. As a result, the agricultural productivity rose, which guaranteed the stable development of economy and society in the period of massive urbanization.

Table：French Agriculture Management, unit: thousand

The size of farm	1955	1963	1967	1970
Below 5 ha	800	549	447	422
5—20 ha	1013	849	724	606
20—50 ha	377	394	399	394
50—100 ha	75	85	92	101
Above 100 ha	20	23	26	30
In total	2285	1900	1688	1553

Source: Georges Duby et Armand Wallon (dir.), Histoire de la France rurale, Paris : Ed du Seuil, 1976

3.3 Conclusion

In brief, the evolution of background is quite comprehensive (i.e. economy, society, politics), which greatly influenced the emergence and the development of regional planning in France

during the ’30 glorious years’ (also a period of rapid urbanization). In fact, we could not do the research on regional planning without paying attention on the process of context. During the same period, regional planning met the demand of changing era or predicted the trend of development in the future, which is presented in the next chapter.

Chapter 4: The Evolution of French Regional Planning during the 30 Glorious Years

Before specially describe the content of French regional planning during the ’30 glorious years’, we briefly present its major phases of development.

4.1 Brief Outline of Evolution of French Regional Planning during the 30 Glorious Years

4.1.1 Brief background

The thought of ‘unbalance’ went through the evolution of French regional planning (esp. during the ‘30 glorious years’). Actually, the ‘unbalance’ phenomenon has existed for a long time, which was reflected in three major parts: 1. the unbalance between Paris and the other regions; 2. the unbalance between the advanced regions and the backward regions; 3. the unbalance between the rural and the urban area. These disparities brought out some problems and influenced the development in France (incl. economic development, migration of population etc).

In fact, the situation of ‘Paris is over-concentrated’ was noted before. Balzac (in the 1830s) often described Paris both as a fascinating center for culture, power, etc and a menace for other regions (‘province’). After the World War I, some experts and officers from academic and political fields began to debate on ‘how to narrow the gap among regions (especially between Paris and other regions) and started to take some preliminary attempts (i.e. the action of urban expansion and beautification (1919-1924), the regional plan of Paris (le plan Prost) in 1934, etc). However, at that time, they more concerned about the gap between Paris and the other regions, and only focused on the field of economic and the demographic unbalances.

The emergence of French regional planning during the ‘30 glorious years’ related to Jean-Francois Gravier’s book ‘Paris and the French desert (Paris et le desert Fran çais)’ after the World War II (in 1947), who proposed the concept ‘unbalance’. However, the book is not only from the geographical perspective, but also contains more content regarding the concept ‘unbalance’. This book was published four months after the MRU (French Reconstruction and Urban Planning Department ((Ministère de la Reconstruction et de l'Urbanisme), including one department of regional planning (une direction de l’amenagement du territoire, 1949)) was set up, and it suggested that France should not continue to expand its unbalanced situation, which is also considered as a disagreement of Monet Plan (Le Plan Monnet). The opinion was paid attention by the French government afterwards. In the year 1950, the first ‘national planning (le plan national

d'aménagement du territoire)' was released.

The first objective: to stop the trend of concentrating all the forces in the big urban centers; to create the living resources in the region where the resources was less exploited and there was a trend to become 'desert'.

For example, M. Claudius Petit (Minister of Construction and Urban Planning) considered France should provide a better distribution of industrial establishments and employment in addition to the whole growth of economy. In 1955, the decrees prepared by the Government of Mendes-France created the 'regional action programs (programmes d'action regionale)'.

All the efforts would become irremediable, if the cities continue to expand in the rest part of country, and Paris continues to deprive the resources in France.

——M. Jean-François Gravier, « Paris et le désert français», 1947

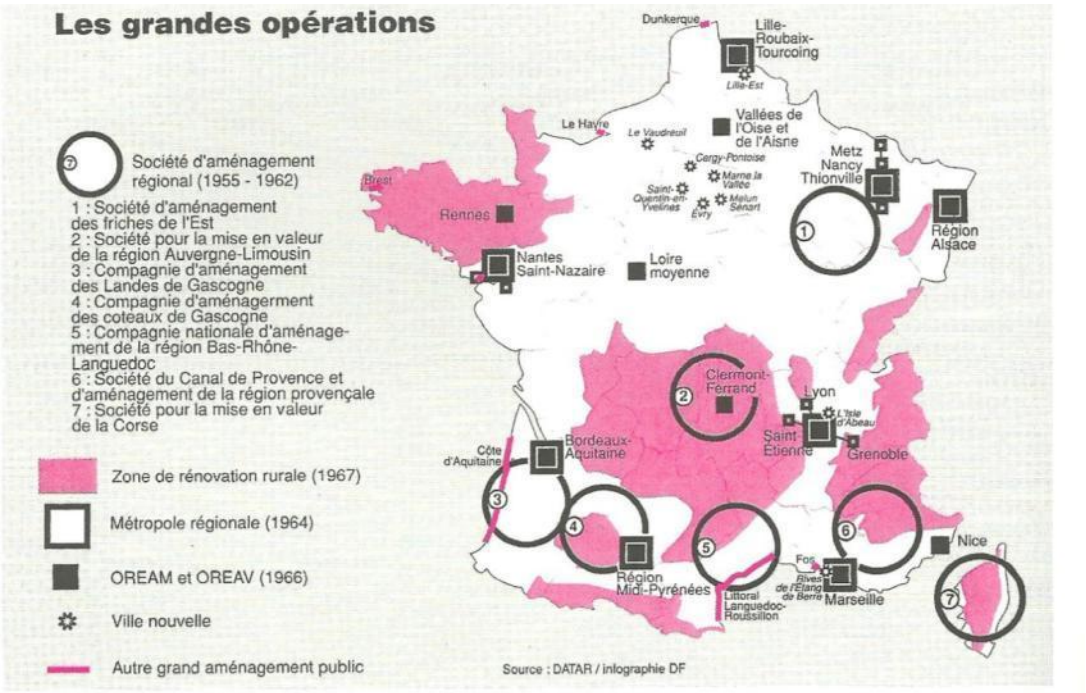
On the whole, during the '30 glorious years', the importance of regional planning was gradually paid attention by the French Government. Since then, a large-scale of French regional planning began to be prepared and carried out (esp. after the creation of DATAR[29]), and the concept 'balanced growth' became an important consideration in French regional planning after the World War II.

For example, the objective of the first French regional planning (1950) was to halt the concentration of economic activity in certain areas and to develop the regions where the human and natural resources were under-utilized. However, the first systematic legislative efforts did not emerge until the year 1955 (industrial decentralization policy was set up in the Paris region).

Worldwide, after the World War II, many countries faced the development requirement and the regional problems (esp. the unbalance problem). During the period (from the end of World War II to the 1970s), the regional policy and regional planning were generally with the feature of public interventionism, which was seen as an important and necessary 'push' for regional development at that time. During the '30 glorious years', France implemented a considerable number of regional planning. Reciprocally, a fair distribution among regions could make general economic growth stronger and more efficient. The period could be considered as the golden times for regional planning. The figures below illustrate the major regional planning during the period from the 1950s to the 1960s, and the major projects in the year 1966 (as examples).

[29] DATAR: the general delegation of regional planning and regional action (le delegation general a l'amenagement du territoire et a l'action regionale), 1963

Figure: The major projects, 1950s-1960s



Source: DATAR

In 1966 (as shown in the figure below), a number of regional planning was carried out: 1. The Paris region: the planning of the Paris region expanded to the scope of the Paris basin; 2. Industrial conversion zone: Lorient-Hennebont, Saint-Etienne and some industrial regions (Nord and Lorraine); 3. Balanced-metropolis: the creation of aero-spatial complex in Toulouse and the de-concentration of national senior engineer school of aeronautics (l'ecole nationale superieure d'aeronautique); the tourism planning in the coastal area: Landes and Languedoc-Roussillon; the creation of port-industrial complex in Fos; the creation of national park (Vanoise).

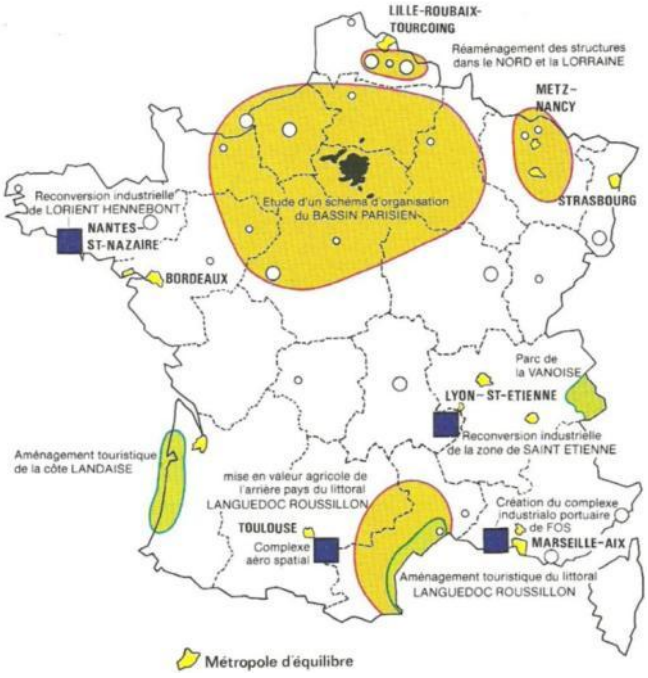


Figure: The major projects of regional planning, 1966

Source: DATAR-CAES, 1966

4.1.2 General phases

The phases of French regional planning during the '30 glorious years' can be classified by several ways. According to the political evolution, the period can be divided into three phases: the reconstruction period (1945-1958, the 4th Republic), the great development period (1958-1972, the 5th Republic), the last phase (1972-, the decentralization of political power (started in Bretagne, 1972), the end of 'Keynesianism' policy). However, we can also distinguish them based on the content of regional planning and the purpose of establishment. Besides, some scholars divided the different phases based on the foundation of la DATAR (délégation à l'aménagement du territoire et à l'action régional, in 1963)[30] or the decentralization of political power ('regional development plan' in 1964; law of 1972 and 'decentralization act' in 1982).

Moreover, during the '30 glorious years', there were several symbolic events which reflected and influenced the historic process: 1) the publication of 'Paris and French desert (Paris et le desert francais, Jean-Francois Gravier, 1947)'; 2) the debut of the first national planning (Plan national d'amenagement du territoire, 1950); the creation of la DATAR (1963); 3) the inauguration of 'inacceptable scene (Le scenario de l'inacceptable, 1971)'; and the direction change of la DATAR (1975). There is also an economic classification: 1) reconstruction; 2) 'fordist' growth; 3) oil shock, then slow growth and shift to post-industrial lean-production.

- **The publication of 'Paris and French desert (Jean-Francois Gravier, 1947)':** the book emerged in a typical context (just after the World War II). During that period, France faced the situation of 'reconstruction' and 'rapid urbanization' at the same time. The situation became severe when facing a massive migration from less-developed, isolated area to developed and populous area (esp. the Paris region). Different from the Plan Monnet (1948-1952), the book has a geographical perspective, which inspired the consideration of the government. In addition, according to his definition about regional planning (l'amenagement du territoire), it includes three implementation aspects with a 'balance' thought: the regional equipment (l'equipement du territoire); the coordination of sectional action (administrative and industrial decentralization, la coordination des actions sectorielles); the formulation of regional organization (la formulation d'une vision strategique de l'organisation du territoire). In a word, the book influenced French regional planning for a long time.
- **The debut of the First national planning (1950):** The first national planning was introduced in the year 1950 with Eugene Claudius-Petit[31] as the head. It proposed the idea of 'balancing

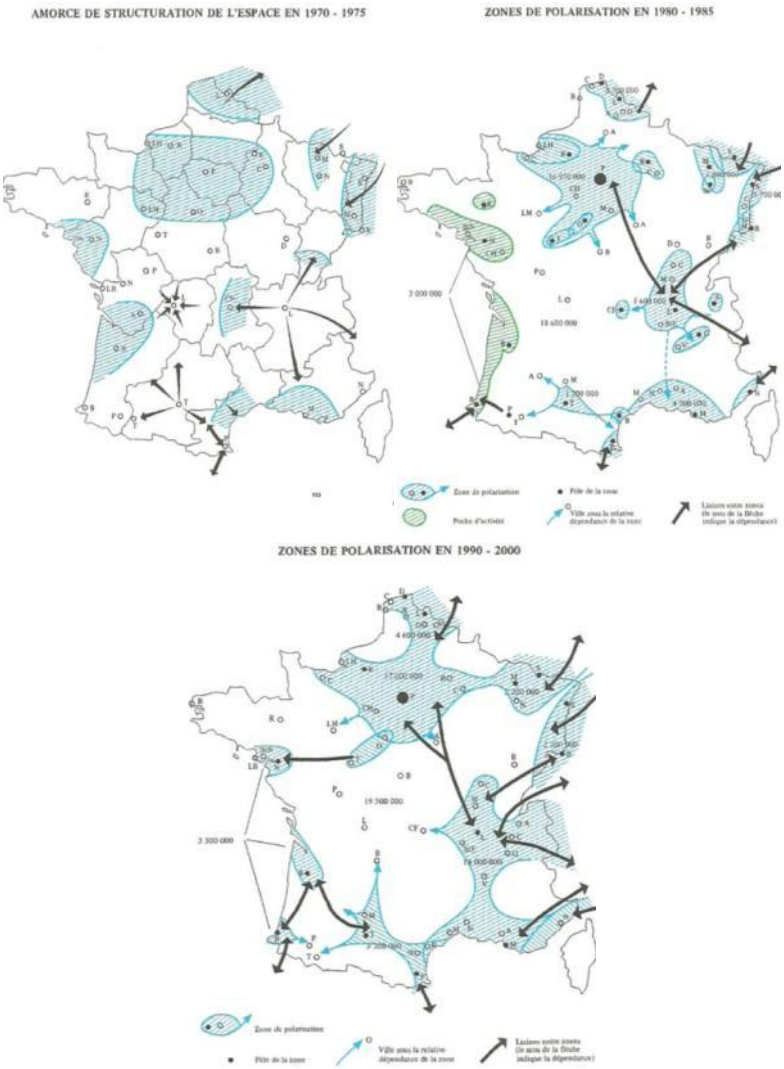
[30] Michel Philipponneau, Industrie et aménagement du territoire essai de périodisation, La politique d'aménagement du territoire : racines, logiques et résultats, presses universitaires de rennes, 2002, pp106-115

[31] He was the minister of reconstruction and urban planning (ministere de la reconstruction et de l'urbanisme, MRU) from 1948 to 1952.

the economic activities and the natural protection' for the first time, which included four major objectives: to promote the industrial de-concentration, to renovate agriculture, to improve the tourism equipment, and to decentralize the cultural resources. Although the planning is more like a future prospect other than a practical guide, it improved several actions afterwards, such as 'control the urban concentration and development (esp. the Paris region)', 'promote the creation and installation of equipment in other regions (esp. the West)', 'create the fund for regional planning', and 'create the inter-ministerial organization of regional planning'.

- **The creation of la DATAR (1963):** Since the 1960s, the thought of 'territorial balance' was generally accepted by the French government. At that time, France faced two necessary and urgent missions: the 'balanced' planning of the whole territory; the development planning of 'the Paris region'. And regional planning was quite comprehensive, which involved many governmental sectors. Therefore, an inter-ministerial organization was demanded, with the function of 'improve, animation and coordination'. In addition, La DATAR has two basic roles: to assure the elaboration of regional planning for a long and medium term; to coordinate different ministers and to ensure adapting decisions during the implementation of regional planning. After the establishment of the V Republic in the year 1958, the power of central government was strengthened. The creation of the organization was directly conducted by the prime minister, which improved and guaranteed the action of French regional planning efficiently during the period.
- **The inauguration of 'inacceptable scenario (1971)':** This is the first document which reviewed the regional planning during the last 20 years, and analyzed the future version of French society and territory systematically. It proposed three major problems: the inequality of the rich and the poor; the unbalance of rural and urban area; the development of the Paris region. The result of the document, according to an original long range forecasting methodology, was negative during the three different phases (1970-1975, 1980-1985, and 1990-2000). If left to its spontaneous trends, the French territory would be particularly 'unbalance' at the end of the period. Therefore, the scenario was called 'inacceptable' and thus it made voluntary public policies, aimed at escaping the spontaneous trends, legitimate. It resulted partly from the fact that France had gone through a period of massive development and the document emerged in a transitional context. During that period, the society changed rapidly with the industrial restructure: the urban society and the services sector became the dominant (e.g. the conflict between the labor unions and employers, the national companies and the small/medium-sized private companies, the manuals and the intellectuals and etc); the gap between the rich and the poor enlarged; people began to have some new requirements, such as the political participation, the pursuit of better living condition. And plenty of conflicts push forwards the crisis in the year 1968, which influenced the resign of General de Gaulle in 1969 and the decentralization of political power afterwards.

Figure: Images of 'scénario de l'inacceptable'



Source: Christel Alvergne, Pierre Musso, L'aménagement du territoire en images, La documentation française, 2009, pp 137

- **The direction change of la DATAR (1975):** The direction change of la DATAR also accompanied the transformation of context (e.g. the end of '30 glorious years', the beginning of power decentralization, the international economic crisis and the industrial decline). *'In a period of crisis, the regional planning should be a policy of economy and development in one country.*[32]' Compared with the 'quantity' development, the demand for 'quality' began to become dominated since then. Furthermore, it included five directions : for the industry sector, the priorities were for the West, the South-West and Massif Central; for the services sector, the political decentralization was improved (esp. the administrative decentralization and delocalization); for the urban area, it focused on slowing down the growth of population in the large agglomerations, strengthening the network of medium-sized city and small city; for the rural area, it emphasized stabilizing the rural population (esp. the youth); for the equipment, the priorities focused on the national and international connection in the West, the South-west

[32] Jacques René Chirac, 1975

and Massif Central[33].

In addition, the process was also reflected in the evolution of several national plans after the World War II. The first (1946-52) and the second (1952-57) plans contained little formal analysis of the regional problems[34], but the latter one involved the semi-public companies in the rural areas. The third plan (1958-61) included a regional chapter for the first time, mainly regarding the concentration of economic activity in the Paris region. It was strengthened and became the core matter in the fourth plan (1962-65), with two basic aims of 'reducing the over-concentration in the Paris region and improving the development in the critical areas (e.g. attract industry by the means of equipment subsidies, tax benefits and similar devices)'. The fourth plan also accompanied the action that 'France was divided into 21 regions' in 1960. Thus, the economic and social plans for the different regions were drawn up within the structure of a national plan. Hacketts (1963) pointed out that the turning point in the history of regional development was the implementation of the fourth plan in France [35]. Moreover, compared with the fourth plan, the fifth plan (1966-70) began to propose the 'growth-pole strategy' to improve the regional development, which was expressed as 'balance metropolises' and 'new town' (with the aim of the modernization in the Paris region and the development in the Paris basin). Furthermore, the sixth plan (1971-75) involved more content of the living condition, and proposed the importance of education and research.

4.1.3 General trends and features

The early and mid-term period

During the early and mid-term of the '30 glorious years', France urgently demanded the transformation from an agricultural country to a modern manufacturing industry led one. At that time, the French government had realized the unbalanced development in France (especially the Paris region and the other provinces, the eastern and western regions, the rural and the urban areas) and also the significance of regional planning. During the period, the French government intervened in the spatial organization in three main ways below.

- **Regional productivity layout:** In the period of industrial development, France mainly intervened in the spatial industrial organization by taxes and subsidy. Firstly, they focused on the 'de-industrialization' of Paris, and then divided the whole country into different subsidy level, which guided the relocation of industrial companies. At that time, the support of state

[33] Christel Alvergne, Pierre Musso, Les grands texts de l'amenagement du territoire et de la decentralization, Paris : La documentation francaise, 2003, pp 199
[34] M.C Maclennan, regional planning in France, the journal of industrial economics, vol.13, supplement: Papers on regional development, 1965, pp 64
[35] John and Anne-Marie Hackett, Economic Planning in France, Cambridge: Harvard University Press, 1963, pp 89

met the demand of the 'expansion of companies' and the 'Fordism production'.

- **Urban system layout:** by the impact of 'growth pole theory' (proposed by François Perroux, 1955), the government chose eight regional capital cities (the so-called 'balance metropolis') to balance the influence of the Paris region, which also formed eight metropolitan regions relating with some surrounding cities.
- **The development and protection of rural areas:** along with the process of agricultural modernization and the consolidation of rural land, the government began to make the division in the rural area (such as 'National Park', 'Regional Park', 'Rural Renovation Area', 'Mountain Economic Zone') and to take some measures since the 1960s. The first two areas are mainly focused on the environmental protection; the latter two areas (as under-developed rural area) needed more support in the economic development and the infrastructure construction.

The late-term period

After decade's years of the rapid economic/social development, in the late-term of the '30 glorious years', the economic structure in France began to transform, such as the trend of industrial recession. And people became wealthier which required higher 'quality of life'. Regional Planning during this period included three major parts:

- **Regional productivity layout:** with the overall change of economic structure in France, the government began to guide the 'de-concentration' layout of service and education/research instead of a large-scale industrial layout in the previous period. These planning were mostly concentrated in the 'balance metropolis' and some other big cities.
- **Urban system layout:** France started to emphasis the medium-sized and the small-sized cities besides big cities. At that time, the national intervention was gradually weakened while the power at the local level began to rise. The direct national intervention began to be replaced by the 'contract' with the local government. Moreover, the content of regional planning was not limited to the economic development at that time. The factors about 'living condition' had been proposed as an important part in the implementation process.
- **Spatial layout directed by laws and regulations:** The layout of urban/rural area became to be planned more strictly than before (esp. for rural area). It started to be directed by 'territory and planning guidance program (SDAU)' or 'land-use plan (POS)'. And 'Rural Planning (PAR)' had more comprehensive content compared with the previous specific practices.

In addition, during the '30 glorious years', the priority area evolved: the development of the Paris basin in the 1960s; the growth of regional metropolises from the 1960s; the renewal of 'Grand West' from the late period of the 1960s and the 1970s; the concentration on 'Massif central' and the medium-sized cities in the 1970s.

The major trend

On the whole, the major trend could be concluded as below, which complied with the universal development discipline:

- From the economic domain to more attention on 'living condition' and 'environmental protection'; from 'quantity of economy' to 'quality of life' when the economic growth was slowing down.
- From de-concentration layout of industrial productivity to that of service productivity and education & research institutions.
- From emphasis on 'balance metropolis' to more attention on 'new town', 'medium-sized city and small city'; from the cities balancing the influence of Paris to a more comprehensive urban system.

4.2 Brief Review of French Regional Planning during the 30 Glorious Years

4.2.1 List of regional planning

The main regional planning and related institutions during the '30 glorious years' are listed as follows, which could reflect the evolution of thought and background in France to a certain degree.

Table: The main regional planning during the '30 glorious years'

Name	Year	Content
The first national planning of France (plan national d'aménagement du territoire, Eugene Claudius-Petit, ed. du ministere de la Reconstruction et de l'Urbanisme)	1950	It was presented in February 1950, by the Minister Council (Eugène Claudius-Petit, Minister of reconstruction and urban planning). The text with a title of 'pour un plan national d'aménagement du territoire' is a foundation which defined the orientation of planning policy in the following decades in France. It included four major parts: industrial de-concentration, agriculture modernization, tourism facility in small cities and de-concentration of cultural facilities.
Establishment of the permit procedure in the Paris region	1955	For controlling the industrial construction and expansion in the Paris region
Special subsidy for equipment	1955	Approved by FDES (a committee depending on

(Prime Spéciale d'Equipement)		the powerful ministry of fiance), it constructed/renovated equipment in some less-developed areas in order to attract new enterprises, which became PDI (prime de développment industriel) and PAI (prime d'adaptation industrielle) afterwards. Above 20% of investment for industrial de-concentration in the 30 'critique zones'
Zone of conversion (Zones Critiques)	1956	Zones of conversion were the areas where industrial development was insufficient to attract labor forces, the problem of surplus labor could not be solved by increasing agricultural productivity. They were mainly some traditional industrial areas, such as coal, textile, etc.
Program Regions (Région de programme) Regional planning (Plan d'amenagement regional)	1956 1957	The decree of 28th October 1956 created 22 regional areas for program purposes. The act of 7th August, 1957 proposed regional development plan which was designed to promote a harmonious distribution of population and its activities. It included economic development of Bretagne (plan breton de developpement economique, 1968), Program of industrial conversion in the Lorraine and Nord region (Programme de conversion industrielle de la Lorraine et du Nord-pas-de-Calais, 1968), Planning of Corse (Schéma d'aménagement de la Corse, 1971).
Service permit policy (Agrément Tertiaire)	1958	For the service de-concentration in the Paris region
Law of company for regional and rural planning (Loi Cadre SAFER)	1960	Founded by the orientation law of Agriculture (1960), it created some semi-public companies for regional/rural planning (Sociétés d'aménagement foncier et d'établissement rural) in order to promote agriculture production in the elementary phase, to maintain the sustainable development of land, to keep the balanced-development (economic, society, environment) of agricultural space in the latter phase. It played a major role in

		the land consolidation process.
National Park (Parcs Nationaux) Regional Park (Parcs Regionaux)	1963 1966	National Park: protect natural space Regional Park: protect natural space, keep a balance between rural living and leisure
Subsidy for industrial development (Prime de D éveloppement Industriel)	1964	By the way of tax and grant, to intervene in the organization of industrial space in France, to divide the industrial subsidy level
Subsidy for industrial adaption (Prime d'Adaptation Industrielle)	1964	Similar with subsidy for industrial development, mainly focus on some traditional industry areas, such as coal Basin of Nord-pas-de-Calais, iron basin of Lorraine, coal basin of Lorraine, Textile zone of Vosges and Alsace, etc
Balance metropolis policy (Métropoles d'Equilibres)	1964	Choose eight balance metropolises (other assimilated cities in 1970) to counter the influence of the Paris region. The goal 'balance' is sought for the whole territory, not for these cities alone. Two basic roles: 1) admit the universities, research institutions and big enterprises migrating from the Paris region. 2) Become the center city of regional economy and culture, improving the regional development. Four major contents: 1) transportation equipment: have the priority of the investment on highway, railway, airport and port. 2) urban construction: renovation of urban centre, construction of housing, public transportation, etc. 3) industry: improve the industrial development and adjust the industrial structure. 4) Service de-concentration.
Master plan of the Paris region (Schema directeur d'amenagement et d 'urbanisme de la region parisienne , SDAU)	1965	The planning firstly proposed the concept of new towns in the Paris region.
New-town policy (Villes Nouvelles)	1965	Create new towns in the Paris region or areas surrounding some big cities, such as Lyon, Lille in order to solve the problems of less-employment, in-sufficient service and transportation equipment in the suburb area. It is

		an alternative to spontaneous urban sprawl.
The port-industrial planning of Fos gulf (Aménagement industrialo-portuaire du golfe de Fos)	1966	Planning for industrial zone and port area of Fos, in order to complete the port installation in Marseille for modern work and new maritime traffic, and to remedy the shortcoming of industrialization in the south-east in the medium and long term[36].
Service de-concentration (Décentralisation Tertiaire)	1967	By the way of providing subsidy of service activities, to guide its distribution, mainly including bank, insurance, education/research institutions.
Law of land orientation (Loi d'Orientation Foncière, LOF)	1967	According to the law of land orientation, two kinds of plans were established: Regional planning and development program (Schémas Directeurs d'Aménagement et d'Urbanisme, SDAU) and Land-use plan (Plans d'Occupation des Sols, POS). SDAU (at the metropolitan level): to determine the main direction of urban-rural land, including land function, large infrastructure, transportation organization, service facility etc, to balance the relation between urban development, agriculture production and natural protection. POS: Land-use standard for every local community (collectivité), dividing urban/urbanized area and natural area. Its goal of natural protection was to maintain its agricultural value or to prevent the foreseeable natural risks.
Zone of rural renovation (Zone de Renovation Rurale)	1967	Optimize the infrastructure for eliminating the isolation, maintain and optimize public service and information service, promote workforce training, improve the agricultural modernization, develop the rural industry and service.
Economic zone of montain (Zone d'Economie de Montagne)	1967	Improve equipment in mountain areas, production modernization of agriculture and livestock farming, protect water and forest resources,

[36] DATAR, Loi de finances, 1970, pp. 47

		control the non-productive construction, improve the living condition of mountains[37].
Rural planning (Plans d'Amenagement Rural, PAR)	1970	Guided by the orientation Law of land (LOF), it is a kind of planning at micro-region level for community. For the objective of development and regional equipment in rural area[38] : 1.socio-economic development : agriculture and forestry, handcrafts, industry, service, housing, tourism 2. equipment : demand and lay-out 3. protection of natural space: the requirement based on the arbitration related to the planning of land-use (la planification de l'usage des sols, POS)
Subsidy for regional development (La Prime de la Développement Régional, PDR)	1972	Incorporated by the previous subsidy for industrial development and subsidy for industrial adaption, Involving two kinds of areas: zone with subsidy for regional development, zone with subsidy for large projects
Medium-sized city policy (Villes Moyennes)	1972	Choose cities with 20000-100000 inhabitants, in order to improve economic development and quality of life. The objectives [39] : 1) attract rural floating population; offer jobs, house, good life condition; avoid gathering in regional capital cities or other big cities; 2) provide necessary service of economy, society, and culture for surrounding areas Main contents include: urban beautification, urban renovation (walking street, residential space), mainly focusing on urban centre and cultural/social/educational service
Montain Policy (Politique de la montagne)	1973	It began with the establishment of the special indemnity for mountain (l' Indemnité Spéciale

[37] Fen Yang, French policy of regional economic development, Studies Françaises, 1997(1), pp 164

[38] Jean-paul Laborie *et al*., La politique française d'aménagement du territoire de 1950 à 1985, Paris : la documentation française, 1985, pp 67

[39] La DATAR, Guide des villes moyennes

		Montagne, ISM), which delimited the zone, created specific institution and establish the particular disposition for economic and social development in mountains.
Management decentralization (Décentralisation Administrative)	1973	According to the law of the July 1972, some management offices were created in local areas, such as regional agricultural parliament (Agriculture Ministry), regional office of immigration (Employment Ministry), Service office of industrial and mining area (Industry Ministry), etc
Small city policy (Villes petites)	1975	Choose some small cities with 5000-20000 inhabitants, mainly focusing on its development of economy and society, environment protection
Development program of Massif Central (Programme de développement du massif central)	1975	Planning for the development of Massif Central (agriculture dominated and mountain area) Plan of Massif Central: accessibility of road (desenclavement routier) and montain policy (politique d'amenagement de la montagne)

Table: The main related institutions and funds during the '30 glorious years'

Name	Year	Content
The first direction of regional planning (Premiere Direction de l'amenagement du territoire, au ministere de la reconstruction et de l'urbanisme , MRU)	1949	The direction of urban planning and habitation had a name ' direction of regional planning' in 1949.
The fund of national regional planning (Fonds national d'aménagement du territoire, FNAT)	1950	It was created by decree of 8 August, 1950, which was destined to promote the investment of habitation zone and industrial zone.
Semi-public company for planning (Societes d'economie mixte pour les grands amenagement)	1951	In 1951, the commission for regional planning of river Durance (la Commission d'aménagement de la région de la Durance) and the commission of planning for Bas-Rhône-Languedoc (la commission d'aménagement du Bas-Rhône-Languedoc) were created.
The fund of adaption and development (fond d'adaptation et de développement)	1953	It was created under the framework of fund for modernization and equipment (fond de modernisation et d'équipement)

The fund of economic and social development (Le Fonds de Développement Economique et Social , FDES)	1955	By the way of low-interest fund (prêt a taux réduit), it helped the insufficient-employment, and the less-developed area. Its key objective was to put regional policy into operation. [40]
Regional development company (Sociétés de développement régional , decret du 30 juin)	1955	It was defined as stock companies 'having their sole aim to cooperate in financing industrial enterprises, by means of participating in their capital, in regions suffering from unemployment or from insufficient economic development'. [41]
Committee of decentralization (Comite de decentralization)	1955	Related to the establishment of regional action programs, it was under the support of General Planning Commission, which created a Committee of decentralization.
Inter-ministerial Committee of regional planning (Comite Interministeriel d'amenagement du terrioire)	1960	The committee was inter-departmental and focused on the issues of regional planning, which was under the leadership of Prime Minister.
The Delegation of regional planning and regional action (la Délégation a l'aménagement du territoire et a l'action régionale, DATAR)	1963	It was attached directly to the Prime Minister, which gave it direct access to the inter-ministerial committee for problems regarding regional activities and regional planning. Its role was defined to include: 1) operating on the basis of the general directives established in the national plan; 2) preparing and coordinating the necessary elements for government decisions concerning regional planning; 3) Making sure that technical administrations adjust their activities in the domains; 4) Promoting the actions under the direction of regional policy objectives. [42]
Intervention fund for regional planning (Fonds d'intervention pour l'aménagement du territoire, FIAT)	1963	Financing certain activities (considered necessary) in order to realize the objectives of regional policy.[43]
Inter-ministerial mission for regional	1963	It was a French administrative structure for

[40] M. Bye, Rapport sur les moyens d'une politique des économies régionale, in Consil Economique, Etude sur une politique des économies régionale, Etude sur une politique des économies régionales, Paris : Presses Universitaires de France, 1957, pp. 52

[41] Jean Faucheux, La décentralisation industrielle, Paris: Editions Berger-Levrault, 1959, pp. 231-232

[42] Niles M. Hansen, French regional planning, Indiana University Press, pp. 85

[43] Jacques de Lanversin, L'aménagement du territoire, Paris : Librairies Techniques, 1965

planning of coastal area of Languedoc-Roussillon (Mission interministérielle pour l'aménagement du territoire du littoral Languedoc-Roussillon)		managing the big infrastructure in order to develop the coastal area in Languedoc-Roussillon. The idea was to turn a semi-desert and untidy area into a modern mass-tourism one. Its roles were to take charge and define the general program of 'la côte du Languedoc-Roussillon', to determine the ways of implementation and to monitor the realization by the state, local community and all the public and private agencies by the help of state or under its controlling.[44]
Organization of 21 circonscription of regional action (Organisation des 21 circonscriptions d'action regionale)	1964	It set up a regional administrative organization (regional prefet and regional economic development commission, CODER), which was responsible for coordinating the action of state in region.
National commission of regional planning (Commission nationale de l'amenagement du terrioire, CNAT)	1964	It published the first rapport of national commission regarding regional planning (cote CDU 41201) in 1964.
Commision of rural renovation and rural renovation fond (commissaires a la renovation rurale et fond de renovation rurale)	1964	It was responsible for the rural renovation policy.
Committee and financial agency of river basin (Comite de bassin et agences financières de basins fluviaux)	1965	The French water system was divided into 6 hydrographic basins. Each basin was responsible by a basin committee and a financial agency.
Working group for planning of the Pairs basin (Groupe de travail pour l'amenagement du bassin parisien) OREAM (organisme d'etude et d'amenagement d'aires metropolitaines)	1966	OREAM was a French institution for establishing the development program in metropolitan space, which was created in some balance-metropolises (Lille-Roubaix-Tourcoing, Marseille, Lyon, Nancy-Metz et Nantes-Saint-Nazaire).
Mission Corse	1966	It was responsible for the regional planning of the island Corse.
Inter-ministerial mission of planning	1967	It was responsible for coordinating the

[44] 6 article, decret du 18 juin 1963

of 'la cote aquitatine" (Mission interministérielle d'aménagement de la cote aquitaine)		development of the Aquitaine coastal area, particularly according to the definition of general program, the identification of implementation tools and its implementation. Contrary to Languedoc coast, the idea is an environmental friendly soft type of equipment.
Commission of industrial conversion (Commissariats a la conversion industrielle, Nord-pas-de-Calais, Lorraine, puis Loire)	1967	It was responsible for the program of industrial conversion in the Lorraine and Nord region (Programme de conversion industrielle de la Lorraine et du Nord-pas-de-Calais, 1968).
Commission of rural renovation (Commissaires a la renovation rurale , Auvergne, Limousin, Lot, zone de montagne, Ouest)	1968	It was responsible for the rural renovation policy.
Conservatoire of coastal area (Conservatoire du littoral)	1975	It was a public institution, which led a land policy for protecting natural area and landscape of sea, lake shores and those which may involve the coastal districts in the overseas departments.
European fund for regional development (Fonds européen de développement régional, FEDER)	1975	It was a European structural fund, which aimed to strengthen the economic and social cohesion within the EU by reducing regional unbalances.

In addition, according to the table below, the evolution of French regional planning accompanied the decentralization process of political power during the period. During the '30 glorious years', the reforms started in the 1950s, and developed rapidly in the 1960s and until the beginning of the 1970s, especially after the resignation of M. Charles de Gaulle. For example he declared in 1968: 'the general evolution leads our country to a new balance. Centuries of centralization effort was necessary for a long time in order to achieve and maintain the unity. However, nowadays, regional activities show the economic power of tomorrow'.

Thus, the central government gradually turned from the leading position to the coordination role with local government (i.e. region, metropolis). The local government had more right of initiatives than before. And the financial method and elected assembly (assemblée due) became the major parts for improving local power. As a result, the implementation of regional planning gradually became the result of both national objective and local requirement for development. The central government began to pay more attention on some weak area, i.e. rural area, mountain area etc.

Table: The main issues of political change during the '30 glorious years'

Name	Year	Content
Program of regional company for regional development	1955	The programs of regional action were to promote the economic and social expansion in different regions,

(Programmes d'action regionale societes de developpement regional)		especially for these suffering from the problems of less employment or insufficient economic development.
22 regional program (22 régions de programme)	1956	It was created by the decree of October 28, 1956. And it proposed regional development plan which was designed to promote a harmonious distribution of population and its activities in 1957.
Inter-ministerial mission of planning	1960s	For tourism planning in Languedoc-Roussillon (1963), mission of planning in Corse (1966), mission of planning in Aquitaine (1967)
Commission of regional development and economy (Commission de developpement economique regional, CODER)	1964	The region was firstly considered as an economic unity, an authority of reflection and deliberation for the first time. Decree of 14 March 1964 stated that the necessary coordination in the economic field need to use the district of regional action as an intermediary between the central and the department government.
Program of modernization and equipment (Programme de modernisation et d'équipements , PME)	1965	For the level of cities with more than 50,000 inhabitants. Since the III plan, some initiatives in Marseille and Lyon had begun to apply some method of economic and social planning. The experiments continued and expanded during the IV and V plan. For the V plan, they included two separate parts: 1) one submitted to the central group of urban planning, regarding the development prospects of agglomerations during a period of 10 years; 2) the housing and public facility programs.
Master plan of metropolitan area (Schemas directeur d'aménagement des aires métropolitaines , OREAM)	1967	They set the fundamental guidelines of regional planning, especially for the expansion of city. It expressed the initiatives at the urban level.
Regional public establishment (Établissement publics regionaux , EPR)	1972	It demanded the elected assembly who became the representative, to describe the future for the region and to define the program (by the law of 5 July, 1972). Another innovation was the creation of regional budget.

4.2.2 Case: Midi-Pyrenees Region

Midi-Pyrenees Region is one of the important research cases in the paper, which reflects the development and effect of regional planning at the regional level.

Midi-Pyrenees Region

Midi-Pyrénées Region is situated in the south-western part of France, which is surrounded by the Pyrénéen mountain (in the south), Massif Central (in the east), and the Aquitain Basin (in the west). In addition, it is on the 'Atlantic-Mediterranean' axe and also on the intersection point of two axes (axe from Mediterranean area to Ocean, and axe from France to Spain), which occupies a 'strategic position between the Mediterranean Sea and the Atlantic Ocean'.

Figure: location of Midi-Pyrénées Region in France Source: Wikipedia

The region is the largest geographical region in France, including eight departments (Ariège, Aveyron, Haute-Garonne, Gers, Lot, Hautes-Pyrénées, Tarn, and Tarn-et-Garonne) with its capital—— Toulouse. And due to its mountainous terrain, the population density of some departments (e.g. Ariege, Aveyron, and Lot) is relatively low.

Figure: Eight departments in Midi-Pyrénées Region

Source: Insee, code officiel géographique

In fact, Midi-Pyrenees Region has both individuality and commonness to reveal the evolution of

regional planning during the rapid urbanization period.

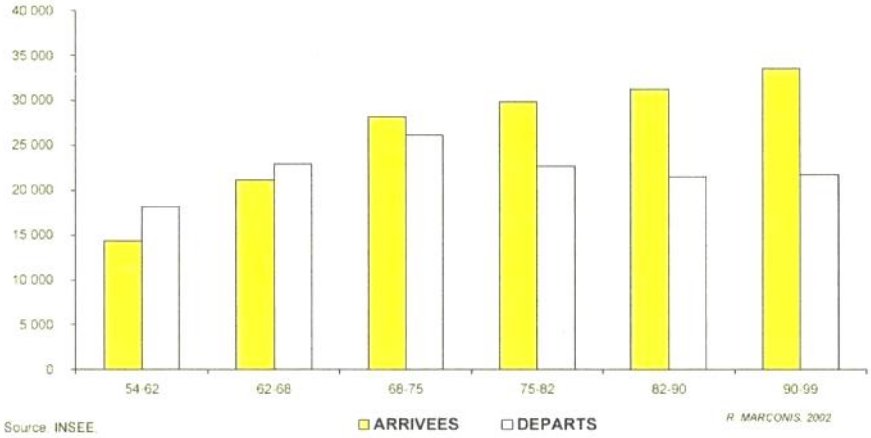
- **The implementation of regional planning in Midi-Pyrenees Region**

In general, the implementation of regional planning accompanied the development of the whole region during the '30 glorious years'. Its progress reflected the effect of regional planning and the evolution of background during different periods to a certain degree. However, some effect of these nationwide regional planning is unlike at the regional level (i.e. industrial de-concentration policy, balance metropolis policy), which is related to the local development phase and the regional features.

- **The rapid urbanization process**

As a traditional agricultural region, it went through a rapid process of urbanization during the '30 glorious years'. However, during the early and middle phase of development (until 1968), the out-migration was beyond in-migration in the region, which was different from the later phase (from 1968 on). The flowing direction of migrants could reflect the effect of regional planning to a certain degree.

Table: The annual inter-regional migration in Midi-Pyrenees, 1954-1999



Source: INSEE, Midi-Pyrenees Region

- **The structure of urban system**

Similar with the situation in France, Toulouse is the absolute core of the whole region (i.e. population, industrial basis, education resources). The structure was further strengthened during the '30 glorious years', which was due to both 'top-to-down' guide and 'down-to-top' demand. After the '30 glorious years', some methods were taken in order to improve the development of the whole region (i.e. education resources, tourism resources) to a certain degree. The process could reveal the change of urban system and background.

- **The development of rural area**

Along with a series of regional planning (i.e. rural renovation, national park and regional park, planning of central massif) and the evolution of background (i.e. the pursuit of living quality), the rural area was further ameliorated and its function gradually changed in this traditional agricultural region. In addition, following the trend in France, the 'peri-urban' phenomenon had emerged since the late period of the '30 glorious years' in the region. The development in rural area could show both the effect of regional planning and the requirement of new era at the regional

level.

The regional planning/policy in the Midi-Pyrenees region

During the '30 glorious years', the regional planning was carried out in different regions of France. We take a series of regional planning in the Midi-Pyrenees region as example in order to briefly reflect the establishment and implementation of regional planning at the regional level.

Year	Regional planning/policy	Content
Since 1956	Grant of regional development company (SDR, société de développement régional)	
Since 1960	Equipment subsidy (la prime d'équipement) for special conversion zone (zone spéciale de conversion)	Involving Decazeville, Castres, Tarbes-Bagneres de Luchon
From 1964 to 1971	Industrial development subsidy (prime de développement industriel a taux normal)	Including the whole Midi-Pyrenees region (rate: 10%)
From 1964 to 1971	Industrial adaption subsidy (prime d'adaptation industrielle)	Including the coal basin in Decazeville
Since 1967	Certain subsidy for tertiary activity location (prime de localisation de certaines activités tertiaires)	In Toulouse
In the 1970s	Subsidy for tertiary and research activity localisation (prime de localisation d'activites tertiaires et d'activités de recherche)	Including the whole region, 20000 F/employment
From 1972 to 1975	Decentralization of management sectors	In Toulouse, including institution of Agriculture Ministry, Ministry of defense, Ministry of industry and research etc (ministère de l'agriculture, ministère de la défense, ministère de l'ind et de la rech., secrétariat d'état aux transports and secrétariat d'état aux universités)
Since 1976	Regional development subsidy (Prime de développement régional, PDR)	Most parts of Midi-Pyrenees region belong to zone two (for activity creation: 20000 F/employment; for activity expansion: 17000 F/employment). Some parts of Midi-Pyrenees region (part of Lot, Aveyron and Tarn) belong to zone one (for activity creation: 25000 F/employment; for activity expansion:22000

		F/employment).
In 1958	The regional planning (Plan d'amenagement regional, Midi-Pyrénées)	It was approved by the act (arrêt) of the 14th November.
Since 1958	State zoning decree: directly control the construction of housing and infrastructure in ZUP (zones a urbaniser par priorite)	The first project of Toulouse was in the ZUP of Mirail, which was planned as a 'new town', including the construction of public housing (ensemble d'habitation), industrial zone and green space. The new ZUP of Rangueil-Lespinet (as a 'scientific complex') and the Toulouse-Blagnac aeronautic centre were constructed afterwards.
In 1962 (be approved)	The direction urban plan of Toulouse (the Plan Directeur d'Urbanisme of Toulouse)	Based on the plan, Toulouse was divided into rural zones, industrial zones, residential zones, military zones and tourism zones. And the content of 'new towns' was added by the year 1960. Two essential development guidelines in the three zones[45]: 1. The development of central city on the right side of the Garonne River would be counterbalanced by the development toward the left side. 2. The territory was further divided by zoning.
Since 1964	Balance metropolis policy (Toulouse)	Transfer of aerononics research centre (centre d'études et de recherches aéronautiques), two engineer schools (l'ENAC (Ecole nationale de l'aviation civile) and Sup Aero (Ecole national supérieure de l'aéronautique)), and CNES (Centre national d'études spatiales) from Paris into Toulouse Most of them moved into the ZUP of Toulouse (esp. in university city).
		Construction of motorway (Les pénétrante Sud-Ouest, Sud-Est et Nord ; les rocades Ouest et Sud ; viaduc de la Croix-Saint-Pierre) and renovation of city centre
		Attract pilot high-tech companies (l'espace,

[45] Rosemary Wakeman, Modernizing the provincial city: Toulouse, 1945-1975, Harvard University Press, 1997

		l'electronique and l'informatique), e.g. Motorola and CII (Compagnie internationale pour l'informatique), which was in the ZUP of Mirail
In the 1970s	Medium-sized city policy	Including Albi, Auch, Cahors, Castres, Montauban, Rodez, and Tarbes[46] For Albi, construction of industrial zone with a good condition For Auch, creation of new urban zone and industrial zone; renovation of urban zone For Cahors, urban renovation (green space, new quartier, sport/cultural/social facitities) For Castres, construction of sports centre, hospital and school; development of pedestrian and bicycle path; restoration of urban dweller For Montauban, renovation of urban road; establishment of traffic plan; creation of industrial and commercial area For Rodez, construction of residential areas and industrial zones; renovation of city centre; development of hospital and school For Tarbes, construction of industrial area
	Rural renovation (la rénovation rurale)	Mainly including le Lot and l'Aveyron 1.Strengh the green axe of Toulouse-Clermont-Ferrand 2.Invest 27 millions for forestation 3.Creation of tourism training school
Since 1959	Creation of the planning company of coteaux de Gascogne (la compagnie d'amenagement des coteaux de Gascogne)	Including le Gers, plaine Lanvemezan de Haute-Pyrenees, montagne Cascogne, meseta de Haute-Garonne et Tarn-et-Garonne Three core contents : irrigation, agriculture science and production organization (e.g. creation of reservoir, redistribution of river bank of 'la Garonne') During the period of VI Plan, the action of the company were[47]: --The animation and formation of farmers --policy of livestock with the evolution of the region

[46] Guide des villes moyennes, présenté par la DATAR, l'Association Bureaux-Provinces, le quotidien les Echos, le groupe des Banques Populaire

[47] DATAR, Loi de finances pour 1973

Since 1967	National Park and Regional Park	Including the national park of Pyrenees, the park of Grandes Causses, and the park of Haut Quercy
Since 1975	Planning of central Massif	Involved some part of the Midi-Pyrenees region

4.3 Conclusion

In the chapter, by structurally dividing the process of regional planning, we could clearly find some major aspects of development in each phase, which also related to some important events during the period. Besides, the emphasis of regional planning developed along with the change of development ‘factor’ in different eras.

However, the description of regional planning is only a summary, only in order to reflect its general process of evolution. The specific description of regional planning is presented in the next chapter.

Chapter 5: French regional planning during the 30 glorious years

Compared with the chapter four, this chapter summarizes French regional planning during the 30 glorious years in a more specific way. And it is divided into four major parts (types) during the golden times for regional planning, including the level of economic layout, the level of urban system, the level of rural and coastal area, the level of public facilities (transportation and telecommunication). The inter-connected four types of regional planning have influenced the development of French economy and society together during and after the 30 glorious years.

5.1 Level of economic layout

5.1.1 Industrial de-concentration policy

The policy was an intervention action of the state, with the objective of making a better industrial distribution in France, which mainly included: 1. halting the continuous concentration of industrial activities in the Paris region; 2. re-balancing the former industrial distribution, which was divided by the line 'Le Havre-Marseille'.[48]

Development process of industrial de-concentration policy

- **The 1950s: Beginning phase of the policy**

After the World War II, the French government began to consider the importance of the balanced development, and then they prepared and implemented some policies at the national level, which firstly emerged in the economic field. The intention was written in the first national planning (Le Premier Plan d'Aménagement du Territoire) and the II Plan (1954—1957): the former one proposed that it should prevent economic activities gathering in some specific areas (esp. in the Paris region), and develop the areas where the labor force and resources were not well used (tendant à une meilleur répartition des industries sur l'ensemble du territoire, décret de 1955); and the later one proposed that France must take some necessary measures in order that economic development of all the regions could be 'self-dependent'.

In the year 1954, the related official decree was issued (in September 1954, the decree concerned about providing the financial aid for industrial de-concentration and the action of company transfer). However, considering the development phase, the policy firstly focused on the

[48] Claude Lacour *et al*., 40 ans d'aménagement du territoire, Paris : la documentation française, 2008, pp. 46

industrial aspect, especially in some less-developed areas. At that time, the French government mainly carried out two intervention measures: 1. to impose special taxes on the industrial layout in the Paris region; 2. to subsidize some regions for absorbing industrial investment[49]. From 1950 to 1954, the FNAT (fonds national d'amenagement du territoire) permitted to create some industrial zones in the provinces with the support of the chamber of commerce and industry. Since 1954, more effective measures were taken: loan with a reduced interest rate for the de-concentration projects or the industrial reconversion area, the grant for training and localization of labor-force in provinces, the control by administrative approval priority for the industrial construction or expansion with a surface of more than 500 m^2 (in 1955) if located in the Paris region and the five cantons in the south part of the Oise department, the special equipment subsidy for the industrial de-concentration actions in the 'critical zones', the creation of 'regional development company (societies de developpement regional)' and regional programs (programmes d'action regionale) etc. Besides, in the 1950s, France was divided into four parts of aid: zone without aid, normal aid, zone with major subsidy and zone with maximum subsidy[50].

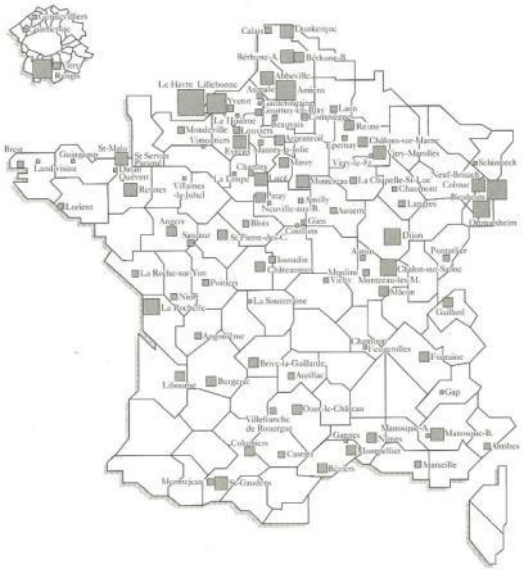


Figure: Industrial zone created by the help of FNAT, until 31 December, 1961

Source: DATAR

Note: Many of these new zones correspond to old XIXth century industrial areas, needing to be converted into modern economy.

The decree of January 1955 was not to prevent the development of the Paris region, but to provide the direction of regional planning in order to negotiate with large companies. Approval was given to the operations in the Paris region which would be installed in the provinces, especially in the west or the southwest, the branch or the factory in the same company.[51]

[49] Michel Savy, Urban planning international, 2009(4), p5

[50] M. Fabries-Verfaillie and P. Stragiotti, La France des regions, Breal, 2000, pp. 27

[51] Pierre Deyon and Armand Fremont, La France et l'aménagement de son territoire (1945-2015), Paris : LDGJ,

During the period of 1950s, the French government began to carry out some measures in order to balance the economic layout in France. However, at that time, these measures were mainly concentrated in the Paris region and certain less-developed area (i.e. conversion area).

Name	Year	Content
The first national planning (Le premier plan d'aménagement du territoire)	1950	Propose the objective of balancing the development of economy and society
The Second Plan (Le Plan II)	1954—1957	
Establishment of the Fond of national regional planning (Fonds national d'amenagement du territoire, FNAT)	1950	
Decree of 1954	1954	Provide the financial aid for the industrial de-concentration action and the company transfer action
Establishment of the Fund of economic and social development (Fonds de Developpement Economique et Social, FDES)	1955	The main objective was especially for the economic expansion in the less-developed areas (insufficient employment and less-developed economy)
Subsidy of special equipment (Prime special d'equipement)	1955	It concerned about the industrial activities (up to 20% of investment), especially for the reconversion of traditional industry (i.e. mines, steel industry, textile and leather); and the compensation of de-concentration for factories in certain area
Regional development company	1955 (firstly emerged)	For encouraging the private investments in the less-developed areas

■ **The 1960s—1970: Development phase of the policy**

From the 1960s to 1970, along with the creation of the 5th Republic, France entered into a golden period of regional policy along with the rapid economic and social development. The government proposed some objectives: to make France as a major industrial country in Europe and even in the World; to transform France from an agriculture dominated country into a modern industry-led country. Led by the objective, the industrial de-concentration policy gradually became the government's public action with an obvious Keynesian feature (due to the concentration of political power after the creation of the 5th Republic, the action could be carried out more quickly than before). During this period, the emphasis of policy was still in the Paris

2000, pp. 22

region and in some less-developed areas, yet the policy became more systematic then before. In addition, different from the previous phase, it began to improve the economic influence of some regional big cities (esp. capital of region) in order to weaken the dominant position of Paris.

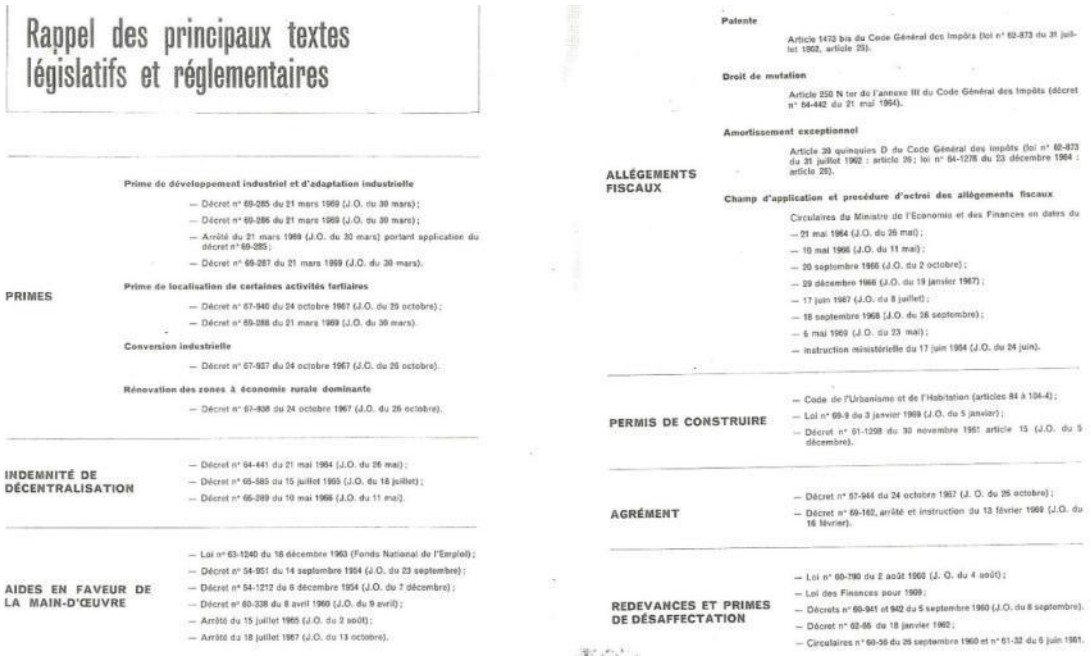
'First, try to reduce the over-centralization of Paris by the economic plan involving the redistribution of the surplus employment in provinces and the reasonable arrangement of the regional capital' growth; Second, benefit from the concentration of political power in the 5th Republic, these actions could be carried out rapidly.'

——Bernard Dezert, 'La décentralisation industrielle et les grands projets', l'aménagement du territoire (1958-1974)

During the period, the French government supported the transfer of the national companies (esp. from the Pairs region to the other provinces) which accompanied the de-concentration actions of some public and private companies; on the other hand, it improved the development of big and medium-sized cities and created a good environment for the companies, such as the construction of transport facilities, the telecommunications networks. In addition, it still continued and expanded some parts of the policy in the previous stage. For example since the year 1960, it stated that the newly-construction of the workshop and offices in the Paris region (except a few areas within the region) needed to pay a special fee (a penalty instead of a subsidy); and the 'de-concentration compensation' system was formulated in the year 1964[52].

Name	Year	Content
Establishment of the commitee of inter-ministerial regional planning (Le Comite Interministeriel de l'Amenagement du Territoire, CIAT)	1960	Establish a specialized institution to improve the employment transfer and regional planning
La DATAR	1963	The emphasis during the phase was: to ease the industrial development in the Paris region, to strengthen the industrial development in some major agricultural areas in the west and the southwest of France
Subsidy of industrial development or industrial adaptation	1964	
Conversion zone of mines	1967	Nord-Pas-de-Calais, Lorraine, Midi, Loire, Ardennes
Subsidy of regional development	1972	

[52] Ernest Labrousee, Fernand Braudel, Histoire économique et sociale de la France (1950-), Rongkang Xie, Wenjie Huang (translators), Shanghai : Fudan University Press, 1990



Rappel des principaux textes législatifs et réglementaires

PRIMES

Prime de développement industriel et d'adaptation industrielle
- Décret n° 69-285 du 21 mars 1969 (J.O. du 30 mars) ;
- Décret n° 69-286 du 21 mars 1969 (J.O. du 30 mars) ;
- Arrêté du 21 mars 1969 (J.O. du 30 mars) portant application du décret n° 69-285 ;
- Décret n° 69-287 du 21 mars 1969 (J.O. du 30 mars).

Prime de localisation de certaines activités tertiaires
- Décret n° 67-940 du 24 octobre 1967 (J.O. du 25 octobre) ;
- Décret n° 69-288 du 21 mars 1969 (J.O. du 30 mars).

Conversion industrielle
- Décret n° 67-937 du 24 octobre 1967 (J.O. du 25 octobre).

Rénovation des zones à économie rurale dominante
- Décret n° 67-938 du 24 octobre 1967 (J.O. du 25 octobre).

INDEMNITÉ DE DÉCENTRALISATION
- Décret n° 64-441 du 21 mai 1964 (J.O. du 26 mai) ;
- Décret n° 65-585 du 15 juillet 1965 (J.O. du 18 juillet) ;
- Décret n° 68-289 du 10 mai 1968 (J.O. du 11 mai).

AIDES EN FAVEUR DE LA MAIN-D'ŒUVRE
- Loi n° 63-1240 du 18 décembre 1963 (Fonds National de l'Emploi) ;
- Décret n° 64-951 du 14 septembre 1964 (J.O. du 23 septembre) ;
- Décret n° 64-1212 du 6 décembre 1964 (J.O. du 7 décembre) ;
- Décret n° 60-338 du 8 avril 1960 (J.O. du 9 avril) ;
- Arrêté du 15 juillet 1965 (J.O. du 2 août) ;
- Arrêté du 18 juillet 1967 (J.O. du 13 octobre).

ALLÉGEMENTS FISCAUX

Patente
Article 1473 bis du Code Général des Impôts (loi n° 62-873 du 31 juillet 1962, article 29).

Droit de mutation
Article 230 N ter de l'annexe III du Code Général des Impôts (décret n° 64-442 du 21 mai 1964).

Amortissement exceptionnel
Article 39 quinquies D du Code Général des impôts (loi n° 62-873 du 31 juillet 1962 ; article 26 ; loi n° 64-1278 du 23 décembre 1964 ; article 26).

Champ d'application et procédure d'octroi des allégements fiscaux
Circulaires du Ministre de l'Economie et des Finances en dates du
- 21 mai 1964 (J.O. du 26 mai) ;
- 10 mai 1966 (J.O. du 11 mai) ;
- 20 septembre 1966 (J.O. du 2 octobre) ;
- 29 décembre 1966 (J.O. du 19 janvier 1967) ;
- 17 juin 1967 (J.O. du 8 juillet) ;
- 18 septembre 1968 (J.O. du 26 septembre) ;
- 5 mai 1969 (J.O. du 23 mai) ;
- instruction ministérielle du 17 juin 1964 (J.O. du 24 juin).

PERMIS DE CONSTRUIRE
- Code de l'Urbanisme et de l'Habitation (articles 84 à 104-4) ;
- Loi n° 69-8 du 3 janvier 1969 (J.O. du 5 janvier) ;
- Décret n° 61-1298 du 30 novembre 1961 article 15 (J.O. du 5 décembre).

AGRÉMENT
- Décret n° 67-944 du 24 octobre 1967 (J. O. du 25 octobre) ;
- Décret n° 69-162, arrêté et instruction du 13 février 1969 (J.O. du 16 février).

REDEVANCES ET PRIMES DE DÉSAFFECTATION
- Loi n° 60-790 du 2 août 1960 (J. O. du 4 août) ;
- Loi des Finances pour 1969 ;
- Décrets n° 60-941 et 942 du 5 septembre 1960 (J.O. du 8 septembre).
- Décret n° 62-66 du 18 janvier 1962 ;
- Circulaires n° 60-36 du 26 septembre 1960 et n° 61-32 du 6 juin 1961.

Source: DATAR, chambre de commerce et d'industrie de Paris, aides au développement régional, juillet, 1969

- **After 1970: Transformation and ending phase of the policy**

During the period, France faced a context of a comprehensive industrial restructuration: the widespread crisis of the traditional industry (e.g. textile, coal mining, iron and steel metallurgy industry) emerged, and the industrial employment declined obviously. At the same time, the French government concerned about the change of the industrial structure: from the traditional industry to the newly-emerging industry (e.g. electronic, telecommunication and the material industry); and focused on the development of SEMs which were partly supported by the national development subsidy (primes de developpement de l'Etat), the re-investment profit (reinvestissement de benefice) and the credit of bank (facilities de credits bancaires). For example, the chemical industry and the electronics industry became the development priorities in the 6th Plan (Le VI Plan); the pharmaceutical and the electronics industry were the preferences of the 7th Plan (Le VII Plan). And the development of SEMs was also related to the new-town policy and the medium-sized city policy.

Under the background of the economic structure transformation, the development of the services sector (e.g. management, consulting, business etc) was emphasized in some regional big cities. In addition, the research and technology gradually became the driving force in the new era. In the 1980s, the industrial development in some big cities (e.g. Toulouse, Lyon, and Grenoble) depended more on the 'technology nodes (techno-poles)'. Besides, with the process of the European integration, the development of a single country was replaced by the closer international cooperation and competition, which was different from the situation in the initial period after the World War II. In the new context, the role of the industrial de-concentration policy began to be

weakened, and declined since then.

Specific measures of industrial de-concentration policy

- **Spatial intervention by taxes and grants**

The industrial de-concentration policy was mainly carried out by taxes, subsidies and credit (mainly by the way of SDR and FDES). In addition, the indirect credit was provided by the investment of facilities in some industrial areas (e.g. telecommunication, housing and etc).

For example, each year the Minister of Finance (le ministre de l'economie et des finances) lend FDES some fund for the industrial de-concentration actions or the creation of new companies; according to the national and regional planning, it provided the credit with a special interest[53].

- **Regional development companies (societies de development regional, SDR)**

They were created in the year 1955, which were defined as the stock companies of 'having their sole aim to cooperate in financing industrial enterprises, by means of participating in their capital, in regions suffering from unemployment or from insufficient economic development'[54]. It aimed to help finance projects approved by the regional plans. As M.Viot mentioned that it did not function as 'an instrument for the geographical orientation of investment, they are an instrument of accompaniment'[55].

SDR is able to organize the collective bond-issues for the accounts of companies, which have their operation in the region conforming to the program of SDR. Their form, their appropriation, and their destination should be agreed to by the government commissioner. And SDR is to grant loans of five years or more contracted by the said companies, based on the law of August 14, 1960.[56]

Table: Loan by regional development companies, 1957-1964

Society	Headquarters	Number of loans	Number of companies benefited	Amount of loans (thousands of francs)
Bretagne	Rennes	5	66	47130
Centrest	Dijon	5	81	79255

[53] Délégation a l'aménagement du territoire et a l'action regional, Que sera la politique de l'aménagement du territoire en 1968?, décembre 1967, pp 19-20
[54] Jean Faucheux, La décentralisation industrielle, Paris : Editions Berger-Levrault, 1959, pp 231-232
[55] P. Viot, Aspects regionaux de la planification francaise, May 16th, 1963
[56] Inventaire et bilan de l'action des sociétés de développement régional, avis et rapports, May 26, 1963, pp 370-371

Champex	Reims	3	52	44905
Expanso	Bordeaux	5	88	70030
Lordex	Nancy	4	73	64240
Mediterranee	Marseille	4	75	73670
Normandie	Rouen	5	85	81130
Nord et Pas-de-Calais	Lille	6	158	133275
Picardie	Amiens	3	43	45250
SADE	Strasbourg	5	119	93280
Sodecco	Limoges	5	122	79930
Sodero	Nantes	7	160	149350
Sodler	Montpellier	2	23	25425
Sud-Est	Lyon	5	119	91675
Tofinso	Toulouse	6	116	89830
Total	--	71	1380	1168375

Source : Dixieme rapport du Conseil de Direction du Fonds de developpement economique et social, SEF, No. 198 (June, 1965), pp 970

- **The economic and social development fund (Fonds de developpement economique et social, FDES)**

It is a special account of the Treasury, which practically holds the key for putting regional policy and regional planning into operation[57]. It was created in the year 1955, and managed by the Minister of Finance, assisted by an administrative council including seven other ministers whose functions are related to the economy. In addition to the allocation, the FDES also gave the long-term loans mainly to the nationalized industrial companies. The FDES is linked with SDR, because some resolutions which SDR receive from the Ministry of Finances are made only after consulting with the FDES.

In order to assure the financing of projects anticipated by the plan of modernization and equipment, the programs of regional expansion, as well as the projects for increasing the productivity, for the industrial and agricultural conversion, for the worker retraining, and for the industrial de-concentration, it is instituted a single fund entitled the 'Economic and Social Development Fund'.[58]

Table: Investments realized by the aid of the FDES and the cooperative organizations, 1963-1964, unit: thousands of francs

[57] M Bye, Rapport sur les moyens d'une politique des economies regionale, in Consil Economique, Etude sur une politique des economies regionales, Paris : Presses Universitaires de France, 1957, pp 52
[58] Jean Faucheux, La decentralisation industrielle, ParisL Editions Berger-Levrault, pp 9

Type of aid	1964	1963
Subsidy or loan of the FDES after consultation with Committee No.1b	742460	638794
Subsidy accorded after consultation with regional expansion committees	31962	61909
Special temporary FDES loans and subsidy for naval construction	--	167532
FDES loans for collective tourism equipment	34776	16463
Grouped loans of SDR	1010070	817366
Productivity loans	10432	5403
Total	1829700	1707467

Source: Dixeme rapport du Conseil de direction du Fonds de developpement economique et social, pp 971

Table: Investment related to regional support, unit: thousand francs

	The subsidy and loan of FDES	The loan of FDES	The loan of SDR	Exemptions from license	Share of investment support (subsidy and loans) in FBCF of industry (%)
1960	777	nd	nd	nd	--
1962	463	nd	nd	nd	3.0
1964	659	nd	1010	nd	2.3
1968	1372	550	610	nd	2.0
1970	4318	38	nd	nd	4.0
1973	3296	14	2344	13317	3.0

Source : Rapporte annuels du FDES et ENEIDE

■ **Measures of industrial de-concentration policy**

The measures of the industrial de-concentration policy could be simply divided by space: the Paris region and the whole France.

——The Paris region and the Paris basin

The approval procedure (established in 1955) was an important measure which aimed to encourage more companies not to concentrate in the Paris region. From the year 1955 on, certain creation and expansion of companies in the Paris region must be approved by the authority. It was issued by the Ministry of Equipment, regarding the creation or expansion of industrial companies, which had a development area of more than 500 m^2, or an expansion area of more than 1000 m^2. It also required the companies which used the existing office with a surface of more than 3000 $m^{2,}$ for the construction permit. According to the law of 2nd August 1960, certain tax (la redevance) should be paid for the construction of offices and workshops in some areas of the Paris region. And the charge varied, according to the different category: 25-100 francs per m^2 for the industry premises and its attached parts; 100-200 francs per m^2 for the office premises.

Since the year 1960, the policy was adjusted according to the development of the Paris region. The charge for the creation of offices reduced to 100 francs per m^2 (instead of 200 francs) in four areas: Defense, Maine-Montparnasse, Sarcelles and Massy; since the year 1968, the charge was only 25 francs per m^2 in 14 industrial zones near the new town Evry, Cergy-Pontoise and Vallee de la Marne.

In addition, the subsidy was for the demolishment and the conversion of function (to the residential or the educational function). Each project had a minimum area of 500 m^2, and a plant area of more than 25% in total. Besides, after the establishment of the industrial subsidy in the whole France, the Paris region still could benefit from the compensation of de-concentration (indemnite de decentralisation).

The indemnity of de-concentration aims to cover part of the cost of material transfer: transportation expenses and some incidental expenses caused by the transfer. The subsidy of de-concentration indemnity is subjected to two conditions: 1. release at least 500 m^2 area (used for industrial use) in the Paris region; installation outside the Paris basin.[59]

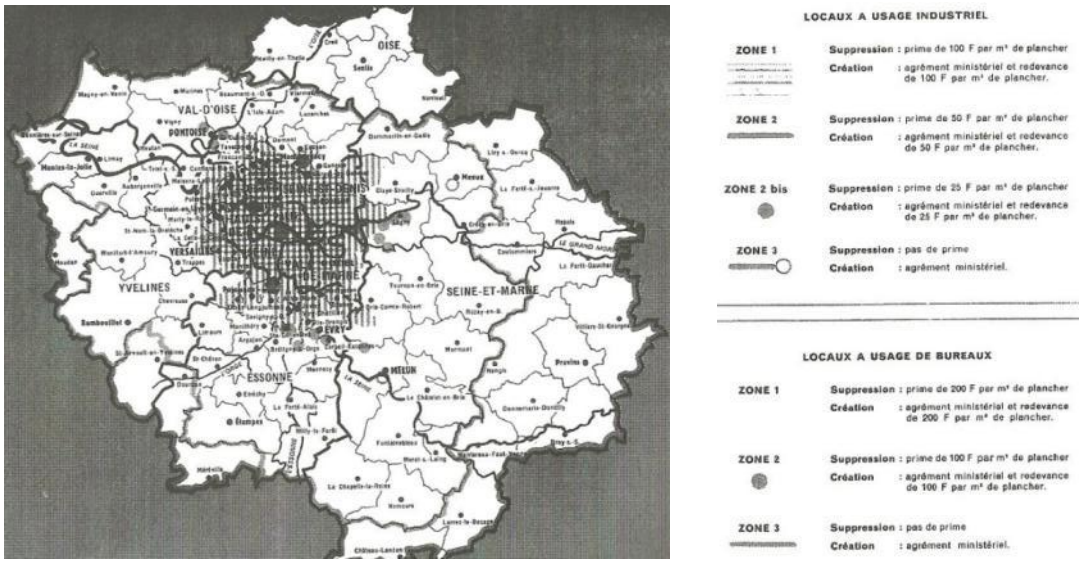
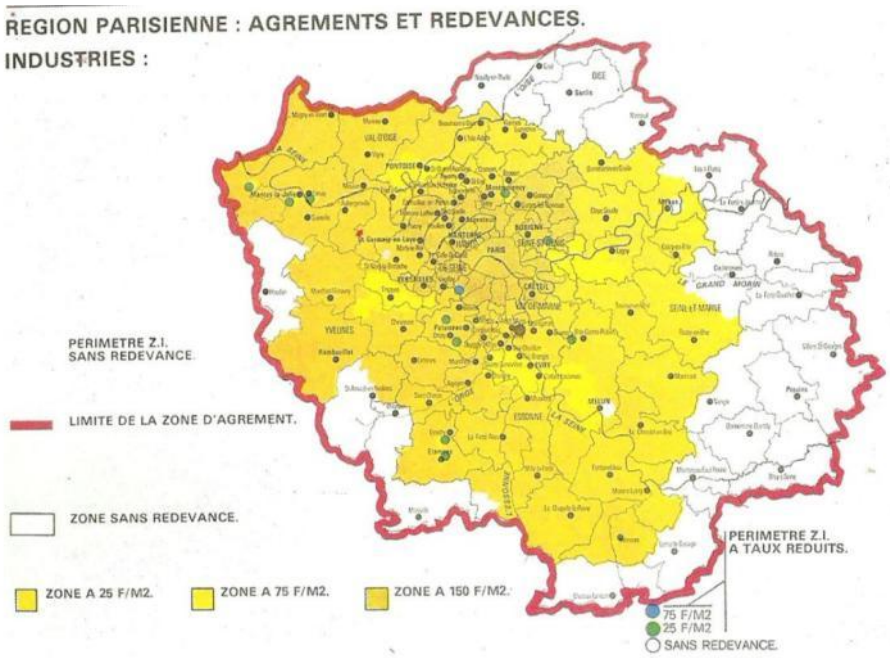


Figure: Zones of subsidy and tax

Source: DATAR, chambre de commerce et d'industrie de Paris, aides au développement régional, juillet, 1969

Figure: The industrial approval and charges in the Paris region, 1976

[59] DATAR, chambre de commerce et d ;industrie de Paris, aides au développement régional, Juillet, 1969



Source: DATAR

During the period of nearly one decade after the year 1955, the measures of the industrial de-concentration policy were mainly concentrated in the Paris basin, which was divided into several grant zones. And the zones were modified afterwards.

Table: The public financial aid in the Paris basin, 1950s-1960s

Special subsidy of equipment (prime special d'equipement)	20% (maximum ration) for investment and necessary expense on approved operation
The critique zone (zones dites critiques)	Including : Amiens, Autun-Montceau-les-Mines, Romorantin
Tax relief (Allegements fiscaux)	Reduction of transfer taxes and partial or total exemption (maximum duration 5 years) etc
Direct loan or guaranty by the nation and interest subsidy (prets directs ou garantie de l'Etat et bonification d'interet)	For loans intended to finance the approved operations
Subsidy for the rehabilitation of professional labor (subvention pour la readaptation professionelle de la main-d'oeuvre)	
Fond of econimcic and social development (Fonds de Developpement Economique et Social, FDES)	
Regional development companies (Societes de developpement regional, SDR)	
Subsidy of industrial development (Prime de developpement industriel)	i.e. in Cherbourg (Manche): 20% (creation); 12% (expansion)

Subsidy of industrial adaptation (Prime d'adaptation industriel)	In the coal basin in Blanzy and Chateauroux agglomeration: 20% (creation); 12% (expansion)
De-concentration compensation (Indemnite de de-concentration)	Cover 60% of expense of material transfer in almost the whole Paris basin
Aid for professional training	

Source: SODIC and CREDOC, La decentralization industrielle, 1966

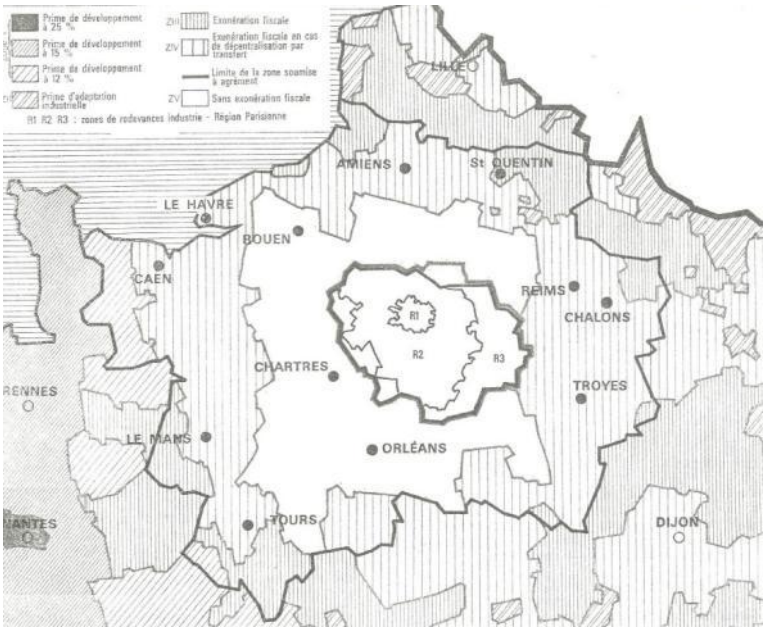


Figure: Aid of regional development, until 1 octobre 1968

Source : DATAR et Groupe interministeriel d'amenagement du Bassin Parisien, Le Bassin Parisien (reflexions pour un livre blanc), 1968 (Juillet)

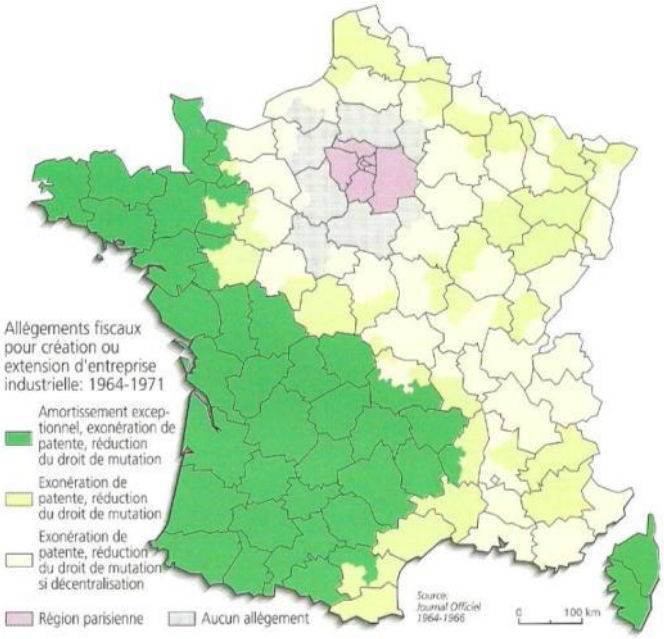
——The general division of the whole France

After the creation of DATAR (in 1963), the French government began to divide the industrial space of the whole France in 1964. According to the figure (in 1964) below, the subsidies mainly included: the industrial development subsidy (la prime de développement industriel, the proportion varied based on different areas, for the creation and expansion) and the industrial adaptation subsidy (la prime d'adaptation industrielle). Among them, the industrial adaptation subsidy mainly supported the traditional industrial areas (e.g. the decline of the traditional industry), such as the coal mine areas (bassin houiller) in Nord-pas-de-Calais, Le Creusot-Montceau-les-Mines and St-Eloy-les-Mines, the iron ore area (bassin ferrifère) in the Lorraine region, the textile area in Vosges and the Alsace region. From 1964 to 1971, the scopes of the two kinds of subsidy further expanded.

In addition to the subsidy, the decentralized companies were also granted some reductions of the transfer tax on the acquisition of land or building (reduction du droit de mutation, exoneration de la patente, amortissement exceptionnel, and reduction d'impot sur les plus-values foncieres.), and obtained the long-term loans (with a usual duration of 8-12 years) from FDES or credit organization (organism de crédit: le crédit national, le credit hotelier, les societies de

développement regional). According to the following figure (from 1964 to 1971), the tax relief areas contained: 1. The tax relief area of the special amortization, the business tax and the financial transfer; 2. The tax relief area of the business tax and the financial transfer; 3. The tax relief area of the business tax and the financial transfer (if decentralized); 4. The Paris region; 5. The zone without permits.

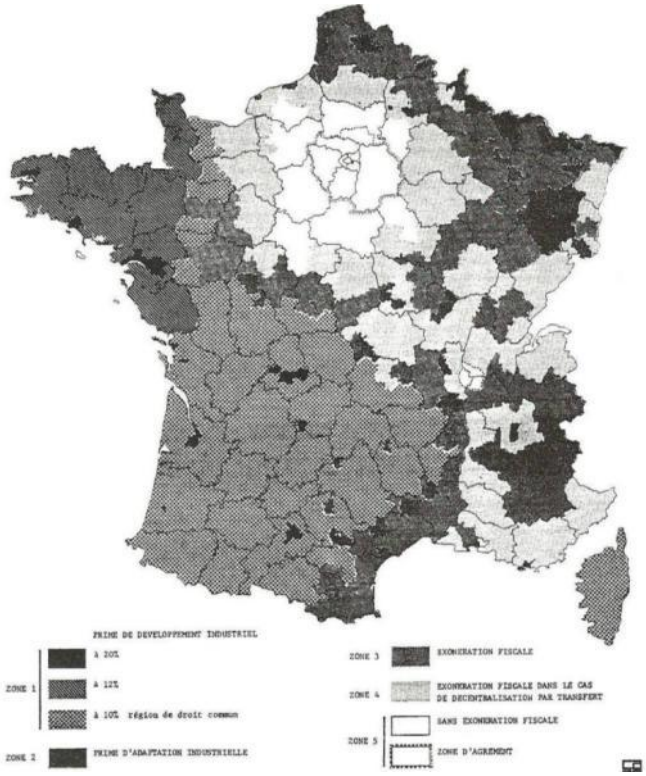
Figure: Tax relief for the creation or expansion of industrial companies, 1964-1971



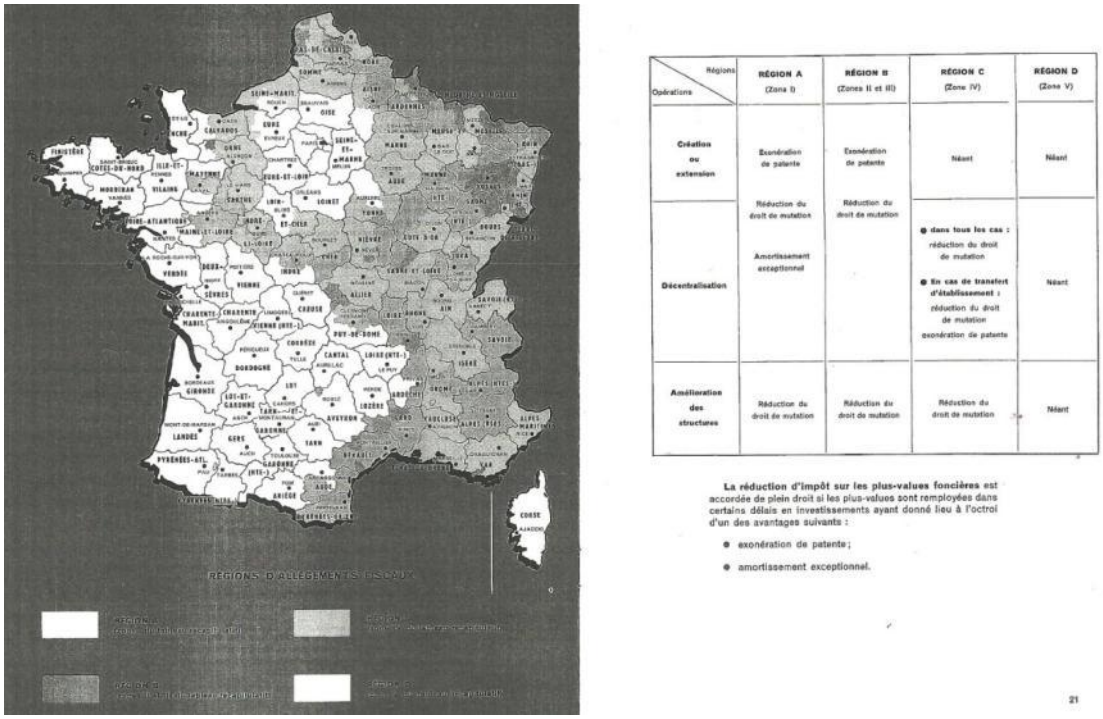
Source: Therese Saint-Julien (dir.), Atlas de France (Volume 14) : Terrioire et Amenagement, GIP RECLUS et La Documentation Fransaise, 1997

On the whole (as shown in the figures), France was divided into several areas: the financial relief area (zone exonération fiscale), the financial relief area in the case of de-concentration by transferring (zone exonération fiscale dans le cas de décentralisation par transfert), the allowed area (zone d'agrément) and the non-financial transfer area (zone sans exonération fiscale).

Figure: Industrial grant, 1964



Source: DATAR, 1964



Opérations \ Régions	RÉGION A (Zone I)	RÉGION B (Zones II et III)	RÉGION C (Zone IV)	RÉGION D (Zone V)
Création ou extension	Exonération de patente	Exonération de patente	Néant	Néant
Décentralisation	Réduction du droit de mutation Amortissement exceptionnel	Réduction du droit de mutation	● dans tous les cas : réduction du droit de mutation ● En cas de transfert d'établissement : réduction du droit de mutation exonération de patente	Néant
Amélioration des structures	Réduction du droit de mutation	Réduction du droit de mutation	Réduction du droit de mutation	Néant

La réduction d'impôt sur les plus-values foncières est accordée de plein droit si les plus-values sont remployées dans certains délais en investissements ayant donné lieu à l'octroi d'un des avantages suivants :

- exonération de patente ;
- amortissement exceptionnel.

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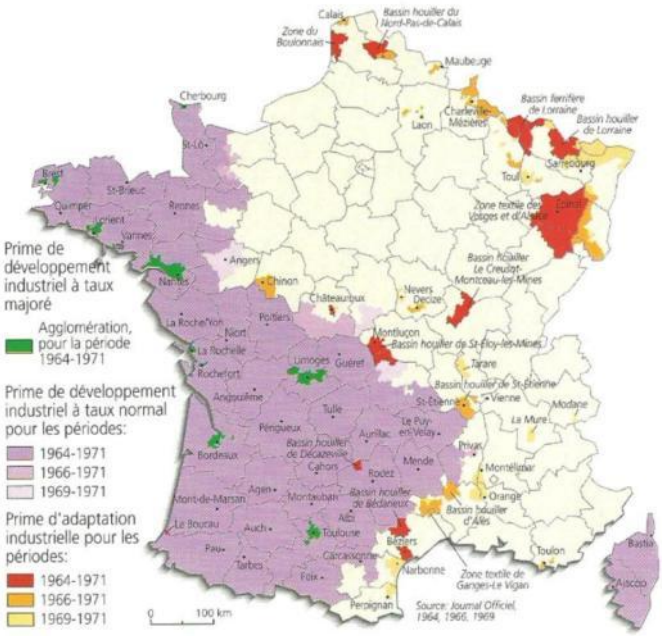
Source: Delegation a l'amenagement du territoire et a l'action regionale, Aides au developpement regional, Juin, 1966

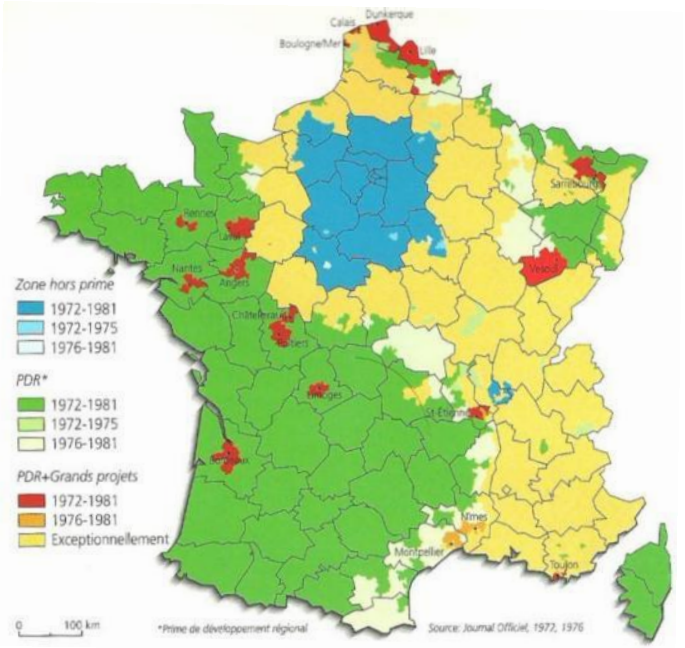
Figure: The support of industrial employment creation, 1964-1971



Source: Therese Saint-Julien (dir.), Atlas de France (Volume 14) : Terrioire et Amenagement, GIP RECLUS et La Documentation Fransaise, 1997

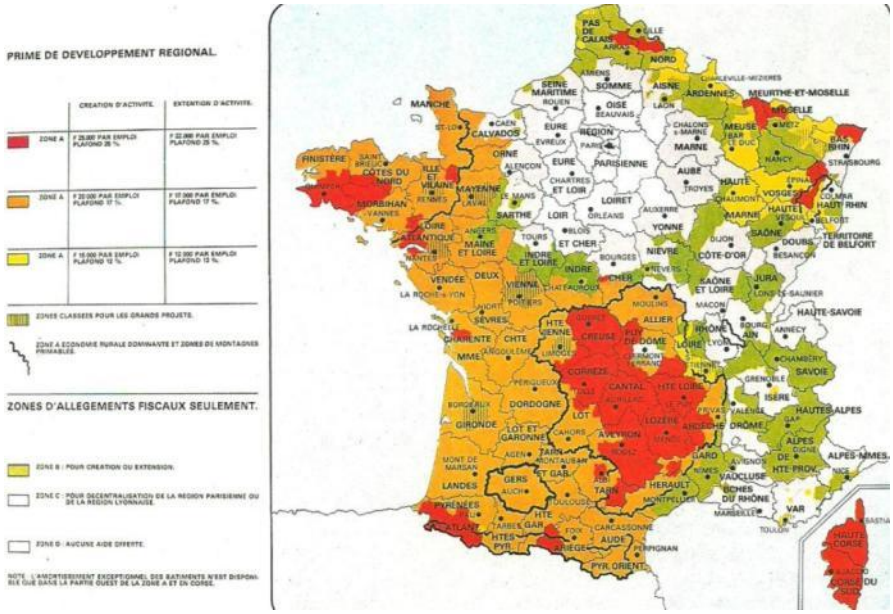
In the 1970s, along with the de-concentration process of political power, the previous two kinds of subsidy were integrated into the regional development subsidy, which adjusted the scope and rate of grant based on the local development. Thus (as shown in the figure below), the whole France was divided into some parts: the non-subsidy area (zone hors prime); the regional development grant area with a different rate of subsidy (la prime de développement régional, PDR), the regional development subsidy area with major projects (PDR+Grands Projects).

Figure: Grant of regional development, 1971-1981



Source: DATAR, 1976

Figure: The regional development subsidy (PDR), 1976



Source: DATAR, 1976

For example: In 1975, the government decided to increase the subsidy of regional planning in the agglomeration area of Puy (25% for creation, 20% for extension); to change the rate of grant in the district of Charleville-Mézières and Sedan (12% for creation, 12% for expansion); to change the rate of subsidy in some communities in the suburban of Limoges (for the projects of less than 5 million francs, in order to make the medium-sized cities more effective. [60]

——The conversion zone and critical zone

The 'critical zone (zones critique, 1955)' and the 'special conversion zone (zones specials de conversion, 1959)' emerged in the 1950s, which was earlier than the general division of subsidy in the whole France.

The conversion zone (zones specials de conversion) was singled out for the preferential treatment, where the rate of equipment subsidy was at the maximum rate of 20% compared with the average rate of the critical zone (around 10%).

In 1959, the special conversion zone (zones specials de conversion) was established. And industrial conversion policy (la politique de conversion industrielle) was created in the year 1966.

For example, for the textile industry, it firstly concentrated and closed the companies. From 1953 to 1955, the special conversion zone (zones speciales de conversion, e.g. Calais, Fourmies, Auchel-Bruay-Bethune) got the support for creating companies or employment. From 1955 to 1956, a big project of the port-industry was constructed in Dunkerque.

Since the 1960s, the traditional industrial areas (from coal to textile and steel industry) began to meet the crisis. In the mid-1960s, the French government proposed to renovate the metallurgical

[60] DATAR, Rapport annuel 1975

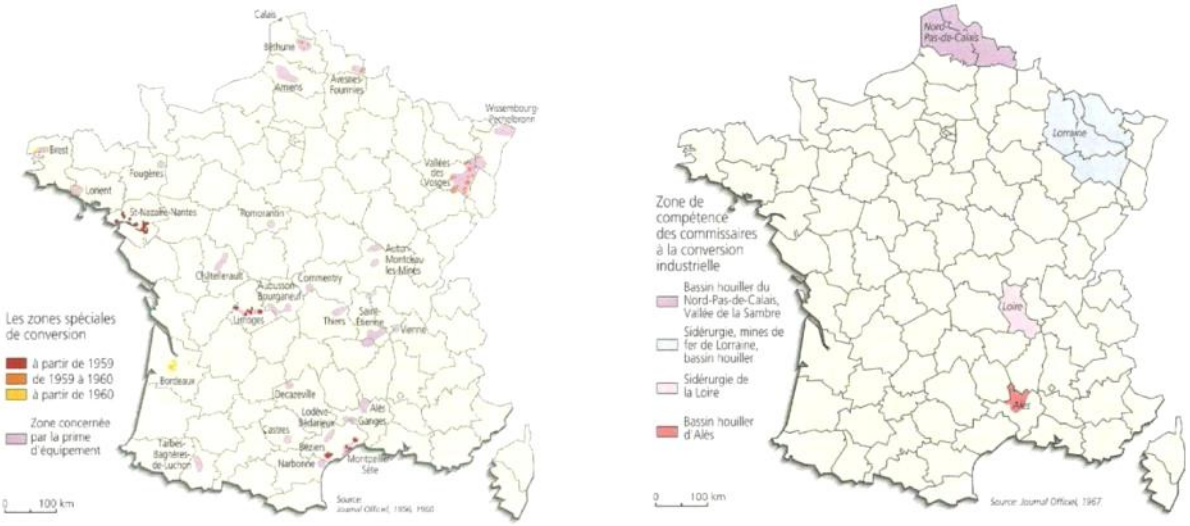
industrial areas in the Lorraine region, released the first 'iron and steel industry restructuring plan' and created the mining conversion zone in the year 1967. And DATAR encourage the implantation of new activities, for example the professional training, and some social plan.

For example, the company HBNPC had two conversion objectives (until 1965): 1. Manage or organize the release of staff and the closure of factory; 2. Convert the mining fallow into the housing space, the collective equipment, the recreation or green space.

In general, these measures were carried out, which turned gradually from the coal and steel metallurgy industry in the northeast area, the coal industry in the central area, and the textile industry in the Vosges area, to the automobile industry in the north and in the Franche-Comte region. However, a considerable number of actions were still concentrated in the north arc of the traditional industrial basin, including Nord-pas-de-Calais, Nord de la Lorraine, and Ardennes.

Some measures of the nation during the period were: the institution of regional commission in the industrial conversion areas; to give support or subsidy for employment creation or company adjustment; for the mining areas, to set up the GIRZOM (Groupe interministériel de restructuration des zones minières) at the national level, and COEPZOM in the Nord-pas-de-Calais region; to finance the major communication infrastructure or the rehabilitation of housing.[61]

Figure: The first target of conversion policy and commission of industrial conversion, 1967



Source : Journal officiel, 1956, 1960, 1967

——The creation of port-industrial zone

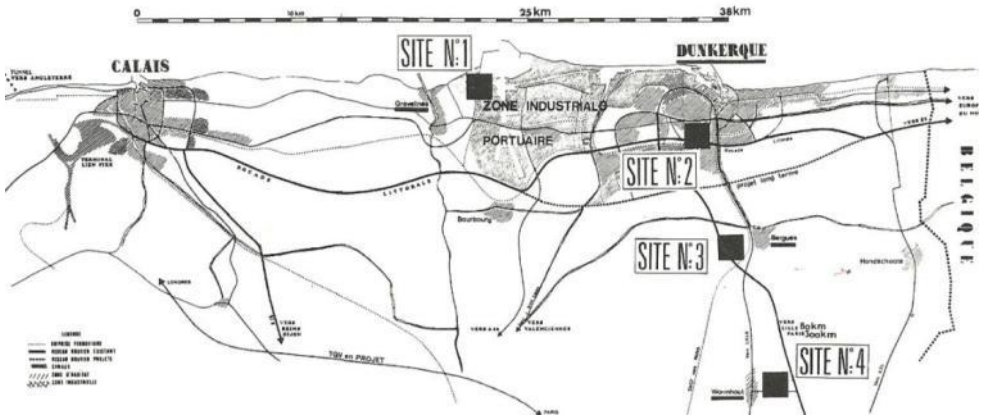
In addition to the renovation actions in the traditional industry area, France also created a number of new economic growth nodes (poles de developpement). Among them, the port

[61] DATAR, L'aménagement du territoire et les zones de conversion

industrial zones (e.g. Dunkerque and Fos-sur-Mer, form the heavy industry agglomerations) were the most typical.

For example in Calais-Dunkerque: plan an industrial-port area with a surface of 120 acres ; the exceptional support for the creation of female employment in companies ; the construction of a steam cracker in Dunkerque and a center of polyethylene production; the creation of a technology institute of university in Calais; the amelioration of the road and railway between Calais and Dunkerque. [62]

Figure: Company zone of Dunkerque



Source: Ministere de l'industrie, 1986

In the 1960s, influenced by GATT (l'accord general sur les tarifs douanier et le commerce), the heavy industry in France developed rapidly, and the port industry was transferred and gathered in the coastal regions, which improved the development of the industry and the port industrial zones, such as the steel metallurgy industry in Dunkerque and Marseille; the oil refining industry in le Havre, Rouen and Marseille. Since the 1970s, the oil refining industry gradually declined, and some factories were closed (e.g. in Bordeaux).

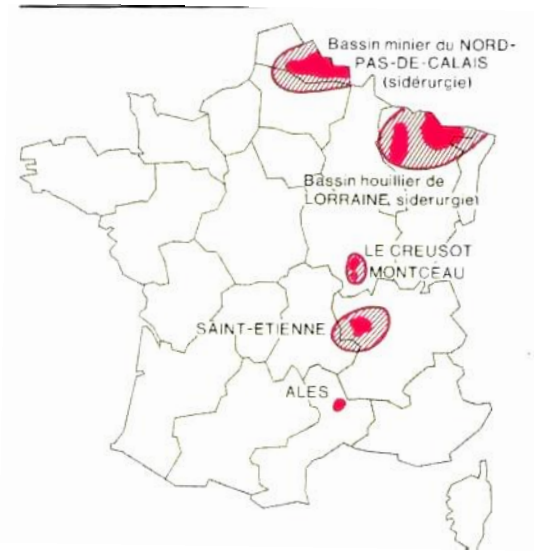
The policy which emerged in the end of a growth cycle met the evolution in the 1970s: the growth of oil price, the global crisis in the steel industry, the new industrialization in some developing countries.

——la DATAR, les politiques d'amenagement du territoire de 1950-1985, la documentation francaise, 1988

However, these port-industrial complexes still concentrated 75% of the iron and steel metallurgy industry, 80% of the oil refining industry and the petrochemical industry in France. Afterwards, France proposed the integration policies of six major ports (La politique d'amenagement des six grands ports francais), which objective was to create a coastal system

[62] DATAR, Rapport annuel 1975

(Maritmisation Systematique) and to make the port-industrial zones as the petroleum, chemical and metallurgical bases.



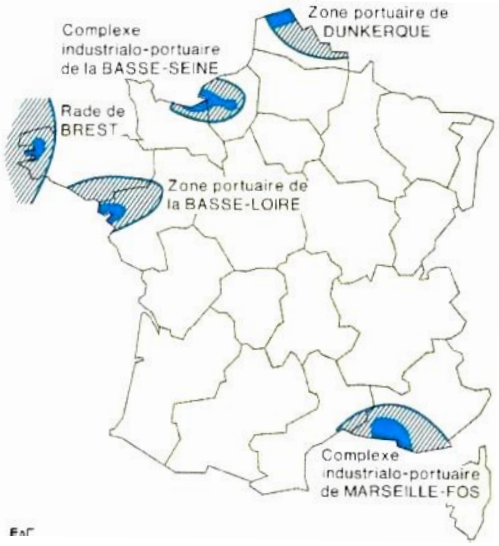


Figure : Conversion Zones, 1968 **Figure: Port-Industrial Zones, 1968**

Source : « Industrialisation et aménagement du territoire » Notes et Etudes Documentaires, N 3508, La Documentation Française, 1968

5.1.2 Service de-concentration policy

Development process of service de-concentration policy

The action of the service de-concentration policy began in the year 1958, and continued until the period after the '30 glorious years'. The policy firstly emerged in the Paris region. In the 1950s, the policy was only implemented in the Paris region, which accompanied the process of the industrial de-concentration policy. Afterwards, the policy gradually expanded from the Paris region to the Paris basin and other provinces, which was a consideration of the balanced-development of service and a support for cities outside the Paris region.

In addition, with the change of economic background, the content of policy was modified: more content regarding the management service, the education and the research was added. And the policy scope expanded, from the Paris region to the balanced-metropolises and some big cities in the initial period and to the medium-sized cities and the new towns afterwards.

Name	Year	Content
Decree of 31/12/1958	1958	Focused on the private housing used for office in the Paris region (surface >1000m^2)
Law of 02/08/1960	1960	It instituted a subsidy of 200 f/m^2 for the office construction (2 times more than the grant for the local industry) and 100 f/m^2 in Maine-Montparnasse, la Defense, and the communes of

		Sarcelles, Garges les Gonesse, Massy-Palaiseau and Champlan et Antony; It instituted a subsidy for office demolition in the Paris region and the scope expanded, which expanded to a scope of 20km surrounding Pairs. An administrative approval was for the public tertiary in the Paris region.
Decree of 24/10/1967	1967	Begin to focus on the service de-concentration in the 'balance metropolises' and the regional capital city outside the Paris Basin; Subsidy for the creation of companies (>100 employment); and education or research institute (>50 employment); All the construction, reconstruction, local expansion and change of utilization in the Paris region should be approved by de-concentration committee (le comite de decentralization). In the Paris region, the priorities were in the new town and the centers of suburbs (e.g. Cretail. Saint-Denis, Rosny sous Bois, Bonbigny). In Paris, the concentrations were in Bercy-Gare de lyon, d'Italie, Montaparnasse, du front de Seine and de l'EPAD The administrative approval was for the office and the research of private sector besides the public tertiary. According to the decree of 24 October 1967, all the construction, reconstruction, local expansion, all change of users or utilization in the Paris region would obey the approval of public power, which would approve or refuse by the committee of de-concentration directly when it comes to service or establishment within the state or under its control.

Figure : Subsidy and tax for the use of office (Primes et redevences pour les locaux a usage de bureaux)

Source : RB, redecances, agrements et aides au desserrement, un system fiscal destine a favoriser le desserrement dans le bassin parisien, Janvier, 1971

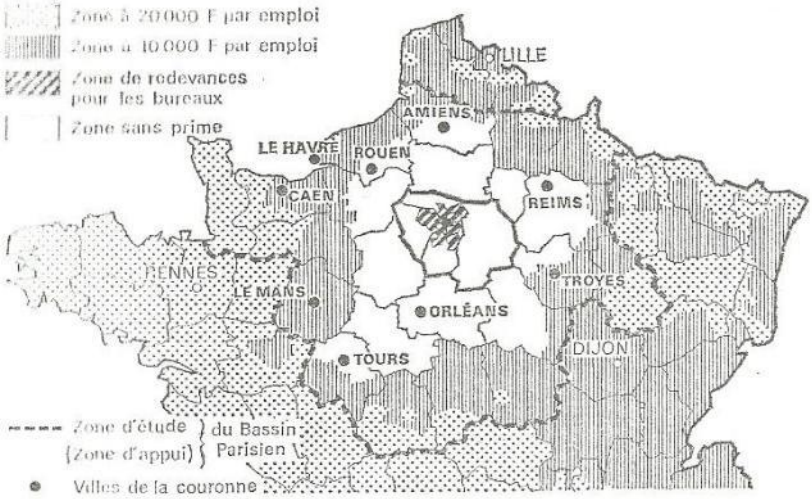


Figure: Localization subsidy of tertiary activities and charging area for office (Primes de localization d'activites tertiaires et zone de redevance pour les bureau)

Source : Philipe Pinchemel, La region parisienne, Paris : Presses Universitaires de France, 1979, pp.9

Since the 1970s, the service de-concentration policy began to expand to the other areas outside the Paris region. During the period, the implementation of the policy mainly depended on subsidy. The following figure shows that: the service subsidy mainly focused on the west and a part of the northeastern and southeastern area in France.

Name	Year	Content
Decree of 11/04/1972	1972	The system of the service de-concentration was created, which added the content of the other provinces;

		The scope of subsidy expanded to the major agglomerations outside the industrial subsidy area (Lille, Roubaix, Tourcoing, Aix, Besancon, Cannes, Caen, Dijon, Grenoble, Marseille, Montpellier, Metz, Nice, Nancy, Lyon, Saint-Etienne, Strasbourg); The proportion of investment: 10% for the management service; 15% for the study and research; 20% for the headquarters of companies which left the Paris region
Decree of 14/04/1976	1976	Begin to implement in the medium-sized cities in addition to the big cities; The grant was no longer based on investment, but according to the creation of employment; Expansion and creation benefited from the same kind of subsidy.

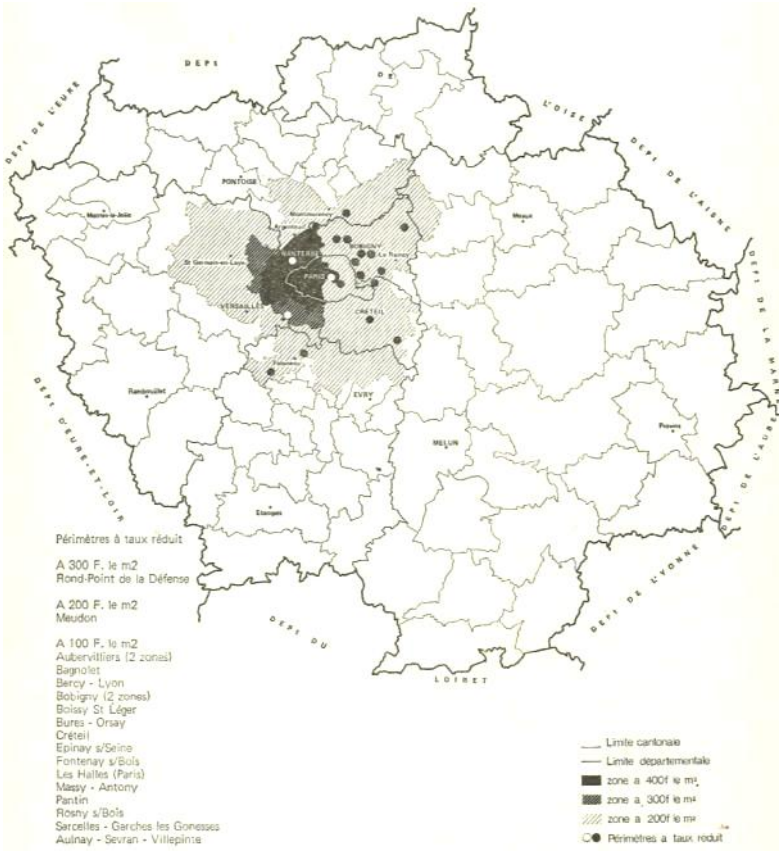
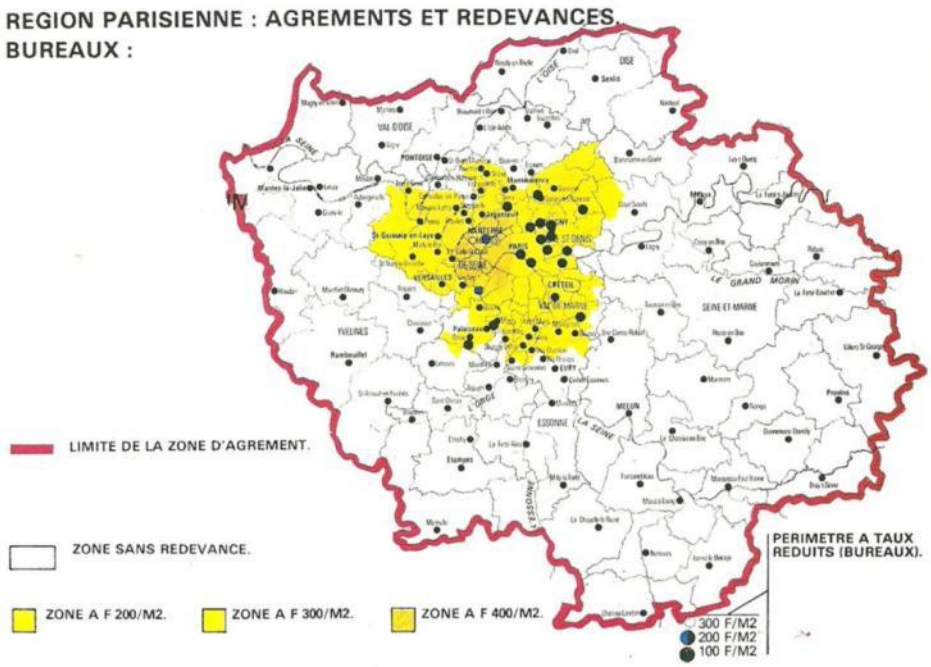


Figure: Agrement zone (Zones soumises a l'agrement)

Source: DATAR, Loi de Finances pour 1973

Figure: Approvals and charges of the Paris region, 1976



Source: DATAR

The objectives of the policy were[63]: install large power of decision in most part of regional metropolises (Lyon, Bordeaux, Nantes, Rennes, Rouen, Strasbourg, Lille, Marseille, Toulouse, Nimes, Angers, Amiens, Orleans, Montpellier, Nice, and Poitiers); decentralize certain administrative service in both principal cities of province and medium-sized cities (department management, information, etc); in Paris, limit the development of enterprises or financial institutions to only necessary function 'financial place of international level'; locate activities in the new towns in the Paris region.

Figure: Localization subsidy of certain tertiary activities

[63] DATAR, Loi de Finances pour 1974, pp. 48

Source : DATAR, chambre de commerce et d'industrie de Paris, aides au développement régional, juillet, 1969

The localization subsidy of certain tertiary activities (for the investment) focused on: the creation of new activities; the transfer of activities outside the Paris region.[64]

In general (as shown in the following figures, 1976), the whole France could be divided into several areas: the no-subsidy area (the Paris basin), the special service project (the Lyon area) and the subsidy zones with two different rate. Among them, the west and the part of northeast and southeastern area benefited from the double subsidy more than the other areas. For the research activities, some urban agglomerations (most of them belonged to the balanced-metropolises) outside the Paris basin got more subsidy than the other areas.

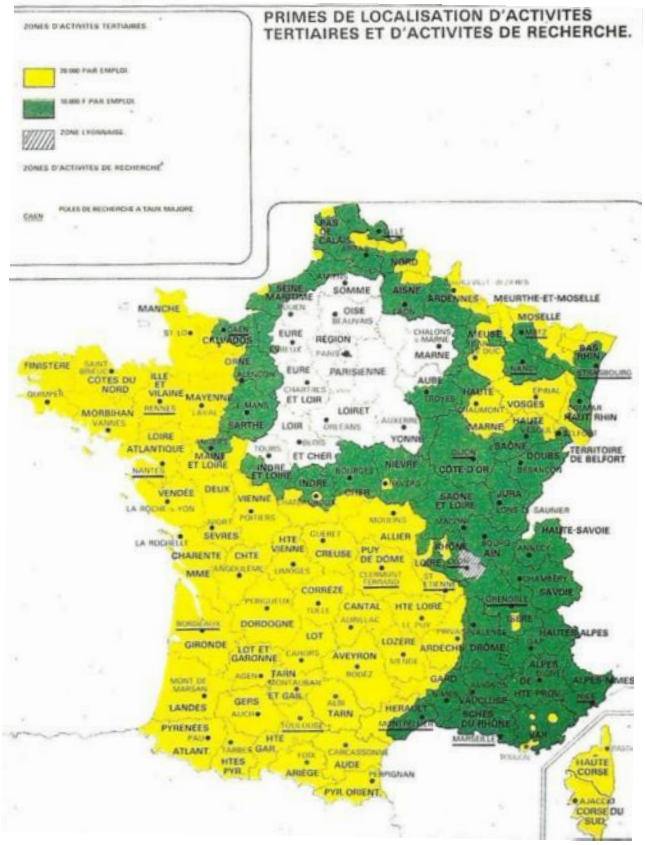


Figure: Localization subsidy of tertiary and research activities
Source: DATAR, 1976

Specific measures of service de-concentration policy

The service de-concentration action was mainly carried out by three ways: the tertiary de-concentration (administrative, public and semi-public sectors); the adjustment of tertiary development by the subsidy and tax system; the location contract (contrat de localisation) of

[64] DATAR, chambre de commerce et d'industrie de Paris, aides au développement régional, juillet, 1969, pp. 18

tertiary employments in big firms.

Since the 1970s, a quite high number of tertiary activities (e.g. management sector (1972—1975), financial sector (banking, insurance etc) and social institutions) were mainly decentralized and concentrated in the balanced-metropolises and some big cities outside the Paris basin.

According to the annual report of DATAR[65]: until 1974, 75% of research credit was assigned to the province and the proportion would reach 85%; The general rate of research subsidy was 15%, but the rate in some urban agglomerations was 20%, including: Lille-Roubaix-Tourcoing, Lyon-Saint-Etienne-Grenoble and its new town l'Isle d'Abeau, Aix-Marseille, Nantes, Metz-Nancy, Strasbourg, Bordeaux, Toulouse, Caen, Rennes, Clermont-Ferrand, Dijon, Montpellier, Nice-Valbonne; Since the year 1972, CNRS (the national center of scientific research) allocated more than 50% of research posts and more than 50% of technician posts in the provinces.

The emphasis of the research distribution during the 'V Plan' and the 'VI Plan' was in the less-industrialized regions: more in the western regions (Bretagne, Aquitaine, Centre, Midi-Pyrenees) than in the east; in the eastern regions: more in the Provence-cote d'Azur region than in the Nord region, the Alsace region, the Lorraine and the Franche-Comte region; within the Rhone-Alps region, more in Grenoble than in Lyon-Saint-Etienne[66].

Figure: Localization subsidy of research activities

Source: DATAR

Figure: Assisted area for the tertiary and research project

Source: Jerome Monod and Philippe de Castelbajac, L'amenagement du territoire, Paris : Presses

[65] DATAR, rapport annuel, 1974

[66] DATAR, Loi de Finances pour 1974

Universitaires de France, 1993

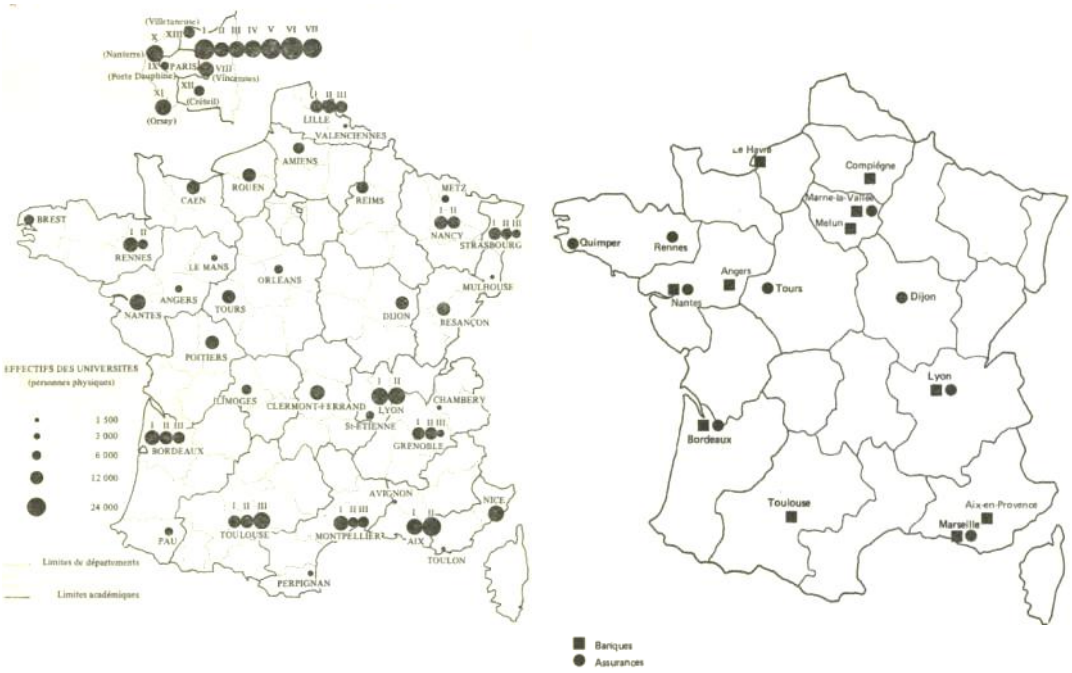


Figure : Disperison of universites

Source : Ministere de l'education nationale direction chargee de la Prevision

Figure: Some financial de-concentration (principal approvals in 1974)

Source: DATAR

Table: The transfer of 'grande ecole'

School of public health (l'école de la santé publique), School of electricity (l'école supérieure d'électricité)	Rennes
School of judicial officer (l'école de la magistrature)	Bordeaux
School of aeronautics (l'école supérieure de l'aéronautique)	Toulouse
School of taxes (l'école des impôts)	Clermont-Ferrand
School of merchant navy (l'école de la marine marchande)	Le Havre
School of tropical agriculture (l'école de l'agronomie tropicale)	Montpellier
Senior normal school of Saint-Cloud (l'école normale supérieure de Saint-Cloud)	Lyon
National school of administration (l'école nationale d'administration)	Strasbourg

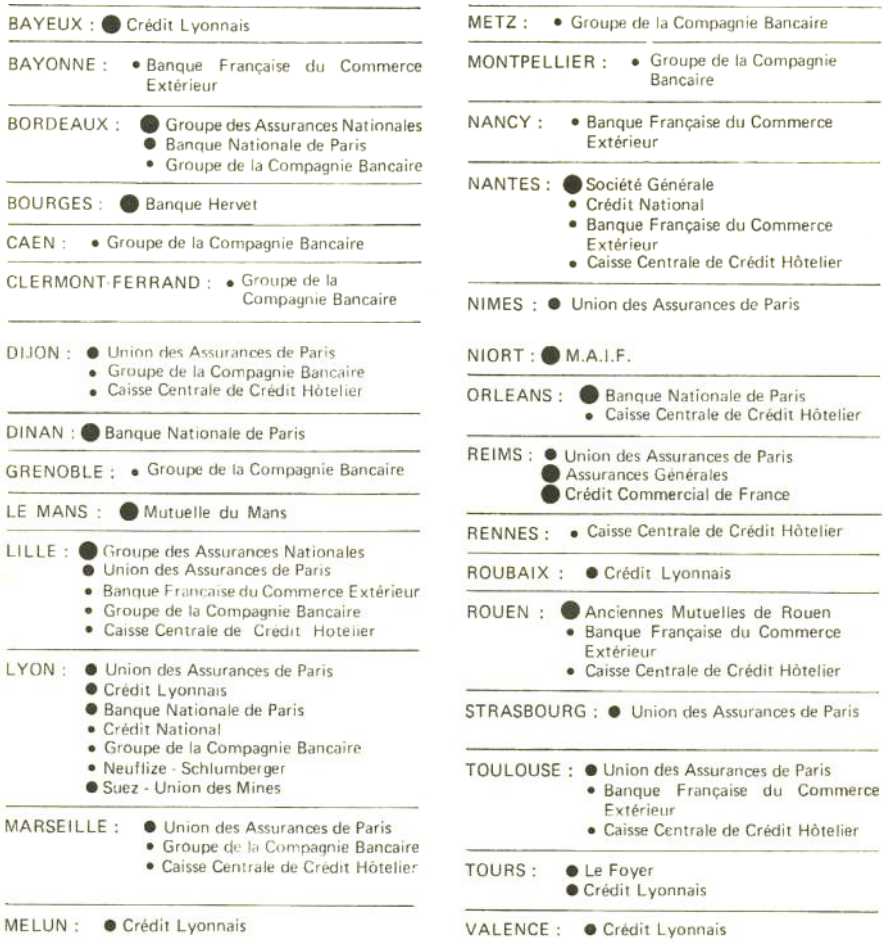
Source : Jerome Monod and Philippe de Castelbajac, L'amenagement du territoire, Paris : Presses Universitaires de France, 1993

According to the annual report of DATAR in the year 1974[67], the objectives of the service de-concentration (financial) action were: to focus on the financial activities in the provinces which

[67] DATAR, rapport annuel, 1974

were not closely related to Paris; to promote the province's decision power by decentralization; to balance the development in the Paris region, and to focus on the new towns; to control the acceptable growth of financial activities in the Paris region; in Paris, to help establish new companies and to encourage the renovation projects. They concerned not only metropolises, but also some medium-sized cities (e.g. Quimper).

Figure : Decentralisation of social institutions



Source: DATAR

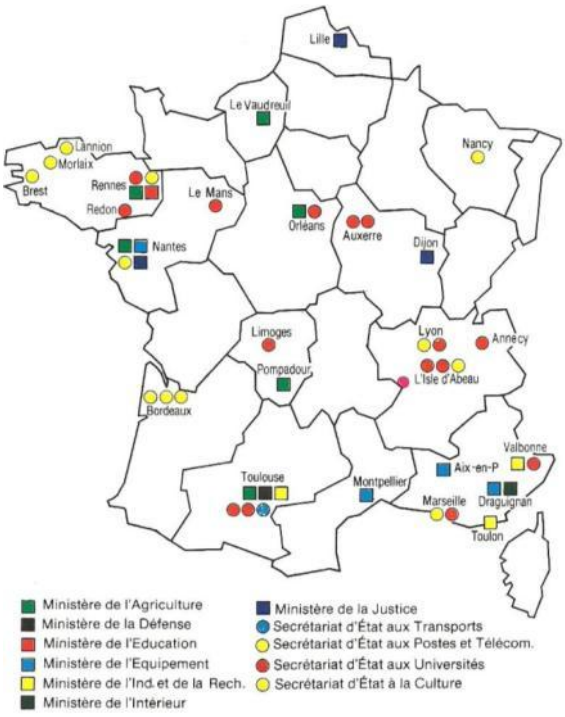
The policy of the administrative decentralization began since the year 1955. However until the 1970s, it only involved a few administrative organizations. For example, from 1960 to 1972, it involved 12 education establishments, 6 industrial service sectors, 10 research organizations and 4 special administrative unites[68]. From the year 1972 on, the decentralization of administrative power became an important part in the tertiary development policy.

In general, the de-concentration of management sector was corresponding to the decentralization process of political power (nation-local, since 1964). Some institutions at national level began to transfer or extend in regions, such as the immigration centre of employment ministry (centre regionaux de l'office nationale de l'immigration, ministre du travail), the national

[68] DATAR, Loi de Finances pour 1974, pp. 52

food office of agriculture ministry (office national interprofessionnel des céréales, ministre de l'agriculture), the industrial and mining area service of industry ministry (services regionaux de l'industrie et des mines, ministère de l'industrie).

Figure: De-concentration of management sectors, 1972—1975



Source : DATAR, Rapport d'activité, 1975

5.2 Level of urban system distribution

In the field of urban system, there was some major planning during the '30 glorious years', mainly including the balance metropolis policy, the medium-sized and small city policy, the new-town policy (shown as the figure below).

Figure: High level of urban organization in France

Source : Catherine Chatin, 9 villes nouvelles : une experience francaise d'urbanisme, Paris : Dunod, 1975, pp. 5

5.2.1 Balance Metropolis Policy (Métropoles d'Equilibre)

Background and Basic Content

After the World War II, the French government began to pay more attention to the problems of regional unbalance. The significance of cities for balancing Paris's influence was proposed afterwards. In 1950, the content of big city (les grandes villes) emerged in the 1st national planning (plan national d'amenagement du territoire, charged by M. Eugene Claudius-Petit). Later, the General Committee of Plan (Le Commissariat General au Plan) and the Directorate of Urban and Land Plan (La Direction de l'Amenagement Foncier et Urbain, DAFU) put forward the importance of urban system, containing three levels: big city, medium-sized city and small city[69].

After the establishment of DATAR in 1963, the 'balance metropolis policy' was promulgated in the year 1964. The government (le Comite interministeriel d'amenagement du territoire, CIAT) chose eight balance metropolises in France (also by the influence of Francois Perroux's 'growth pole' theory and the thought of political balance) on the basis of their population, function and geographical location etc. They included Lille, Nancy-Metz, Strasbourg, Lyon, Marseille, Toulouse, Bordeaux and Nantes, which objective was to strengthen the comprehensive functions of these cities and to balance the over concentration in the Paris region. In the 1970s, the principal objectives became: to improve the development of economy and socio-culture in the regions, in

[69] Jean Girardon, Politiques d'amenagement du territoire, Paris : Ellipses Edition, 2010, pp 21

order to compete with other European metropolises[70].

The idea of this strategy came from some French geographer: for example, Pierre George considered that region created city in the past, but it is city that produce region nowadays. J. Hautreux and M. Rochefort wrote a book 'The regional function in French urban system (la function régionale dans l'armature urbaine française)', who proposed that the growth of eight metropolitan area could counterbalance the controlling position of Paris.

Besides, these eight balanced metropolitan cities joined other cities around them and formed eight metropolitan areas finally, including: Lyon-Saint-Etienne-Grenoble, Marseille-Aix, Lille-Roubaix-Tourcoing, Bordeaux, Toulouse, Strasbourg, Nancy-Metz and Nantes-Saint-Nazaire. In 1970, 4 other cities were added into the list of the balance metropolises (the so-called assimilated metropolis, métropoles assimilées aux métropoles d'équilibre), including Clermont-Ferrand, Dijon, Nice and Rennes.

These cities must play a role of economic expansion in the management field of large companies, banks, specialized businesses, schools (esp. grandes ecoles) etc, which were formerly concentrated in Paris. And these cities are able to provide businesses and public services for the populations in its region.

——*Jerome Monod and Philippe de Castelbajac, L'aménagement du territoire, PUF*

On the whole, these balance metropolises had two basic roles during the period: 1. Admit the universities, research institutions and big companies transferred from the Paris region. 2. Become the central city in regional economy, society and culture fields, with an aim of improving the development of regions. Besides, the policy had 4 major subjects: 1. Transportation equipment: the priority of investment on highway, railway, airport and port. 2. Urban construction: the renovation of urban centre, the construction of housing and public transportation etc. 3. Industry: improve the industrial development and the adjustment of industrial structure. 4. Service de-concentration. Thus, these cities attracted the headquarters of companies and some high-level activities (management, commercial service, research centre etc). It has to be noted that: the policy involved some grand urban projects, such as the renovation of old city (La Part-Dieu of Lyon, Saint-Sauveur of Lille, Meriadeck of Bordeaux), the construction of new towns (Villeueuve d'Asq near Lille, l'Isle d'Abeau near Lyon, Berre-Fos near Marseille).

In the 1970s, some other contents were emphasized: to increase the subsidy rate of regional development for the medium-sized cities; to control the construction of a large-scale of 'social housing concentrated area (grand ensemble)'[71].

[70] DATAR, Loi de Finances pour 1974, pp. 22
[71] DATAR, Loi de Finances pour 1974, pp. 23

Figure: The organization of French high-level cities, 1964

Source : Jérôme Monod, Transformation d'un Pays, Fayard, 1974

Furthermore, these cities had some new specific roles in the 1970s [72]: 1. To organize the localization of activities and inhabitants in order to control the peripheral expansion of the agglomeration areas; to promote a balanced development of medium-sized cities and small cities in the influencing areas; to preserve the green space and agricultural & forest areas. 2. To promote the 'living condition' of the existing suburbs; to improve the living condition (for absorbing population) and new activities in the second level of urban system. 3. To clarify the international role of each metropolis and define the priority actions in order to strengthen its service activities (e.g. business service, organization related to the international trade, financial organization, research institute, etc).

Method of Operation

For carrying out the policy, some specific planning should be drawn up, including: 1. Development plan of metropolitan area (schemas de developpement de l'espace metropolitain) which was responsible by the region governor, and supported by the regional directorate of equipment; 2. Regional planning and development program (Schémas Directeurs d'Aménagement et d'Urbanisme, SDAU) and Land-use plan (Plans d'Occupation des Sols, POS), which were based on the law of land orientation (30/12/1967)[73].

In addition, some organizations were in charge of drawing up the planning. In the year 1966, the first group of metropolitan area research organizations (Organisation d'Etudes d'Amenagement

[72] DATAR, rapport annuel, 1975

[73] Pierre Mazet, Amenagement du territoire, Paris : Armand Colin, 2000, pp 22

des Aires Metropolitaines, OREAM) were created (OREAM of Marseille-Aix-Berre-Fos, Basse-Seine, Lyon-Saint-Etienne-Grenoble, Vallees de l'Oise and l'Aisne, Lille-Roubaix-Tourcoing, Nancy-Metz-Thionville, and Nantes-Saint-Nazaire), with the purpose of 'specifying the methods and actions permitted by authorities and carrying out the program (SDAU)'. Besides, the similar organizations in the region Alsace (Organization for research and development of Alsace) and the region Midi-Pyrénées (Regional Research Group of Midi-Pyrénées, GREMIP) were established during the same period. The organizations were responsible for elaborating the 'white paper (livre blanc)' and the directive program of metropolitan area (102chema directeur des aire métropolitain). Afterwards, the balance metropolis policy would be implemented based on the programs.

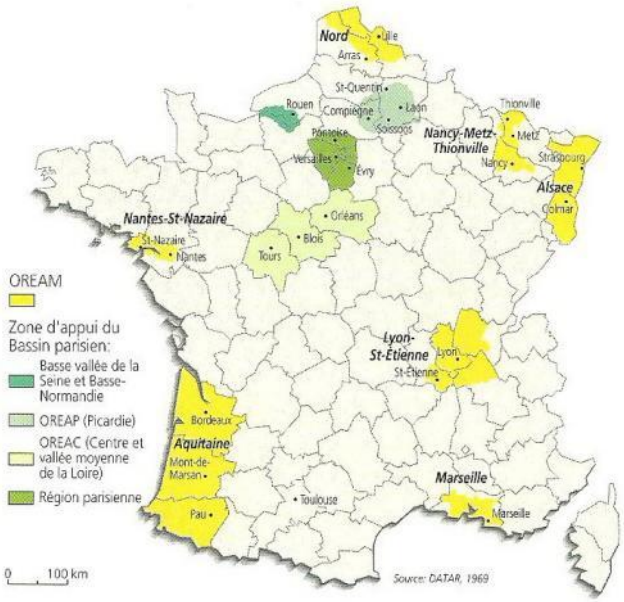


Figure : The OREAM in France

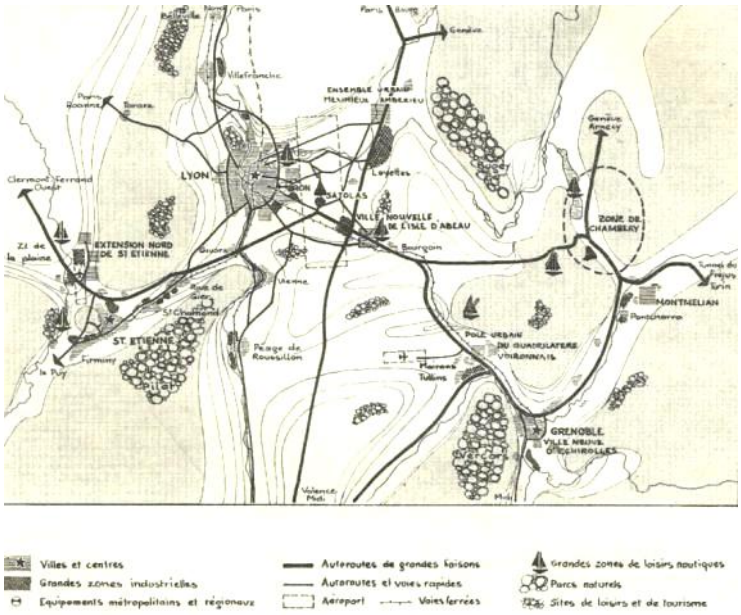
Source :Therese Saint-Julien (dir.), Atlas de France (Volume 14) :Terrioire et Amenagement, GIP RECLUS et La Documentation Fransaise, 1997

For example, the SDAU of Lyon and Saint-Etienne contained three major subjects[74]: 1. To coordinate the development of Etienne and Lyon, and to lead them by a comprehensive plan; 2. To promote the expansion of the left side in Rhone (the traditional center of Lyon); 3. To renovate the urban center in Saint-Etienne.

Some specific measures: 1.the renovation of Part-Dieu in Lyon, the construction of the first metro line; 2. To ensure the link of highway (A6/A7) between Saint-Etienne and Grenoble, and the construction of highway (A43); 3.to plan a 'green belt' around Lyon; to construct a new international airport (Satolas) in the east of the metropolitan area; to construct a new town (l'Isle d'Abeau) in the south-east; the new development axe in the east, such as the industrial zone in Ain.

[74] Documents relatifs a l'organisation du etudes d'amenagement des aires metropolitaines

Figure: The development plan of the metropolis Lyon-St-Etienne-Grenoble



However, the balance metropolis policy also involved some content regarding the industrial de-concentration policy and the service de-concentration policy etc.

In addition, the fund for these projects in the balance metropolis came from: the state as well as the local community. During the period of '30 glorious years', the fund of the state mainly accounted for a larger proportion. Among the total fund, a part of them was from the intervention fund for regional planning (FIAT), which was established in the year 1963. During the period from 1963 to 1970, 1/3 of FIAT was for the type of policy (about 500 MF).

Table: The fund of the state and the local community

Agglomerations	Amount of projects	State	Local community
Lille-Roubaix-Tourcoing	463.0	229.3	233.7
Metropolis (lorraine) :			
—Nancy	237.0	187.9	49.1
—Metz	310.6	236.1	74.5
—Thionville	37.5	19.9	17.6
Strasbourg	124.8	70.0	54.8
Nantes-Saint-Nazaire	153.0	76.8	76.2
Bordeaux	267.5	130.9	136.6
Toulouse	128.4	59.5	68.9
Metropolis (Lyon-Saint-Etienne) —Lyon —Saint-Etienne	490.5 141.0	252.8 87.0	237.7 54.0
Grenoble	120.3	37.8	82.5
Marseille-Aix-Berre-Fos	647.0	399.9	247.1

Source: Report of central urban planning group about regional planning (groupe central de planification urbaine sur l'aménagement du territoire) : the realization condition of equipment program in big agglomeration areas during the period of V plan, 1967

Under the general guidelines, the balance metropolis emphasized certain actions. For example (as shown in the table below), the investment projects by FIAT (1963-1970) in Toulouse were listed, which were mainly concentrated in the transfer of research and education institutions on aeronautics and space during that period.

Table: Intervention fund for regional planning in region Midi-Pyrenees, 1963-1970

Region	Projects	Amount (in thousand F)
Midi-Pyrénées	Technical high school in Decazeville	4200
	Irrigation of agricultural sector in the Middle Garonne	6300
	Construction of the viaduct of Croix-Saint-Pierre in Toulouse	3400
	Transfer of National engineer school of aeronautics t to Toulouse	6000
	Transfer of ENSA to Toulouse	55000
	Subsidy for construction of a steel mill in Dezazeville	15000
	Planning of a canal in Garonne and construction of a «slope water »	7000
	Improvement of road communications in Tarn	3000
	Transfer of National centre for space studies to Toulouse	11000
	Transfer of CNES to Toulouse	18000

Source : Loi de finances pour 1972

In Toulouse, in addition to the transfer of the education and research institutions, some other projects were also in operation, such as the construction of housing, highway and the creation of universities & engineer school, which followed the planning of the balanced-metropolis policy.

Table: Some projects of Toulouse (based on the 'Le V Plan, 1965—1970')

Toulouse	
Project of housing in ZUP[75] and ZOH	**Total Amount**
—Undertaken operation	
ZUP of Mirail	11100
ZUP of Bagatelle	4100
ZUP of Rangeuil	1200
ZH Colomiers	6600
—Planned operation	
ZOH the terraces	2500

[75] Zone à urbaniser en priorité

Project of highways	
The highway of South-West, South-East et North ; the ring highway of West and South	
Construction of universities	
Law (15000), Literature (20000), Science (15000) Medicine (316000), Library (19600)	Engineer school (2500), IUT (8)

Source: Report of central urban planning group about regional planning (groupe central de planification urbaine sur l'aménagement du territoire) : the realization condition of equipment program in big agglomeration areas during the period of V plan, 1967

Moreover, according to the table below (in 1966) we could also find some specific projects of these metropolises in the domain of urban equipment, including the urban facilities, the urban renovation etc.

Table: Urban equipment: budget of state, unit: thousand francs

		1966
Urban network of water and sanitation	The Paris region	28.339
	Balance metropolises	175.332
	Other agglomerations	
Local roads in urban areas	The Paris region (1)	118.860
	Balance metropolises	34.653
	Other agglomerations	66.639
National roads in urban areas (Ministry of Equipment)	The Paris region (2)	365.725
	Balance metropolises	106.670
	Other agglomerations	116.983
Land reserves	The Paris region (3)	90.000
	Balance metropolises	--
	Other agglomerations (3)	10.000
Urban renovation	The Paris region	36.700
	Balance metropolises	10.700
	Other agglomerations	29.200

(1) For the Paris region, including departmental FSIR

(2) For the Paris region, excluding national roads in countryside

(3) In 1968, special account of FNAFU

Source : délégation a l'aménagement du territoire et a l'action regional, Que sera la politique de l'aménagement du territoire en 1968 ?, décembre 1967, pp 34

5.2.2 Medium-sized city and small city policy

Development of medium-sized city and small city policy

In the 1970s, French government promulgated the medium-sized city policy (20,000—100,000 inhabitants) at the beginning of the 1970s and the small city policy (5000—20,000 inhabitants) in 1975.

Due to the continuous growth of the two categories of cities, they were paid attention by the government. These policies could also reflect the direction change of 'la DATAR': 1. In addition to the objective of balancing the French territory and improving the economic development, the content of ameliorating the 'living condition' was added; 2. the state's support and guidance which accounted for the majority for a long time were converted into a way of contract between the state and the local community. Thus, the local community could directly intervene in the implementation of local projects.

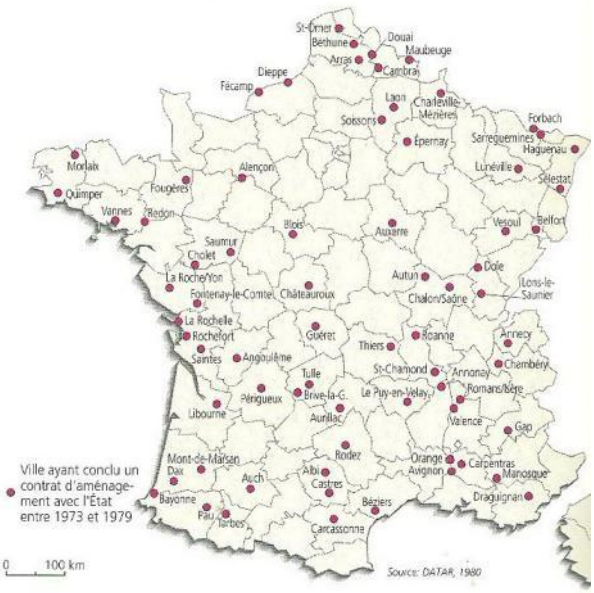


Figure: The contract of medium-sized cities

The objectives of the medium-sized city policy included: 1. By the way of providing the industrial/tertiary employment, housing etc, it could attract the rural migration for avoiding crashing into the capital and the regional big cities; 2. Functioning as a 'bridge', it could supply necessary services (economic, social, culture and etc) for the rural area nearby. Among them, ameliorating the living condition was the priority action for the policy[76].

In addition, some expectations were put forwards during the process of formulation: 1. to attract industrial companies; 2. lower cost of upgrading urban facilities compared with the mega and big cites; 3. to promote a better balance of territory and to form a network of urban system; 4. to highly improve the living condition (the better environment, the strong sense of social belonging,

[76] DATAR, Loi de Finances pour 1974, pp. 24

more space etc).

Content of medium-sized city policy and small city policy

The process of the medium-sized city policy could be divided into two phases on the basis of the development background. In the first phase (1973—1976): The target was to improve the urban living condition (the urban renovation and beatification). Its content included: the renovation of urban centre (e.g. the sidewalk and the underground parking, the historic monuments, the public space, the waterway planning and the relation between urban centre and its periphery areas). For example, for the urban centre it involved: the construction of sidewalk, parks; the reuse of vacant building; for the urban beautification it contained: the use of vacant space; the walls and lighting facilities; the planning of river side; the beautification of urban entry space. According to the following table, we could find the specific projects of the first 28 contracts.

Table: Distribution of subsidy for medium-sized cities

Project	Amount (Thousand F)	%
Open space, beautification and architectural heritage	173.2	40.5
Amelioration of habitat	30.3	7.1
Street and pedestrian areas	52.4	12.2
Road and parking	72.8	17.0
Pubilc transport	0.7	0.1
Cultural facilities	18.6	4.4
Socio-educational	44.1	10.3
Education, entertainment and operation	16.1	3.8
Others	19.7	4.6
Total	428.0	100.0

Source : régionalisation du budget d'équipement pour 1976 et aménagement du territoire, Paris : Imprimerie Nationale, 1976

In the second phase (1976—1979): The major objective turned to create more employment due to the economy crisis in the 1970s, including the creation of work place, and the service support for companies.

Moreover, it should be noted that: the 'living condition' not only contained the material content, but also involved some social, economic and cultural problems. For example, the social problems of centre city and its peripheral residential zone were gradually paid attention by government afterwards.

For example in the 1970s[77], the medium-sized city policy of Betune concerned about the relation between the old city and some aggregated living area (les ensembles immobiliers); Blois

[77] DATAR, rapport annual 1974

planned some parks and the recreation spaces in its peripheral areas. For Autun, the policy contained: the protection and the amelioration of space (e.g. the water plan between the traditional city and the new city), the creation and planning of some public space (e.g. the pedestrian path, the recreation area of Vallon park), improving the living condition in the old city and the ZUP in Saint-Pantaleon, promoting the relation between the old city and the new quarters.

For example, the contact of Pau in 1979 included some specific content as follows[78]:

projects in the old city	*Plan a visit route of the XVI century (some area covered by the industrial building)* *Create parks and a tourism and historical centre* *Plan a street for the station* *Create some public space for games and sports* *Maintain some old building and street (e.g. le Place Reine Marguerite, pedestrian street Serviez Aragon)*
projects related to the new urbanized area	*Expanse the park Dufau Lyautey in order to connect the city centre and the highway of Toulouse-Bayonne* *A program in the pre-ZAD (in the North)*

The small city policy mainly focused on the social/economic development of small cities, the construction of rural environment and some content involving the local industry and agriculture. In total, about 360 contracts (from 1975 to 1982) were signed between the state (l'Etat, and regional public establishment afterwards) and the local community (local representative), which were mainly concentrated in the west part of the line 'Caen-Marseille'.

Compared with the medium-sized city policy, more content concerning the service supply for rural areas was added. Take the area of Massif Central as an example, many small cities (a number of them were remote ones) benefited from this kind of policy, its content mainly included: the reuse of old building, the amelioration of urban welfare and social/cultural activities (e.g. cinemas).

[78] Centre national de la recherche scientfique, centre regional de publication de bordeaux, Amenagement et partiques urbaines reves et realites de la ville moyenne, Paris : Editions du centre national de la recherche scientifique, 1982, pp 43

Figure: The contracts in France

Source: DATAR, 1976

Form of planning

Both the medium-sized city policy and the small city policy adopted the form of contract between the state (l'Etat) and the local community (local representative). These policies were coordinated directly by the mayor and the state administration (un groupe administratif central interministeriel), which could be considered as the urban level polices with the local intervention. In the contract, the state did not play as the role of planner or decider, but served as a partner of negotiation, which was equal with the local community.

According to these contracts, the state paid for a part of funds and the local communities guaranteed the other. Among the total financial support, these from the local communities accounted for the majority, which improved the initiative of the local community by the way of tax or credit.

5.2.3 New-town policy (Ville nouvelle)

Development of new-town policy

The new-town policy was the product of the development of background as well as the

evolution of planning thought. After the World War II, with the rapid process of urbanization, a lot of migrants crashed into cities, which led to a huge demand of urban facilities & housings and the disorder expansion of cities (esp. big cities). In addition, the suburbs of some cities (esp. the Paris region) faced the problems such as the limited employments, the lack of facilities (e.g. shopping malls, theaters, cinemas, and etc), and the inadequate housing and transportation network. Due to the concentration of employment of center city, nearly 2/3 of inhabitants lived in the suburbs with bad living condition.

On the whole, some elements influenced the establishment of the new-town policy at the same time, which could be concluded as follows: the rapid development of economy and society during the '30 glorious years', the rapid process of urbanization, and the urgent demand of facilities in the suburb areas; the development of the modernization movement, the thought of balancing the living/working/facilities area (e.g. Athens Charter) and the organization of the 'polycentric-structure' area. In 1965, the new-town policy firstly appeared in the planning of the Paris region. Afterwards the related content was written in the 5th national planning (VI Plan, 1966-1970).

In fact, in 1960, the major planning of the Paris region (Plan d'aménagement et d'organisation générale de la région parisienne, PADOG) had already proposed some content involving the restriction of the suburbs or at least of urban expansion (e.g. allowing the construction of public facilities, esp. the transport network (road network, RER line and subway)), but had not mentioned the content of new-town policy at that time. Several years later (in 1965), the framework of the Paris regional planning (Le Schéma directeur d'aménagement et d'urbanisme de la région de Paris, SDAURP) was released. And the new-town policy became an important part of the planning: 1. to construct the new-towns in the existing suburbs; 2. to organize the priority development direction of urbanization, and to protect the natural space; 3. to expanse the metropolitan area based on the demand; 4. to improve employment in the suburbs for reducing commuting; 5. to construct the public transport network. For the other provinces, the regional framework (schémas directeurs régionaux) proposed the content concerning the new-town policy during the period from 1965 to 1970 in some cities, which mainly belonged to the balance metropolises. And the objective of new town was: to become a comprehensive city (housing, working areas, public facilities, commercial & entertainment areas etc) connected by the transportation lines, which could keep a balance among living, employment, and equipments.

The mission of the new town is to ensure a better balance of society, economy and people in the areas with a high concentration of population, to provide the employment and housing as well as the public and private equipment. They are aimed at becoming actual cities, and not an additional non-organized urban sprawl.

In 1970, the first law concerning the new-town (loi Boscher) was promulgated. Since the 1970s, nine new towns had been determined to create (five new towns in the Paris region; four new towns

in the other provinces, which were mainly near the balanced-metropolises). The demand continued during the period of the 6th plan (1971-1975) and the 7th plan (1976-1980), and the process of construction slowed down since the 8th plan (1981-1985) due to the economic crisis and the change of government.

The law of 1970 stated that: the new agglomerations are constructed for keeping a balance in the centers regarding the employment, housing and the public/private equipment.

Figure: Geographic distribution of French new towns

Source: A.Lee (Ed. and trans.), 25 years of French new towns, Paris: Gie Villes Nouvelles de France, 1993

In addition, at the national level, the central group for new towns (Groupe central des villes nouvelles) was responsible for the coordination of the finance programs, the general economic & social development policy and the organization of local government. And the Secretariat of the Central Group functioned as a special 'channel' for analyzing and supervising the results and the experiences in each new town[79]. At the local level, each new town had the public development corporations, which had both the commercial and the industrial functions.

Content of new-town policy

- **The Paris region**

According to the SDAURP, the content of new-town mainly included: 1. to construct eight new towns in the suburbs of the Paris region, including Versailles, La Défense, the north of Saint-Deni,

[79] A.Lee (Ed. and trans.), 25 years of French new towns, Paris : Gie Villes Nouvelles de France, 1993, pp 11

Bobigny of Seine-Saint-Denis, Rosny-sous-Bois, Créteil of Val-de-Marne Choisy-le-Roi-Rungis; 2. to plan the network of road: the road of the outer-ring (boulevard périphérique de Paris) and the suburban ring (A86 and A87); 3. to plan the RER lines (réseau express régional): one east-west line from Saint-Germain-en-Laye and Montesson to Boissy-Saint-Leger and la vallée de la Marne, two south-north lines, one west line from Trappes to Cergy-Pontoise and Valmondois, one east line from Tigery-Lieusaint to Roissy areaport. However, in 1969, the planning was modified, the construction of only five new towns was confirmed (Evry, Cergy-Pontoise, Saint-Quentin-en-Yvelines, Marne-la-Vallee and Melun-Senart): 1. confirm the construction of Evry, Cergy-Pontoise and Marne-la-Vallee, which were not far away from Paris, such as Evry (26km); 2. merger two new-towns formerly planned near Trappes with a new name Saint-Quentin-en-Yvelines; 3. consider Beauchame as a new town due to its rapid urbanization; 4. cancel the new town near Mantes.

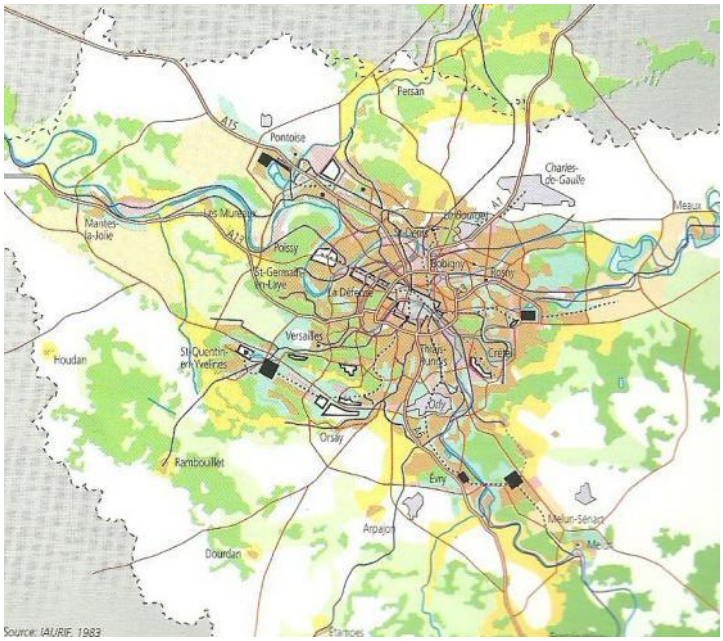
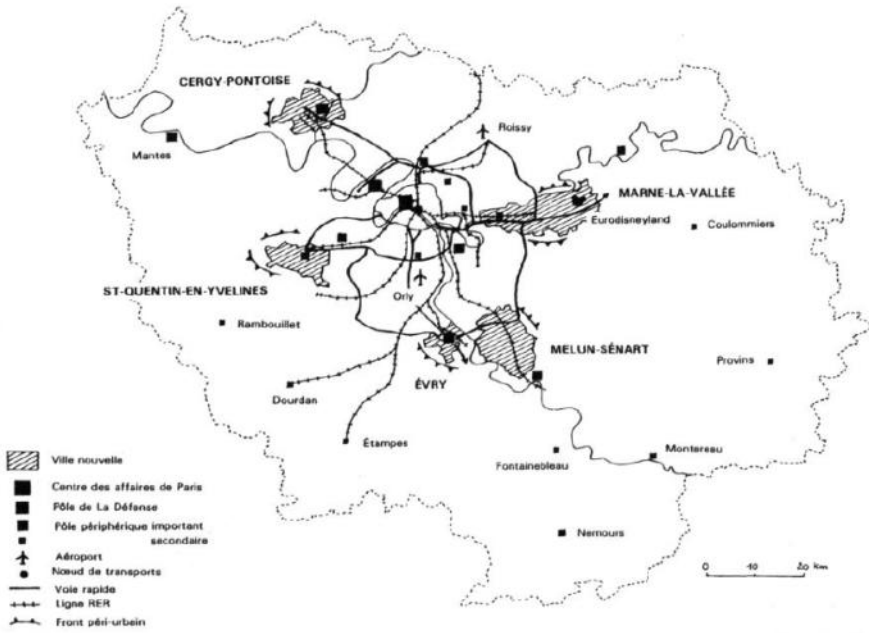


Figure: The plan of Paris (SDAURP), 1965

Source:Dirige par Therese Saint-Julien, Atlas de France (Volume 14) :Terrioire et Amenagement, GIP RECLUS et La Documentation Fransaise, 1997

Figure: Five new towns in the Paris region



Source : Jean Steinberg, role et avenir des villes nouvelles d'ile-de-France, Annales de Geographie, 1990, t.99, n 552, pp 142

In brief, Evry was located in the hinterland of the Pairs suburb (30 km away in the south), focusing on the balance between the housing and the employment, which was connected by the A6 road and the public transport network (the railway was built in 1975 and combined with the line RER D afterwards).Marne-la-Vallée was constructed along the A4 road and the line RER A (14 km in the east), which was planned as a linear structure. The station of the line RER A served as its development poles. And the area could be divided into four parts: the first part was constructed around Noisy-le-Grand; the second part (Val-Maubuee) was mainly a residential area; the third part (Bussy-Saint-Georges) was planned in 1980 with a lower density; the fourth part was built as the Disneyland and the shopping mall (Euro-Disneyland).

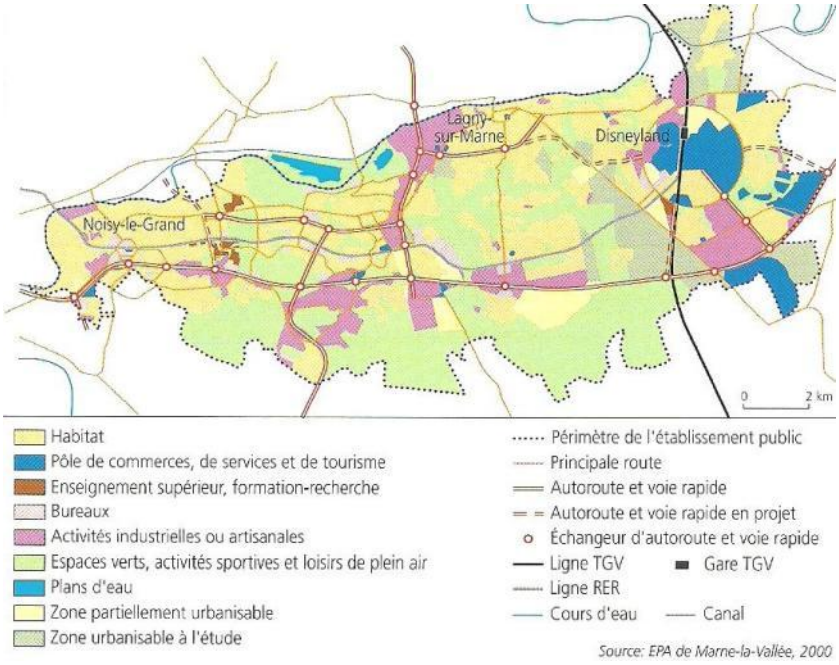


Figure: Planning of new town "Marne-la-Vallée"

Source: EPA de Marne-la-Vallée, 2000

The constructions of new towns were on priority compared with the other part of the Paris region. For example in 1975: The links between Paris and the new towns were constructed; The RER line of Marne-la-Vallée (to Noisy) was put into operation in 1977 and extended to Torcy in 1980; The railway line of Cergy would be put into operation in the end of 1978; The construction of the highway A15 would be accelerated, and the highway between Marne-la-Vallée and the airport Charles-de-Gaulle would be planned in the new period. [80]

- **The other province**

In addition to the new towns in the Paris region, four provincial towns were constructed: 1. In Basse Seine: the new town was planned in the southeast part of Rouen (le Vaudreuil) with a objective of connecting Paris and the Seine basin, and improving the development of Rouen; 2. In the region Nord, the new town Lille-Est (Villeneuve d'Asaq) was built for absorbing companies and universities; 3. In the Lyon area, L'Isle-d'Abeau (in the south-east) was constructed; 4. In the Marseille area, the Rives de l'Etang de Berre was built in the northwest which was related to the industrial area of Fos-sur-Mer.

For example, the creation of new town 'Lille-Est' was decided by the government in 1967 and the public planning was established in 1969, which was with a goal of organizing the growth of new poles around the metropolis. It was constructed around the two university cities (Flers and Annappes). The town centre (e.g. commercial centre, town hall (hotel de ville), housing, office and etc) and some recreational facilities (e.g. parks, lakes and etc) were planned between the two university cities, which were connected by a light rail (la ligne de métro léger，le VAL). Actually, in the 1960s, the University City was already created (in 1967, 135 hectares, 12000 students (20% of them lived there)), but there were not sufficient facilities (e.g. coffee shops, cinemas, transportation lines). In addition, the new town was more inclined to absorb research centers and labs related to universities (e.g. le CERTIA, centre de recherches des techniques et industries alimentaires; le CREST, centre de recherches et d'enseignement superieur du textile; l'IRCHA, institut de recherches chimiques), compared to the industrial companies. Moreover, its creation was financed by the nation (375 million francs), the urban community of Lille (170 million francs), and the town of Villeneuve-d'Ascq[81] from 1971 to 1982.

[80] DATAR, rapport d'activite, 1976

[81] Guy Baudelle, Villeneuve-d'Ascq ville nouvelle, un exemple d'urbanisme concerté, ed. Du moniteur, Paris, 1984, 198 p (cf p. 143)

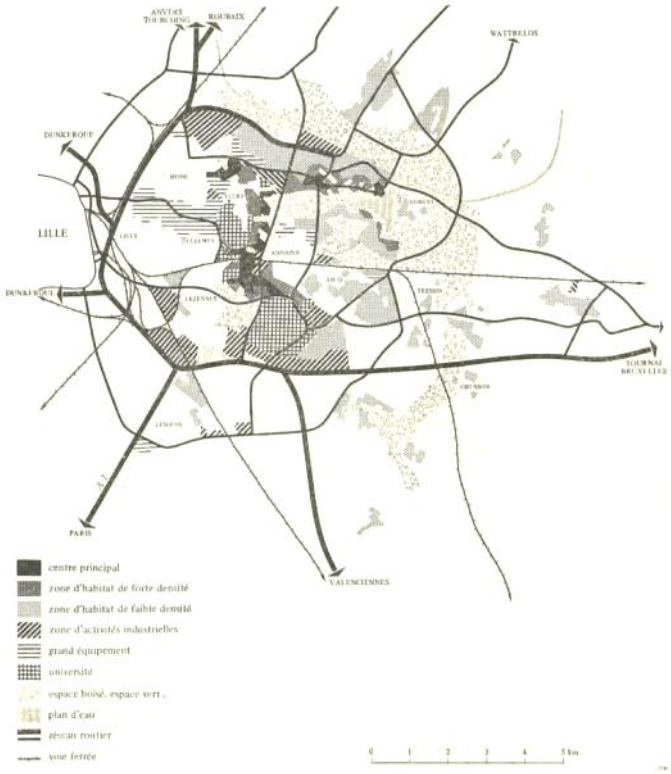


Figure: The new town (Lille-Est)

Location	7 kilometers away from the east of Lille, 6 kilometers from the south of Roubaix
Surface	Study area : 12000 hectares for 21 communes Scope of public establishment: 2000 hectare (principal) in Villeneuve-d'Ascq
Population	1973 : 40000 inhabitants 1985 : 100000 inhabitants
Housing	Objective of the 6th Plan : 6150 Funded housing (1971-1974) : 4382 1975 : allocation of housing : 1734
Employment	Objective of the 6th Plan : 7160 employments Realisation (1971-1973) : 1336 employments 1974 : 1250 employments

Source : Catherine Chatin, 9 villes nouvelles : une expérience française d'urbanisme, Paris : BORDAS, 1975, pp. 150

5.3 Level of rural and coastal area planning

5.3.1 Development of the rural area

In the domain of rural area, some major rural planning during the '30 glorious years' could be expressed by the figure as follows. And these rural planning evolved in the period and could be

generally divided into three phases, which accompanied the implementation of other rural policies regarding land concentration, retirement subsidy for peasants etc.

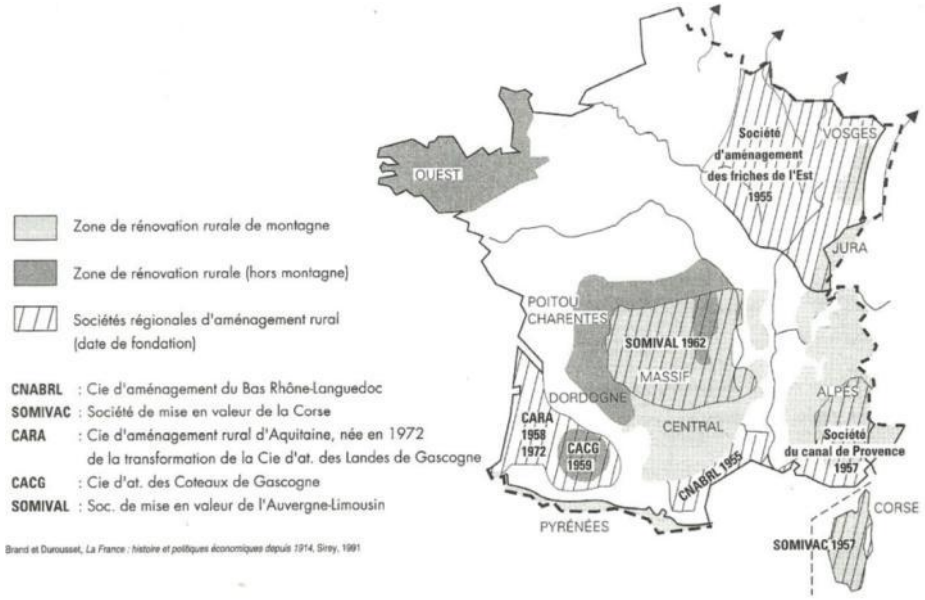


Figure: Agricutural space and planning

Source: Brand and Durousset, La France : histoire et politiques économiques depuis 1914, Sirey, 1991

Table: The history of rural planning in France

	1950-1965	1965-1970	1970-1980	After 1980
Major concepts	Agriculture, determinants of rural development	Need for regional planning	Assistance	Development
Proclaimed goal	Equipement (network)	Development of economy and society	Development and equipment	Economy, employment
Preferential instruments	Tranditional administrative network	Renovation zone	PAR	PAR, FIDAR
Application	All the territoire	In discussion	Defavorised zones, Montain	Montain, Fragile area
General contexte	Reconstruction	Planning	Expansion, crisis	The crisis

Source : Bernard Kayser, La renaissance rurale : sociologie des campagnes du monde Occidental, Paris : Aramand Colin, 1990

Development of backward rural area

- **Creation of regional development companies**

Since the 1950s, the French government began to create some semi-public companies (the so-called regional development company) concerning some major rural areas (e.g. Auvergne, Limousin, Lot, West etc), which improved the local initiatives to a certain degree. Their initial

objective was to improve the economic development (esp. the agriculture modernization) of the less-developed areas in France, and involved some other contents (e.g. the protection of environment and the industrial development) afterwards.

The objective of the regional development companies could be defined as 'remedy the unbalance caused by the industrial development and emphasize the growth of agricultural potential: the irrigation, the sanitation project, the forestry investment, the creation of project in the wasteland'.

——*Report of the second plan (1954-1958)*

However, there existed some differences in the specific missions among these companies. For example, the national territory company of Bas-Rhone-Languedoc (Compagnie Nationale d'Aménagement du Bas-Rhône-Languedoc, CNABRL, created in 1955) was mainly responsible for the irrigation works and the coastal development between the Rhone and the Corbieres area. Afterwards, the company's mission involved: the rural space, the tourist area and housing (i.e. the rural residence, the tourist village). The territorial development company of Auvergne-Limousine (Societe de Mise en Valeur de la Region Auvergne-Limousine, SOMIVAL, created in 1964) was responsible for promoting the development of Auvergne and Limousin (esp. focus on the development of local agriculture and forestry, also included the tourism, water supply, industry and the handicraft development in the rural areas).

1955	The national company of planning in the region Bas-Rhone-Languedoc (la compagnie nationale d'aménagement de la region du Bas-Rhone-Languedoc, CNABRL)
1957	The company of canal in provence and development in the region Provence (La société du canal de provence et d'aménagement de la région provencale, SCP)
1957	The company of agricultural development in Corse (la société pour la mise en valeur agricole de la corse, SOMIVAC)
1959	The company of planning in hillside of Gascogne (la compagnie d'aménagement des coteaux de Gascogne, CALG)
1959	The company of planning in landes of Gascogne (la compagnie d'aménagement des landes de Gascogne, CALG)
1962	The company of planning forest and wasteland in the East (la société d'aménagement des friches et taillis de l'Est, SAFE)
1962	The company of development in the region Auvergne and Limousin (la société pour la mise en valeur de l'Auvergne et du Limousin, SOMIVAL)

The principal mission of the development company in Gascogne hills was: to develop the irrigation at the foothills of the central Pyrenees. The area of 50000 hectares was equipped for irrigation. It extended the collective networks in the valleys of Baise, Gers, Save and Garonne, or

based on the small networks charged by farmers' associations…And it created a centre of artificial insemination, a centre for testing pigs, a food factory and a canning factory. On the other hand, in the depopulation area, it advocated a change of land-use with the readjustment of amicably land. [82]

In 1971, the SOMIVAL undertook or continued the following projects[83] *: the tourism development in Auvergne and Limousin; the hydraulic works; the support for livestock.*

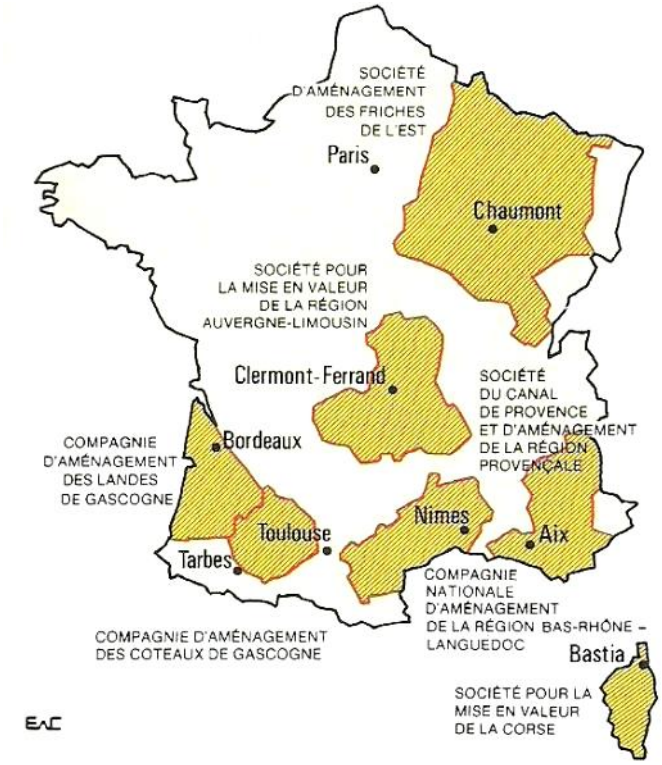


Figure: Regional development companies

Source: Les societe d'amenagement regional, rapport du CES (Comite Economique et Social), 13.3, 1984

- **Creation of renovation areas and mountain zones**

In 1967, the French government delimited some rural backwards areas as the rural renovation areas. The emergence of rural renovation policy was promoted by Premier Minister's (Georges Pompidou) acquaintance of his birth department (Cantal)[84]. The policy (la politique de renovation rurale) followed the standard of 'special rural action zone (zones speciales d'action rurale)' based on the law of agriculture guidance in 1960 (la loi d'orientation agricole de 1960): areas with the strong dominance of agriculture activity and suffering from under-development, under-population (or overcrowded), and emigration. However, it expanded the scope of 'special rural action zone',

[82] Pierre Brunet, Le roles des aménagement concertés dans la transformation des espaces ruraux français, Centre de recherches sur l'évolution de la vie rurale，l'aménagement rural : actes du V colloque Franco-Polonais de géographie (Cerisy-la-Salle, septembre 1977)，Caen：université de Caen，1980, pp 269

[83] DATAR, Loi de Finances pour 1973

[84] Francois Carron et al.(dir.), l'amenagement du territoire (1958-1974), Paris : editions l'Harmattan, pp 308

which was generally divided into four zones (l'Ouset, le Limousin, l'Auvergne et la Montagne).

The law of agriculture guidance in 1960 stated that : the special rural action zone benefited from the special measures: the areas (le Morbihan, la Lozère, la Creuse and le Morvan) were prioritized for the allocation fund of equipment and the support for small industries.

In general, the policy mainly concerned about two major missions: the economic development and the creation of employment; the construction and the amelioration of public facilities. The first mission included: the modernization of exploitation, the organization of production and market, the support for crafts and small & medium-sized companies; the improvement of rural tourism. And the public facilities mainly contained: roads, telecommunication and electrification network.

According to the rural renovation policy (1974), the general directions were: to continue special financial efforts on public investment; to modernize agriculture in order to improve farmer's income and competitiveness; to support the development of the secondary and tertiary sector (esp. food industry and tourism in rural areas); to promote the training for potential resources of labor-force and the demand of labor-market. [85]

However, the focus of the policy differed in the regions. For example, in Bretagne, the missions focused on the land concentration, the rural public service and the construction of road; in Auvergne, they concentrated more on the livestock, the tourism and the forestation.

In Auvergne (1969) the policy concerned about the equipment planning and the projects for animal production, including: the experimental measures of meat & milk and the cultivation of cattle and sheep; the construction of the tourism reception areas and stations; the establishment of animation and development structure; the amelioration of roads and telecommunications.[86] *In 1973, the modernization of dairy industry was in operation; and the other parts (the modernization of road and communication, the development of school structure) followed the regional framework of Minister's Investment.* [87]

In Limousin-Lot (1969), it focused on the production of beef and sheep, the development of road network, the amelioration of telecommunication equipment and the construction of tourism attraction centre. From 1972 to 1973, the priority was on the major infrastructure facilities (roads, telephone system). And the agriculture production was for the cattle cultivation market.[88]

[85] DATAR, loi de Finances pour 1974
[86] DARTAR, Loi de Finances pour 1970
[87] DATAR, rapport annuel, 1975
[88] DATAR, Loi de Finances pour 1974

The scope of the mountain zones was determined based on the standard of 1961 and expanded in 1973, which included 40 departments and 4263 communities (incl. les Pyrénées et les Vosges, le Jura, les Cévennes et la Corse, les Alpes du Nord et les Alpes du Sud). Since its creation, the content of mountain policy gradually turned from the development of infrastructure, the creation of national parks, and the support of ski facilities in the initial period to the integrated development of agriculture, handicrafts and tourism afterwards (e.g. the support for pastoral land association (aide aux association fonciere pastorale, 1972), the special subvention for rural construction (subvention specifique aux construction rurales, 1974)).

The objectives of the policy were[89]*: the maintenance and the reconstruction of a balance between the human activities and the natural environment; to integrate the tourism development in the rural renovation policy, including: the maintenance of agriculture activities in the mountains, crafts and small & medium industry; the development of the living condition.*

For example in Jura, Alpes du Nord: when the agriculture and certain disabilities areas were compensated by ISM (special fee in the mountain area), it met the tasks of land, especially in the tourism areas in the northern Alps; the survival of small mechanical industries; the organization of tourism; the amelioration of public service. [90]

Figure: Rural and mountain renovation zone
Source: DATAR, 1977

In 1975, one of the integrated planning in Central France (planning of 'Massif central') was established, including the whole Auvergne and the Limousin region, as well as a part of the Rhone-Alpes, the Languedoc-Roussillon and the Midi-Pyrenees region. This area was mainly the

[89] DATAR, Loi de Finances pour 1973
[90] DATAR, rapport d'activite, 1976

agriculture dominated areas and the mountain zones.

The characteristics of the area were: the population density was less than 50 inhabitants per km^2; a high proportion of active agriculture population; a low level of urbanization; its location connected the grand urban zones; the poverty (esp. in the South-East); the strong potential of the cattle breeding and the rural tourism[91].

The objective of the planning included three major parts: to eliminate isolation (highway, road, railway, aerial lines); to make use of resources and to promote activities; to ameliorate the living condition. For example (in 1978):

Eliminate isolation	Construction of the highway network and the road network
Promote activities	Agriculture: develop the technique of forage (in 1978) and livestock (in 1979), ameliorate the land structure; better use of the existing forest Craft: create employment in companies; hire apprentices and adults in the handicrafts sector Industry: use some business technique, such as the group action, search for a new market; 50% of Massif central area benefited from the maximum help (defined by the decree of 14/04/1976); industrial investment for supporting the local community to buy land, to promote the development of site and the construction of housing Three specific industrial sectors with the particular attention were: the food industry, the wood drawplate and the exploitation of sub-soil
Ameliorate the living condition	The development of road network Ameliorate the urban condition (inhabitant, animation) Improve the coverage of television

Source: Rapport d'activites, 1978

[91] DATAR, Loi de Finances pour 1974, pp. 25, 61

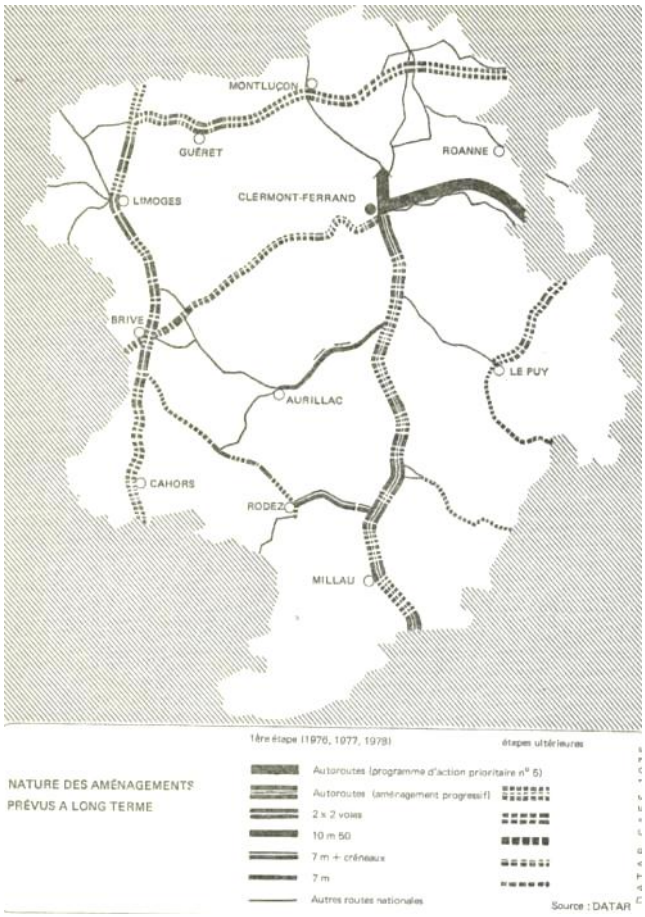


Figure: The road plan of Massif Central

Source: DATAR

The rural renovation policy was supported by the intervention fund for regional planning (Fonds d'intervention pour l'aménagement du territoire, FIAT) which was mainly for the construction of rural facilities and the improvement of non-agriculture activities (esp. crafts). It followed by the creation of the rural renovation fund (fond de renovation rurale) and the rural planning fund (fond d'amenagement rural, FDR). Later, the FIDAR (Fonds interministériel de développement et d'aménagement rural) was established in 1979, which was a gathering of fund concerning the rural planning.

Table: Programs on rural facilities (FIAT), 1963—1970 Unit: francs

	IV Plan	V Plan	Pourcent (%)
Rural equipment			
Rural public service	10460700	38205700	3.56
Grand regional planning	18700000	18800000	2.74
Parks and peripheral zones	7000000	18723000	1.88
Rural renovation	--	93708800	6.88
Others	10339300	12795000	1.70
Road equipment			
Countryside	94260000	226855000	23.65

Source : Loi de finances pour 1970

Table: Special equipment program, 1971 (rural renovation areas)

Minister	Auvergne	Bretagne	Limousin	Mountain	Total		
						Minister	FIAT
Agriculture	40.415	22	22.372	22.406	107.193	85	22.195
Equipment	14.585	37.50	13.220	4.09	69.365	65	4.395
PTT	8	78	5	2	93	93	
National education	8.248	--	8.060	5.28	21.588	20.238	1.350
Domestic	1.770	0.100	0.245	3.85	5.965	0.420	5.545
Youth and sports	0.165	0.057	0.788	1.80	2.810	1.200	1.610
Industrial and scietifique development	3.302	0.993	0.560	1.270	6.125	1.0125	5.1125
Culture affares	0.170	--	--	--	0.170	--	0.170
Civil aviation	0.800	--	--	--	0.800	--	0.800
Public health	--	--	0.482	--	0.482	--	0.482
Work	0.530	--	--	--	0.530	--	0,530
Studies-Animation	0.200	0.8425	0.120	0.424	1.5865	--	1.5865

Source : DATAR, loi de Finances pour 1972

- **Creation of rural planning (plans d'amenegament rural, PAR)**

The rural planning is an action at the micro-region level, which is presided over by the region prefect. Similar with the medium-sized city policy and the small city policy, it is also a product of the decentralization of political power and the demand of local participation. Although it was seen as a procedure led by the administrative department (prefecture and direction of agriculture department), it also allowed the participation of representatives, professional and inhabitants.

The principles of rural planning were defined by the decree of 1970, which was guided by the law of land guidance in 1967 (la loi d'orientation fonciere de 1967). And PAR determined the orientation of rural planning. The objectives were for the development and the construction & the amelioration of equipment in the rural areas, which included the socio-economic development (i.e. agriculture, forest, craft, industry, service, housing, tourism etc), the construction and amelioration of rural equipment, and the protection of natural space (by POS (planification de l'usage des sols)). Until the year 1981, there were 170 PARs in France.

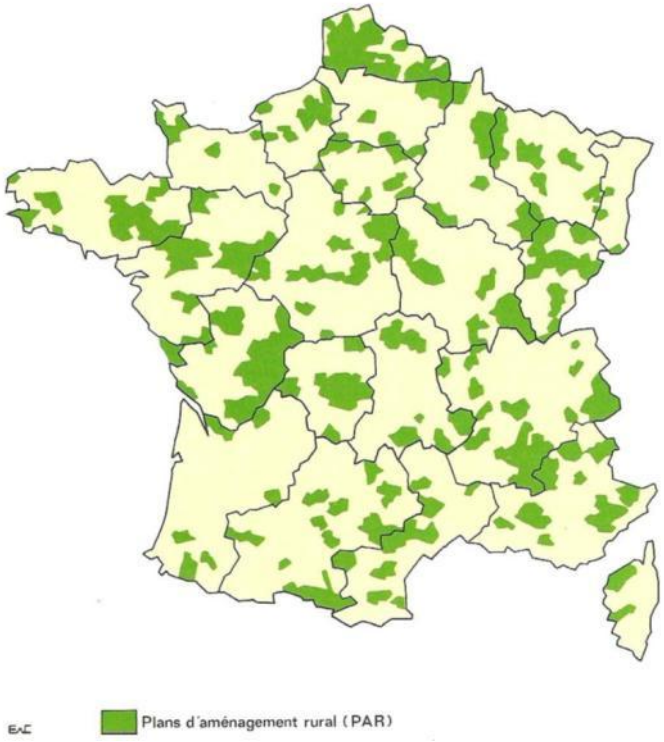


Figure: Rural Territory Plan (1981)
Source: Ministere de l'Agriculture

Environment protection

The creation of national park and regional natural park is an important step for the French government to protect the environment which followed the creation of natural reserves on the basis of the 1st July law in 1957. Since the birth of the first national park in 1963, France has established six national parks (Parc de la Vanoise, de Port-Cros, des Pyrénées, des Cévennes, des Ecrins, du Mercantour). A national park is generally located in the under-populated or depopulated area, with a target of protecting the natural space (plants, animals). In addition, national park has a strict control for general activities (such as hunting, harvesting, tourism, commercial, industrial etc). However, its peripheral area (Zone Peripherique) could be planned as an integrated area of the social, economic, cultural facilities and the related activities. It obeyed the rules dictated by the state which provided the funds.

In 1967, the first regional natural park was created, which expanded the protection scope of national park. Its objective was 'to ensure a balance between the ecological protection, the rural life and the citizen's leisure', which was different from that of national park. In addition, it related more closely to the regional intervention, and became a decentralized tool of regional planning[92]. Since the 1970s, the objective of economic development was more emphasized than during previous period.

The major tasks of regional natural parks were[93]*: the protection and the enhancement of heritage (ethnological, cultural, environmental, architectural etc); the space management: the elaboration of POS, the protection of environmental areas and the training of local officials; the tourism development; the economic development: to refuse the heavy and polluted activities; the agricultural development: the reclamation of re-used and abandoned farmland, to promote the local production and to organize a sale channel; the maintenance of the commercial and artisanal network.*

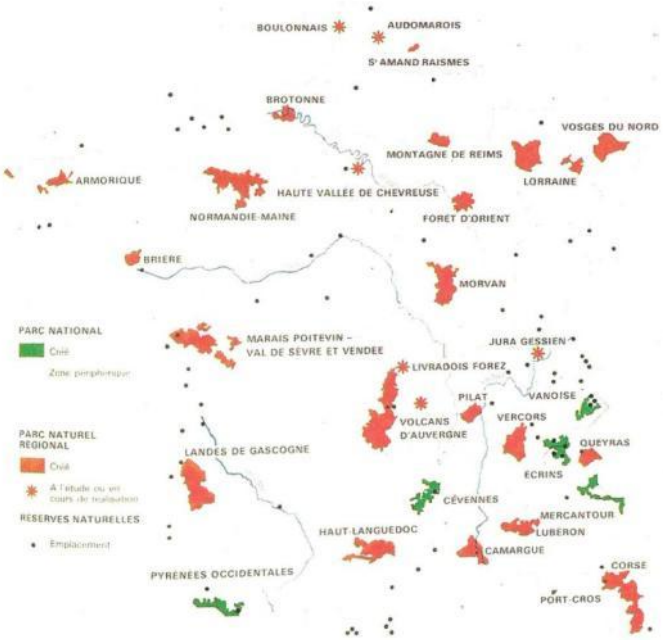


Figure: French National Park and Regional Park

Source : Ministere de l'Environnement, CAES, 1987

Figure: The characters of national park and regional natural park

	National Park		**Regional natural park**
	Park zone	Peripheral zone	
Land	Important and with a value of science, wildlife, flora, soil, sub-soil, water etc Some areas could be classified as the nature reserves	Rural areas around the park area	Rural space of a large scope and the exceptional beauty where some areas could be classified as the nature reserves
Population	None or merely	Population of rural areas	Population of rural areas
Major objectives	Protection of the natural	Enhancement of the	Protection and

[44] [93] Jean-paul laborie et al, La politique française d'aménagement du territoire de 1950 à 1985, Paris : la documentation fran çaise, 1985, pp 73

	resources	natural resources based on resources of parks ;agricultural and forestry development ; tourism development	enhancement of the natural and historical resources; maintenance and renewal of the rural economy; reception and education for citizens
Structure	Public agency under the Ministry of Environment	Departmental advisory committees	Local management : mixed union, association and foundation
Financement of equipment	the state	Local community with a grant at the rate of rural renovation areas	Local community with grant
Financement of fonctioning	the state	the state and the local community	the state, the regional public establishment and the local community

Source : Jean-paul laborie et al, La politique française d'aménagement du territoire de 1950 à 1985, Paris : la documentation fran çaise, 1985

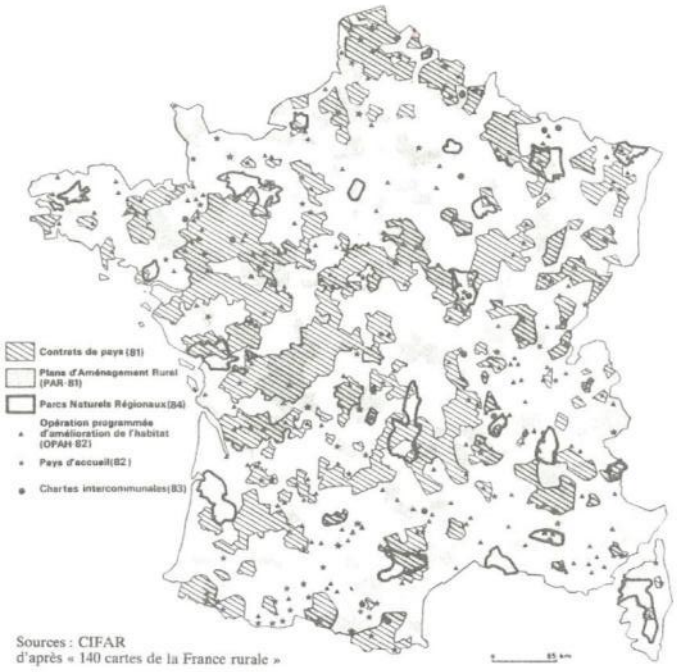


Figure: The inter-commun collaboration

Source: CIFAR

5.3.2 Development of the coastal area

With the demand of tourism and the expansion of cities, the French government began to pay attention to tourism planning in coastal areas since the 1960s. Three coastal areas were chosen, and related planning was drawn up afterwards, such as the coastal planning of Languedoc-Roussillon (l'amenagement du littoral Languedoc-Roussillon, 1963), of Corse (in 1966) and Aquitaine (in 1967).

It is not to build a traditional city (grand ensemble urbain), but a holiday city created for the relaxation and the pleasure of the population. The objective is to make the coastal region as a modern tourism area.[94]

The target of the French government was to improve the local development in the unbalanced area by a tourism-driven way. For example in the Languedoc-Roussillon region, two development problems were obvious: the dominance of agriculture and the less-developed industrialization[95]. And the aims of the mission (la Mission interministerielle pour l'amenagement touristique du Languedoc-Roussillon) were: to create a big tourism region and to explore its potential resources; to develop the tourism and some related activities; to balance the tourism in France by absorbing foreign investment and tourists[96].

Equipment	Urban planning of regional interest (le plan d'urbanisme d'interet regional)	The public power ensure the land for the project and urban planning
	Major programs	——ensure the rapid communication between the new unites and the national road network ; ——backfilling and dredging of the coastal marshy land; ——construct a chain of 12 ports; ——reforest the coastal area and assurer the green space in the tourism stations; ——establish a system of water supply and sanitation for avoiding the sea pollution
	Construct the city of vacation	
Protection	The land-use plan	——urban planning of regional interest divided the urbanized space and the protected

[94] Pierre Racine, Mission impossible, L'aménagement touristique du littoral Languedoc-Roussillon, 1980

[95] Claude Lacour et al, 40 ans d'aménagement du territoire, Paris : la documentation française, 2008, pp. 50

[96] Jean-Paul Laborie et al, la politique française d'aménagement du territoire de 1950 à 1985, Paris : la documentation fran çaise, 1985, pp. 27

		space (the rural area, the forestation, the biological and natural reserves); ——forestation in coastal area; ——in new sites, a protection policy was established: planting green space; removal of huts and camping on beaches; control of sanitation and discards in seas
	Classify and conserve the coastal area	Consider the importance of aesthetic, historic and biologic function

Source : Jean-Paul Laborie et al, la politique française d'aménagement du territoire de 1950 à 1985, Paris : la documentation fran çaise, 1985, pp. 27-28

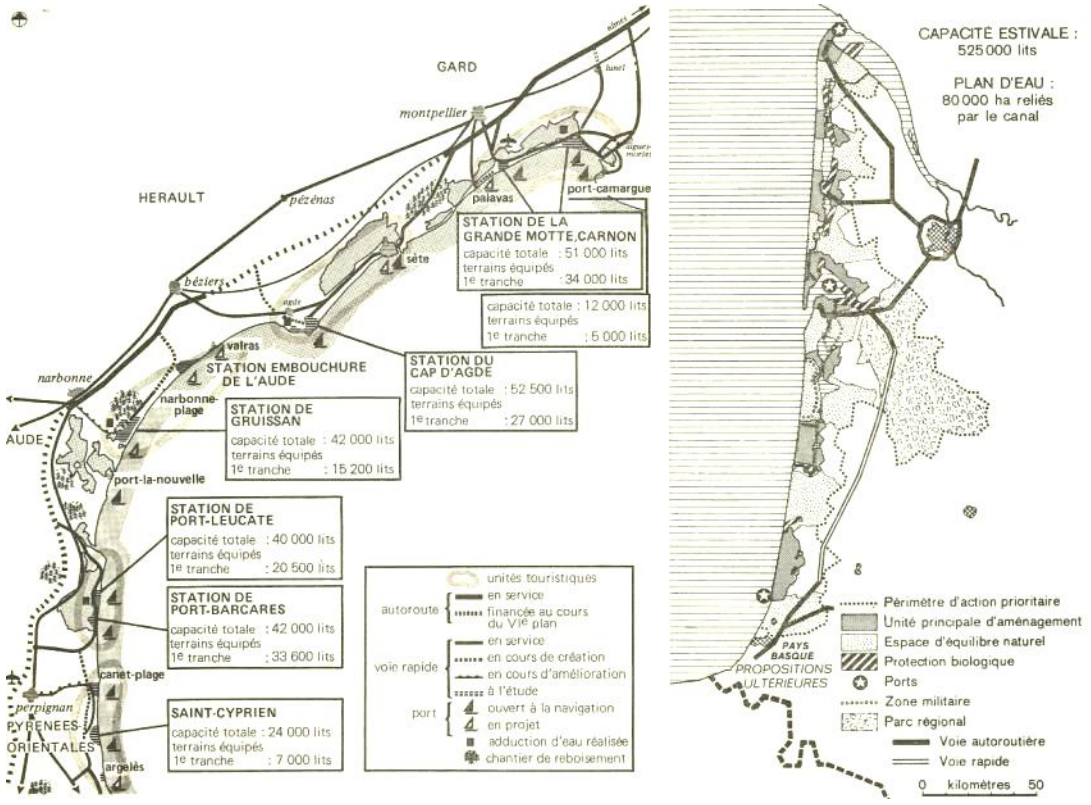


Figure: Coastal tourism planning of Languedoc-Roussillon; Amenagement de la cote-Aquitaine
Source: Loi de Finances pour 1973

5.4 Level of transportation and telecommunication construction

The construction of infrastructure played an important role in regional planning during the '30 glorious years'. From 1963 to 1967, 38% of the FIAT (fonds d'intervention pour l'amenagement du terrtoire) was for the road sector, 12% for ports and waterway and 9.4% for the field of

telecommunication[97].

5.4.1 Construction of motorways

The regional development related closely to the infrastructure construction (esp. transportation construction). The massive transportation construction began since the year 1958. During the period of 'Le III Plan (1958-1961)', some serious problems emerged: the inadequate transportation could not keep up with the rapid development of economy and society in France.

For example, the regional planning of Rhône-Alpes (le plan régional de développement et d'aménagement de Rhône-Alpes, 1960) wrote that 'the importance and increase of traffic promoted the construction of highway in the south of Lyon, which was a part of the Paris-Marseille highway (program of ministerial decision in 10/12/1955)'.

Therefore, the first highway framework was proposed in the 'III Plan': its construction mileage reached 2000 km from 1960 to 1975; some major lines were planned to construct, such as the line Lille-Paris-Marseille, the line Esterel-Cote-d'Azur and the line Paris-Normandie. After the creation of the 5th Republic, this kind of construction continued and was further emphasized by the new government, which was written in the 'temporary plan (1960-1961)'. The aim of the plan included: to ensure the smooth passing in the big urban agglomerations and in the axis lines; to connect the national main economic centers. However, the first group of the priority projects regarding the highway at that time were mainly concentrated in the east part of France (the more urbanization area), which was divided by the line 'le Havre-Marseille'.

During the period of the 'IV Plan', a massive construction of transportation accompanied a series of regional planning such as the 'industrial de-concentration policy' and the 'balance metropolis policy'. According to the regional planning, the investment during the phase focused on the main development axes lines and poles.

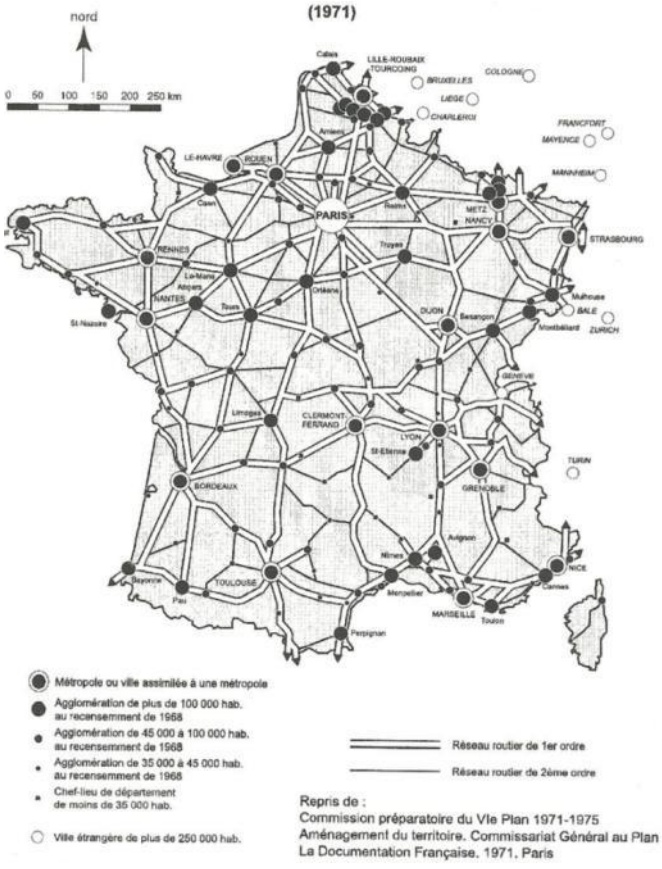
In the period of the 'V Plan' and the 'VI Plan', the major objective was still to create lines between Paris and the other 'balance metropolises', including the highway as well as the railway. The priority projects of the 'VI Plan' included some axes, especially the axis of 'Paris-North', 'Paris-South-East', 'Basse-Seine', 'Paris-East', and 'Rhin-Mediterranee'; and lines in the western region and the rural areas. In addition, some other projects were taken into account, which involved the development of some traditional industrial area (North and East) and the main harbors (Dunkerque, Le Havre, Marseille-Fos); the development of public transportation (RER, metro) in some big metropolitan areas (e.g. Paris, Lyon, Marseille). Moreover, the transportation lines linking with other European countries began to be emphasized by the government during the period, such as the highway 'Paris-Metz-Strasbourg' (connect France to Germany); and the

[97] Archives nationals (AN) (Centre des Archives contemporaines) (CAC), 860219, art. 5 : Comite interministeriel pour l'Amenagement du Terrtoire du 6 Feverier 1967

north-south axis (Lille-Paris-Lyon-Marseille, link France and Belgium).

In the 1970s, France had built several major highway axes from its capital (Paris) to the north, west, south-east and the south part of France, which showed as a radial development structure (Paris as the core). For example, the highway Lille-Paris-Lyon-Marseille was inaugurated in the year 1970. And the major programs (project de shema directeur des grandes liaisons routieres, 1971) constituted two kinds of motorway lines: the relation between Paris, the balanced-metropolises & the assimilated cities and the big international cities; the relation between the metropolises and the urban agglomeration of more than 40000 inhabitants in the influence zone[98].However, during the period, DATAR proposed that: the highway density of the north, the east and the south-east was much higher than that of the central part and the west. It would widen the gap between the west and the east. Therefore, the construction began to incline in the west, south-west and the central part of France.

Figure: Project of major road links programs, 1971



CIAT (Le comite interministeriel d'amenagement du territoire) decided the construction of motorway network (1977-1983) in 1977: 60% of them would be located in the west, the south-west and the central part (le Massif central) of France.

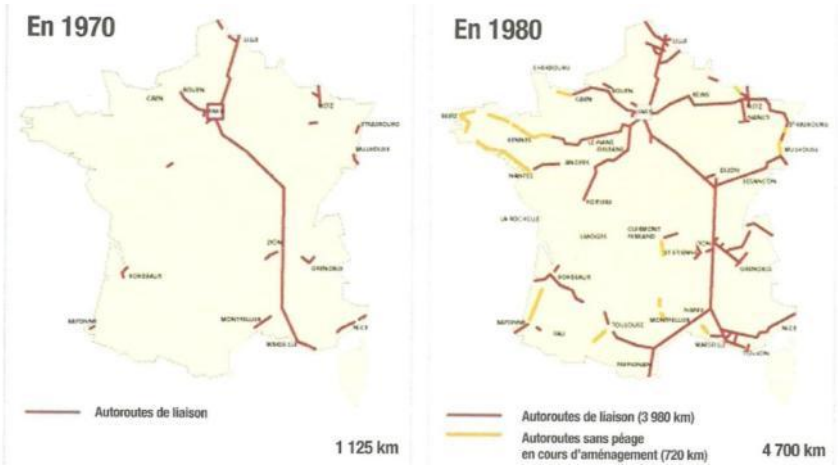
On the whole, before the oil crisis in the 1970s, the construction of highway was always the major task of the transportation construction. And the objectives of construction mileage increased all the time: 450 km in the 'IV Plan (1962-1965)', 450-885 km proposed by the inter-ministerial council (conseil interministériel) in 1962, and 1000 km in the 'V Plan'.

In 1960, there was only 175 km of highway in France. However, it increased to 1000 km in 1968 and 4000 km in 1980. Moreover, the massive construction of motorway accompanied the growth of vehicles, the number of which was 6 millions in 1959 compared with 22 millions in 1980[99].

Year	1962	1970	1981
Length of motorway network (km)	50	1000	4000

Source: DATAR, Une nouvelle étape pour l'aménagement du territoire, la documentation française, 1990, pp 61

Figure: The construction of highway network



Source : Christel Alvergne, Pierre Musso, L'amenagement du territoire en images, Paris : La documentation francaise, 2009, pp 151

However, after the oil crisis, a large-scale construction of the motorway network entered into the end gradually. At the same time, the construction of high-speed railway (TGV) was put into operation.

5.4.2 Construction of railways and grand port

During the period of the V and the VI Plan, the government emphasized the investment on infrastructure (the radical network around Paris and lines between the balanced-metropolises).

On the whole, during the '30 glorious years', the development of the railway fell behind that of the motorway in France. But in the 1970s (esp. after the oil crisis), the advantage and significance of railway was considered again, in comparison with the general critique about motorway (e.g.

[51] [99] Pascal Berion, Jean-Francois Langumier, Le reseau autoroutier francais, La politique d'amenagement du territoire : racines, logiques et reaultats, Presses Universitaires de Rennes, 2002, pp 122, 127

environment).

Due to the technique progress (e.g. electrified transformation), the 'time distance' was largely reduced. And the radical centralized structure was paid attention by government to some extent. According to a report published by la DATAR in 1970[100], it mentioned that: the centralized structure should be modified; it should promote the links between the balanced-metropolis and its satellite city, and the direct and rapid links between Paris and these cities; the connection lines within the regions should be completed. However, the main electrified railway lines still expressed as a radical structure with Paris as its core. It was strengthened furthermore along with the construction of the high-speed passenger lines since the 1970s.

Table: The development of transport network, unit: 1,000 km

	Road Network		**SNCF Network**		
	Highway	National network*	Total lenghth	Electrified lines	TGV lines
1954	0.17	80.8	39.8	4.6	--
1964	0.49	80.8	38.2	8.2	--
1974	2.67	33.9	34.8	9.3	--
1984	5.74	34.0	34.7	11.3	2.1

*la rupture de 1974 resulte d'une modification de la definition des routes nationales

Source: DAEI/SES, CCFA, SNCF

Year	**Passenger traffic (in billion passenger/km)**	**Freight traffic (billion tons/km)**
1948	30.6	41.2
1958	32.3	52.9
1968	35.9	63.0
1973	44.7	73.9

Source : Rene Pares, Le chemin de fer en France, La documentation francaise, 1974 (dec.), pp. 41

[100] Archives nationales (AN), (Centre des Archives contemporaines) (CAC), 860645, art.4 : Etude des principales liasions par voie ferree a moyenne distance, rapport provisoire, 1970

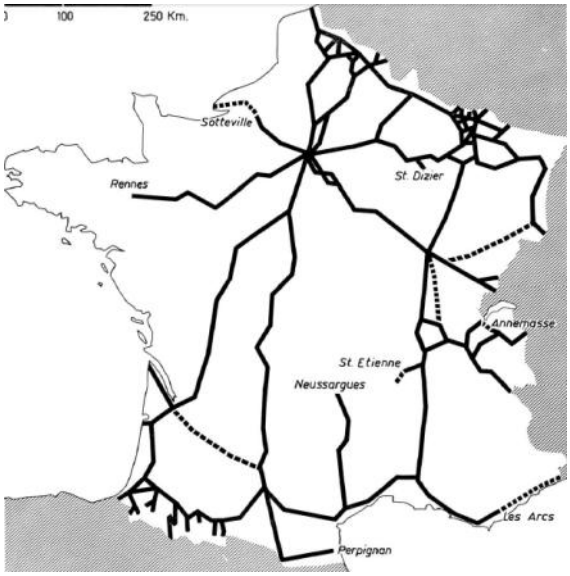


Figure: The passenger railway lines, 1980

Source : FNAUT, Propositions pour un schema ferroviaire national, Transports urbains, N.47, avril-juin, 1981

Figure: Electrified line of SNCF (until 1966) and new line completed before 1970

Source: Jacques Schnetzler, Le chemin de fer et l'espace francais, revue de geographie de Lyon, Vol. 42, n 1, 1967, pp. 85

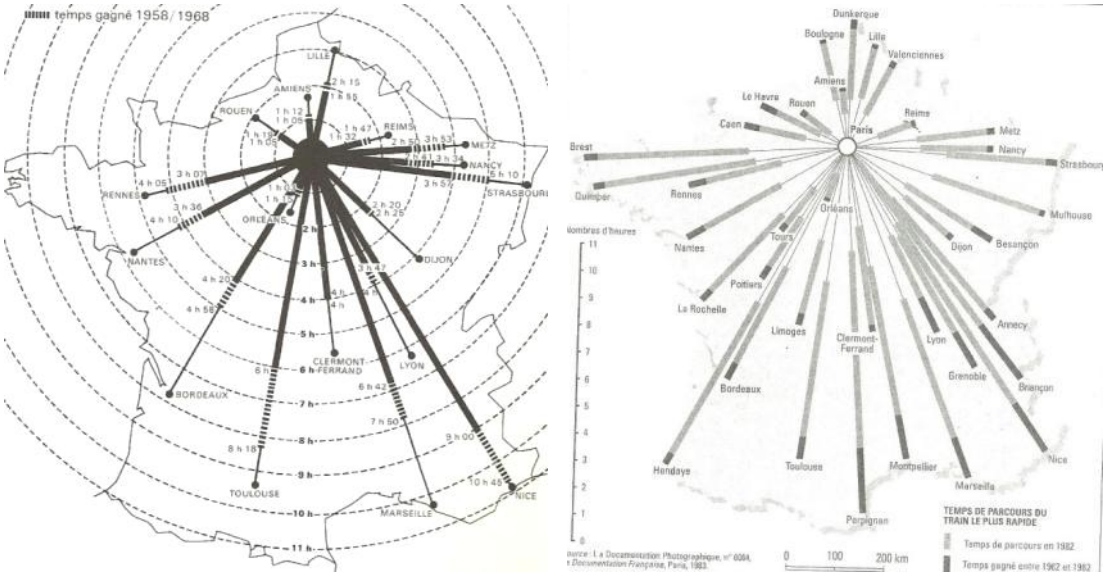


Figure: The «time distance »by train between Paris and major cities, 1958, 1968

Source : Les collection de l'Insee, Statistiques et indicateurs des regions francaises, 1969, pp. 139

Figure: Evolution of «time distance »by railway, 1962-1982

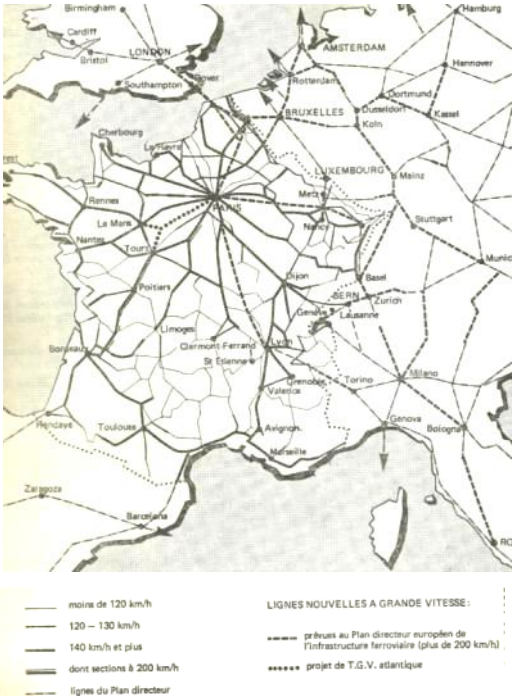
Source : La documentation photographique, n 6064, la documentation francaise, Paris, 1983

In the 1970s (esp. after the oil crisis), the railway construction was paid attention furthermore by the French government, partly due to the problems caused by motorway (e.g. resources, environment, traffic jam).

In the period of the 'VII Plan', France started to build the first high-speed passenger rail line (TGV) in 1974 for easing the transportation pressure of the Paris-Lyon line and the line relating Paris to the Mediterranean region. The rapid line greatly decreased the time distance between the

two important areas. In 1985, TGV Paris-Atlantique was put into operation, which followed the completion of TGV Paris-Sud-Est in 1981. Since then, the high-speed rail became an important infrastructure in France (even in Europe). During the period from 1980 to 1985, the traffic between Lyon and Paris increased by 160%[101]. The construction of 'TGV' further strengthened the relation between Paris and these 'balanced metropolitan areas'.

Afterwards, the high-speed passenger rail extended and related to other countries nearby in Europe, such as Belgium and Germany (Paris-Brussels-Cologne), Switzerland (Paris-Zurich) and UK (Paris-London). The construction of TGV modified the urban hierarchy in France and in European to a certain degree.



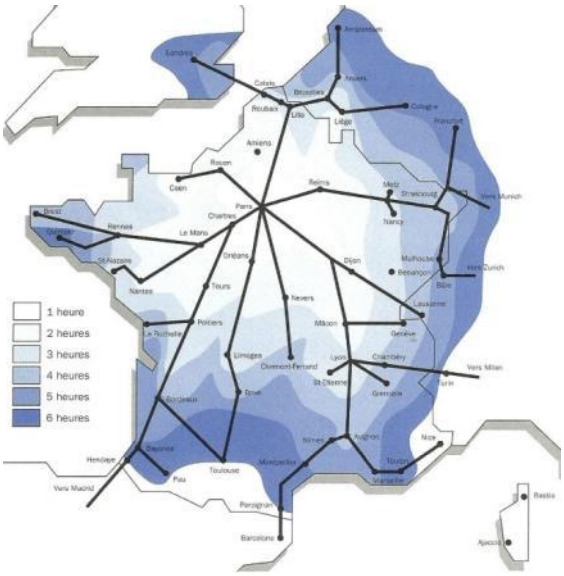


Figure: The passenger railway lines

Source: UIC (Union international des chemins de fer)

Figure: The evolution of the scope of TGV, 1990

Source: DATAR

In addition, with the progress of urbanization and the expansion of cities (e.g. new towns), the rail lines were constructed between the centre of big city and its suburbs during the '30 glorious years', such as Paris, Lille, Strasbourg, Bordeaux, Toulouse etc. And it met the increasing demand of everyday traffic to a certain degree.

[101] Claude Neuschwander and Hugues Sibille (responsable), TGV et amenagement du territoire, Paris : Syros/Alcunatires, 1991, pp. 26

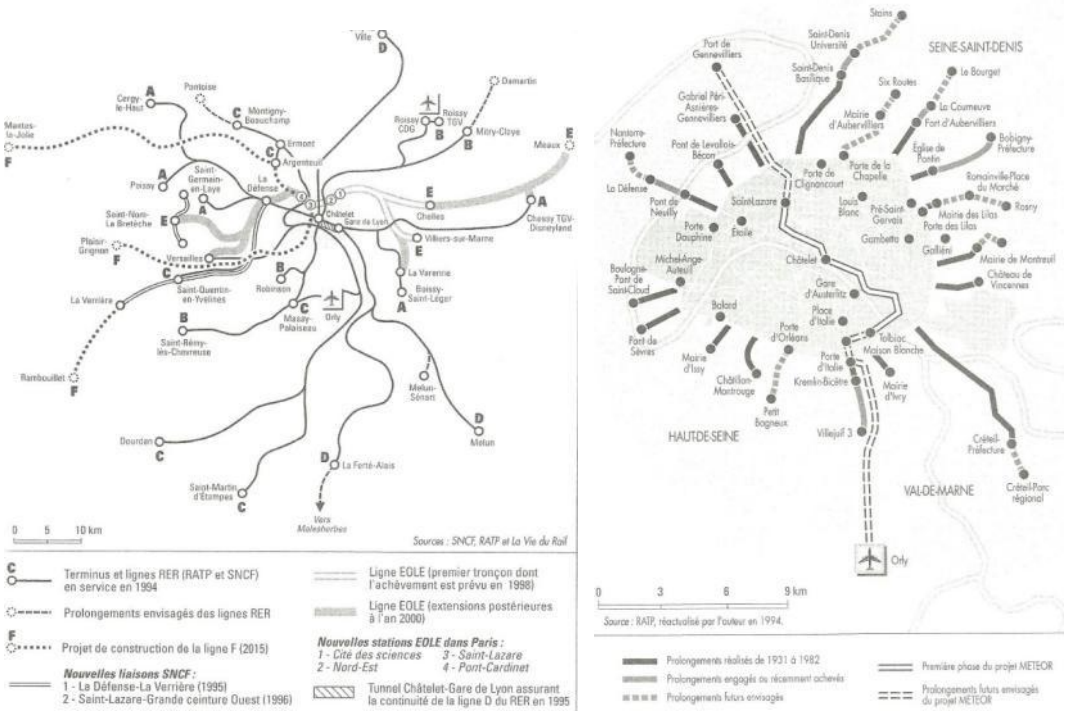


Figure: The regional network (reseaux express regional, RER) and EOLE lines

Figure : The metro in suburbs

Source : Jean-Francois Troin, rail et amenagement du terrtoire, EDISUD, 1995, pp. 146

On the other hand, the development of the French ports balanced the radical and centralized transportation structure to some extent. During the '30 glorious years', the government supported the planning of some port (e.g. the port of Dunkerque, Brest, esp. the port of Marseille-Fos and la Basse-Seine). Considering the balanced distribution, it also supported the ports in Bordeaux and Nantes-Saint-Nazaire. The state invested mainly on six big ports (Marseille, Dunkerque, Bordeaux, Nantes-Saint-Narzaire, Le Havre, and Rouen), which accounted for more than 82% of total. Among them, about 80% of them were concentrated in the three major ports (Dunkerque, Le Havre and Marseille)[102]. In addition, according to the planning of la DATAR, a number of secondary ports on the French shoreline were maintained and modernized for the geographical balance[103]. After the '30 glorious years', the big ports connected the other ports in Europe and in the world, and the 3 major ports belonged to the group of the first 22 ports in the world.

[102] Jean Chapon, La politique portuaire, l'amenagement du territoire (1958-1974), Paris : L'Harmattan, 1996, pp. 161

[103] Anne Burnel, L'action de la DATAR: face au gouvernment et aux operateurs (1963-1974), l'amenagement du territoire (1958-1974), Paris : L'Harmattan, 1996, pp. 103

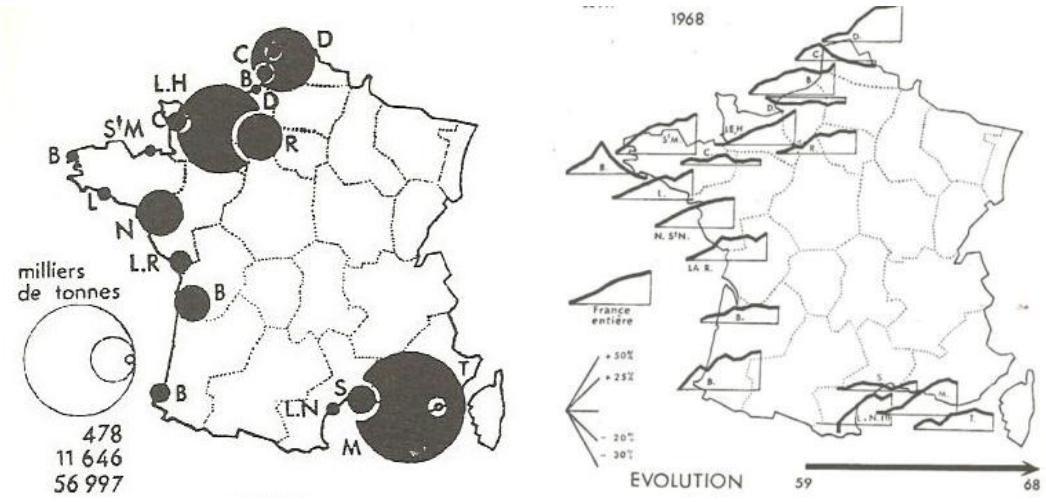


Figure: The general traffic of maritime port, 1968

Source: Les collections de l'Insee, Stratistiques et indicateurs des regions francaises, 1969, p. 145

However, since the 1980s, the capacity of the French ports began to decrease, and these ports had to face the competitions of others ports in Europe.

Table: Evolution of the capacity, unit: in thousands of tons

	1973	1978	1983	1989	1990
Nord	9000	14800	6300	6000	6000
Vallee de la Seine	55900	66800	54740	37785	31935
Atlantique	18450	17400	16700	9960	9960
Mediterranee-Rhone	48195	58300	54420	32700	32700
Est	12500	13940	8810	4200	4000
Total	144045	171240	140970	90645	84595

Source : UFIP

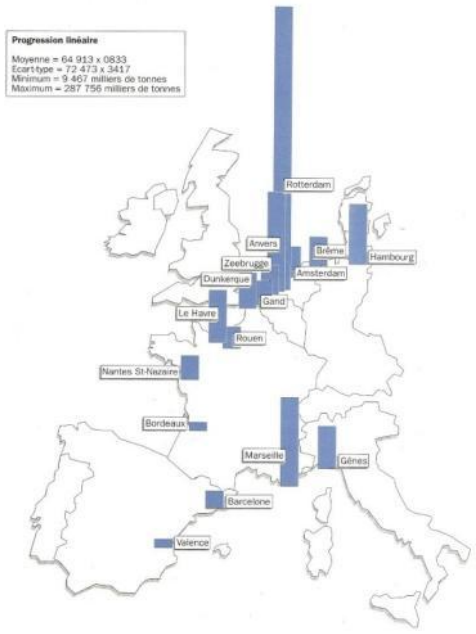


Figure: Traffic of some European ports, 1990

Source: DPNM

Port of Dunkerque (investment) [104]*:*

—Before 1965: Creation of the dock 6, creation the first part of the maritime basin, the Mardyck lock (the port link was by the waterway), realization of the embankment of docks, realization of SNCF station for Usinor etc;

—From 1965 to 1980: the 2nd phase of maritime basin (East Port), lock of Gaulle (East Port), creation of the outer harbor, creation of channel port (West Port), creation of the west bulky dock (West Port), creation of the dock of Lorraine and Flanders (West Port), realization of the steel pier (East Port), the pumping station at lock of Gaulle (East Port), No 6 dry dock (East Port).

Traffic of port	*Unit : millions of tonnes*
1965	*15887*
1970	*25386*
1975	*29887*
1980	*41217*
Surface of port area and industrial-port area (in the end of 1978)	
West Port	*5976 ha of land and 983 ha of water area*
East Port	*1369 ha (913 ha of land and 456 ha of water area*

Source: CGP, V plan

5.4.3 Creation of airlines

The investment on the airlines emerged in the 'III Plan'. Some airlines in the under-developed areas were emphasized, for example in Bretagne, le Massif Central and le Nord-pas-de-Calais. In the 1960s, some radical and transversal lines were created, which involved some important cities, such as Nantes, Bordeaux, Toulouse, Clermont-Ferrand, Lyon and Marseille. And the objective at that time was to make sure the airline service in each balance metropolis[105], which also accompanied the process of the industrial and the tertiary de-concentration action.

Figure: Passenger traffic for the interior lines (air inter)

1962	1965	1971	1975	1980	1983
200000	800000	3000000	4900000	8000000	10000000

Source : SIRF 1974 and 1984

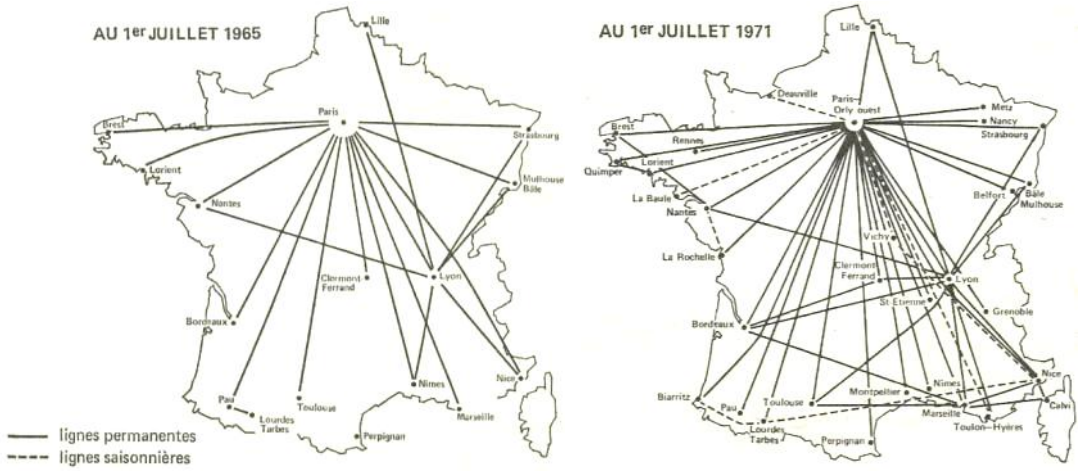
The creation of national network should be considered as an important element for the industrial de-concentration and the regional economic development.

[104] Jean Chapon, La politique portuaire, l'amenagement du territoire (1958-1974), Paris : L'Harmattan, 1996, pp. 164 (Annexe)
[105] CGP, V plan, rapport n 1278-1278 bis, 1965, pp 136

According to the figures below, the connection of the national airlines became closer in the 1970s. Some new airlines (e.g. the second radical lines and the second traversal lines; between Paris and more cities and among more regional cities) were created. In addition, la DATAR improved the creation of airlines for the regional development such as the Carcassonne-Montpellier line, the Caen-Le Havre-Lyon line and the Montlucon-Paris line (as shown in the policy of conversion pole).

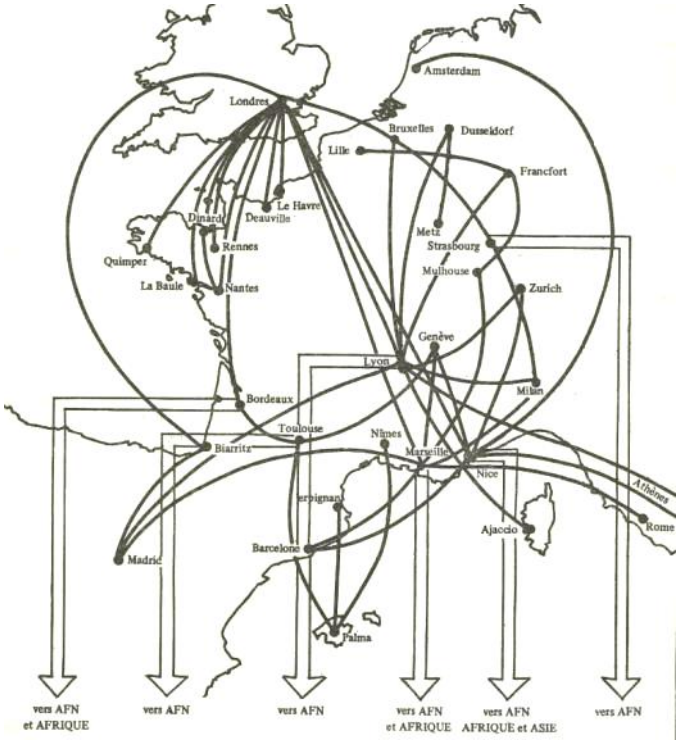
Besides, along with the process of the European integration, the links with other important European cities were enforced. La DATAR supported the aerial lines between the French regional metropolis and some international cities, such as the Bordeaux-Toulouse-Milan line, the Lille-Bruxelles-Amsterdam line.

Figure: The national aerial links



Source: CRES

Figure: The international aerial links, November 1973



Source: CRES

Table: The traffic of French aerial company

Aerial company	**1963**	**1970**	**1975**	**1980**	**1985**
Passengers (in millions of passagers-kilometers)					
Air France (A)	6255	10657	17912	25495	28649
UTA (B)	936	1981	3421	5219	5836
Air inter (C)	153	1301	2333	5787	8911
Total (A+B+C)	7344	13939	23666	39655	48527
Company of the 3e level (D)	--	--	1188	4628	15105
Total	**7344**	**13939**	**24854**	**44283**	**63632**
Freight and postal service (in millions of tons-kilometers)					
Air France (A)	151	408	830	1672	2500
UTA (B)	26.8	136	269	493	500
Air inter (C)	0.4	4	7	12	19
Total (A+B+C)	178	548	1106	2177	3019
Company of the 3e level (D)	--	--	5	9	39
Total	**178**	**548**	**1111**	**2186**	**3058**

Source : Direction generale de l'aviation civile (1963-1985), chiffres de l'auteur (1990-1991), in Merlin (Pierre), mise a jour a partir de Geographie, economie et planification des transports, Presses universitaires de France, Paris, 1991

5.4.4 Construction of telecommunication

The construction of telecommunication was carried out in the 1950s. Till that time, France was considerably late in the development of this service, compared with all developed countries and a strong catching up program had to be undertaken. Until the 1970s, the long-distance links of telecommunication had covered the whole France.

With the help of CNET, the telecommunication lines were gradually reconstructed and upgraded, for example, the link Marseille-La Ciotat in 1960 (300 voies), the line Paris-Bordeaux in 1970 (1800 voies), the line Paris-Lyon-Marseille-Nice (2700 voies), and the line Saint-Raphael-La Foux (3440 voies). The development could not only be reflected by quantitative way, it had also to be expressed by the quality of service, i.e. the national/international network and the call efficiency.

However, the service of telephone developed rapidly in the big cities and the industrialized regions, and the service of tele-information was largely concentrated in the Paris region. In the 'VII Plan', it proposed to invest on the telecommunication service in some provinces in order to help them to reach the level of the Paris region. For example, the project of «green telephone» was decided in the year 1976, which was carried out in the Massif Central. And it constructed in priority the long lines of telecommunication for the rural area with a low density. Besides, the growth of budget in telecommunication also accompanied the change of technology.

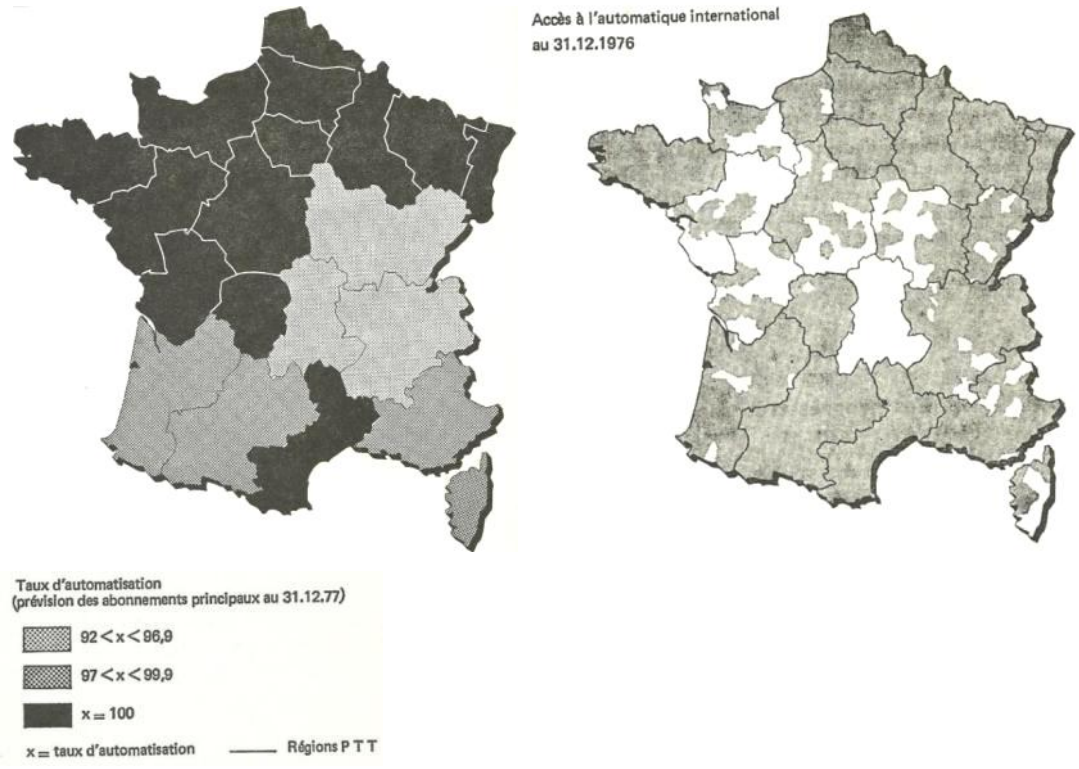


Figure: Rate of automation

Source: PTT

5.5 Conclusion

In beief, during the 30 glorious years, French government carried out a series of regional planning with the aim of 'balance development'. The method and content changed along with the development goals and the evolution of background at different phases.

Generally,for the economic layout, the support objectives gradually turned from industry to service sector, and the scope expanded from the Paris region and Paris basin (mainly at the beginning phase) to the whole France finally (more comprehensive and systematic). For the urban system, the targets changed among different levels of cities, turning from balance metropolises (big regional city), new towns (inside the metropolitan area of big city) to medium-sized and small cities. And the emphasis was mainly from improving economic development to amerlorating living condition at different development phases. For the rural area, the goals also added some new content (i.e. environment protection, facilities amerloration for multi purposes) besides for agricultural development and basic facilities in the initial period. The planning goal of coastal area was clear, mixing the facility construction and environment protection, such as the aims of rural area at the mid and late phases. As the supporting tools, the construction of transportation and telecommunication followed the implementation of other regional planning/policy, the emphazed area of regional planning became the construction prority at different phases, i.e. lines among Paris, balance metropolises and conversion areas.

Name	**Main period**	**Major methods**
Level of economic layout		
Industrial de-concentration	1950s-1960s	Divide into different zones, manager by tax, grant and subsidy From the Paris region, Paris basin to other part of France; more systematic
Service de-concentration	1960s-1970s	By tax, grant and subsidy; transfert of research/education resources From the Paris region to cities in provinces
Level of urban system		
Balance metropolis	1960s	Support transportation equipment, urban construction, industrial development, de-concentration of service-
New town	Late 1960s-1970s	
Medium-sized and small city	1970s	Amerloration of living condition, creation of work place, service support
Level of rural and coastal area		
Rural area	1950s-1960s	Improve agricultural development, construction of basic facilities
Rural area	1960s-1970s	Creat renovation area, support less-developed area Environment protection (i.e. national park, regional natural park)
Coastal area	1960s-1970s	Construct facilties, protect natural resources with the aim of

		tourism development
Level of transportaion and telecommunication construction		
Motorway	1950s-Early 1970s	Construct major lines (i.e. between Paris and other cities, among regional cities, industrial zones)
Railway	1970s	Re-emphaze its importance and start the large-scale construction (i.e. high-speed passenger railway)
Airline	1960s-1970s	Construct major lines (i.e. between Paris and other cities, among regional cities)
Telecommunication	1960s-1970s	Construct and upgrade major lines

In fact, the goal and method of regional planning were continuously adjusted during the 30 glorious years. However, some problems still emerged through and after the goldern period. We will analyze the effect and causes in the next chapter.

Chapter 6-9: The actual changes after the Implementation of Regional Planning during and after the '30 Glorious Years'

During and after the '30 glorious years', the effect of regional planning gradually emerged. Although some changes reached the aims of regional planning, some development consequces were beyond the control and original expection of regional planning.

In fact, the actual development are quite complex, which are influenced by planning of government, the demand of market and residents, and the change of background etc. In these chapter, we describe and evaluate the actual changes after the implementation of regional planning during and after the '30 glorious years', in order to analyze and conclude its success and problems. We choose four aspects, which echo the previous chaperters and relate closely to the process of rapid urbanization: the actual change of industrial and service de-concentration, the evolution of migration, the position of the Paris region and balance metropolis, and the actual effect in rural areas.

Chapter 6: The actual changes of industrial and service de-concentration: planning guidance and market demand

The industrial and service de-concentration policies were quite important during the research period. In the chapter, we consider that the actual changes were the results of both planning guidance and market demand.

6.1 The effect of the industrial de-concentration

6.1.1 The new division line in France

On the whole, during the '30 glorious years', the amount of industrial employment in the Paris region declined, and the number in other provinces increased significantly (esp. in the western part of France). From 1950 to 1975, about half million of industrial employment were created in the

provinces with nearly 3500 de-concentration projects (operation)[106]. Take the automobile industry as an example, in 1959 about 3/4 of them were concentrated in the Paris region, compared with the proportion (about 1/2) in the year 1970[107].

It could be seen as a result of both public policy intervention and market requirement. For example, during the same period, the proportion of the industrial construction's permits dropped from 33% in 1955 to 7.5% in 1975[108].

Figure: The de-concentration in the automobile construction sector

Source : Le nouvel economiste, N 204, 15, octobre, 1979, pp. 75

Table: The variation of industrial and tertiary employment, 1962-1968

	Variation of the industrial employment	**Variation of the tertiary employment**
Regions in East France	+4.8	+16.9
Region in West France	+16.8	+15.0
The Paris region	-1.1	+14.7

Source: L'insee

Table: The variation of companies with more than 100 employees, 1961-1969

	Variation of the companies' number	**Variation of existing companies' size**
Regions in East France	+24.7	+140.8
Region in West France	+54.0	+188.2
The Paris region	-7.9	+74.4

[106] Jean-marie albertini, Bilan de l'economie francaise—a l'usage du citoyen odinaire et de quelques autres, Paris : editions du seuil, 1988, pp. 48

[107] Raymond Ravenel, La decentralisation des automobiles citroen a rennes, Pouviors publics et localisation des entreprises dans les grandes metropoles, Cahiers du CREPIF (centre de recherches et d'etudes sur Paris et l'ile-de-France), No 33, dec, 1990, pp. 47-52

[108] Philipe Aydalot, L'amenagement du territoire en France : une tentative de bilan, l'Espace Geographique, N 4, 1978, pp. 245

Source : l'insee, statistiques et indicateurs des régions française, série R, N 9, décembre 1972

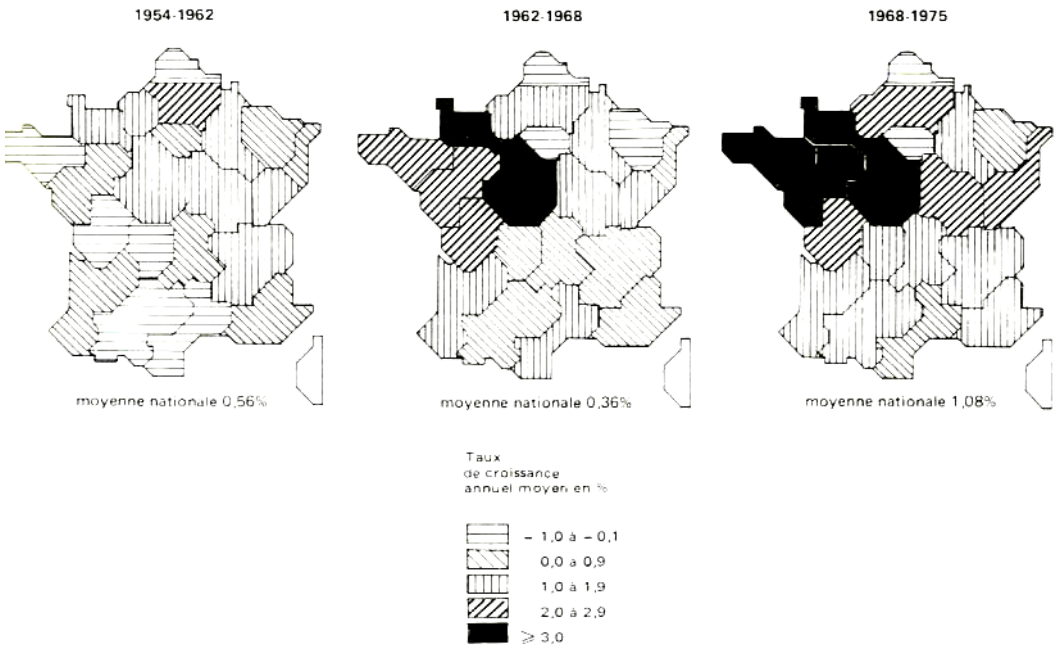
However, the growth rate of the industrial employment changed during the whole period. From 1954 to 1962, the regions with a relatively high growth rate were: Picardie, Haute-Normandie, Basse-Normandie, Centre, Bourgogne, Champagne-Ardenne and Rhone-Alpes. Except for the traditional industrial area—Rhone-Alpes, the other six regions were all located around the Paris region, which benefited from the industrial de-concentration policy from the region since the 1950s.

Figure : Geographic distribution of industrial de-concentration, 1950-1964

Source : J.F Gravier, Paris et le desert francais en 1972, Flammarion, 1972, pp. 98

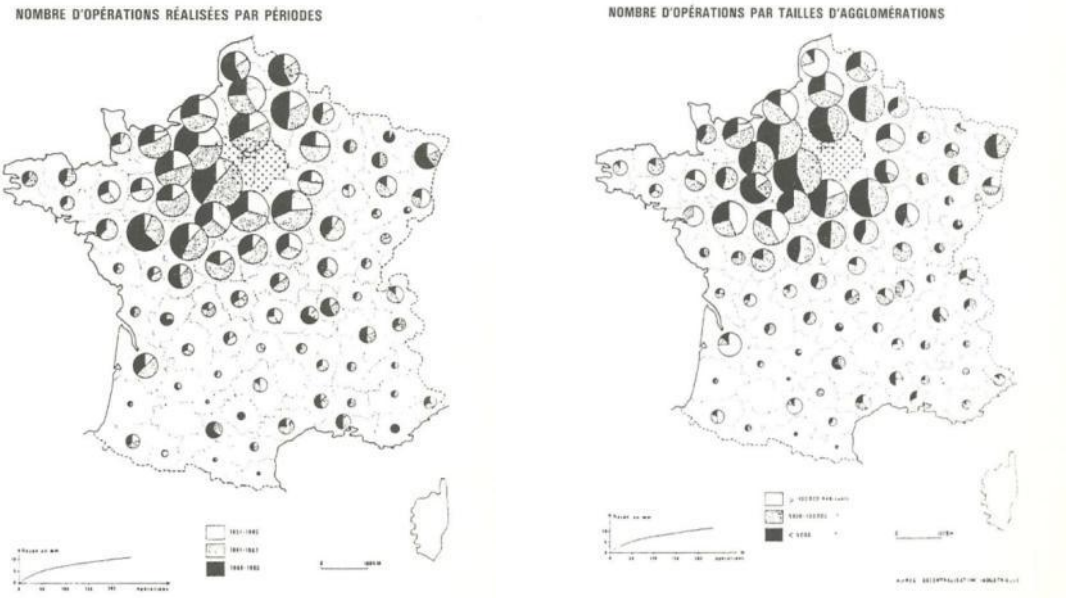
From 1962 to 1968 (as shown in the figures below), the significant growth emerged in the Basse-Normandie, Bretagne, Pays de la Loire Poitou-Charentes and the Centre region (esp. Basse-Normandie and Centre). Compared with the previous period, the scope with an obvious growth rate expanded, including the Basse-Normandie, Bretagne, Pays de la Loire and the Centre region. Until the year 1968, the most significant growth of industry emerged in the Haute-Normandie (i.e. Renault factory), the Basse-Normandie (i.e. the de-concentration of Saviem in Caen) and the Bretagne region (esp. the mechanics & electric factories).

Afterwards, the areas with a high growth rate of industrial employment gradually covered more western part of France (esp. in Bretagne and Pays de la Loire). However, the regions with the most rapid industrial growth rate were still mainly concentrated in the Paris basin (esp. less than 200 km from Paris) and certain part of West France (as shown in the figures below).



Figure：The changes of French industrial employment, 1954-1983

Source: Sirf, l'Insee



Source: Jean-paul laborie, Jean-francois langumier, Priscilla de roo, La politique française d'aménagement du territoire de 1950 à1985, Paris : la documentation française, 1985

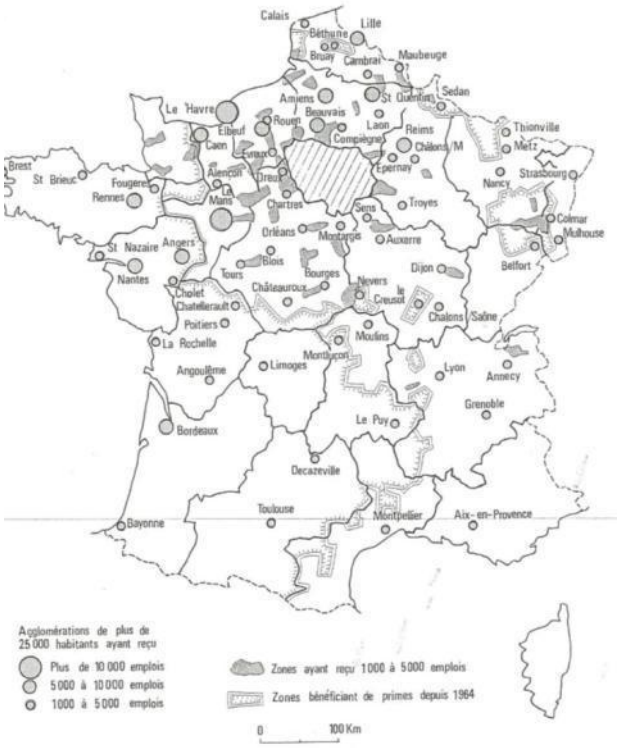
Table：Number of equipments and employment created by industrial de-concentration in France (proportion of total, on the basis of 1968)

Region	Equipment	Employment
Centre	26.67%	17.79%
Picardie	10.29%	9.25%
Haute-Normandie	7.89%	11.01%
Basse-Normandie	7.95%	7.39%
Bretagne	4.61%	5.96%

Total proportions of 5 regions	57.41%	51.40%

Source: Trente ans de decentralization industrille en France (1954-1984), Cahiers du CREPIF, n 7, 1984

In general, during the '30 glorious years', the creation of the industrial employment and the equipment in the five regions (Centre, Picardie, Haute-Normandie, Basse-Normandie and Bretagne) of the Paris basin was more significant than the other parts of France, due to the policy guidance as well as some local advantages (i.e.the distance from Paris, the rich labor resources, the convenient transportation etc). On the other hand, (according to the figure below), the systematic public policy concerning industrial de-concentration did not reach a larger part of France until the year 1964.



Source: Jacqueline Beaujeu-Garnier, Altas et geograogie de Paris et la Region d'ile-de-France, Flammarion et Editions Famot, 1977

As a result, before the new period of public policy (since 1964), the local development in the Paris basin was related closely to the industrial de-concentration action from the Paris region. About 60% of employments created in the western part of the Paris basin had dependences with the Paris region[109]. From 1950 to 1954, there were already 57 projects and 26600 employments from the Paris region to the provinces, and the trend continued (130,000 employments were created from 1955 to 1960; 210,000 employments were created from 1961 to 1964). Among them, 47% of newly-created employments were concentrated in the Paris basin[110]. According to the table

[109] Jean-Marie Albertini, Bilan de l'economie fran çaise—a l'usage du citoyen ordinaire et de quelques auteur, Paris : éditions du seuil, 1988, pp. 48

[110] Institute d'amenagement et d'urbanisme de la region ile-de-France, 40 ans en Ile-de-France (retrospective 1960-2000), Paris : IAURIF, 2001, pp 18

below, the rapid growth of industrial employment had already begun since the period (1954-1962) in the three regions in the Paris basin, and the tendency continued afterwards.

Table: The annual growth of industrial employment (%, excl. construction and public project)

	Annual growth of industrial employment			**Wage earners in enterprises (> 100 employments, 1961-1975)**
	1954-1962	1962-1968	1968-1975	
Champagne-Ardenne	1.0	0.4	2.0	0.6
Picardie	2.1	1.7	2.0	0.6
Haute-Normandie	1.7	1.9	1.9	3.5

Source: Ernest Labrousee, Fernand Braudel, Histoire économique et sociale de la France (1950-), Rongkang Xie, Wenjie Huang (translators), Shanghai : Fudan University Press, 1990, pp402

Besides, according to the table below, in the three regions in the Paris basin, the 'equipment sector' of industry was the one with the highest growth rate among the three industrial categories.

Table: the proportion of three sectors in industry (%, excl construction and public project)

	In 1954			**In 1975**		
	Equipment sector	Intermediated sector	Consumption sector	Equipment sector	Intermediated sector	Consumption sector
Champagne-Ardenne	10.2	35.3	54.5	22.1	37.0	40.9
Picardie	14.9	29.6	55.5	29.4	33.6	37.0
Haute-Normandie	21.0	24.4	54.6	41.0	29.0	30.0

Source: Ernest Labrousee, Fernand Braudel, Histoire économique et sociale de la France (1950-), Rongkang Xie, Wenjie Huang (translators), Shanghai : Fudan University Press, 1990, pp402

For example, one major reason of installing 'Renault' in the provinces was: 'sufficient labor-force (lower price compared with the Paris region, young, hardworking, dispersed, without the tradition of resist, and housed'.[111] *The other reasons for 'Renault in Renne' were: qualified labor-force, a number of professional schools, good experience of Rennes-la Barre-Thomas (since 1953), the local support (e.g. land, water, electricity…). In addition to the fiscal advantage and the grant for creation of activities and employments, it was followed by the construction of housing, school and roads, the development of universities, and the amelioration of rural residence.*[112]

Since the year 1964, the support began to focus on the south-west of the line 'Caen-Saint-Etienne-Carcassonne'. The highest development subsidy and adaption subsidy (25%) were mainly concentrated in the agglomerations of Nantes-Saint-Nazaire, Lorient, Limoges, Brive,

[6] Jean-Claude Daumas, La decentralisation industrielle entre creations d'emplois et effets destructurants : le cas de Renault a Cleon (1951-1975), La politique d'amenagement du territoire : racines, logiques et resultats, Presses universitaires de Rennes, 2002, pp 186

[112] Raymond Ravenel, La decentralisation des automobiles citroen a Rennes, Pouviors publics et localisation des entreprises dans les grandes metropoles, Cahiers du CREPIF (centre de recherches et d'etudes sur Paris et l'ile-de-France), No 33, dec, 1990, pp. 47

Bordeaux and Toulouse, the mine basin and other 'critique' zones. According to the plan of industrial subsidy in 1964, some regions in the west of France (e.g. Bretagne, Pays de la Loire and Poitou-Charentes) followed the guidance of policy.

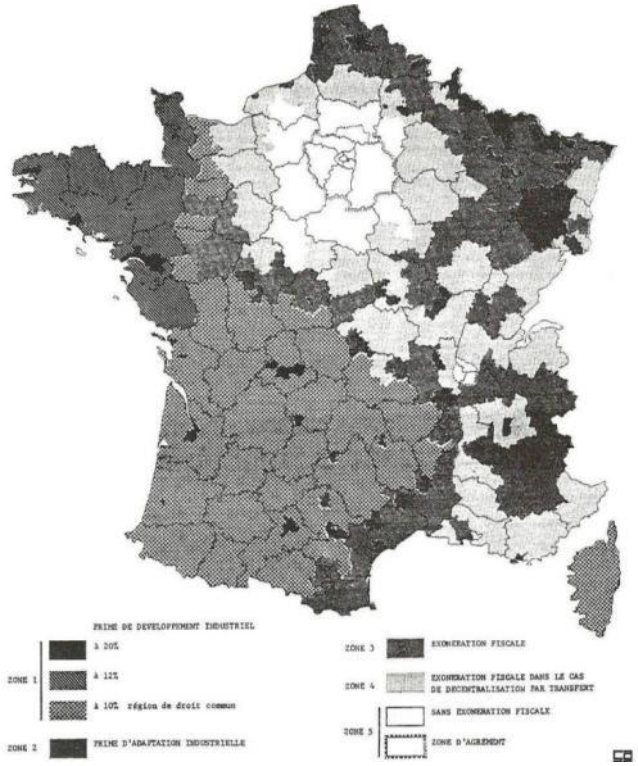


Figure: Plan of industrial subsidy, 1964

Source: DATAR, 1964

For example, although some industrial factories had already been installed in the west parts of France (e.g. Bretagne) in the 1950s, the rapid industrial growth in the three regions started from the period (1962 to 1968, as shown in the table below).

Table: Some of industrial installations in Bretagne since the 1950s

Name	Year	Location
CNET	1959	Le Tregor
CCETT	--	Rennes
Citroen	1961	Rennes
Michelin	1963	Vannes

Source: Yves Jean, Martin Vanier, La France : amenager les territoires, Paris : Armand Colin, 2008, pp. 129

Table: The annual growth of industrial employment (%, excl construction and public project)

	Annual growth of industrial employment			Wage earners in enterprises (> 100 employments, 1961-1975)
	1954-1962	1962-1968	1968-1975	
Bretagne	0.0	2.5	2.8	5.1
Pays de la Loire	0.8	2.1	3.1	4.5
Poitou-Charentes	0.9	1.8	2.9	5.1

Source: Ernest Labrousee, Fernand Braudel, Histoire économique et sociale de la France (1950-), Rongkang Xie, Wenjie Huang (translators), Shanghai : Fudan University Press, 1990, pp402

The industrial development in Bretagne also benefited from the industrial de-concentration policy, low price of labor-force, absence of labor union and support of local directors[113]. During the period from 1971 to 1975, the support was concentrated in the field of telephone materiel and telecommunication (e.g. in Lannion and Rennes).

Among the newly-created industrial companies in Bretagne (1954-1972), 45.3% of them were created by non-local enterprises, which included automobile factory (esp. Citron), electronic, telecommunication companies, which brought nearly 2/3 of new jobs. However, about 40% of the newly-created employments were concentrated in its capital Renne. In addition, 43% of companies in Pays de la Loire (in 1970) were controlled by non-local ones.[114]

However, although the central and south-western part of France had a relatively-high rate of subsidy from the year 1964, most part of them benefited less from the industrial de-concentration action. The probable explanation is: the more systematic plan of industrial grant (involve more area) was carried out after the creation of DATAR (in 1963). However, at that time, the industrialization process had gradually slowed down, and the industrial employment newly provided became relatively limited. The large-scale of industrial de-concentration action from the Paris region had gone through for about a decade. Services gradually became the major sector for attracting labor force, which was paid more attention by government afterwards. Since the late 1960s, France began to meet a large scale of industrial decline.

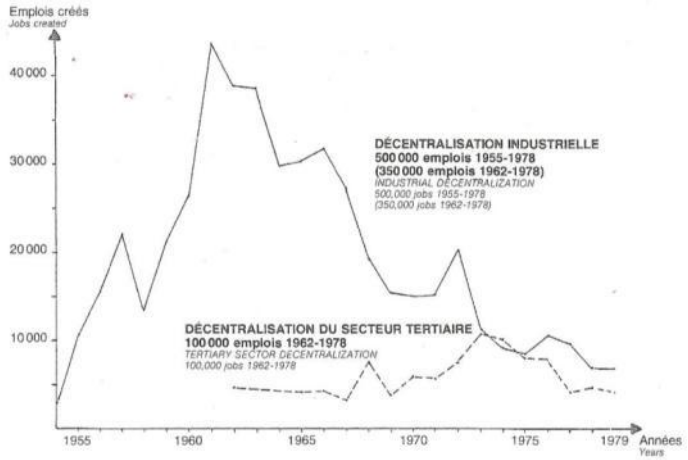
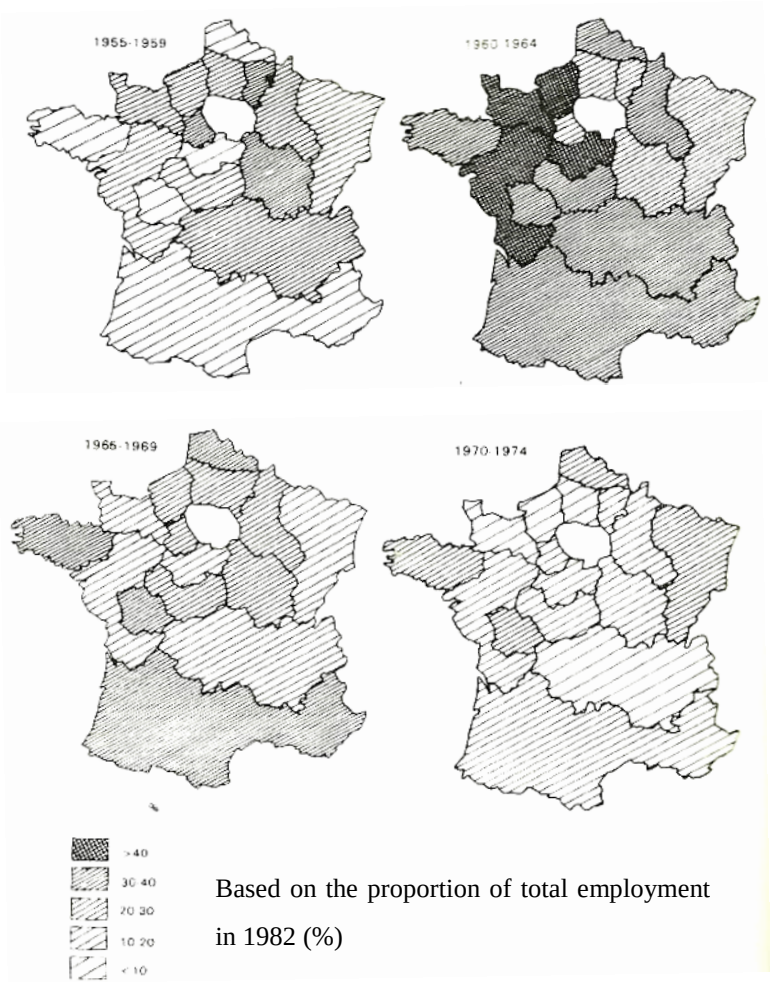


Figure: The employment created by industrial and tertiary de-concentration
Source: Cahiers de l'IAURIF, 1981

[113] Yves Jean, Martin Vanier, La France : amenager les territoires, Paris : Armand Colin, 2008, pp. 129
[114] [10] Ernest Labrousee, Fernand Braudel, Histoire économique et sociale de la France (1950-), Rongkang Xie, Wenjie Huang (translators), Shanghai : Fudan University Press, 1990, pp 389, 405



Figure：De-concentration of employment created during different period, 1955-1974

Source : Ch Verlaque, Trente ans de decentralisation industrielle en France, Cahiers du CREPIF, n^{o} 7, Septembre, 1984

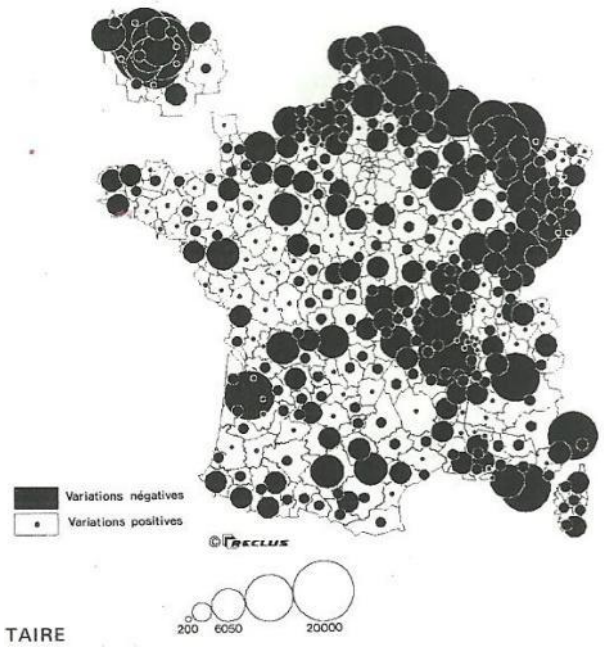


Figure: Variation absolue de l'emploi industriel

Source: RECULS, INSEE, DER

Therefore, compared with the effect of the industrial de-concentration in the west part, the central and the south-east part benefited less than 1/4 of employments from the action, i.e. Limousin (<1%), Languedoc-Roussillon (1.3%), Auvergne (1.6%) and Midi-Pyrenees (1.8%), and the regions of industrial conversion in the north (Nord-pas-de-Calais and Lorraine) only got 8% of benefit from the de-concentration action[115].

Moreover (after 1964), the industrial de-concentration action improved by the French government also accompanied the 'balanced-metropolis' policy. Therefore, the newly-emerging industrial development did not disperse like the previous phase any more, which was mainly concentrated in some major growth poles (e.g. Bordeaux in Aquitaine region, Toulouse in Midi-Pyrenees region).

The industrial de-concentration action after the creation of DATAR involved: the national engineer school of Aeronautics (l'ecole nationale superieure de l'aeronautique) in Toulouse, the service of army telecommunication in Rennes; the electronics industry in Bretagne; The aerospace industry in Toulouse and Bordeaux[116].

Table: The annual growth of industrial employment (%, excl construction and public project)

	Annual growth of industrial employment			**Wage earners in enterprises (> 100 employments, 1961-1975)**
	1954-1962	1962-1968	1968-1975	
Aquitaine	0.0	1.0	0.4	2.8
Midi-Pyrenees	0.0	0.8	1.2	2.6
Limousin	0.3	1.0	0.8	3.4

Source: Ernest Labrousee, Fernand Braudel, Histoire économique et sociale de la France (1950-), Rongkang Xie, Wenjie Huang (translators), Shanghai : Fudan University Press, 1990, pp 402

Therefore, according to the figure below, the growth of industrial employment concerning the de-concentration action could be divided into several categories, which followed the main direction of policy since the 1950s. And we could find some reasons of industrial de-concentration from the survey of Insee[117], which could explain its effect to a certain degree: the most common motivations of new factory's creation were 'lack of space (43.8%)', 'state aid (38.7%)', 'better recruitment conditions (32.1%)'; for the selection of company site, the most important factor was 'easy to recruit skilled workers'. On the whole, the industrial de-concentration could be seen as the result of two forces (the government intervention and the market/business demand).

[115] Pierre Merlin, L'amenagement du territoire en France, Paris : La documentation francaise, 2007, pp. 55

[116] DATAR, 40 ans d'aménagement du territoire (1963-2003), pp. 9

[117] This survey was carried out by insee on the basis of 432 companies (more than 100 labor force) created from 1961 to 1970

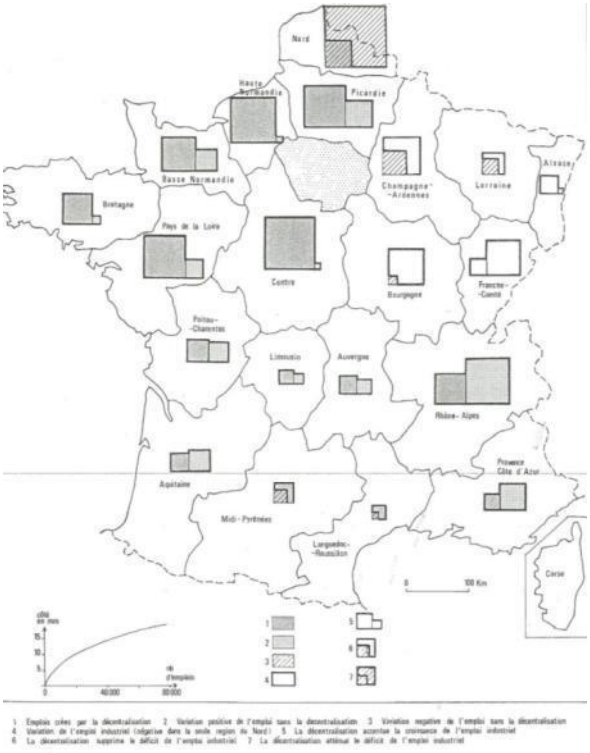
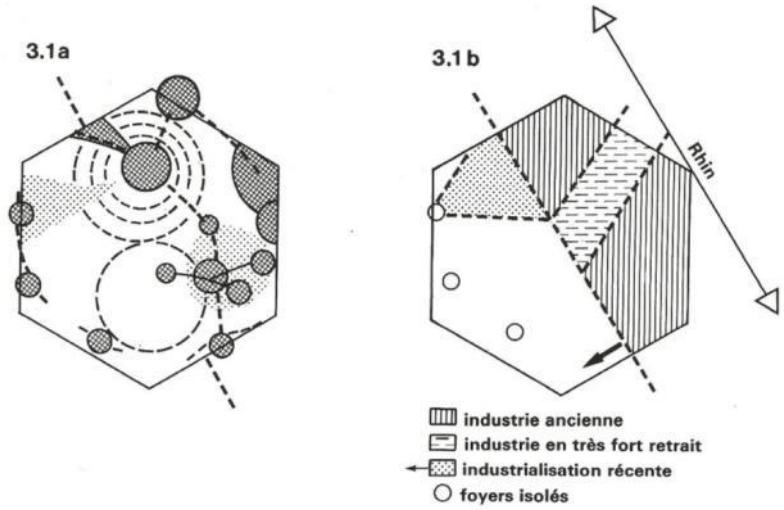


Figure: The de-concentration in industrial employment evolution, 1954-1968

Nevertheless, after the '30 glorious years', the French industry became more specialized. Some pillar industry emerged in certain areas, such as the automobile industry in Caen, Rennes and La Rochelle, the aeronautical industry in Toulouse, the shipbuilding industry in Bordeaux. Moreover, the port-industrial complexes mainly gathered along the western and southern coastal area of France (i.e. Le Havre, Rouen, and Marseille): in the 1970s, the steel industry accounted for about 75%; and the oil refining and petro-chemicals yielded around 80% of total in France[118].

On the whole (as shown in the figure below), the new industrial prospect emerged after the 30 glorious years: in the western part of France, the industrial area in the north-west and two industrial poles (Bordeaux, Toulouse) were created; in the eastern part of France, the whole industrial area faced the industrial decline and transformation (esp. in the north, and north-east).

[118] M.Fabries-Verfailie, P.Stragiotti, La France des villes, Breal, 2000, pp 144



Source: Reclus

In general, after the '30 glorious years', the whole France could not be simply divided by the 'le Havre-Marseille' line any more, and it showed a division between the north and the south of France (e.g. on the basis of the employment structure, the industrial dependence). The areas with a relatively high proportion of industrial employment and a closer industrial dependence were mainly concentrated in the north of France.

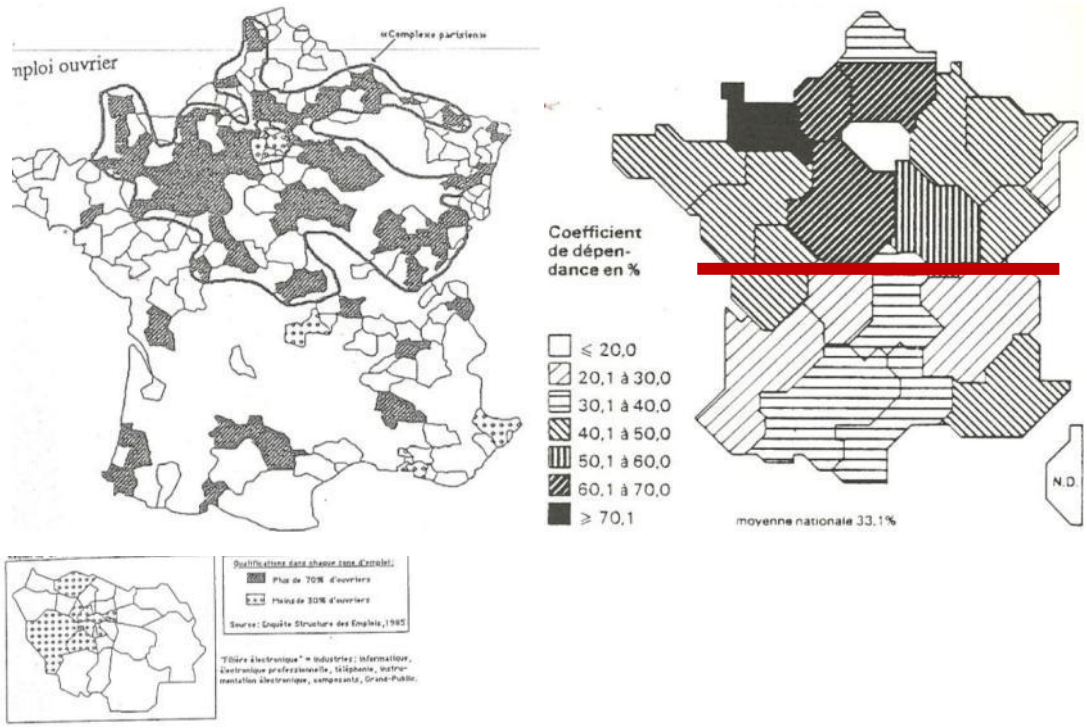


Figure: The industrial employment in France, 1985

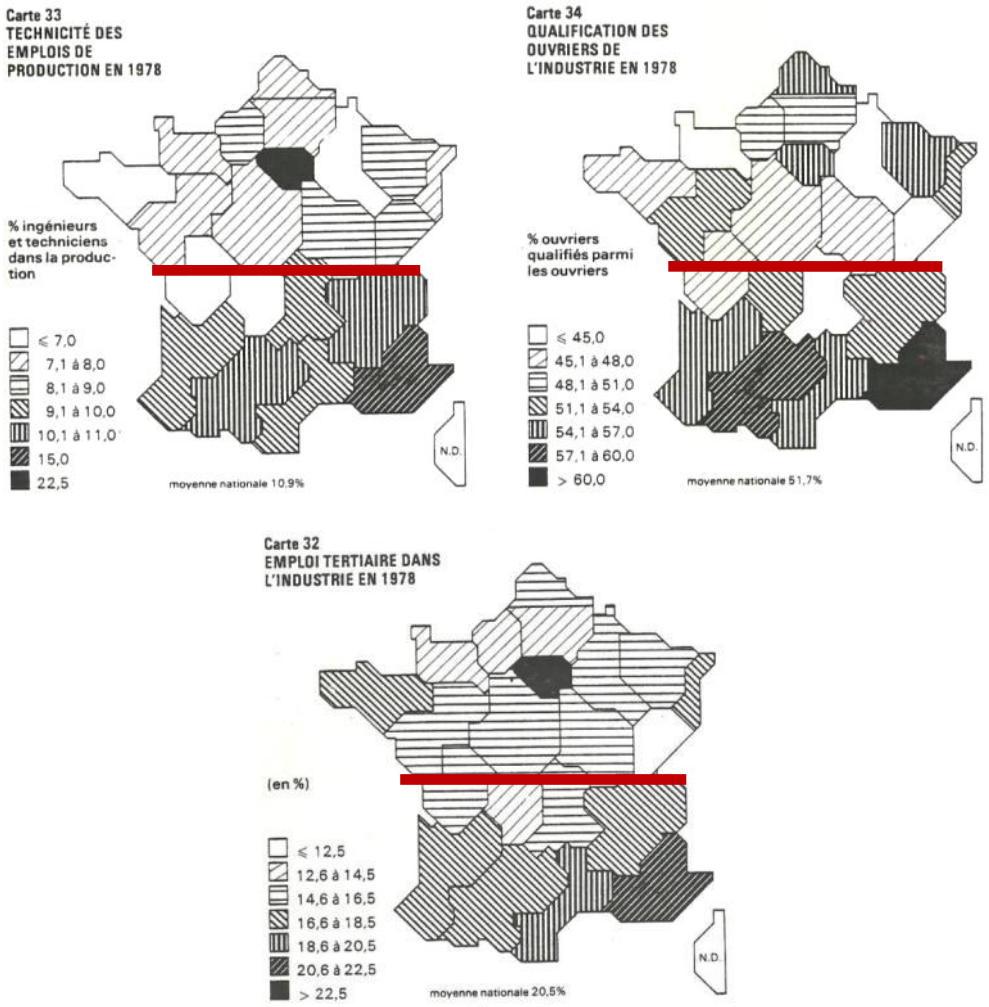
Source : UTH 2001, La metropole parisienne system productif et organisation de l'espace, 1990, pp. 19

Table: The dependence of industrial employment, 1971

Source: Jean-paul laborie, la politique française d'aménagement du territoire de 1950 à 1985, Paris: la documentation fran çaise, 1985, pp 18

However, regarding the category of industrial employment (i.e. technician of production,

qualified workers etc), the situation was unbalanced. According to the figures below, France could still be divided into two parts (north and south) expect for the Paris region: the workers with a relatively higher qualified level were more concentrated in the southern part of France. Probably we could conclude that the large-scale of de-concentration action in the Paris basin since the 1950 did not improve the local qualified levels of workers.



Source: Jean-paul laborie, la politique française d'aménagement du territoire de 1950 à 1985, Paris: la documentation fran çaise, 1985, pp 18

6.1.2 The over-depend on the big companies

During the '30 glorious years', the creation of industrial employment has a considerable correlation with the transfer of large companies (esp. national manufacture company). The emphasis on large companies was partly due to the independence attitude on technology and production (esp. on USA).

According to the survey of insee, 92% of new industrial employments created from 1961 to 1970 came from large companies (more than 100 workforces), 66% of which belonged to the

automobile, electronics, machinery and chemical/rubber industry[119]. Among them, national companies played an important role in the process. 4% of these companies were responsible for 50% of de-concentration projects[120]. Although other public/private companies also followed the action of industrial de-concentration, they did not account for the majority. The vertical manufacturing system is the organization style of Fordism production, which limited the formation and development of local industrial clusters in the future.

Many factories were transferred into the provinces which improved the creation of industrial employments, only about 20% of de-concentration companies created their headquarters there[121]. Most of research institutes and headquarters still remained in the Paris region. It caused a new kind of unbalance in the field of employment structure and industrial structure (we mentioned above), especially in the Paris basin. In 1970, 70% of engineers and technical staff from the companies, which factories were transferred to the western and south-western area of France, remained in the Paris region. And 89% of workers were distributed in the provinces, most of whom were young and from rural areas[122]. As shown in the figure below, the independence degree of regional industry was relatively low compared with many other regions in France. Besides, the scattered decentralized factories (without sufficient research sector, and over-depend on the big companies) could not form the efficient industrial clusters, which become important for the further development of industry in the new era.

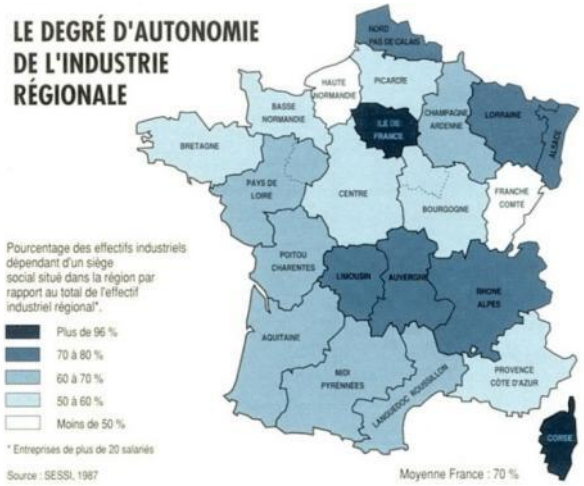


Figure: The independence degree of regional industry, 1987

Source: DATAR

For the automobile company (Renault), 84% of employments were located in the Paris agglomeration area in 1948, but there were no more than 37.7% of employments left in 1974.[123]

[119] Ernest Labrousee, Fernand Braudel, Histoire économique et sociale de la France (1950-), XIE Rong-Kang, HUANG Wen-jie (translators), Shanghai : Fudan University Press, 1990, pp 409

[120] Ph.AYDALOT, Rapport sur les villes pour le plan, Mai 1980

[121] Jean-Marie Albertini, Bilan de l'économie française à l'usage du citoyen ordinaire et de quelques auteurs, Paris : éditions du seuil, 1988, pp. 48

[122] François Caron, Maurice Vaisse, L'aménagement du territoire（1958—1974）, Pairs : L'Harmattan, 1999, pp 191

[123] Jean-Claude Daumas, La decentralisation industrielle entre creations d'emplois et effets destructurants : le cas

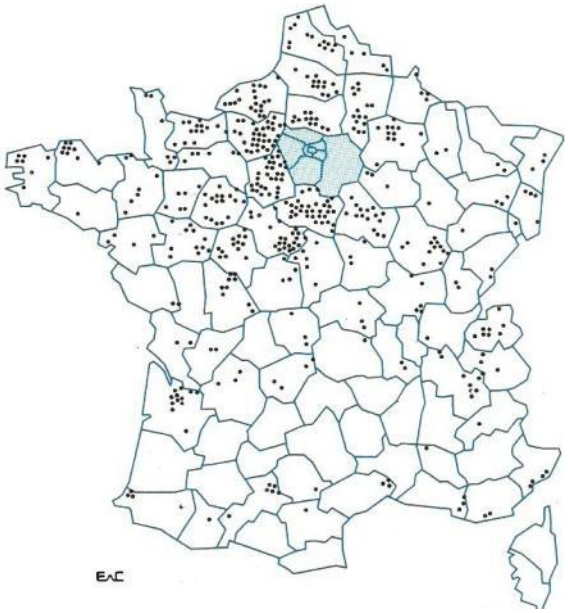


Figure: De-concentration of enterprises (electronics, electrics, mechanics), 1951-1980

Source：J.Bastie : Un quart de siècle de décentralisation industrielle, Analyse de l'espace, N 2, 1981

Figure: New electronic implantation, since 1955

Source: DATAR

Figure: Major new pneumatic industry in France, since 1960

Source: Tem-Espace, Gauthier-Villars, 1971, N 2

Case: The Paris Basin (from the 1950s to the 1960s)

The Paris basin is a typical area, which is worth of being studied during the research period (esp. the initial phase from the 1950s to the 1960s).

- **The growth of industrial construction in the Paris basin**

de Renault a Cleon (1951-1975), La politique d'amenagement du territoire : racines, logiques et resultats, Presses universitaires de Rennes, 2002, pp 186

Due to some control measures since the year 1955, the industrial construction in the Paris region was restricted. The decree of January 5, 1955 represented the first major effort to control the creation or expansion of private industry in the Paris region. However, the decree did not prevent the industrial enterprises of Paris from increasing because entrepreneurs could still intensively reutilize vacant building. This was corrected by the decree of December 31, 1958 which stated that 'the substitution of an industrial activity for a nonindustrial activity in an existing building is equivalent to the creation of an industrial installation'[124].

1955	The construction or expansion of industrial building (more than 1000 m^2) in the Paris region was subject to the permission of the Minister of Housing and Reconstruction
1958	A commission examined the approval demand for building construction in use of industry or storage
1960	Establishment of payable fees in the case of acceptance of application

Several years later, nearly half of the de-concentration projects were carried out around Pairs (in a scope of between 70 and 250 km)[125]. From 1955 on (as shown in the table below), the proportion of industrial construction in the Paris region declined obviously. During the same period, the industrial construction increased rapidly in the Paris basin (because of its convenient transportation, the sufficient labor-force with a low salary etc).

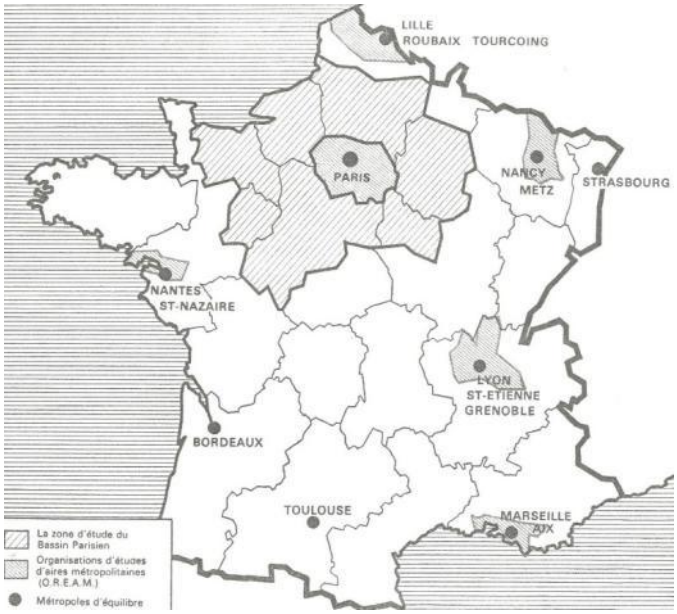


Figure: The scope of the Paris basin

Source : DATAR et Groupe interministeriel d'amenagement du Bassin Parisien, Le Bassin Parisien (reflexions pour un livre blanc), 1968 (Juillet)

Table : Construction permit of industrial construction in the paris region, unite: 1000 m^2

	1951	**1953**	**1955**	**1957**	**1959**	**1960**
Region parisienne	214.3	269.9	623.0	450.8	437.7	672.1

[124] Niles M. Hansen, French regional planning, Bloomington/London : Indiana University Press, pp. 55-56

[125] Claude Cottour, Pascal Lelarge, Olivier Milan, Une breve histoire de l'amenagement de Paris et sa region, 2008, http://www.driea.ile-de-france.developpement-durable.gouv.fr/breve-une-histoire-de-l-a1261.html

France entiere	880	869	1690	2312	2461	3513
Rapport RP/F	24.4%	31%	36.8%	19.5%	18.0%	16.9%

Source : Ministere de la Construction

Table : Industrial de-concentrations in the Paris basin

		1961	1963	1965	1967
Paris basin	Number of projects	140	117	118	124
	Employment	21737	31909	13770	8984
Grand province	Number of projects	123	74	83	56
	Employment	17525	28573	6010	8278
Total France	Number of projects	289	253	201	180
	Employment	39629	40620	19780	17626
Employment provided: proportion of Paris basin in the total Francais		55%	78%	70%	52%

Source : Bulletin statistique du ministere de l'equipment, Datar : centre interministeriel d'information

Before the creation of DATAR (in 1963) and the implementation of the national de-concentration policy (in 1964), a number of industrial companies were transferred to the Paris basin, which made the Paris basin as the major beneficiary of the industrial de-concentration action (from the Paris region) for about a decade.

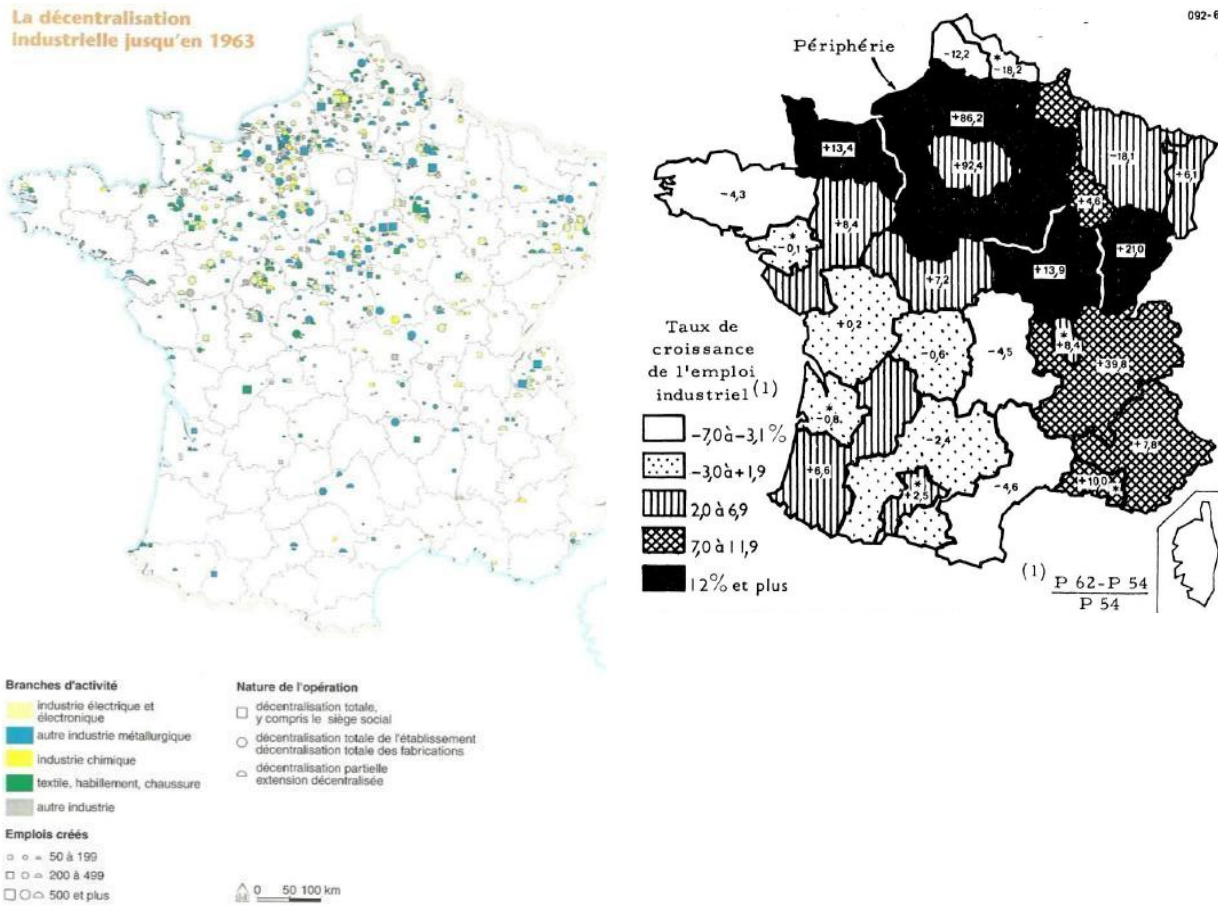


Figure: Industrial de-concentration until 1963

Source：Atlas de Paris et de la region parisienne, 1967

Figure : Vairation of industrial employment, 1954-1962

Source : YT, La decentralization industrielle et le Bassin parisien, population, 22e annee, n 3, 1967, pp. 527-543

■ The unbalanced distribution in the Paris basin

However, the distribution of the industrial de-concentration projects in the Paris basin was unbalanced during the period. According to the tables below, more projects were concentrated in a scope of less than 150 km away from Paris. As Jean-Francois Gravier (1972) mentioned, 46.6% of industrial de-concentration projects were localized less than 200 km around Paris[126].

Table : Distance from Paris by road, number of project, km, %

Distance from Paris by road	50	51-100	101-150	151-250	250	Total
PRP	1.9	31.7	49.4	17.0	--	100
Second ring (couronne)	--	--	--	53.6	46.4	
Total	1.3	22.4	35.0	27.7	13.6	100

Source : Cachiers de l'institut d'amenagement et d'urbanisme de la region parisienne, la decentralisation industrielle et le Bassin parisien, Vol. 6, Novembre 1966, pp 87

For the urban agglomerations (>15,000 inhabitants), the projects were mainly installed in the cities of less than 200 km far from Paris.

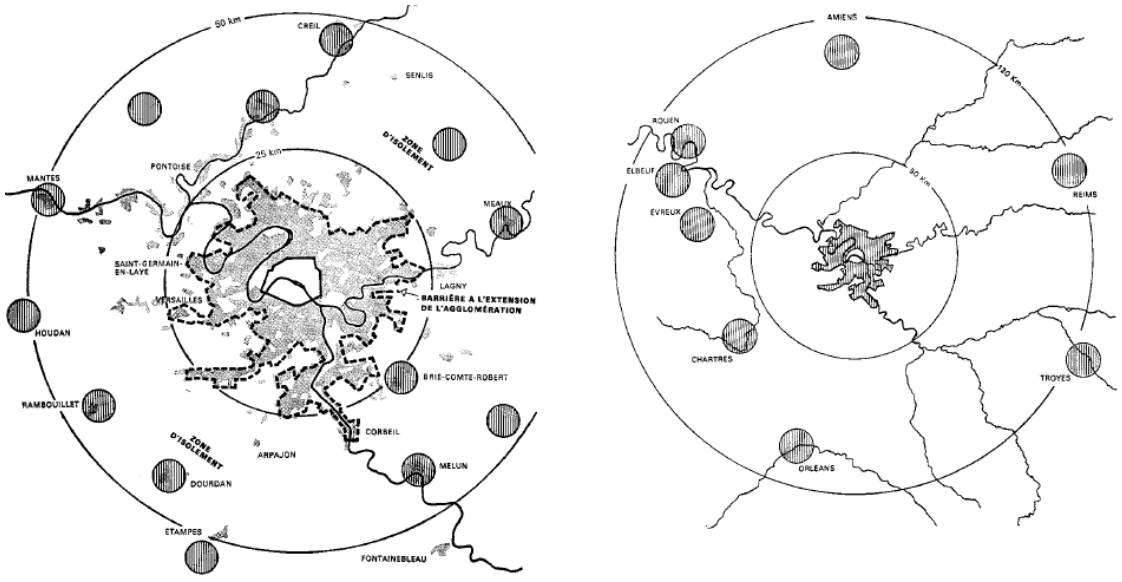


Figure : Cities of more than 40,000 inhabitants, located within 50km-120km from Paris

Source : le SDAURP, 1965

Table : Distance from Paris by road, de-concentration in the agglomerations of more than 15,000 inhabitants

Distance from Paris by road, km	Number of agglomeration (>15,000 inhab.)	De-concentration		
		Number	%	Average number/agglomeration
<100	7	37	16.1	5.3

[126] Jean-Francois Gravier, Paris et le désert français en 1972, Flammarion, 1972, pp. 100

101-150	12	64	28.4	5.3
151-200	13	74	32.9	5.6
201-250	9	24	10.6	2.7
251-350	10	23	10.2	2.3
>350	1	3	1.3	3
Total	52	225	100.0	4.3

Source : Cachiers de l'institut d'amenagement et d'urbanisme de la region parisienne, la decentralisation industrielle et le Bassin parisien, Vol. 6, Novembre 1966, pp 87

Moreover, based on the size of companies, the large ones (>150 salaries) were more inclined to chose the area from 100 to 150 km far from Paris.

Table : Project of de-concentration, distance from Paris

	Size of entreprise									
	>50 employments		**51-100 employments**		**101-500 employments**		**>500 employments**		**Total**	
	Number	**%**	**Number**	**%**	**Number**	**%**	**Number**	**%**	**Number**	**%**
<50 km	6	3.8	--	--	2	0.9	--	--	8	1.2
51-100km	27	17.1	45	30.4	56	25.7	20	13.3	148	22.0
101-150km	41	26.0	50	33.7	72	33.0	61	40.6	224	33.2
151-250km	54	34.1	41	27.7	59	27.1	37	24.7	191	28.3
251-350km	30	18.9	12	8.1	27	12.4	27	18.0	96	14.3
>350km	--	--	--	--	2	0.9	5	3.3	7	1.0
Total	158	100	148	100	218	100	150	100	674	100

Source : Cachiers de l'institut d'amenagement et d'urbanisme de la region parisienne, la decentralisation industrielle et le Bassin parisien, Vol. 6, Novembre 1966, pp. 78

Besides, during the period from 1954 to 1962, the de-concentration projects provided more jobs in the settlement with a population of 2,000-49,999 inhabitants, which improved the growth of local employment. About 49% of de-concentration companies were created there. Some probable reasons were: the low price of land and equipment, the low salary of employment, the preferential tax, the lack of competition between industry and labor market[127]. However, these big companies with more demand of construction surface were more inclined to choose the bigger cities (esp. capital cities in the departments).

Size	**Planned employment at the end of operation (p. 10,000 habitants), 1962**		**Planned average size at the end of project (by project of de-concentration)**
	Periphery	Province*	Periphery
>50,000	175	62	320
5,000-49,999	435	125	240
2,000-4,999	338	156	90

[127] Groupe interministeriel d'amenagement du Bassin Parisien, Projet de livre blanc du Bassin Parisien, 1969, pp. 44

Rural commun	65	15	95

*Y compris les 6 departments precedemment elimine pour les comparasions avec la peripherie

Table : Project of de-concentration

Activities of enterprises	Size of agglomeration					
	<2,000	2,000-5,000	5,000-15,000	15,000-50,000	>50,000	Total
Total of projects	128	83	92	88	60	451
Projects of 100 entreprises (more than 500 employments)	12	10	23	24	31	100
Projects of 82 entreprises (less than 50 employments)	80	40	37	21	9	187

Source : Cachiers de l'institut d'amenagement et d'urbanisme de la region parisienne, la decentralisation industrielle et le Bassin parisien, Vol. 6, Novembre 1966, pp. 69

■ The de-concentration type of companies in the Paris basin

Among the de-concentration companies, a quite number of them (esp. large enterprises >500 employees) still remained some parts in the Paris region (esp. the decision, research and innovation department) and only transferred the production factories, the storage part or the management and marketing function (D4, D5, D6) to the provinces. The number of complete decentralized companies only accounted for a quite small part, which mainly belonged to the type of small and medium-sized companies. Besides, during the process, although some preferential policies were carried out, the gathering of industrial chaine (incl. different sizes of enterprises) was not emphasized by government, which hindered the formation of industrial cluster to a certain degree.

Table : Number of projects by the size of enterprise

Type of de-concentration	Size of enterprise							
	<20	21-50	51-100	101-200	201-500	501-1000	>1000	Total
D1	2	5	2	2	--	--	--	11
D2	--	5	3	4	2	--	--	14
D3	3	7	10	4	--	--	--	24
D4	7	27	38	33	15	3	1	124
D5	6	18	43	35	37	20	4	163
D6	--	2	8	9	20	12	58	109
D7	--	--	1	1	2	--	2	6
Total	18	64	105	88	76	35	65	451

Source : YT, La decentralization industrielle et le Bassin parisien, population, 22e annee, n 3, 1967, pp. 541

Note: D1: the decentralization is complete, including factories, head quarters; D2: the head quarters is transfeered, but becomes a branch of Paris; D3: the factories are decentralized, the head quarters rests

in Paris, which has no fuction of production; D4: the enterprises are uniquely decentralized in provinces, and it is more important than Paris which conserve its production activities; D5: the enterprises are decentralized in provinces, and Paris conserve the head quarter and production activities; D6: Paris runs several enterprises s in France; D7: the decentralized enterprises ceases the activity.

Table : Projects of de-concentration, type of project and sector of activities

Activite of entreprise	Transfer	Share activities	Paris more important	Affiliate	Suppression	Total
Total of project	49	124	163	109	6	451
Projects of 100 entreprises (more than 500 employments)	--	4	24	70	2	100
Projects of 82 entreprises (less than 50 employments)	22	34	27	2	--	82

Source : Cachiers de l'institut d'amenagement et d'urbanisme de la region parisienne, la decentralisation industrielle et le Bassin parisien, Vol. 6, Novembre 1966, pp. 69

Table : Proportions of plants and new establishments, by the size of enterprises

	Recovery factories	New establishments	Total	% of recovery factories
< 50 employments	44	32	76	57.8
50-100 employments	52	51	103	50.4
100-500 employments	74	80	154	48.0
>500 employments	38	56	94	40.4
Total	208	219	427	48.7

Source : YT, La decentralization industrielle et le Bassin parisien, population, 22e annee, n 3, 1967, pp. 542

Case: The Midi-Pyrenees Region

As mentioned before, the Midi-Pyrenees region is a representative area during the research period, which could compare the development of the Paris basin in the section.

The industrial de-concentration policy (mainly by the way of taxes and subsidies) was carried out since the year 1955, which firstly emerged in the Paris region and expanded to the scope of the whole country afterwards. After the creation of DATAR in 1963, compared with the policy in the 1950s, the objective became more detailed: to ease the industrial companies in the Paris region, and to strengthen the industrial development in the main agricultural areas (esp. the west and the

southwest of France). According to the guidance, the Midi-Pyrénées region, which was situated in the south-west part of France, became one of the main beneficiaries. During the different periods since 1964, the region was always in the areas with high subsidy (among them, the Toulouse metropolitan area and Decazeville-Aubin area enjoyed a high industrial development subsidy (25%), which was for the company with the investment intention[128]). In fact, from 1956 to 1966, the region ranked No 7 in total 14 regions with the grant of SDR (regional development company, société de développement régional); and from 1966 to 1969, 11.5% of fund (le Fonds d'intervention pour l'aménagement du territoire, FIAT) was allocated for the Midi-Pyrénées region (rank No 2 in total 21 regions)[129].

However, due to the fact 'the industrial de-concentration was led by both government guidance and companies' self-selection', there emerged some bias between the result and the objective of policy. Except for the regions in the Paris basin, some other regions (esp. the south-west regions) did not become the first choice of the industrial layout due to the weak industrial base, the limited qualified labor forces, the inadequate infrastructure (esp. transport, communications) etc. Thus, although the Midi-Pyrénées region was planned as the emphasis area of the industrial de-concentration policy, the actual effect was relatively limited. Only after the de-concentration action since the year 1963, some industry (i.e.aerospace, electronics etc) developed rapidly and was mainly concentrated in Toulouse, which accompanied the transfer of the related research centers and schools. In the new era, the region Midi-Pyrenees has three poles: the pole of aerospace; the pole of cancer research; the pole of food industry.

On the other hand (as shown in the table below, from 1962 to 1968), the industrial employment of the region grew compared with that of the previous period, but the growth rate was far behind its massive increase of service employment. During the period, with the overall economic transformation in France, the Midi-Pyrénées region gradually entered into a new era. And the content of the national policy was gradually changed from the 'industrial de-concentration' as the main objective into a scale of 'service de-concentration' actions.

Table : Evolution of employments by sector, 1954-1968, Midi-Pyrénées

Sector	**1954**	**1962**	**Variation (1954-1962)**		**1968**	**Variation (1962-1968)**	
			Numbre	%		Number	%
Agriculture	399242	303490	-95752	-24.0	231380	-72110	-23.8
Industry	170489	168826	-1663	-0.9	177200	8374	**+4.9**
Construction and TP	56111	75415	+19304	+34.4	93740	18325	+24.3
Service	23896	274681	+35785	+15.0	325440	+50759	**+18.5**
Total	864738	822412	-42326	-4.9	827760	+5348	+0.7
France	18847000	19056000	+209000	+1.1	20002000	+946000	+4.9

Source : Cf, préparation du 5e plan, région Midi-pyrénées, démographie et emploi

[24] J.P Laborie et G Jalabert, L'évolution recente des industries de la région Midi-Pyrénées

Case one: 'coal basin of Decazeville' [130]

It declined after the World War II with the industrial transformation in France. From 1962 to 1966, the basin of Aquitaine (Decazeville and Carmaux) lose 1721 coal employment. Since 1960, a series of measures were taken, including 'the dismissal; to update early retirement; to transfer to other basins; the conversion of coal basin'. Among them, the 'conversion of coal basin' included: the 'grant of conversion (for those leaving the mine with 3-9 month salary); the allocation (for those working for at least 15 years); the salary guarantee of 90% salary/month for 2 years'. In 1972, although the basin lost about 4000 employment, it was still an important industry in the department (e.g. coal mining, production of zinc, steel and metallurgy).

Afterwards, the development of this area was improved by the transportation construction, the development of tourism (e.g. le projet du chateau de la Griffouliere, project de muse geologique) and a series of planning (e.g. equipment amelioration, environment protection, water amelioration and etc).

Table : Intervention fund for regional planning (Fonds d'intervention pour l'aménagement du territoire, FIAT), 1963-1970

Intervention d'un montant unitaire égal ou supérieur à 3 millions de F

Region	Project	Amount (thousand F)
Midi-pyrénées	Techinical high school in Decazeville	4200
	Subsidy for construction of steelworks in Decazeville (Subvention pour construction d'une aciérie à Decazeville)	15000

Source : Loi de finances pour 1972

Table : Socio-economic indices of conversion poles

	Variation of industrial employment, 75-82	Rate of unemployment, end of March 1983	Specialized worker (Manoeuvre ouvrier spécialisé)	Qualified worker	<25 years	>55 years
France	-1.3	9.9	25.2	23.8	36.3	11.7
Region –Midi-pyrénées	-0.8	9.8	17.6	22.5	37.3	11.6
-Bassin of Decazeville	-1.5	8.3	23.6	15.1	41.8	14.4
-Bassin of Albi-Carmaux	-1.0	9.8	19.8	30.4	42.9	10.6

Source : SIRF, 1985, Insee

Case two : Aviation industry in Toulouse

[130] Jean-Marie Coste and Michel Costes, Le bassin houiller de fecazeville en 1972 «une reconversion manquee, une renaissance amorcee... », Universite de Toulouse-le-mirail, 1972

The emerge of the 'pole' of aviation industry in Toulouse relate to the local basis regarding avion construction (i.e. it was created in 1917 with the military aim, which went through several merges afterwards). The industrial development accompanied the transfer and the support of CEAT and CNRS (centre national d'etudes spatiales), which gathered a number of related school and research institution about aviation industry (i.e. the engineer schools, research and training centre(i.e. l'ONERA, laboratories publics du CNRS, de l'universite(IRIT, LAAS, LAPLACE, CEMES..))) in Toulouse. The cooperation among industry, research and public institution was further renforced during the '30 glorious years' and afterwards.

It became the 2nd aerospatial pole just behind Paris, and its position was further renforced during and after the '30 glorious years'. For example, 60% of employment about areospatial field was in the Paris region in the 1960s, but it only accounted for less than 40% of them in the 1990s[131]. According to the report GIFAS (2008), the proportion was 34% in the 'ile-de-France' and 25% in the Midi-Pyrenees region. In addition, the level of employment structre was improved, more management and research employment was localized in Toulouse.

6.2 The effect of the service and education/research de-concentration

The creation of service employment evolved during the different phases, which was influenced by several factors. From 1962 to 1968, the relatively significant growth of services sector was mainly concentrated in the Paris basin, Bretagne, the Rhône-Alpes area and the Mediterranean area.

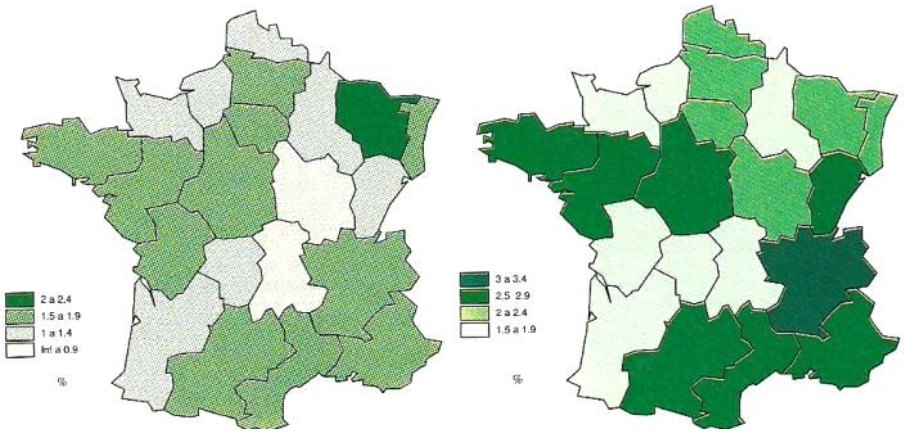


Figure: The evolution of service employment, 1954-1962, 1962-1968
Source : A Valeyre, L'emploi régional de 1954 à 1979, SESAME DATAR, 1981

This partly related to the action of service de-concentration from the Paris region (since the 1960s). From 1962 to 1968, the employment proportion of some sectors (transport, service, commerce and administration) in the Paris region dropped from 27.2% to 26.9%; and the ratio of

[131] Guy Jalabert and Jean-Marc Zuliani, Toulouse : l'avion et la ville, Editions Privat, 2009, pp. 217

financial employment there decreased from 52.7% to 48.2%[132]. As shown in the table below, this trend continued in some category of services sector concerning de-concentration action (i.e. commercial sector (e.g. banking, insurance, consulting), and education and research sectors).

Table: The evolution of effective employment in tertiary, bank and insurance sector

	1962	1968	1975
Tertirary			
The Paris Region	2176780	2461408	2893385
France	7733709	8927208	10722630
The Paris Region /France (%)	28.1	27.6	27.0
Banks and insurances			
The Paris Region	156206	184108	220570
France	313674	406864	502300
The Paris Region /France (%)	49.8	45.3	43.9

Source : Insee

From the late 1960s on, along with the implementation of the de-concentration policy (since the late 1960s, the related subsidy was mainly concentrated in the 'balanced-metropolis' and the regional capital cities outside the Paris basin), the growth of services sector gradually expanded to the whole France (esp. in the south of France).

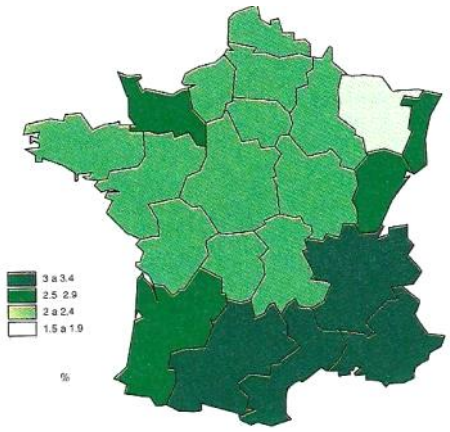


Figure: The evolution of service employment, 1968-1975

Source : A Valeyre, L'emploi régional de 1954 à 1979, SESAME DATAR, 1981

With the transformation of employment structure, the tertiary employment caused by the service de-concentration action mainly emerged in the 'balanced metropolis' and some other big cities, which were distributed in almost every region of France. Unlike the industrial de-concentration, the tertiary de-concentration action was more inclined to be located in bigger cities (more than 750000 inhabitants), which accounted for 4/5 of projects in total[133]. For example, Lyon (the so-called 'capital bis') benefited a lot from public investment from 1958 to 1974, which accompanied the service deconcentration as well as the balanced metropolis policy, such as the

[132] Jean-Francois Gravier, Paris et le désert français en 1972, Flammarion, 1972, pp. 135

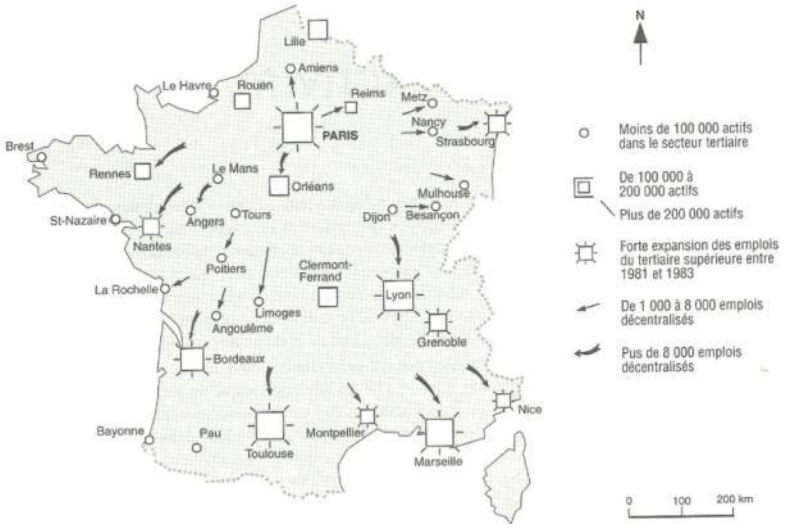
renovation in the Part-Dieu area, the construction of metropolitan transport network, the international airport and the new towns etc[134].

Table: The de-concentration projects and created employment before 1979 (partly)

Enterprise/institution	Location	Number of created employment
Telecom institution	Rennes, **Toulouse**, Bordeaux, Montpellier, Grenoble et L'Isle d'Abeau	1000
Ministry of Agriculture	**Toulouse**, Lyon et Montpellier	480
Budget department	Nantes, Toulouse	300
Pension administration institution	Auray, Valbonne	220
BNP Bank	Vaudreuil, Rouen	300
Savings bank	Bordeaux, Angers	2100

Source : La décentralisation tertiaire et l'île de France, bulletin édité par l'association bureaux-provinces, N 11 – Mai 1980 – Trimestriel

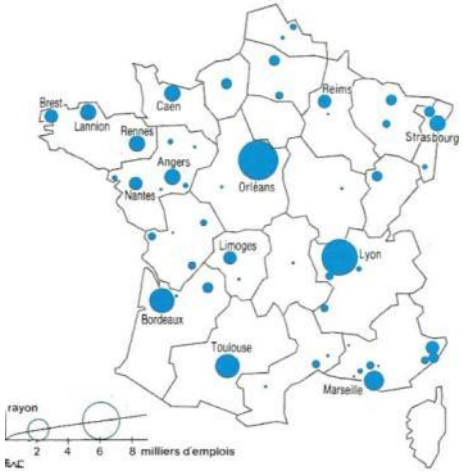
Table: The growth of tertiary sector in major agglomerations

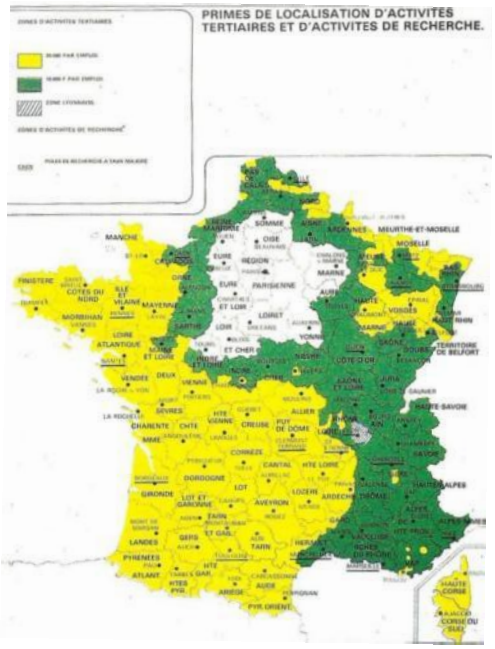


Source : M.Fabries-Verfailie, P.Stragiotti, La France des villes, Breal, 2000, pp 148

However, compared with the actual result and the plan of policy (as shown in the figures below), the bias still emerged in the Paris basin (e.g. in Orleans and Rouen). Perhaps we could conclude that: the evolution of service employment was a complex result of the spontaneous action, the policy guidance and the demand of the new era.

[134] L'assurance a Lyon : evolution recente et essai de typologie, RGL, 1977/4, pp. 339-365





Figure：The service de-concentration (public and private), 1962-1978

Source: J. Bastie, décentralisation des activités tertiaire en France, Analyse de l'espace, N 4, 1978

Figure: The location subsidy of service and research activities

Source: DATAR, 1976

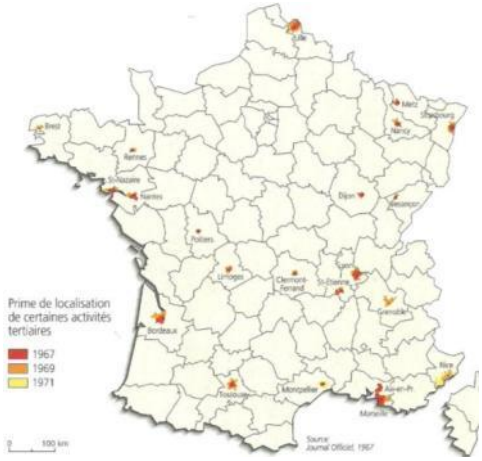


Figure: The aide of certain service activities creation, 1967-1971

Source: Dirige par Therese Saint-Julien, Atlas de France (Volume 14) :Terrioire et Amenagement, GIP RECLUS et La Documentation Fransaise, 1997

Therefore, some scholars concluded certain effect of the service de-concentration action[135]: relatively obvious effect emerged in the field of banks & insurances, education and research. The tertiary employments were mainly created in some major cities of provinces, which accompanied the expansion of service institutions. And the resources in some fields (i.e. education, research) became more balanced in France than before.

For example: bank services in the Paris region: BNP in Dinan, Crédit Lyonnais in Bayeux ;

[135] Sous la direction de Fran ɑis Caron et Maurice Vaisse, L'aménagement du territoire 1958-1974, Paris : Editions L'Harmattan, 1996

insurance services and giro services: duplication of the centre in Paris to la source (near Orléans); national civilian foreign affairs in Nantes; Army pensions in La Rochelle; the management institution of telecommunications in Toulouse; the de-concentration of "grandes ecoles": school of national public work (école des travaux publics de l'Etat) in Lyon, aircraft school and CNES (national centre for space studies) in Toulouse…. [136]

In the education domain, some major education nodes besides Paris (in Lyon, Grenoble, Toulouse, Lille, Bordeaux and Montpellier) and some national-level research nodes (in Lyon, Grenoble and Toulouse) were created. Some universities were created or transferred into the Paris basin (e.g. in Orlean-Tours, Reims, Nantes, Amiens and Rouen) and the regional metropolises (e.g. Aix-Marseille, Montpellier, Caen, Clermont-Ferrand, Dijon and Besancon) since the 1960s. These newly-created nodes reduced the over-concentration of education resources in Paris to a certain degree. For example, the percentage of students' registration in Paris's 13 universities was 28.9% of France (1970-1971), compared with the proportion 32.6% (1963-1964)[137].

According to the figure about universities, the newly-creation and derivation of French universities mainly concentrated during the period from 1960 to 1974. The action was in consistent with the implementation of service de-concentration policy concerning education institutions and the balanced-metropolis policy since the 1960s. However, before the tertiary de-concentration policy was implemented in the balance metropolises and some other regional big cities since the late 1960s, the obvious growth remained in the Paris basin. For example, during the period (esp. from 1962 to 1968), some cities in the Paris basin had quite significant growth rate of universities, such as Orleans-Tours of Centre region, Reims of Champagne-Ardenne region. And after the late 1960s, more universities were created outside the Paris basin.

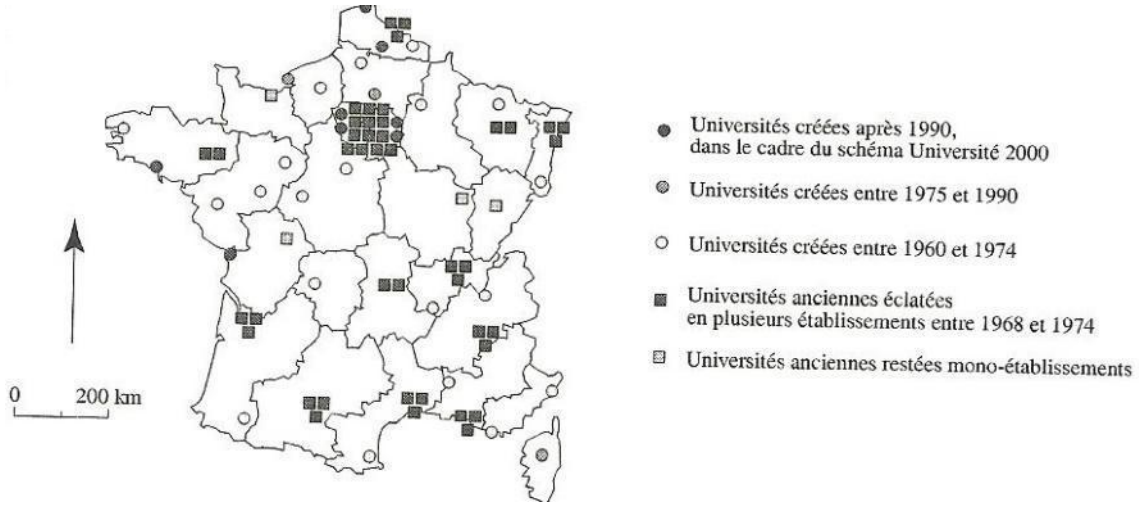


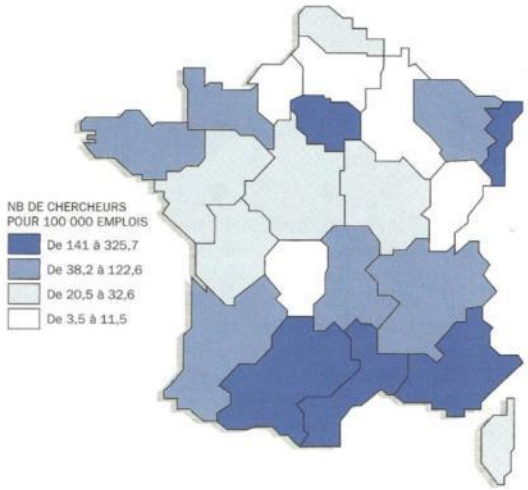
Figure: The creation of French universities in different periods

Source: Atlas de la France universitaire, 1992, et plaquettes de présentation des universités française

In the field of research, four regions (Rhône-Alpes, Provence-Alpes-côte d'Azur, Midi-Pyrénées, Languedoc-Roussillon) became the areas with a high proportion of researchers

[136] Philipe Pinchemel, La region parisienne, Paris : Presses Universitaires de France, 1979, pp. 106
[137] Jean-François Gravier, Paris et le désert français en 1972, Flammarion, 1972, pp. 140

which could balance the influence of the Paris region to some extent. Among the metropolises, Rennes and Toulouse benefited the most[138]. In addition, the proportion of research contract in the Paris region reduced from 65% (in 1971) to 61% (in 1972)[139]. And 2/3 of budgeted employments for research (in 1973) were located in the provinces outside the Paris region[140].



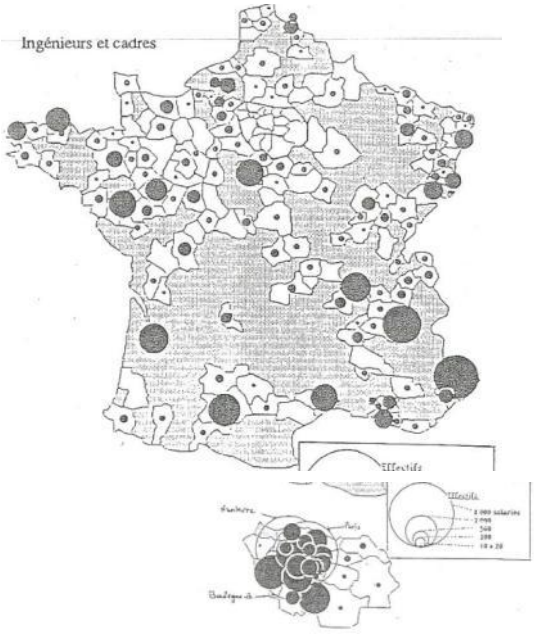


Figure: The proportion of researchers in public sectors, 1985

Source: MRES pour les chercheurs en 1985 et INSEE pour l'emploi regional

Figure: Engineers and managerial staff, 1985

Source : UTH 2001, La métropole parisienne system productif et organisation de l'espace, 1990, pp. 19

Table: Evolution of number of researchers (full-time) in industry, 1970-1987

	Number of researchers	Proportion of total	
		1970	1987
Ile-de-France	29213	65.0	59.4
The Paris Basin *	3650	5.9	7.4
Nord-pas-de-Calais	705	1.9	1.4
Lorraine	532	1.4	1.1
Franche-Comte	437	0.3	0.9
Alsace	711	0.5	1.4
Bretagne	764	0.5	1.6
Pays de Loire, Poitou-C.	976	1.6	2.0
Limousin et Auvergne	624	2.1	1.3
Rhone-Alpes	4454	9.3	9.1
Aquitaine	1485	2.6	3.0

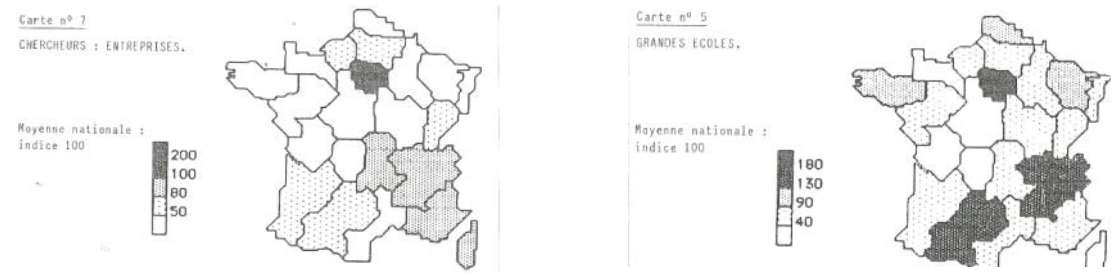
[138] [33] DATAR, Loi de Finances pour 1974, pp. 11-12

[140] DATAR, loi de Finances pour 1974

Midi-Pyrenees	1671	2.8	3.4
Languedoc-R	403	0.2	0.8
PACA	3532	4.9	7.2
Total	49157	100	100

* Especially The-Normandie and Centre

Source: MRT



Source: Michel Savy, 1986

Along with the dispersion of some resources (esp. education and research), a considerable number of cities became the growth-poles in the new era (since the 1970s). Compared with the initial period of the '30 glorious years', the number of the university city increased from 13 to 30 in 1970, such as Rhone-Alpes (in Lyon and Grenoble), Provence-cote d'Azur (in Montpellier), Lorraine (in Nancy and Metz), Aquitaine (in Bordeaux and Pau), and Centre (in Orleans and Tours) etc[141]. And some 'technopoles' and scientific parks were created on the basis of research centers and universities, such as Toulouse, Grenoble, Lyon and Rennes (electronics, telecommunication etc).

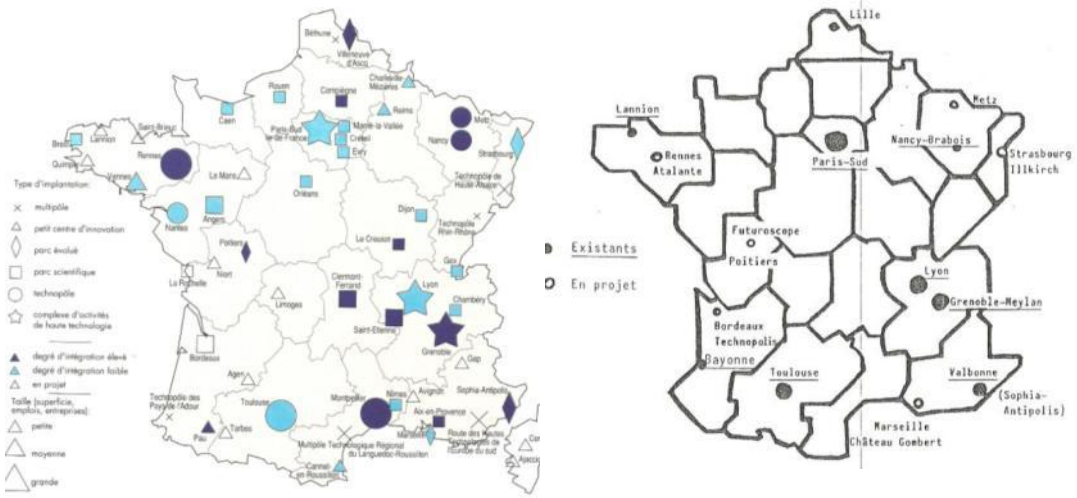


Figure: The growth-poles

Source: Denise Pumain et Therese Saint-Julien, Atlas des villes de France, Reclus: La documentation francaise, 1989

Figure: French «Technopoles» and «technopoles»

[141] Jean-Francois Gravier, Paris et le désert français en 1972, Flammarion, 1972, pp. 231-232

Source: Michel Savy, 1986

However, according to a survey[142], 57% of these service de-concentration projects were partly transferred from Paris, only 17.3% of them were newly-created in the provinces. In addition, although some of services institutions were transferred to the provinces by the service de-concentration action, the strong position of the Paris region remained. From 1968 to 1972, the permits of office construction in the Paris region still accounted for 45% of total[143]. Moreover, the employments of the decentralized tertiary sector were generally less qualified than those in the Paris region. And some research considered that the tertiary de-concentration had little influence on the qualified level of employment and the population growth of the Paris region.[144] In addition, some researchers considered the effect of tertiary de-concentration was less obvious than that of industrial de-concentration: the grants were not considered as the determinants for company headquarters; the number of newly-created employments was less than that of industrial de-concentration; and the influence of industrial de-concentration in small cities was more significant than that of tertiary de-concentration in big cities. [145]

According to the survey concerning de-concentration service companies and institutions carried out by la DATAR in 1977[146], this de-concentration action could also be seen as a result by both the market desire and the government guidance. The motives of de-concentration included: management dispersion, creation of small-size & branch institutions, and subsidies. And the motivations for the location choices were: local economic situation, market and distance from the Paris region (in the regional level); regional centers, convenience and preferential terms of local government (in the city level); opportunity of real-estate, expanded space, close to the labor market (for specific location). In addition, for the intern motivations, 86% of them chose the reason 'company expansion', compared with the financial causes. 73% of company headquarters considered the de-concentration action was positive, due to the amelioration of working and living condition and the improvement of profitability. Besides, Gavier (1972) considered the lower price of land, the better environment and the amelioration of infrastructure in some big cities (e.g. Lyon, Marseille, and Toulouse) were important during the process. However, the control of central companies was not reduced. [147]

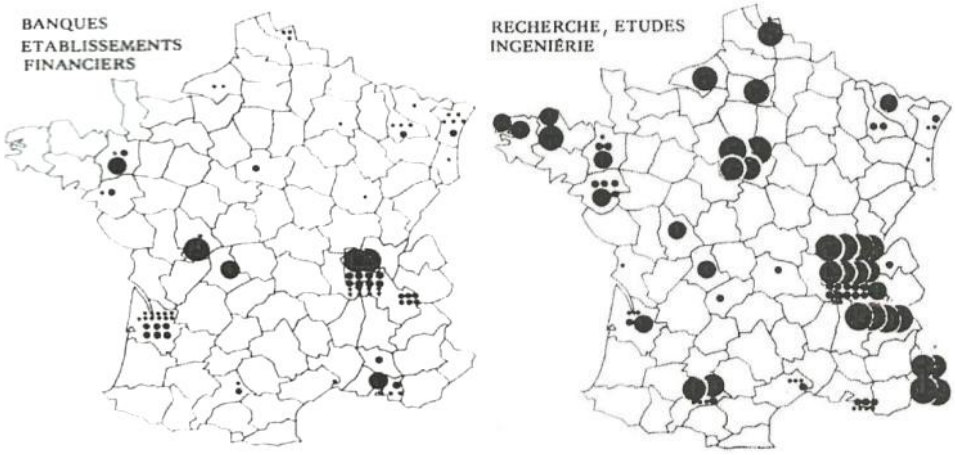
Based on the same survey of DATAR, Jacques Bonnet (1979) considered that the service de-concentration was divided into two major categories: 1) Activities with the characteristics of science and technology (i.e. information, research, education and training institutions). 2) Activities with commercial characteristics (i.e. banking, insurance, consulting). He believed that the former was mainly affected by the policy, like the creation of University City and some

[142] Sous la direction de J. Bastie avec l'aide de la DATAR et de l'Association Bureaux-Province, l'enquete conduite par l'equipe de recherche collective sur programme RCP 325 du CNRS
[143] DATAR, Loi de Finances pour 1974, pp. 10
[144] [39] Cahiers de l'IAURIF, vol.63, 1981

[146] CNRS – RCP 325, DATAR, Bernard Ferniot, la décentralisation tertiaire, Bilan de 48 enquêtes effectuées d'avril à juin 1977
[147] Cahiers de l'IAURIF, vol.63, 1981

preferential terms; and the latter was mainly attracted by some business reasons. For example, the reasons for transferring 'the superior research centre of social security (le centre d'etudes superieures de la securite sociale)' to Saint-Etienne were: the environment of university in the Rhone-Alpes region, the relatively high grant of de-concentration and the integration of schools in the new residential areas (l'integration de l'ecole dans un quartier residential neuf)[148]. And the objective of de-concentration of bank and consult sector was mainly a commercial desire for regional expansion, which had the demand of locating near the clients[149].

Moreover, in some major balance metropolises (i.e. Lyon, Bordeaux, and Strasbourg), the action was driven by the local industrial and commercial basis, the regional market etc. However, the service de-concentration in some central and western regions (Pays de la Loire, Poitou-Charente, Bretagne, Midi-Pyrénées, Provence-côte d'Azur and Languedoc-Roussillon) was more improved by the public power, other than a spontaneous action[150].



Source: Jacques Bonnet, La decentralization des activites tertiaires en France, Revue de geographie de Lyon, Vol. 54, N4, 1979, pp. 366

Case: The Paris Basin (in the 1960s)

Since the 1960s (before the large-scale of service de-concentration action), more universities were created in the major cities of the Paris basin. Although the education core position of Pairs was strengthened with the development of university cities in its suburbs (i.e. the University Paris 12: today UPEC). The process in the Paris basin was improved rapidly. M. Michel Giraud mentioned that: 'although the creation of universities around the Paris region was not short of crisis, they are now alive '.[151] As shown in the figures below, in the 1960s, the newly-created universities were more concentrated in the southern part of the Paris basin.

[148] Jacques Bonnet, La décentralisation des activités tertiaires en France, Revue de géographie de Lyon, Vol.54, n4, 1979, pp. 360
[149] Cahiers de l'IAURIF, vol.63, 1981
[150] Bonnet Jacques, La décentralisation des activitétertiaires en france, Revue de géographie de Lyon, Vol 54 n 4, 1979, pp 359
[151] M. Michel Giraud, président du conseil d'administration du district de la région parisienne
RB, le dialogue s'intensifie entre les regions du bassin parisien, juin-juillet. 1973, n 18, pp. 2

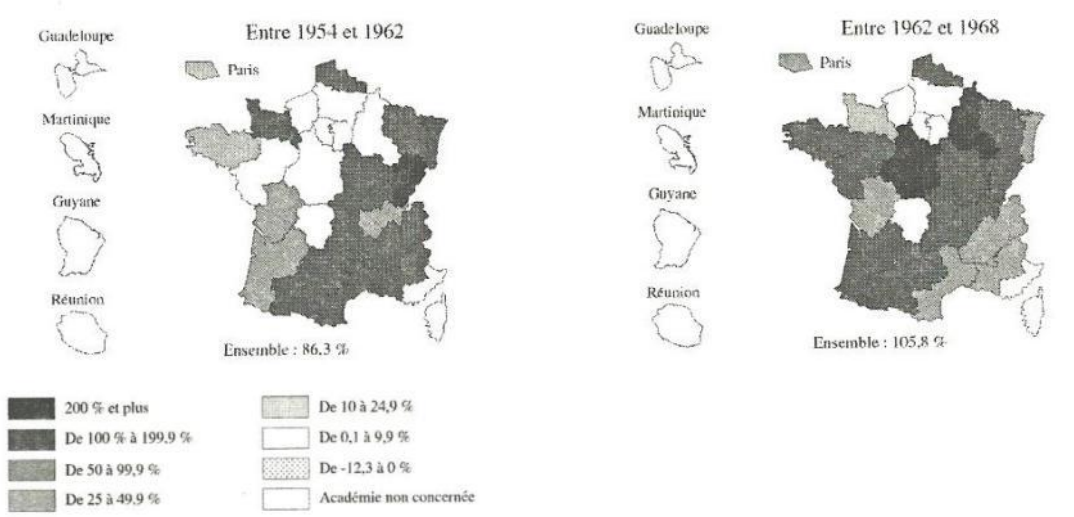


Figure: Evolution of universities in France, 1954-1968

Source: Ministère de l'éducation nationale de la recherche et de la technologie, 2000

Table: Total effective students in the universities of Paris basin

Academy	Centre of universities	1961-1962	1964-1965	1967-1968
Amiens	Amiens	--	1578	4368
	Saint-Quentin	--	70	193
Orleans	Orleans	157	1539	3143
	Tours	1479	3787	6485
	Bourges	--	84	120
Caen	Caen	6911	7368	9434
	Le Mans	--	718	1585
Reims	Reims	1339	3038	6560
Rouen	Rouen	--	4108	7190
Total 5 academies in Paris basin		9886	22290	39098
Paris			108030	130445
Nanterre			2872	14530
Orsay			5815	7689
Total Paris		81616	116717	152664
Total France		244814	367701	508119

Source : Groupe interministeriel d'amenagement du Bassin Parisien, Projet de livre blanc du Bassin Parisien, 1969, pp. 97

Case: The Midi-Pyrenees region

The action of French service de-concentration policy (since 1958) was proposed slightly later than the industrial de-concentration policy. The policy was firstly implemented in the Paris region, and was expanded to the other regions (the regional capital cities as the main choices, e.g. métropoles d'equilibre and métropoles assimilées) later in 1967 (based on Décret 67-940).

As shown in the table below, the action accompanied the rapid development of service sector in

the Midi-Pyrenees region. For the region, the main beneficiary of service de-concentration policy is its capital——Toulouse,which was also a certain part of 'balanced metropolis policy' since the 1960s. According to the following figure, the number of employment created in Toulouse by the policy was just less than that of Orleans in the Paris basin and the traditional regional financial centre——Lyon.

Table : Growth of effecitive employments by sector, Midi-Pyrénées

Sector	**1962-1968**		**1968-1973**	
	Absolute number	Proportion (%)	Absolute number	Proportion (%)
Construction and transport	+18325	24.0	+2900	3.0
Manufacturing	+8374	4.9	+16500	9.3
Public service	+19200	**18.5**	+13000	**16.8**
Private service	+30630		+41700	

Source : M. Idrac et J P. Laborie, l'économie de Midi-Pyrénées en crise, Revue géographique des Pyrénées et du Sud-Ouest, Tome 47, fascicule 1, janvier 1976

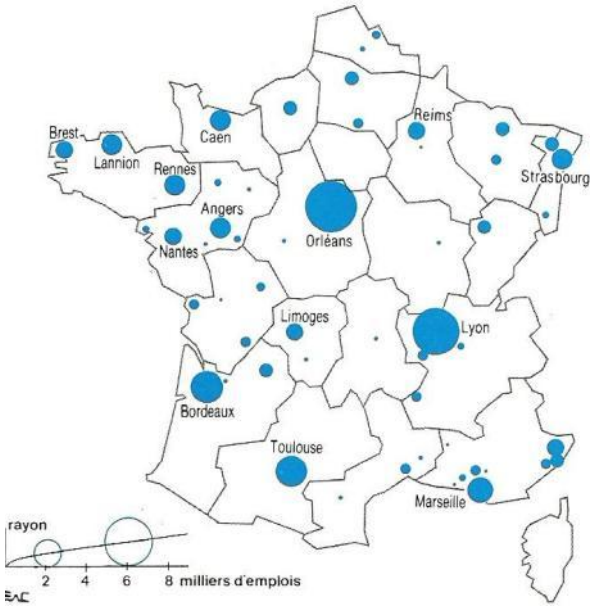


Figure : The tertiary de-concentration (public and private), 1962-1978

Source : J. Bastie, décentralisation des activités tertiaire en France, Analyse de l'espace, N 4, 1978

For Toulouse, it was significantly promoted by the transfer of education/research institution about the avitation field, i.e. the engineer school (l'Ecole Nationale Superieure de l'Aeronautique et de l'Espace, l'Ecole Nationale Superieure de la Navigation Aerienne, l'Ecole Nationale Superieure de la Meteorologie), the research centre etc (details in the case study regarding 'balanced metropolis policy' below).

In addition, it also contained the action of the decentralization regarding the management sector (i.e. ministere de l'agriculture, ministere de la defense, ministere de l'ind. Et la rech., secretariat d'etat aux universites, secretairat d'etat aux transports, etc) and the financial sector (i.e. union des assurances de Paris, banque francaise du commerce exterieur, caisse centrale de credit hotelier) etc. As some scholars mentioned, the de-concentration of bank or insurance institutions was mostly

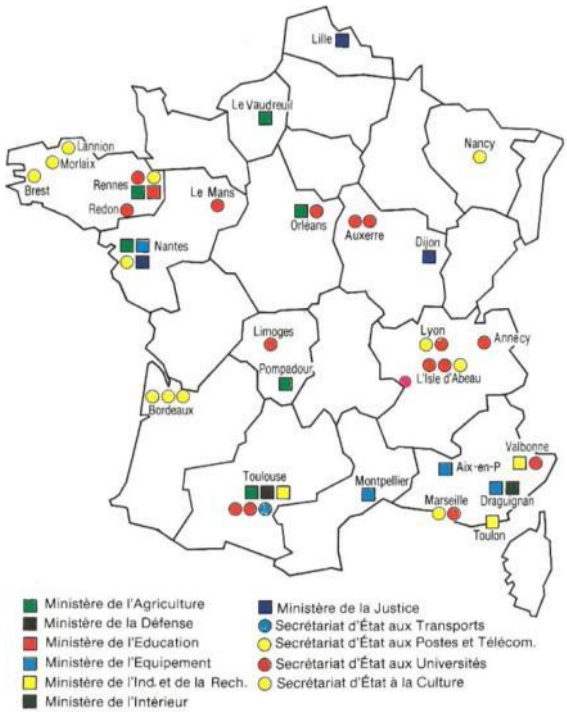
improved by the ‘localized’ intention with the economic objective.

Table: The de-concentration projects and created employment before 1979 (partly)

Enterprise/institution	Location	Number of created employment
Telecom institution	Rennes, **Toulouse**, Bordeaux, Montpellier, Grenoble et L’Isle d’Abeau	1000
Ministry of Agriculture	**Toulouse**, Lyon et Montpellier	480
Budget department	Nantes, **Toulouse**	300
Pension administration institution	Auray, Valbonne	220
BNP Bank	Vaudreuil, Rouen	300
Savings bank	Bordeaux, Angers	2100

Source : La décentralisation tertiaire et l’île de France, bulletin édité par l’association bureaux-provinces, N 11 – Mai 1980 – Trimestriel

Figure: Decentralization of management sectors, 1972—1975



Source : DATAR, Rapport d’activité, 1975

6.3 Brief conclusion

In general, the effect of industry and service de-concentration were influenced by both planning and market. Due to the ‘short-term’ benefit, the market hardly predict the development trend in the

future, which is the duty of planning.

During the 30 glorious years, certain resources (industry, service) were distributed in other regions outside Paris, where a considerable number of employment and several functional nodes were created.

However, certain practices which was overlooked by regional plan influenced the local development in the new era. For example, for industrial de-concentration, the neglect of ‘cluster’ formation, the development of medium-sized/small companies, and the transfer of high-level employees/ company sections hindered the sustainable development in the future.

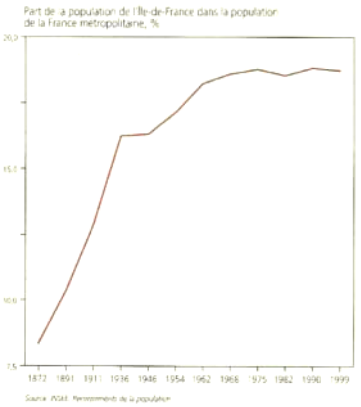
On the other hand, for service de-concentration, the transfer of certain education/research institutions related to local industrial basis (i.e. Toulouse), which improved the local development with special features. Nevertheless, the de-concentration of resources in one country reduced influence of certain city in a context of internationalization.

Chapter 7: The evolution of migration in France: planning guidance and background change

During the '30 glorious years', the direction of migration evolved dramatically. In fact, it could be seen as the result of both planning guidance and residents demand.

7.1 The migration between Paris and other provinces

The migration between Paris and other provinces evolved during the different phases.



As shown in the following figure and table, a number of people crashed into the Paris region (esp. Paris) in the early post-war period (also a historical trend for centuries), and this kind of gathering continued until the 1960s. From 1954 to 1968, the Paris agglomeration absorbed more than 100,000 inhabitants[152]. According to the data of Insee, the average growth rate of employment in the Paris region reached 1.41% from 1954 to 1962, in comparison with the general growth rate in France (only 0.15%). However, with the intervention of regional planning since the end of the 1950s (mainly focus on the productivity distribution), the concentration of population in the Paris region decreased gradually. During the period from 1962 to 1973, the average growth rate of employment in the Paris region was 0.83%, compared with the general rate 0.51%, which was even lower than that of Picardie, Rhone-Alpes, Centre and Provence-cote d'Azur.

Table：The population of France and the Paris region, 1946-1965, unit: million

	1946	1954	1962	1965
The Paris region	6.69	7.42	8.60	9.12
France	40.50	42.50	46.52	48.70
Porportation（%）	16.5	17.5	18.5	18.7

Source：Quelques chiffres sur la Region de Paris（Paris: District de la Region de Paris,1964），p 3；R égionalisation du budget，1966，p 165

Table: Annual growth rate of population, 1946-1975, %

	1946-1954	1954-1962	1962-1968	1968-1975
The Paris region	0.98	2.02	1.48	0.92
France	0.69	0.84	1.15	0.79

Source : le SDAURIF, 1976

[152] Martine Berger, Les periurbains de Paris : de la ville dense a la metropole eclatee ? Paris : CNRS Editions, 1998, pp. 25

Moreover, within the Paris region, the growth of population was mainly concentrated in the suburb departments around Paris, which was in correspondance with the industrial redistribution and the new-town policy. Therefore, there was still 18.5% of total population in the Paris region (in 1982) compared with 17.1% in 1954.

Table: Evolution of population in the Paris region

	Population		**Annual net migration (%)**		
	1954	1975	1954-1975	1962-1968	1968-1975
Paris	2850200	2299800	-0.9	-1.7	-2.1
Suburbs (92, 93, 94 department)	2730800	3976800	+2.1	+0.9	-0.3
Outer-Suburbs (77, 78, 91, 95 department)	1736200	3602000	+2.4	+2.2	+2.3
The Paris region	7317200	9878600	+1.2	+0.7	+0.2

Source : Le dépeuplement de Paris 1968-1975, Quelques elements d'explication, Population, 38e année, n°6, 1983, pp. 941-958

The figure below shows the changes of migration between the Paris region and the other part of France in the different periods: From 1954 to 1962, except for the migration to the Rhône-Alpes and the Provence-côte d'Azur region, the Paris region absorbed a significant number of migrants from the other provinces. During the period, with the decrease of employment in agriculture and some traditional industry sectors, most of floating population crashed into the Paris region for jobs (esp. industrial jobs). For example in 1954, the Paris region hired 23.3% of French industrial employment, and the trend continued during the 1960s (23.6%, in 1962).

However, from the early 1960s on, population began to flow from the Paris region to the other provinces, and the trend continued. The out-migration from the Paris region was related closely to the decline of industrial employment[153]. From 1962 to 1968, more migrants began to float into the Paris basin, the south and the south-eastern part of France, which accompanied the creation of employment in the provinces (esp. in the Paris basin and some balanced-metropolises). However, the out-migration from the west part of France (esp. the Paris basin, Bretagne, the Massif Central) into Paris was still obvious.

[153] Ernest Labrousee, Fernand Braudel, Histoire économique et sociale de la France (1950-), Rongkang Xie, Wenjie Huang (translators), Shanghai : Fudan University Press, 1990, pp 383

Source: Bally, Robic, Pumain, 1974

Since the 1960s, more service employments were created in the provinces (esp. in the south of France). During the period, the Paris region had the negative rate of net-migration into some regions, such as the Provence, the Rhone-Alpes, the Centre and the Picardie region. From 1968 to 1975, the scope further expanded, involving more regions except for the Nord, the Lorraine, the Champagne-Ardenne and the Franche-Comte region[154].

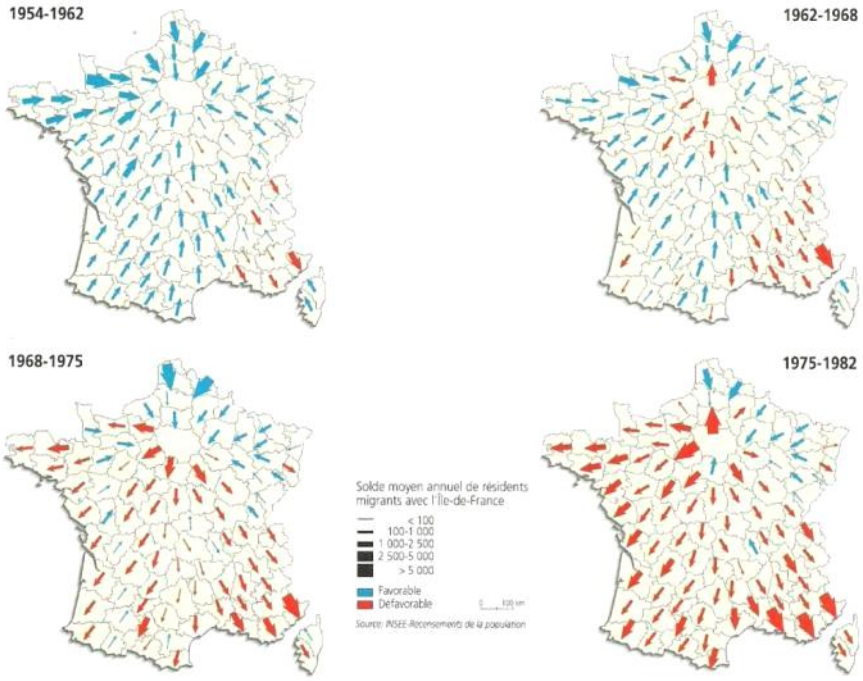


Figure: The net migration of residence, the Paris region-Provinces

Source : Dirige par Therese Saint-Julien, Atlas de France (Volume 14) :Terrioire et Amenagement, GIP RECLUS et La Documentation Fransaise, 1997

Moreover, since the 1960s, in addition to the objective of migration (for jobs), the ‘quality of

[154] Insee, Migraine-Migralt, Fichier des migrations definitives 1968-1975 (sondage au 1/5), migrations par orgine (regions de programme)

life' became more important than before. At that time, the change of migration could be partly explained by the increase of the provinces' attractiveness (the living condition), such as similar income, lower price of housing, better living condition, good social-cultural atmosphere, proximity to the natural space etc, which factors could be found in some research concerning determinants of migration in recent decades (i.e. Clark and Hunter, 1992; Cebula, 2005; Cebula and Alexander, 2006). In addition to the new construction of housing in some big metropolises (e.g. Lille-Roubaix-Tourcoing, Strasbourg, Toulouse, Bordeaux), the housing construction was also obvious in the mountainous and coastal area.

Therefore, the attractiveness of the Paris region decreased compared with some other parts of France, especially the south-eastern and southern areas. According to the survey of newspaper 'Liberation'[155], 62% of French residents wanted to settle down in Toulouse, compared with 5% in Seine-Saint-Denis of the Paris region. The top 5 attractive nesses of Toulouse were: image of city, urban culture, sports facilities, economic development and employment, transport and housing.

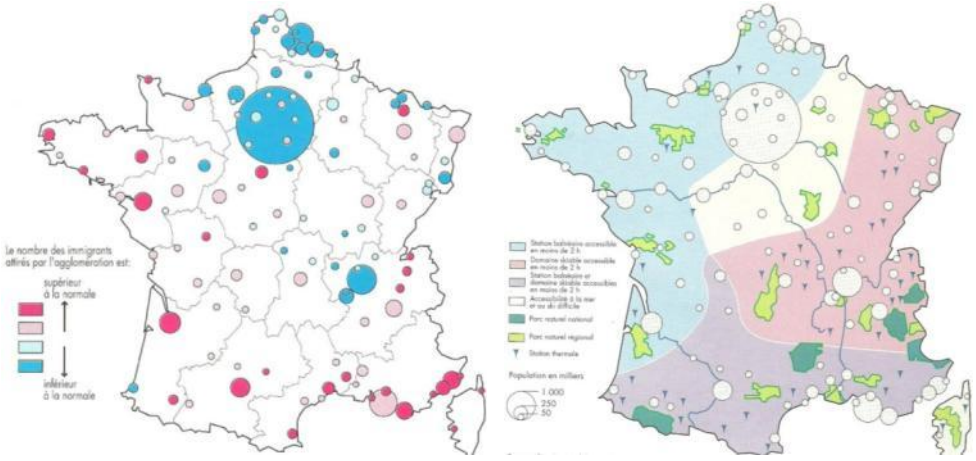


Figure: The migration preferences of France (index of attractiveness)

Source: Denise Pumain et Therese Saint-Julien, Atlas des villes de France, Reclus: La documentation française, 1989

Figure: Access to natural and leisure space

Source: Secrétariat d'Etat au Tourisme

According to the figures below, several attractive areas were formed in France, such as the agglomeration areas of Toulouse and Bordeaux, the metropolitan area of Lyon and the Mediterranean area of South France, which absorbed more migrants from France (Europe, even the world).

[155] The survey of Liberation involved 1617 residents in France, which was conducted in 2000.

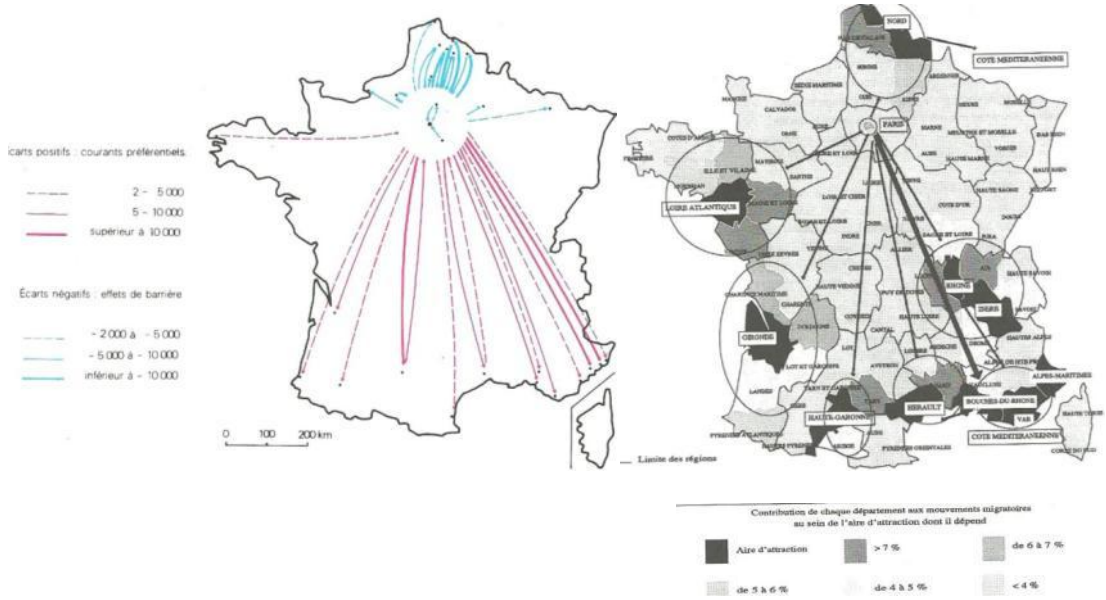


Figure : The exchange with Paris

Source : Denise Pumain et Therese Saint-Julien, Atlas des villes de France, Reclus: La documentation fran çaise, 1989, pp. 34

Figure : The attractive metropolitain area (without Ile-de-France), 1982-1990

Source : Jacques Voisard et Francoise Lavalland, Population et emploi trente ans de mutations a travers la France : Population et migrations interieures, La documentation francaise, 1993

However, it should be noted that the attractiveness of Paris for the migrants with the age of 20-29 years old and qualified employment still existed and lasted during the whole period of the '30 glorious years'. Perhaps it was due to the concentration of education & research institutions, more employment opportunities, life style of Paris. It is more enjoyable for young, possibly single people. When they have children, the choice criterion change and province may seem more desirable.

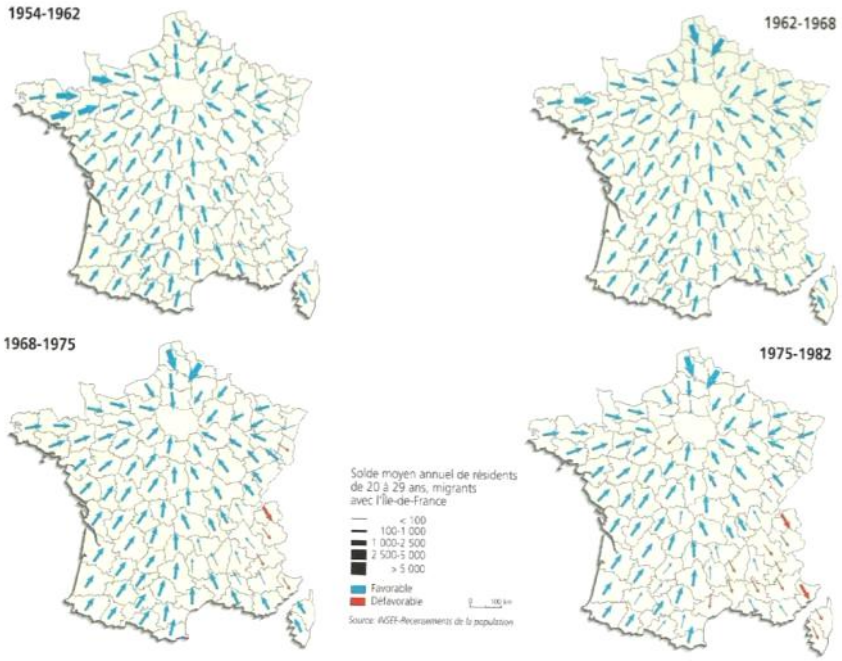


Figure: The net migration of population (20-29 years old), Paris region-Provinces

Source : Therese Saint-Julien (dir.), Atlas de France (Volume 14) :Terrioire et Amenagement, GIP RECLUS et La Documentation Fransaise, 1997

Moreover, according to migration concerning employment among different cities of France, the attractiveness of Paris was even strengthened after the '30 glorious years'. Although the provinces developed rapidly during the '30 glorious years', the employment migration of the Paris region was still the most obvious, which was much more significant than the 2nd economic area (Lyon metropolitan area).

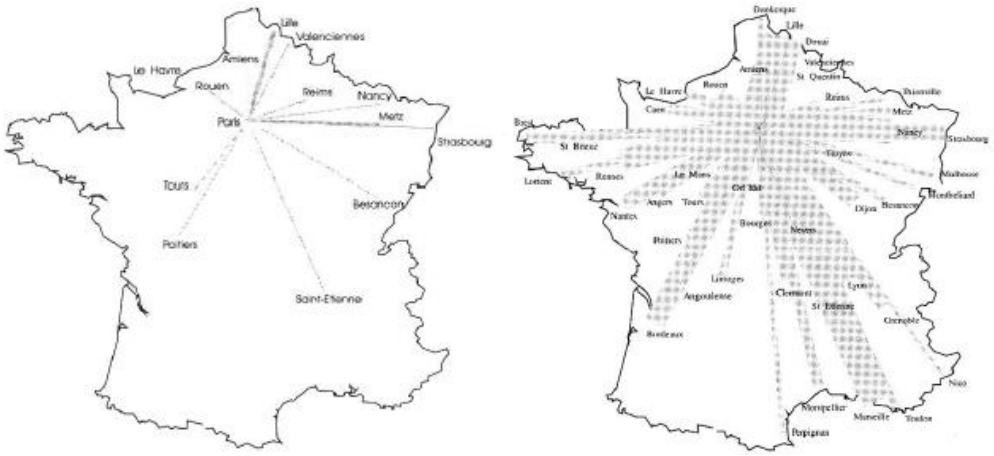


Figure: Net flow to Paris, 1975-1982, 1982-1990

Source : Philippe Julien, La metropolarisation des actifs structure le territoire, Economie et statistique, N. 290, 1995, pp 35

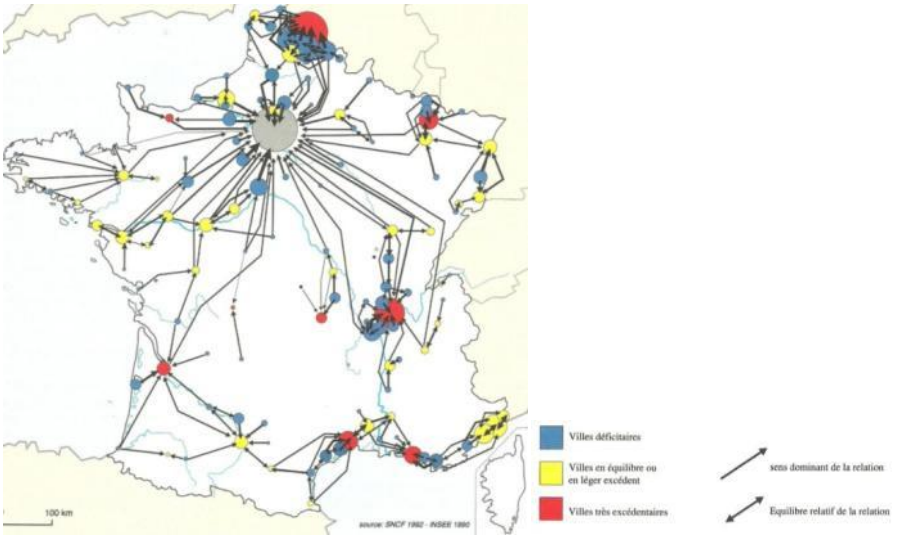


Figure : Cities and its relation to work

Source : F ędix Damette, La France en villes, Paris : La documentation fran çaise, 1994, pp. 125

As a result, the phenomenon of 'work in Paris and live in the provinces' became obvious. This kind of phenomenon was mainly concentrated in the western part of France, especially in the Paris basin. However, although the transportation network was much ameliorated (e.g. the construction of TGV), this phenomenon in the East (esp. in the Lyon metropolitan area) was not that significant compared with the Paris region.

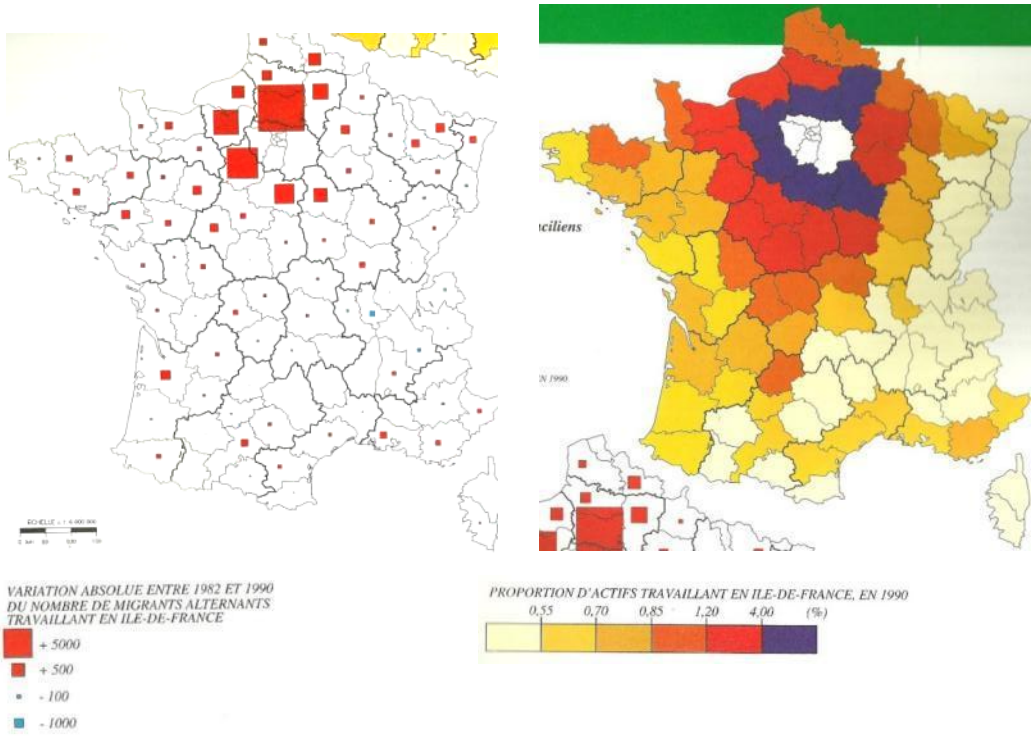


Figure : Working in the region 'Ile-de-France' without living

Source : Direction regionale d'ile-de-France (insee) et Institut d'amenagement et d'urbanisme de la region d'ile de France, Atlas des Franciliens : recensement de la population de 1990, pp. 147

Case: The Paris Region

Besides for the migration between Paris and other provinces, some changes happened and developed inside the region, which was influenced by the implemtation of planning.

- **The evolution of population and space in the Paris region during the 30 glorious years**

After the World War II, the population of the Paris region grew stably. Within the region, the growth rate of the center city (Paris) declined while in the other parts (esp. the outer-suburbs) growth remained at a high speed.

Table: Evolution of population in the Paris region

	Population		Annual net migration (%)			
	1946	1975	1946-1954	1954-1962	1962-1968	1968-1975
Paris	2725000	2299800	+0.6	-0.9	-1.7	-2.1
Suburbs (92, 93, 94 department)	2395000	3976800	+1.8	+2.1	+0.9	-0.3
Outer-Suburbs (77, 78, 91, 95 department)	1477000	3602000	+2.2	+2.4	+2.2	+2.3

The Paris region	6597000	9878600	+1.4	+1.2	+0.7	+0.2

Source : Le dépeuplement de Paris 1968-1975, Quelques elements d'explication, Population, 38e année, n°6, 1983, pp. 941-958 ; l'insee

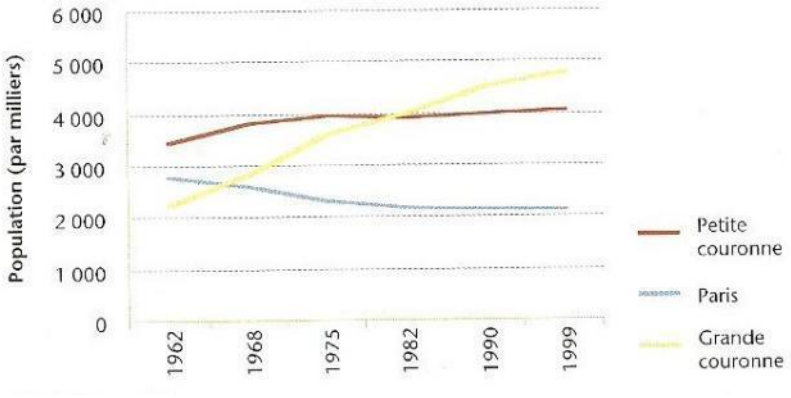


Table : Evolution of population in Paris, the small ring (la petite couronne) and the big ring (la grande couronne), 1962-1999

Source: Insee/RGP

On the whole, the growth of population in the suburbs (petit couronne) companied a large-scale of social housing's construction in the peripheral area of Paris (in some ZUP area, e.g. Puteaux, Ivry and Boulogne-sur-Seine) from 1950 to 1965. And the growth in the outer-suburbs (grand couronne) was mainly due to the expansion of big projects in the ZUP and the construction of public housing (les grand ensemble) from 1960 to the 1970s. The process accompanied the approval procedure established in the year 1967, which led the regional planning inside the Paris region in order to guide the employment creation (esp. in the new towns).

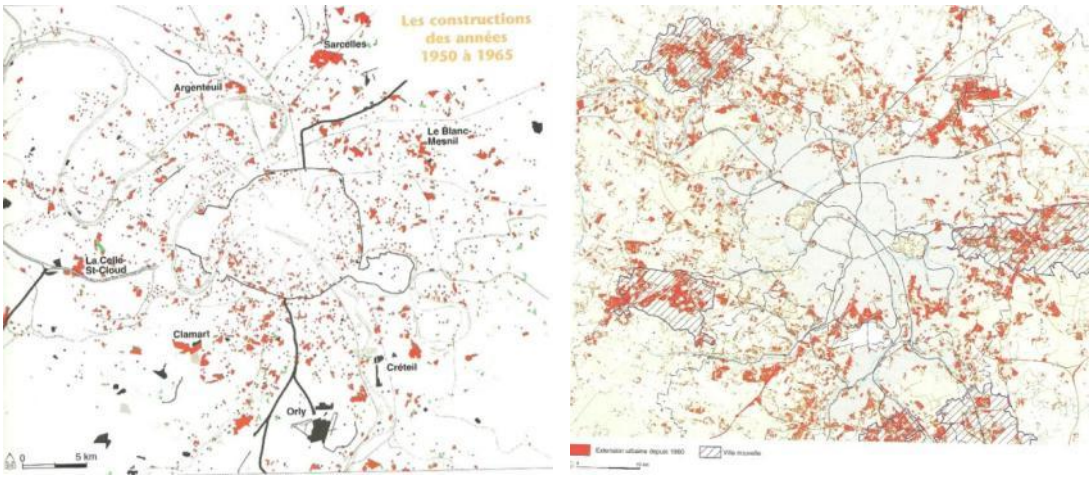


Figure : The construction in Paris, 1950-1965

Source : Atlas de Paris et de la region parisienne, 1967

Figure : Urban expansion, 1960-1994

Source : Institut d'amenagement et d'urbanisme de la region ile-de-France, 40 ans en ile-de-France : retrospective 1960-2000, IAURIF, 2001, pp. 42

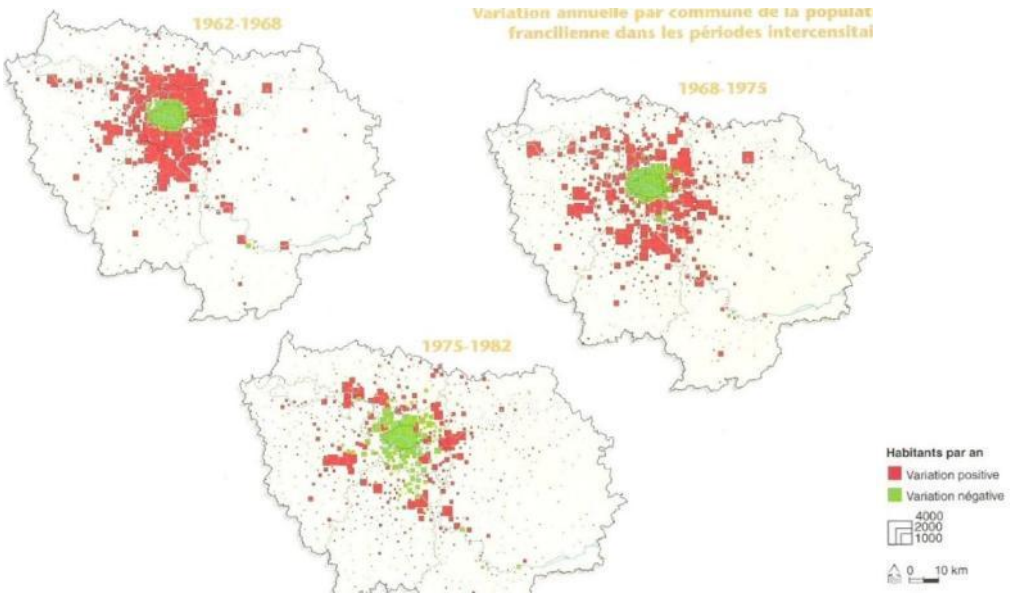


Figure : Annual variation by community

Source : Atlas des Franciliens, Iaurif/Insee

Afterwards (from the 1970s on), it was mainly marked by the construction of the new towns and the highly-increasing 'peri-urban' process. Since the late period of the '30 glorious years', the new towns became the area with a rapid rate of growth.

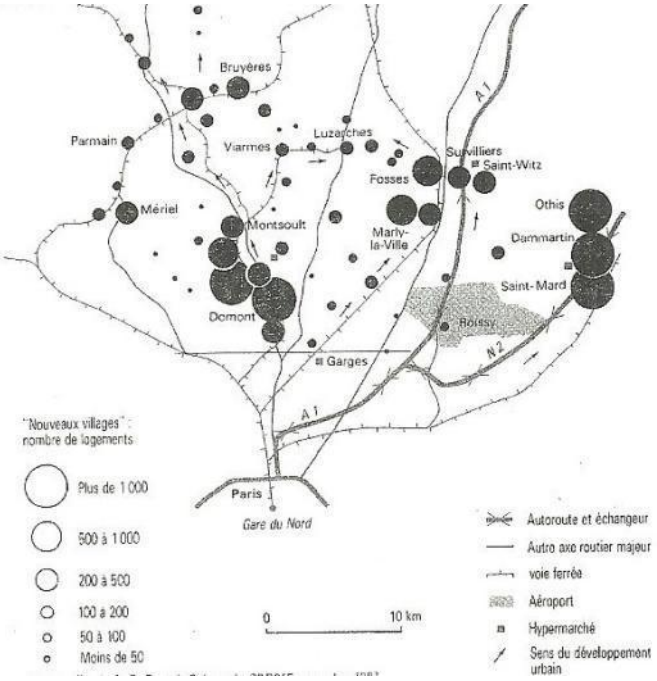


Figure: The new villages in the north of Paris, construction from 1969 to 1983

Source : J.C.Cavard, Cahiers du CREPIE, novembre 1983

Table: Some indices in new towns

	Cergy-Pontoise	Evry	Saint-Quentin-en-Yvelines	Marne-la-Vallee	Melun-Senart

Distance from Paris (Km)		27	25	25	17	42
Date of research mission (mission etudes)		1966	1966	1967	1969	1973
Date of public establishment		1969	1969	1970	1972	1973
Population	1962	42000	101000	35000	72000	64000
	1968	51000	155000	65000	95000	82000
	1975	83000	234000	107000	115000	95000
Distribution of employment (until 1/1/1980)	Industrie	37.8	40.8	34.2	34.7	34.1
	Batiment	10.4	7.5	10.3	18.1	8.5
	Tertiaire	49.7	50.1	54.5	46.8	57.2
Surface of industrial zone (ha) 1968-1975		502	183	533	273	282
Surface of agreed office (m2) 1971-1975		292000	252000	265000	85000	68000
Housing, 1971-1975		11900	5400	11100	7200	7400

Source : d'apres le Bulletin d'information de la region parisienne n 3, 1971, Les Etudes et Syntheses de l'Insee, N 4 et 6, 1973 et les rapports de M. Besnard-Bernadac au CE (1975, 1976, 1977), ASSEDIC

In the 1970s, the differences among Paris, its suburbs and outer-suburbs were still obvious: the gathering of commercial and service activities in Paris was significant and the certain centre (i.e. commercial, business center) gradually moved from the centre Paris to its west direction (Champs-Elysees, later Neuilly and La Defense).

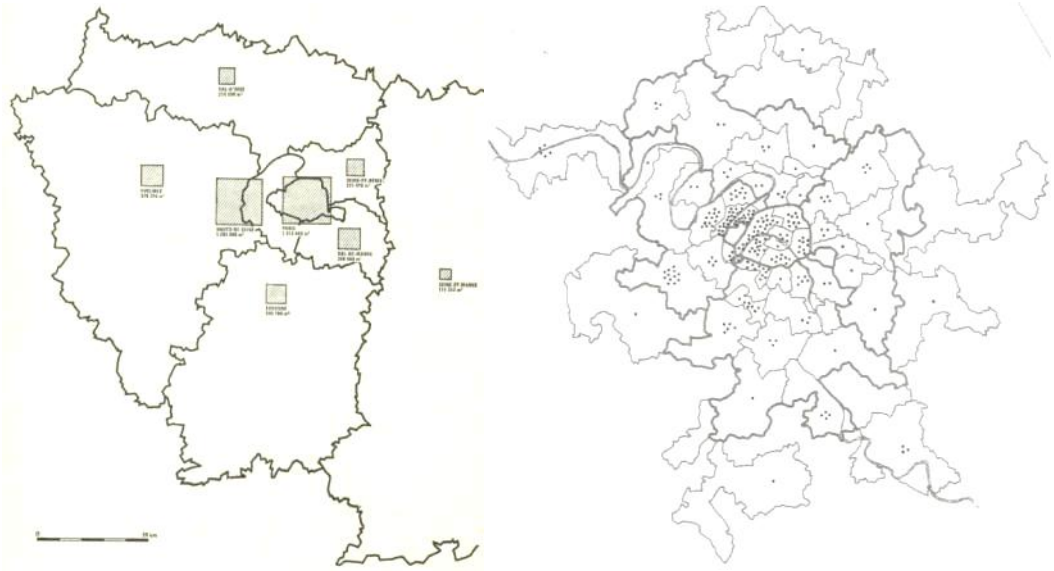


Figure: Construction permit of office, 1962-1968, dans la region parisienne par departement

Source : Loi de Finances pour 1973

Figure : Construction permit of office, 1962-1967, unite : 10000 m^2

Source : RB, la region parisienne et son evolution entre 1962 et 1968, une difficulte majeure pour la region parisienne : la croissance continue des migrations alternantes, Janvier, 1971

Some concentrations of the tertiary activities accompanied the construction of the new towns, the area of airport (Roissy-CDG, Orly) and ports to a lesser extent (Creteil-Bonneuil, Seine-Aval). Except for Paris and the department Val-de-Marne, the proportions of industry

activities in other departments of the Paris region were all higher than the average national rate.

Table : Category of activities, 1974, %

	Industry	Commerce and service	Total active population
Paris	30.6	59.6	44.6
Small ring (petite couronne)	44.2	25.4	35.2
Big ring (grande couronne)	25.2	15.0	20.2
Total	100.0	100.0	100.0

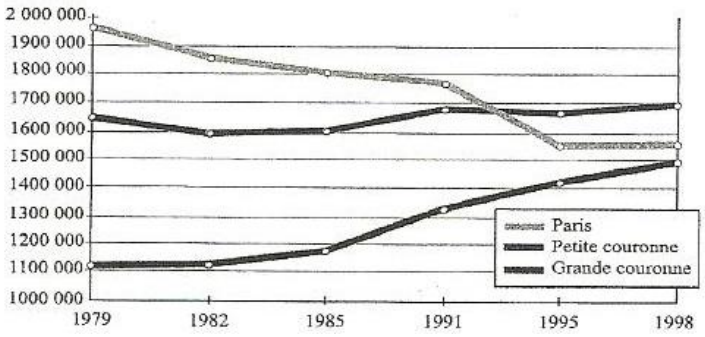
Source : Philipe Pinchemel, La region parisienne, Paris : Presses Universitaires de France, 1979, pp. 24

Table : Category of employment, 1973, %

	Paris	Petite couronne	Grande couronne	Seine-Saint-Denis	Yvelines	France
Industry	35.4	64.1	63.9	64.0	66.3	59.2
Commerce and service	60.7	32.0	33.8	29.7	31.7	37.3

Source : Philipe Pinchemel, La region parisienne, Paris : Presses Universitaires de France, 1979, pp. 24

Graph : Evolution of employment in 'Ile-de-France', since 1979



Source : Insee-Ere

In the 1980s, some tertiary privilege axis in the Paris region were formed: Neuilly-Nanterre axis (esp. La Defense and Marne-la-Vallee), new towns and agglomerations in the south between Saint-Quentin-en-Yvelines and Evry. Among them, major enterprises and administrations were located in the first axis (Marne-la-Vallee also contained the function of residence, office and recreation (Euro-Disneyland)). It also accompanied the dispersion of enterprises' headquarters in these areas.

In addition, some productive activities (e.g. aeronautics and armament), laboratories and research centres were concentrated in the second axis (e.g. Saclay, concentration of CEA, l'Universite d'Orsay, CNES, CNET et l'Ecole Polytechnique) and some new towns (e.g. Cergy-Pontoise, Saint-Quentin-en-Yvelines, Evry and Marne-la-Vallee), which were all connected by the RER or the regional highways. Besides, there emerged some growth poles, such as Creteil, Fontenay, Roissy-Villepinte, new town (Cergy) etc.

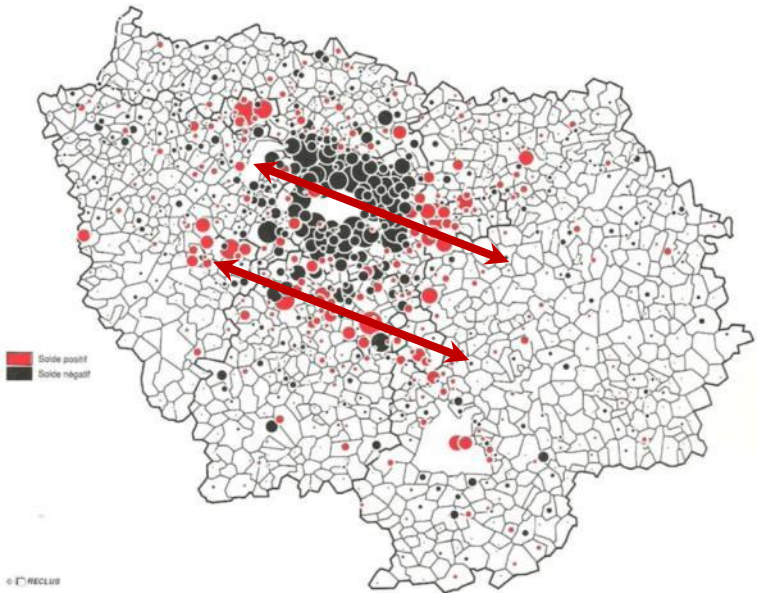


Figure : The change of enterprises, 1982-1984

Source : Emploi, entreprises et equipements en Ile-de-France, RECLUS, 1987

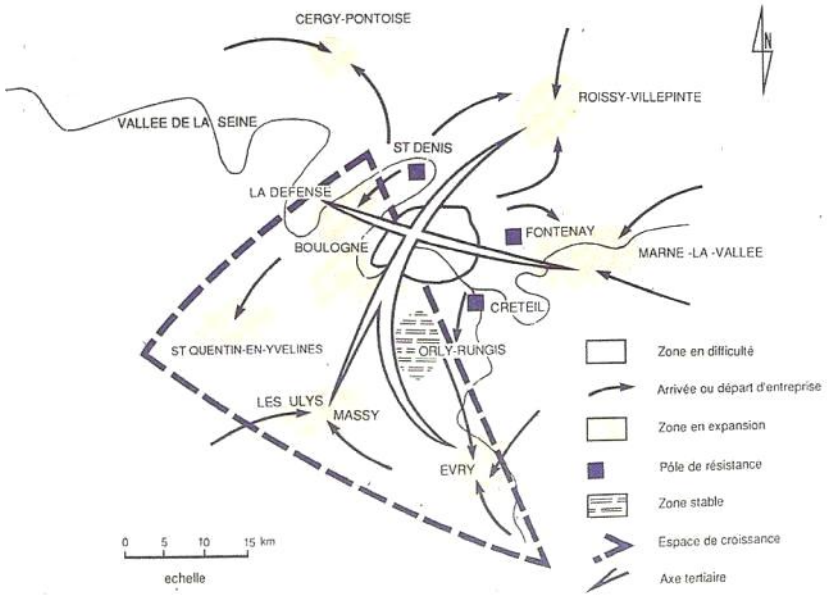


Figure : The space of productive system in 'Ile-de-France'

Source : Emplois, entreprises et equipements en Ile-de-France, RECLUS, 1987

- **The transportation system construction of the Paris region during the 30 glorious years**

During the '30 glorious years', the expansion of the Paris region accompanied the construction of transportation equipment (esp. public transportation), such as the extension of the metro lines (linking Paris with its suburbs) since the 1950s, the construction of RER (regional express network, reseau express regional) since the 1960s (linking Paris with its suburbs and outer-suburbs, e.g. new towns). For example, the line RER was extended to the new town Evry in 1974, and reached the new town Saint-Quentin-en-Yvelines and Cergy in

1975 and Marne-la-Vallee in 1977.

The direction program of 1965 proposed the two axis: from Trappes to Ermont-Eaubonne (through Montparnasse, the invalids and Auber); from the new town Evry to the airport of Roissy (through the station Austerlitz, Lyon and North-east). From 1969 on, it decided a line which connected the Sceaux with the North station.

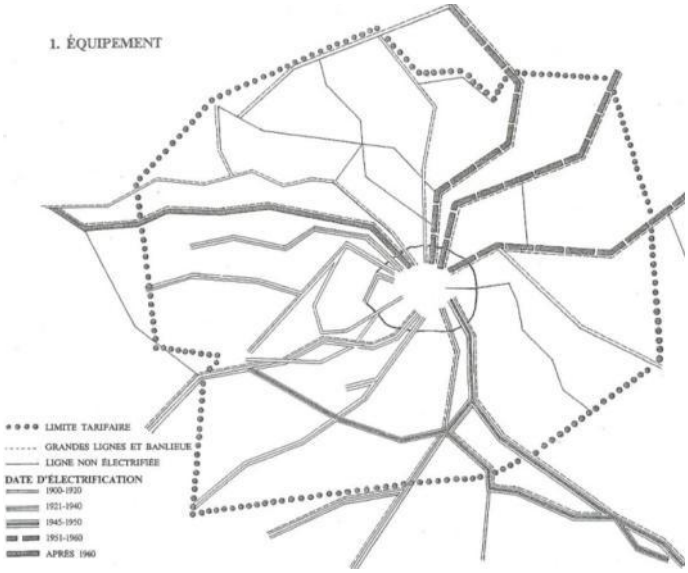


Figure: The transportation equipment until the 1960s

Source : Jacqueline Beaujeu-Garnie et Jean Bastie (dir.), Atlas de Paris et de la Region parisienne, Pairs : Editions Berger-Levrault, 1967, pp 387

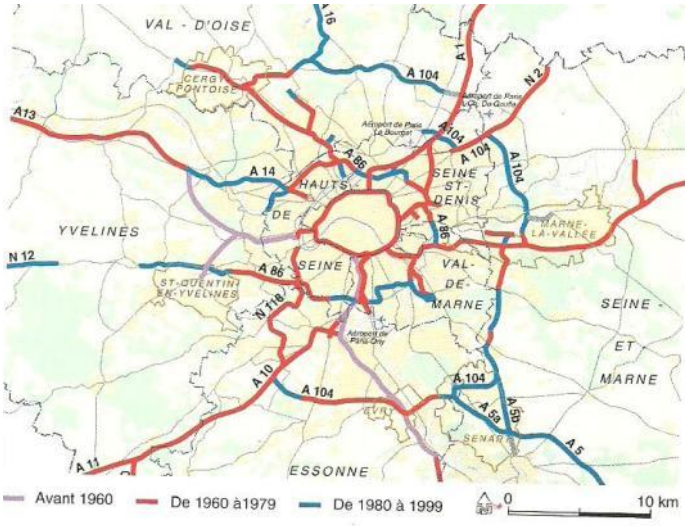


Figure : Achievements of highway in 'Ile-de-France' since 1960

Source : IAURIF

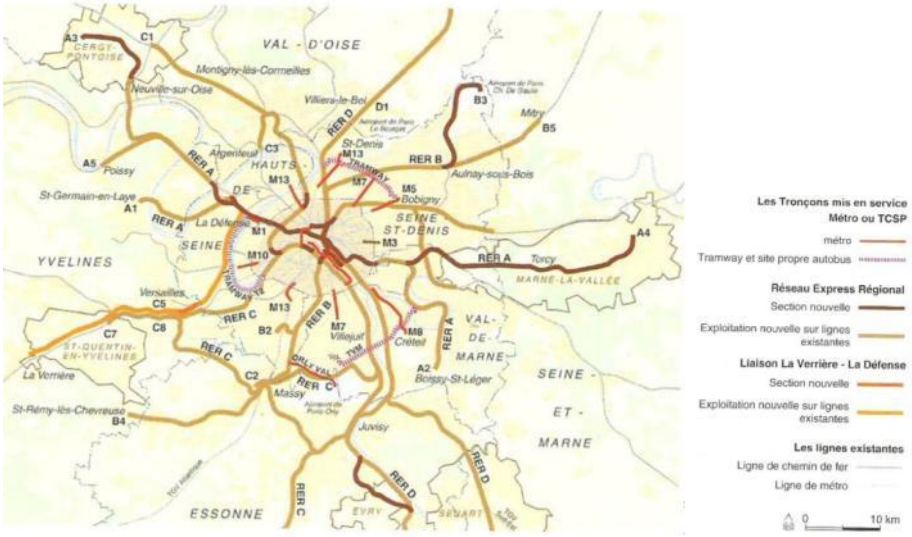


Figure : Achievements of public transport in 'Ile-de-France' since 1960
Source: IAURIF

Case: The Development of new towns

The master plan of the Paris region (le SDAURP, 1965) proposed the concept of 'new towns' for the first time, with an objective of large-scale construction (relate urban development to the growth of population). According to the plan, the new towns did not simply function as the concentration of employment or residents, but a community of living, working and other functions (réunion d'une population et d'un centre urbain, la succession des quartiers où les habitants resident et des quartiers où ils travaillent, achètent…) and they were planned a certain distance far from the centre city. According to the working study of minister of equipment and housing, the new towns were at first a 'capacity of employments and accommodations (capacité d'accueil en emplois et hébergement)'[156]. These plans above were issued during the '30 glorious years'. However, the amount of construction greatly decreased after the period (i.e. in the 6th Plan), due to the change of background (i.e. the oil shock in the 1970s, the de-concentration of political power). As shown in the table below, the amount of construction was much smaller than the planned objective at the beginning.

	Number of planned inhabitants	**Number of inhabitants, 1990**
Cergy-Pontoise	200000-300000	179000
Evry	130000	80000
Saint-Quentin-en-Yvelines	320000	143000
Marne-la-Valee	400000	247000

[156] Directive général n 2 du 8 juillet 1969, ministère de l'équipement et du logement, direction de l'aménagement foncier et de l'urbanisme

Melun-Senart	300000	93000
Total Ile-de-France	1350000-1450000	742000
L'Isle-d'Abeau	250000	39000
Le Vaudreuil	90000-140000	14000
Lille-Est	100000	65000
Rves de l'etang de Berre	300000-350000	114000
Total province	740000-840000	232000
Total general	2090000-2290000	974000

Source: C.Chatin, 1975

However, the population developed rapidly, and housing was still an important factor during the process of construction. Based on the 7th plan (programme d'action prioritaire villes nouvelles, 1976-1980) and the 8th plan (programme villes nouvelles 8th plan, 1981-1985), the objective of constructing housing increased gradually. On the other hand, different from the initial period (the demand of housing is quite urgent), the construction objective of new towns changed from the quatitative requirement to the pursuit of quality (i.e. recreation, environment). The model of large aggregated housing area (grand ensemble) was abondoned, the new towns were planned as the 'real city (vraie ville)'. As shown in the table below, some industrial and office zone were constructed in the new towns in order to keep a balance between living and working. And the propotion of individual housing was much more than that in the ZUP, which met the urgent demand of population at that time. However, the migration between living and working places remained consistant, and the amount of provision was still limited for the demand of popul ation in some new towns (as shown in the table below). On the other hand, some employees working in the new towns did not want to live there, i.e. the senior employees. In addition, the problems of social housing (i.e. the social segregation) also emerged in the new towns.

New towns	**Surface**		**Numbre of constructed housing**		**Type of constructed housing**	
	Industrial zones, ha	Permit construction of office, m^2	Until 31 decembre 1975	Total until 31 decembre 1990	Individuels (%)	Accession a la priete (%)
Cergy-Pontoise	437	594000	13126	45723	46	59
Evry	277	530000	8350	24415	23	60
Marne-la-Valee	427	918000	8593	41925	26	57
Melun-Senart	258	57000	5433	29001	62	63
Saint-Quentin-en-Yvelines	473	813000	16194	43174	37	61
Total Ile-de-France	1872	2912000	51696	184238	39	60
Rves de l'etang de Berre	195	77000	8479	22452	55	62
L'Isle-d'Abeau	331	63000	1203	9474	50	54

Le Vaudreuil	183	2000	1970	5000	54	60
Lille-Est	123	93000	4715	12153	29	40
Total province	832	235000	16367	49079	47	55
Total general	2704	3147000	68063	233317	41	59

Source: Fichier sirocco jusqu'en 1980, puis siclone (depuis 1981) et secretariat general du groupe central des villes nouvelles et sources diverses ; secretariat general du groupe central des villes nouvelles

Table : Activities created in the new towns and the evolution of employment, until 1/12/1990

New towns	**Population (1968)**	**Population (1990)**	**Employment**		**Balance (habitat-employment)**	
			1968	1990	Actif 1990	Employ/Active
Cergy-Pontoise	53445	173268	15000	72000	72000	1.00
Evry	9430	75836	1500	35000	33000	1.06
Marne-la-Valee	85546	203980	25000	64000	93000	0.69
Melun-Senart	65709	160087	2500	21000	35000	0.60
Saint-Quentin-en-Yvelines	41415	191108	7000	52000	59000	0.88
Total Ile-de-France	**255545**	**804279**	**51000**	**244000**	**292000**	**0.83**
Rves de l'etang de Berre	33328	103767	8800	47500	43500	1.09
L'Isle-d'Abeau	29625	46432	900	7000	7000	1.00
Le Vaudreuil	0	11373	--	3500	5000	0.70
Lille-Est	26288	11373	6300	22000	29500	0.75
Total province	**89241**	**65320**	**16000**	**80000**	**85000**	**0.94**
Total general	**344786**	**226892**	**67000**	**324000**	**377000**	**0.86**

Source : Insee, secretariat general du groupe central des villes nouvelles

Moreover (based on the table below), the qualities of residents in the new towns were generally better than those in some ZUP of the suburbs: the proportion of middle class in new towns was mostly higher than the percentages in the ZUP; and the ratio of unemployment there was relatively lower. These results partly related to the models of urban planning during different development phases. However, the attractiveness of new towns for senior employees and high class was still quite limited, which influenced the effect of social mixity to a certain degree. Besides, the residents were younger compared with the national average, which resulted in strong mobility.

The first ZUP 'Surville' (priority urbanized zone, zones a urbaniser en priorite) was constructed in 1958, which is located 80 km away from Paris. It was planned to construct 7000 housing equipped with commerce, the industrial and cultural zone. However, after the creation of new towns in the 1960s, the construction in Surville stopped. And more than 10000 inhabitants lived in the high residential building there, where the proportion of foreigners was 77%[157].

[157] Jean-Pierre Paulet, Les banlieues francaises, Paris : Ellipses, 2004, pp. 45

New towns	Metier des chefs de menage (%)							Rate of unemployment	
	Artisan/Merchant	Manager	Intermediated profession	Employee	Worker	Retirement	Other	1990	1999
New towns									
Cergy-Pontoise	3	17	22	18	20	14	7	8	11
Evry	3	16	24	19	20	13	4	7.5	11.4
Marne-la-Valee	5	16	21	17	19	16	5	7.4	10.6
Melun-Senart	3	14	25	16	22	16	3	7.2	9.4
Saint-Quentin-en-Yvelines	3	24	23	16	17	12	4	6.2	8.9
Suburbs									
Mantes	3	6	13	16	31	24	7	11.6	14.7
Sarcelles	5	6	15	20	25	23	7	11.7	14.7
Versailles	4	28	15	14	6	27	6	5.3	6.7
Bobigny	4	6	15	19	25	24	7	11.9	18.8
Roissy	5	8	16	17	25	23	6	10.4	14.6
Meaux	3	7	16	18	27	21	7	11.6	14.7
Ile-de-France	**5**	**18**	**17**	**14**	**15**	**23**	**7**	**8.5**	**11.5**

Source : recensement INSEE, 1999

7.2 The migration between the East and the West

In France, there was a huge gap of development between the west and the east part of France for a long time. The East France was seen as a highly-industrialized area; while the West France was a traditional agricultural area.

In France (during the 30 glorious years), the surplus rural labor mainly migrated from the southern and the south-western part to its northern and the north-eastern direction, which showed that: during the migration period mainly in pursuit of employment, its local development of industry and tertiary sector could not fully prevent the out-migration of agricultural population. It could be proved by Ravenstein's laws (migration connected with the regional differentials in the economic development) and the 'push and pull' theory proposed by D.J.Bagne.

According to the data of insee (1962, recensement), the disparities of employment structure between the East and the West were still obvious (as shown in the table below).

	Region	The proportion of industrial employment (%)
East	The Paris region (Sein, Seine-et-Oise, Seine-et-Marne)	36

	Rhone-Alpes	38
	Nord	46
	Lorraine	42
West	Bretagne	13
	Basse-Normandie and Poitou-Charente	17
	Languedoc	18
	Limousin	19
	Midi-Pyrenees and Aquitaine	20
	Pays de la Loire	22
	Auvergne and Centre	24

Source: l'insee

According to the figure below (1954-1962), the out-migration rates of the western regions were significantly higher than that of the eastern regions. Since the 1960s, the trend decreased gradually, which showed a large-scale of back-flow into the western areas.

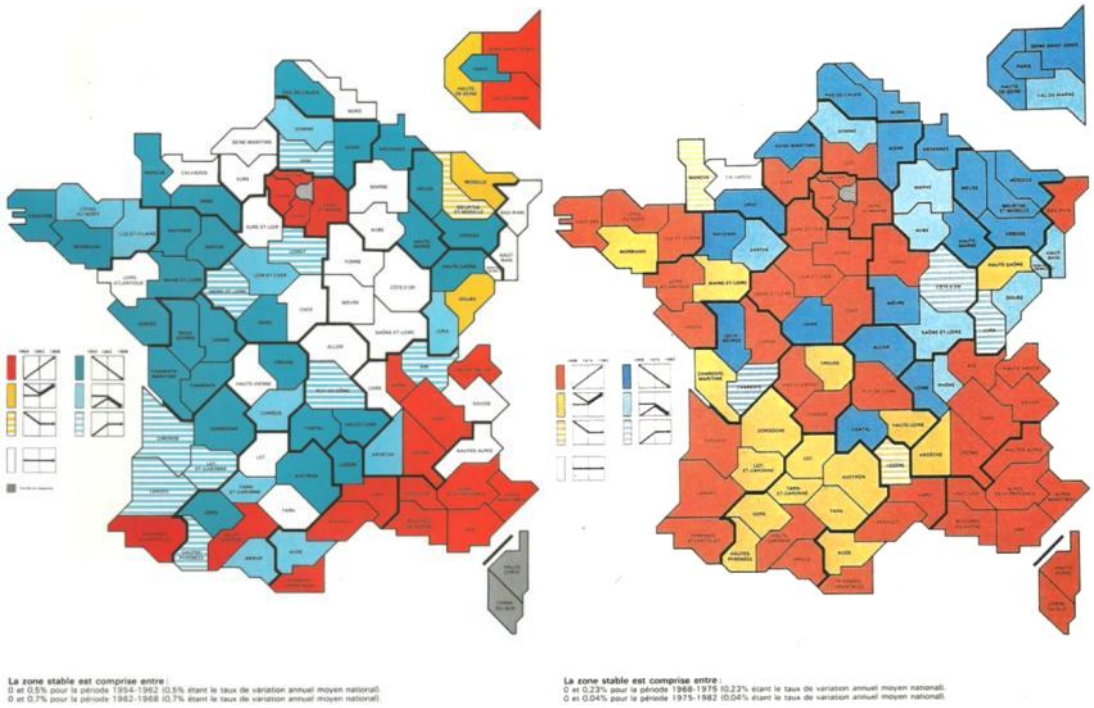


Figure: Evolution of net migration in France, 1954-1962-1968-1975

Source: L'INSEE

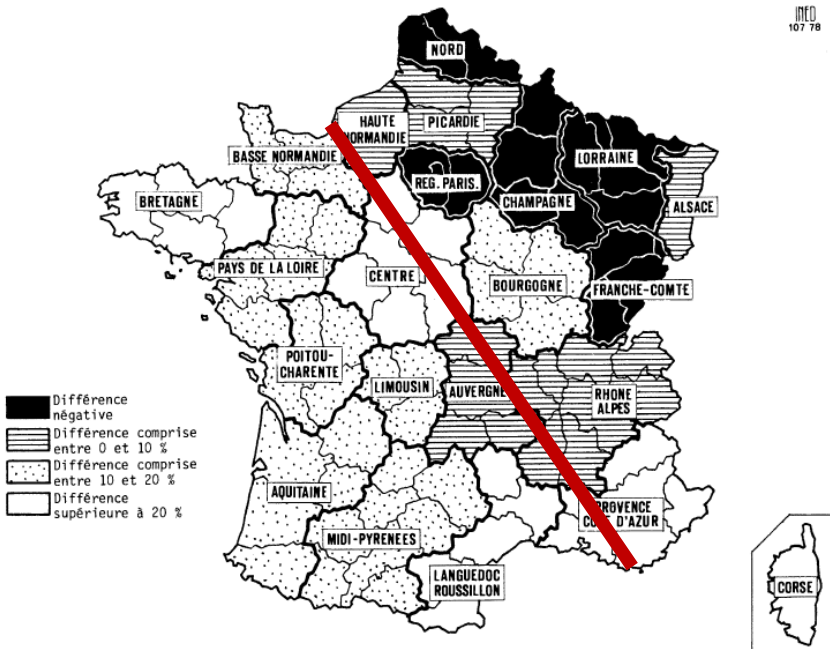


Figure: The differences between the migration rate of two periods, 1954-1968 and 1968-1975

Source: Daniel Courgeau, Les migrations internes en France de 1954 a 1975 Ⅰ Population, 33e Année, No.3

For examining the relation between policy guidance and migration, we check the growth rate of employment (industry, service) and the rate of migration in the eastern and western regions[158] during the different periods (by the 'correlation model'). Based on the models conducted, we get some results as follows. On the whole, from 1954 to 1962, the migration was closely related to the change of industrial employment, and the correlation coefficient was higher for the floating population aged 20-34 years. The trend continued during the period from 1962 to 1968.

Table: The correlation between annual migration and evolution of industrial employment, 1954 -1962

Correlations

		VAR00001	VAR00013
VAR00001	Pearson Correlation	1	.625**
	Sig. (2-tailed)		.002
	N	22	22
VAR00013	Pearson Correlation	.625**	1
	Sig. (2-tailed)	.002	
	N	22	22

**. Correlation is significant at the 0.01 level (2-tailed).

Table: The correlation between annual migration and evolution of industrial employment, 1962 -1968

[158] The eastern regions includes: Région Parisienne, Champagne-Ardenne, Picardie, Haute-normandie, Bourgogne, Nord, Franche-comté, Rhône-Alpes, Provence-côte d'Azur, Lorraine ; The western regions includes : Centre, Basse-Normandie, Pays de la Loire, Bretagne, Poitou-Charentes, Aquitaine, Midi-pyrénées, Limousin Auvergne, Languedoc-Roussillon, Corse.

Correlations

			VAR00003	VAR00004
Kendall's tau_b	VAR00003	Correlation Coefficient	1.000	-.330*
		Sig. (2-tailed)	.	.032
		N	22	22
	VAR00004	Correlation Coefficient	-.330*	1.000
		Sig. (2-tailed)	.032	.
		N	22	22
Spearman's rho	VAR00003	Correlation Coefficient	1.000	-.394
		Sig. (2-tailed)	.	.070
		N	22	22
	VAR00004	Correlation Coefficient	-.394	1.000
		Sig. (2-tailed)	.070	.
		N	22	22

*. Correlation is significant at the 0.05 level (2-tailed).

However, if we separated the eastern and western part of France, the result was not the same as above. From 1962 to 1968, the growth of industrial employment in the western regions had a significant correlation with the rate of migration, while that of the eastern region had no considerable correlation. This result may be due to the inconsistent development period between the two parts of France.

Table: The correlation between annual migration and evolution of industrial employment, 1962 -1968 (the East France)

Correlations

			VAR00003	VAR00004
Kendall's tau_b	VAR00003	Correlation Coefficient	1.000	.018
		Sig. (2-tailed)	.	.938
		N	11	11
	VAR00004	Correlation Coefficient	.018	1.000
		Sig. (2-tailed)	.938	.
		N	11	11
Spearman's rho	VAR00003	Correlation Coefficient	1.000	-.036
		Sig. (2-tailed)	.	.915
		N	11	11
	VAR00004	Correlation Coefficient	-.036	1.000
		Sig. (2-tailed)	.915	.
		N	11	11

Table: The correlation between annual migration and evolution of industrial employment, 1962-1968, in the West France

Correlations

			VAR00003	VAR00004
Kendall's tau_b	VAR00003	Correlation Coefficient	1.000	-.600*
		Sig. (2-tailed)	.	.010
		N	11	11
	VAR00004	Correlation Coefficient	-.600*	1.000
		Sig. (2-tailed)	.010	.
		N	11	11
Spearman's rho	VAR00003	Correlation Coefficient	1.000	-.718*
		Sig. (2-tailed)	.	.013
		N	11	11
	VAR00004	Correlation Coefficient	-.718*	1.000
		Sig. (2-tailed)	.013	.
		N	11	11

*. Correlation is significant at the 0.05 level (2-tailed).

Moreover, from 1962 to 1975, the growth of service employment began to have a significant correlation with the inter-regional migration. From 1962 to 1968, the growth of service employment began to be related to both the eastern and the western part of France.

Table: The correlation between annual migration and evolution of tertiary employment, 1962-1968

Correlations

			VAR00008	VAR00009
Kendall's tau_b	VAR00008	Correlation Coefficient	1.000	.547**
		Sig. (2-tailed)	.	.000
		N	22	22
	VAR00009	Correlation Coefficient	.547**	1.000
		Sig. (2-tailed)	.000	.
		N	22	22
Spearman's rho	VAR00008	Correlation Coefficient	1.000	.673**
		Sig. (2-tailed)	.	.001
		N	22	22
	VAR00009	Correlation Coefficient	.673**	1.000
		Sig. (2-tailed)	.001	.
		N	22	22

**. Correlation is significant at the 0.01 level (2-tailed).

Table: The correlation between annual migration and evolution of tertiary employment, 1962-1968 (the East France)

Correlations

			VAR00008	VAR00009
Kendall's tau_b	VAR00008	Correlation Coefficient	1.000	.491*
		Sig. (2-tailed)	.	.036
		N	11	11
	VAR00009	Correlation Coefficient	.491*	1.000
		Sig. (2-tailed)	.036	.
		N	11	11
Spearman's rho	VAR00008	Correlation Coefficient	1.000	.627*
		Sig. (2-tailed)	.	.039
		N	11	11
	VAR00009	Correlation Coefficient	.627*	1.000
		Sig. (2-tailed)	.039	.
		N	11	11

*. Correlation is significant at the 0.05 level (2-tailed).

Table: The correlation between annual migration and evolution of tertiary employment, 1962-1968 (the West France)

Correlations

			VAR00008	VAR00009
Kendall's tau_b	VAR00008	Correlation Coefficient	1.000	.673**
		Sig. (2-tailed)	.	.004
		N	11	11
	VAR00009	Correlation Coefficient	.673**	1.000
		Sig. (2-tailed)	.004	.
		N	11	11
Spearman's rho	VAR00008	Correlation Coefficient	1.000	.727*
		Sig. (2-tailed)	.	.011
		N	11	11
	VAR00009	Correlation Coefficient	.727*	1.000
		Sig. (2-tailed)	.011	.
		N	11	11

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

However, during the period (1968-1975), only the West France had a significant correlation concerning the service employment, which was similar with the model of industrial employment from 1962 to 1968. We could deduce that: there were other non-employment factors influencing the migration in the East France.

Table: The correlation between annual migration and evolution of tertiary employment, 1968-1975

Correlations

			VAR00006	VAR00007
Kendall's tau_b	VAR00006	Correlation Coefficient	1.000	.424**
		Sig. (2-tailed)	.	.006
		N	22	22
	VAR00007	Correlation Coefficient	.424**	1.000
		Sig. (2-tailed)	.006	.
		N	22	22
Spearman's rho	VAR00006	Correlation Coefficient	1.000	.602**
		Sig. (2-tailed)	.	.003
		N	22	22
	VAR00007	Correlation Coefficient	.602**	1.000
		Sig. (2-tailed)	.003	.
		N	22	22

**. Correlation is significant at the 0.01 level (2-tailed).

Table: The correlation between annual migration and evolution of tertiary employment in the East France, 1968-1975

Correlations

			VAR00006	VAR00007
Kendall's tau_b	VAR00006	Correlation Coefficient	1.000	.337
		Sig. (2-tailed)	.	.156
		N	11	11
	VAR00007	Correlation Coefficient	.337	1.000
		Sig. (2-tailed)	.156	.
		N	11	11
Spearman's rho	VAR00006	Correlation Coefficient	1.000	.505
		Sig. (2-tailed)	.	.113
		N	11	11
	VAR00007	Correlation Coefficient	.505	1.000
		Sig. (2-tailed)	.113	.
		N	11	11

Table: The correlation between annual migration and evolution of tertiary employment in the West France, 1968-1975

Correlations

			VAR00006	VAR00007
Kendall's tau_b	VAR00006	Correlation Coefficient	1.000	.564*
		Sig. (2-tailed)	.	.016
		N	11	11
	VAR00007	Correlation Coefficient	.564*	1.000
		Sig. (2-tailed)	.016	.
		N	11	11
Spearman's rho	VAR00006	Correlation Coefficient	1.000	.755**
		Sig. (2-tailed)	.	.007
		N	11	11
	VAR00007	Correlation Coefficient	.755**	1.000
		Sig. (2-tailed)	.007	.
		N	11	11

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Based on some related research, the migration of labor was caused by the economic difference

(i.e. employment, income etc) at the initial phase and was influenced by some non-economic factors (factors related to 'quality of life', i.e. education, weather, medical facility, living cost, cultural life, crime rate, etc) afterwards, including the provision of local public services, location-specific amenities (Greenwood and Mueser, 1991), living cost (e.g. Cebula, 1979, 1993; Cebula and Belton, 1994; Saltz, 1998) etc. Therefore, the different results above between the East and West France could be explained by the inconsistence between the economic development phase and the urbanization process.

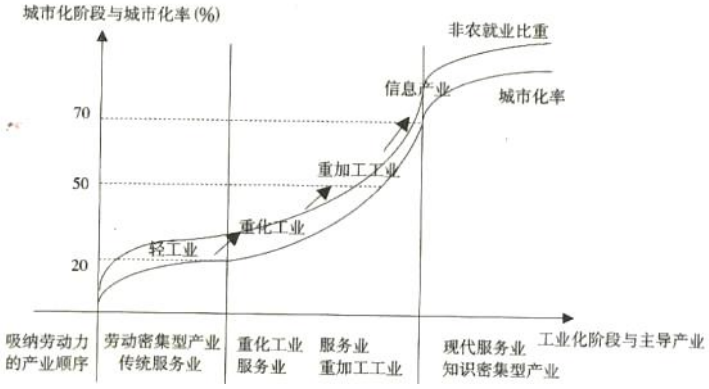


Figure: The pattern of industrial evolution and labor transfer

Source: Yongjun Chen *et al.*, The road of China's urbanization, Beijing: The Commercial Press, 2009, pp. 60

According to the table below, the structure of employment was gradually turned from the 'industry-driven' to the 'service-led' pattern in the most regions of the East France (e.g. in the Centre-East), and the general proportion of industrial employment declined since the 1960s. While for some regions in the West France (e.g. in the West and South-West), they went through the process of massive industrialization and the development of services sector almost at the same time.

Table: The employment structure in some parts of France, since 1954

	Year	Agriculture	Industrie	BTP	Tertiaire
Paris region	1954	2.5	38.3	5.9	53.3
	1962	1.6	36.9	7.4	54.1
	1968	1.2	32.8	8.6	57.4
	1974	0.7	30.1	7.6	61.6
East	1954	19.4	38.7	9.0	32.9
	1962	13.5	40.9	8.4	37.2
	1968	10.5	39.4	9.1	41.0
	1974	7.4	38.4	7.8	46.4
West	1954	47.0	15.6	6.2	31.2
	1962	38.6	17.5	7.6	36.3
	1968	30.0	19.7	10.1	40.2
	1974	21.4	23.4	10.2	45.0
South-west	1954	44.6	18.8	5.5	31.1
	1962	35.2	20.2	8.1	36.5

	1968	26.7	21.0	10.0	42.3
	1974	17.5	22.0	9.7	49.9
Centre-east	1954	29.1	33.0	6.0	31.9
	1962	20.9	35.5	8.1	35.5
	1968	15.2	34.3	9.6	40.9
	1974	9.5	36.4	8.7	45.4
Total	1954	26.8	28.7	6.6	37.9
	1962	19.9	30.2	8.0	41.9
	1968	15.1	29.3	9.6	46.0
	1974	10.1	30.2	8.8	50.9

Source : L'INSEE

Based on the 'correlation analysis', the search for employment (from industry to services sector) remained the significant objective for migration in the West France until the 1970s. However, for the East France, the pursuit of industrial employment was replaced by that of tertiary employment during 1962 to 1968, which was earlier that the developments phase in the West France. And after 1968, the employment was probably not the major reason for migration anymore in some areas. Some other factors emerged, such as the demand of better living condition (not only the economic variables, but also the cultural and leisure facilities, the environmental variables (air pollution, age and quality of housing) and quality of local services, i.e. education and health care[159]).

The problems of distance are highly reduced by the development in some field (i.e. transportation). Thus, migrants and capital are more drawn by the better climate and lifestyle away from the congested core. For example, the south (one of the major migration destination) is seen to be capable of generating indigenous growth as well an attracting mobile investment (Garofoli, 1992). And the disparity of income in different regions become not that significant compared with the previous period due to the more balanced development.

The economy is no longer what it was; French people now have fewer children and have found the charm of rural areas, medium-sized cities and the south-eastern region of France.

——Jean-marie Albertini, bilan de l'économie française : à l'usage du citoyen ordinaire et de quelques autres, Paris : édition du seuil, 1988

[159] W.F. Lever, Competition within the European urban system, Urban Studies, Vol. 30, No. 6, 1993, pp. 937

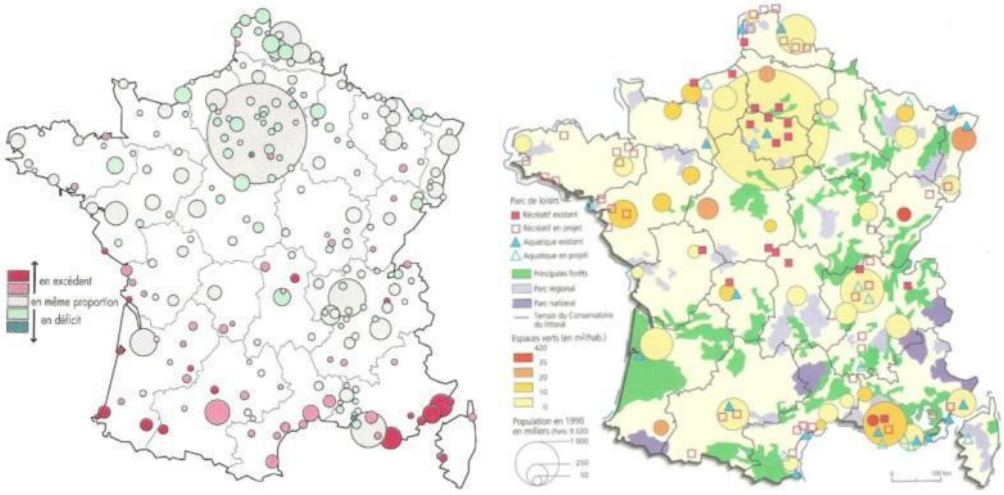
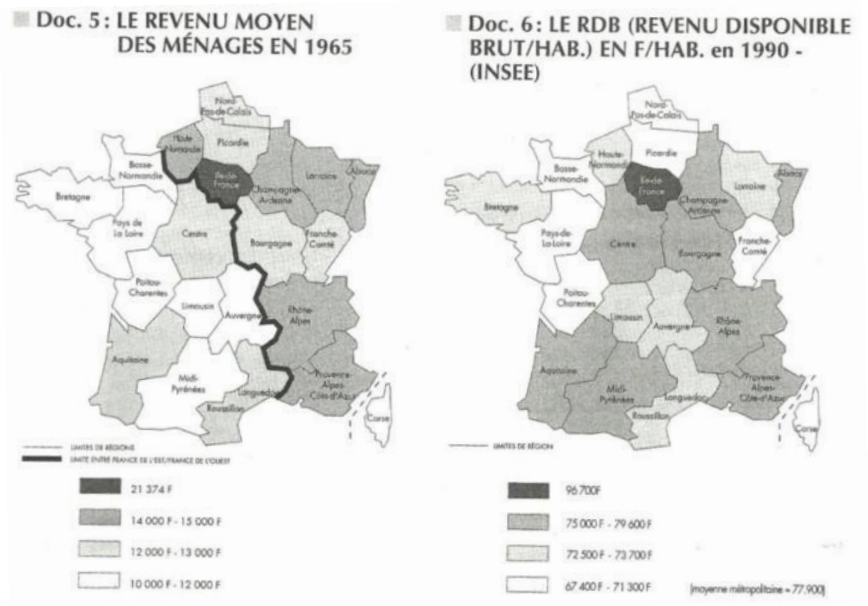


Figure : Managers and intermediated profession among retirees, shift to the South (les cadres et les professions intermediaires parmi les retaites : un glissement vers le Sud)

Source : Denise Pumain et Therese Saint-Julien, Atlas des villes de France, Reclus: La documentation fran çaise, 1989, pp. 25, 110

Figure: Recreation and urban green space

Source: Atlas de France, RECLUS, 1995



Source : M. Fabries-Verfaillie and P. Stragiotti, La France des regions, Breal, 2000

7.3 The migration among different urban settlements

On the whole, during the '30 glorious years', France experienced a large-scale of urbanization process (esp. from 1946 to 1968). Among them, the decrease of population in rural settlements was the most obvious, especially those settlements with less than 100 inhabitants. During the period, population gradually migrated into urban settlements (mainly those with more than 20000 inhabitants). And the massive migration (from rural area to urban area) continued with a high rate from 1954 to 1968; while since the late 1960s, the trend began to slow down. And the process of

urbanization came into a stable phase finally.

Table : Categories of agglomerations (more than 5000 inhabitants, %)

	1954	1962	1962	1968
Paris	28.1	27.2	28.5	25.5
metropoles	18.4	17.9	18.4	17.5
Other cities from 50000 inhabitants	23.2	25.7	25.4	30.8
20000 – 50000 inhabitants	13.7	13.4	12.5	11.7
5000 – 20000 inhabitants	16.6	15.8	15.2	14.5

Source : CRU : Les villes francaises, Insee

During the mid-to-late period of the '30 glorious years', a large number of populations did not continue to crash into the Paris region. While in the large-sized and medium-sized cities outside the Paris region, the rate of migration remained relatively high among the total category of settlements. In addition, since the 1960s, some back-flow of population appeared in some large rural settlements (esp. the rural communities of 30-40 km far from agglomerations), which was consistent with the 'peri-urban' phenomenon. This kind of migration caused the change of local resident structure to some extent. Among them, the category 'intermediate-senior management staff' and 'retirees' became the groups with the fastest growth rate.

Table: Evolution of migration in different urban settlements during the three periods (annual rate, %)

	Net migration			Total		
	1954—1962	1962—1968	1968—1975	1954—1962	1962—1968	1968—1975
Urban settlements						
Less than 5000 hab	+0.29	+0.62	+0.75	+0.88	+1.16	+1.15
5000—9999	+0.51	+0.74	+0.53	+1.21	+1.43	+1.11
10000—19999	+0.83	+0.95	+0.69	+1.60	+1.76	+1.48
20000—49999	+1.07	+1.15	+0.45	+1.88	+2.03	+1.28
50000—99999	+1.32	+1.14	+0.59	+2.16	+2.06	+1.52
100000—199999	+1.47	+1.23	+0.58	+2.54	+2.31	+1.63
200000—1999999	+1.22	+1.29	+0.39	+2.00	+2.13	+1.19
Agglom of Paris	+1.16	+0.53	-0.26	+1.88	+1.30	+0.53
Urban total	+1.08	+0.97	+0.34	+1.86	+1.79	+1.14
Total of France	+0.40	+0.47	+0.24	+1.09	+1.14	+0.82

Source: L'Insee

In general, during the '30 glorious years', the growth rate of the Paris region declined all the time; the rate of the 8 balanced-metropolises grew from 1962 to 1968 after the implementation of 'balanced-metropolis policy', but slowed down during the late period of the '30 glorious years';

the rate of medium-sized cities in the Paris basin remained stable; the rate of some other part of France increased obviously, which accompanied the trend of migration from big cities to smaller cities and rural areas in the new era.

The general process of urbanization in France is mainly in consistent with the theory of H.S Geyer and T. Kontuly (1993) – 'differential urbanization'. According to the theory, the migration gathered in different scales of cities, from big cities (primate-city expansion) to medium-sized cities (intermediate-city growth), and finally to small cities (small-city growth). At the last phase, the settlement system began to experience a period of 'counter-urbanization'. Moreover, the process also could be explained by the theory of 'urban life-cycle': centralization—suburbanization—de-concentration of the local population (Hall and Hay, 1980; Korcelli, 1983; Morrill, 1992; Van den Berg *et al.*, 1982).

Table: Proportion of population growth in France, %

	1954-1962	**1962-1968**	**1968-1975**
The Paris region	31	24	22
8 balanced-metropolis	24	27	20
35 medium-size cities in the Paris basin	11	12	12
Other part of France	34	37	46
France	100	100	100

Source : SDAURIF, 1976

The migration into different urban settlements changed along with the evolution of background. Before the implementation of 'balanced-metropolis' policy and a large-scale of de-concentration policy, the growth rates of population in most big or medium-sized cities of the Paris basin were much more than those in the balance metropolises, which accompanied the crash into the Paris region at the same time. It was also a period of massive rural-to-urban migration. During the period, 'search for jobs' was the major objective for migration. As mentioned by W.A. Lewis (1954), the wage differential caused by urban modern sector and rural traditional sector led the rural surplus labor-force migrated from agriculture to industry sector. And some other research proposed certain economic determinants (e.g. wage differentials, job opportunities, unemployment rates etc) which influence the migration during the phase. In addition, in many cases, the migration correspond with a change of generation. The children of peasants go to the city and will note continue their parents' farm.

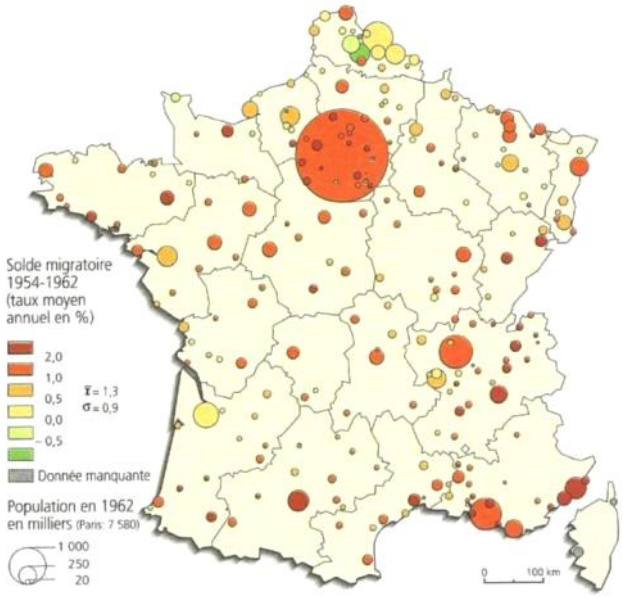


Figure: Net migration in France, 1954-1962

Source : Dirige par Roger Brunet et Franck Auriac, Atlas de France (Volume 12) :L'Espace des Villes, GIP RECLUS et La Documentation Fransaise, 1997

Table: The growth rate of population in some French cities, 1954-1962

Balanced-metropolis	**Growth rate (%)**	**Important agglomerations in the Paris basin**	**Growth rate (%)**	**Medium-sized agglomerations in the Paris basin**	**Growth rate (%)**
Toulouse	2.5	Caen	4.0	Evreux	6.5
Nancy-Thionville-Metz Lyon-Saint-Etienne Marseille-Aix Nantes-Saint-Nazaire	2	Orleans Tours	2.5	Saint-Dizier	4.5
Strasbourg	1.5	Amiens Rouen	2.0	Dreux	4.0
Lille-Roubaix-Tourcoing Bordeaux	1.0	Le Havre Reims Troyes	1.5	Beauvais	3.5
				Blois Creil Chartres Chateauroux	3.0
				Auxerre Chalons-sur-Marne Soissons Laon	2.5
				Compiegne Bourges Sedan Montargis Sens	2.0

				Tergnier	
				Lisieux Abbeville Saint-Quentin Chaumont Mezieres-Charleville Dieppe	1.5
				Elbeuf Vierzon	1.0
				Eprnay	0.5
Total	1.5		2.2		2.4

Source: le SDAURP, 1965

In general, since the 1960s, the strong in-migration was mainly concentrated in some areas as follows: the cities of 'sunshine' (villes du soleil, e.g. Toulouse, Cannes, and Montpellier), the cities in Rhone-Alpes region (e.g. Grenoble, Annecy, Chambery), and the cities around Paris (e.g. Mantes, Creil, Orleans and Reims). It has to be noted that the function of cities became more important than before, except for the size of cities (e.g. tourism city, and University City).

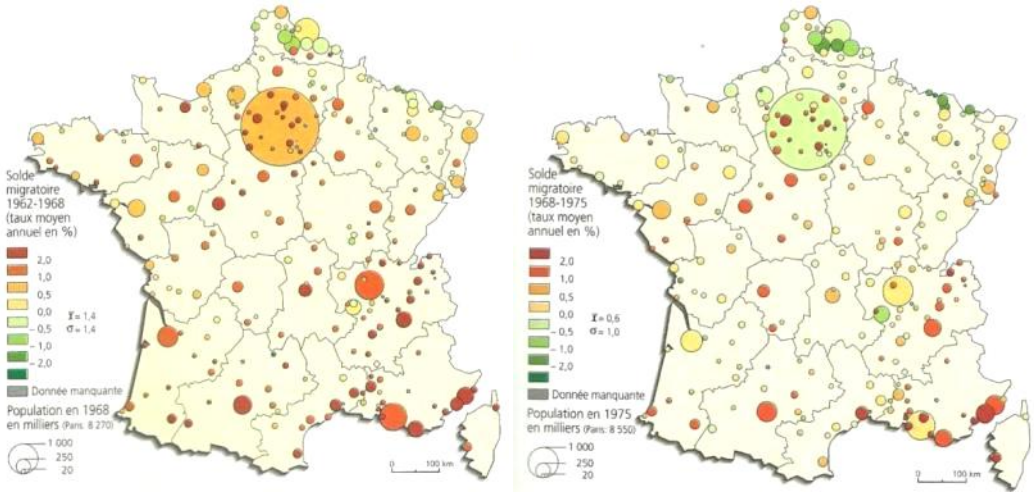


Figure: Net migration in France, 1962-1968, 1968-1975

Source : Dirige par Roger Brunet et Franck Auriac, Atlas de France (Volume 12) :L'Espace des Villes, GIP RECLUS et La Documentation Fransaise, 1997

Figure: Commune (change the category), 1962-1968

Source: Louis-Marie Coyaud, L'urbanisation des campagnes: contribution metrodologique, centre de recherche d'urbanisme

In the 1960s, followed by the 'balanced metropolis' policy, more employments and equipments (such as housing and transportation) were created in these cities. Since its implementation, the growth of population in these eight cities was significant, but some unbalances among the cities existed. The balance metropolises with the high growth rate of population (from 1962 to 1968) were mainly the cities with a rapidly-development of new-emerging industry or services sector, such as Toulouse (+20.3%) and Grenoble (+26.6%). In the contrary, during the same period, the population of the metropolises in these traditional coal and steel regions grew slowly, such as Lille (+7.3%) and Nancy (+10.9%). Despite of the implementation of some industrial renewal policies, the trend continued until the 1970s, even afterwards. However, some balance metropolises benefited obviously from the de-concentration policy (e.g. research and education institutions) and the 'balanced metropolis' policy, such as Toulouse.

Table: Evolution of population in the eight balance metropolises, 1962-1968

	1962—1968		
	Total Variation	**Natural Growth**	**Sold Migration**
Bordeaux	56836	17336	39500
Lille-Roubaix-Tourcoing	60480	42455	18025
Lyon-Saint-Etienne-Grenoble	217515	92743	124772
Marseille-Aix	143995	32737	111258
Nancy-Metz-Thionville	50443	41036	9407
Nantes-Saint-Nazaire	50698	29093	21605
Strasbourg	32478	17305	15173
Toulouse	75082	19467	55615

Source: INSEE, Statistiques et indicateur des régions françaises, ed, 1969, P 61

Table: Evolution of population in the eight balance metropolises, 1962-1975

Name	Total population (unit: thousand)		
	In 1962	In 1968	In 1975
Lille	821	890	935
Nancy	232	258	280
Metz	150	166	181
Thionville	126	140	141
Strasbourg	302	342	365
Nantes	349	405	453
Saint-Nazaire	104	110	119
Bordeaux	498	569	612
Toulouse	365	446	509
Lyon	943	1089	1170
Grenoble	262	332	389
Saint-Etienne	315	332	334
Marseille	839	1010	1070
Aix-en-Provence	--	89	110

Source : Collection de L'INSEE - R 39.40-Statistiques et indicateur des region fran çaise, Annexe au projet de loi de Finances pour 1980, et SIRF – Projet de loi de Finances pour 1974

Table: Inter-urban actives (bilans interurbains d'actifs), 1975-1982

Aire urbaine	1975-1982			1975-1982	
	Gain	Rang		Gain	Rang
Paris	11308	1	Rennes	1492	19
Toulouse	3796	9	Lille	-6968	397
Nice	10328	2	Nancy	-4704	396
Lyon	4688	7	Clermont-Ferrand	-372	316
Montpellier	4632	8	Caen	-148	245
Bordeaux	5168	6	Metz	-2216	384
Toulon	6456	4	Strasbourg	384	64
Nantes	2224	15			

Source : recensements de la population 1982 et 1990, Insee

Figure : Evolution of agglomerations >100,000 inhabitants, 1982-1990

Source : M. Fabries-Verfaillie and P. Stragiotti, La France des regions, Breal, 2000, pp. 23

As shown in the figures below, the annual rate of net migration in France was positive in most medium-sized cities (20,000—100,000 inhabitants) from 1954 to 1975, especially those concentrating in some major urban agglomeration areas (i.e. the Paris basin, Lyon-Saint-Etienne-Grenoble and the Mediterranean area). This kind of cities went through a rapid growth of population from 1962 to 1968.

Afterwards, although the growth rate of medium-sized cities was relatively high compared with the other categories of cities, the massive urbanization slowed down gradually and ended in the late 1970s. With the change of background, the function of the medium-sized cities was not only to provide employment, but also to offer a better living condition, which was written in the medium-sized policy and small city policy.

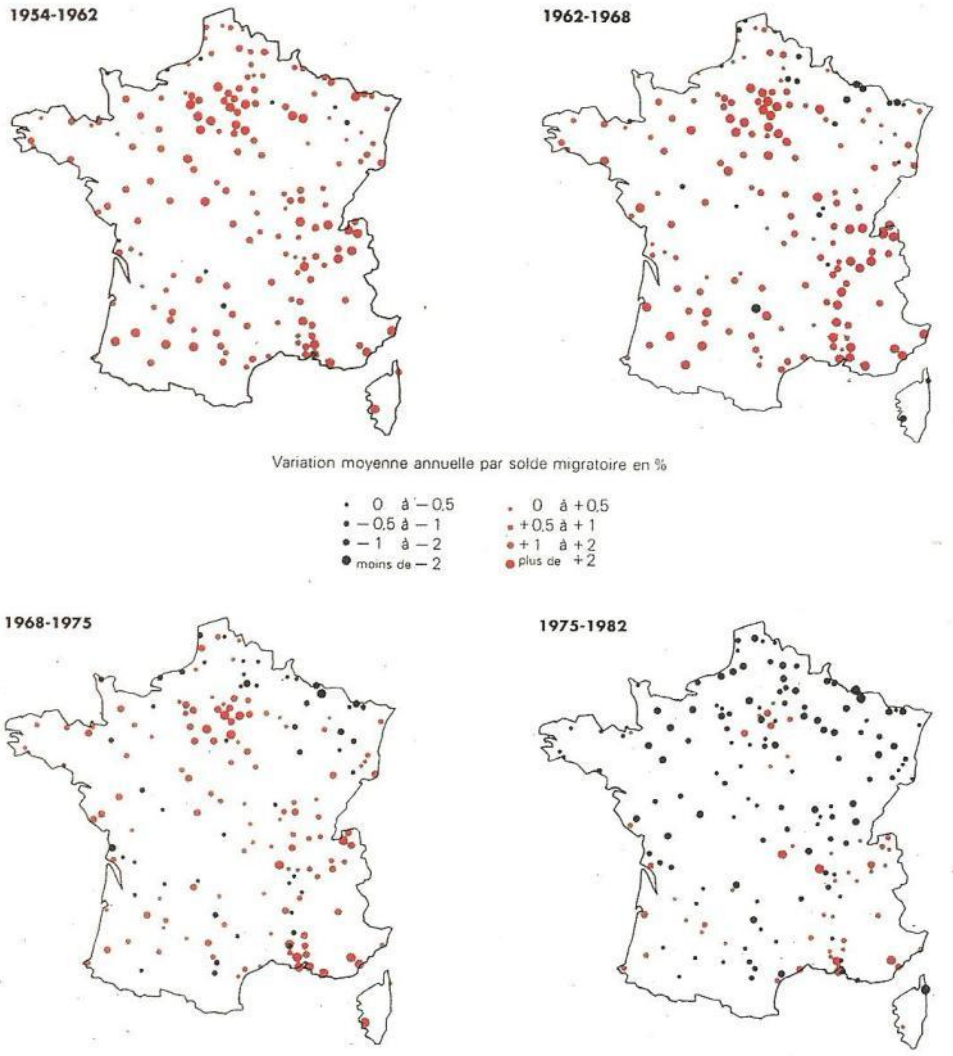


Figure: The migration in the medium-sized cities (20000—100000 inhabitants), 1954-1962-1968-1975-1982

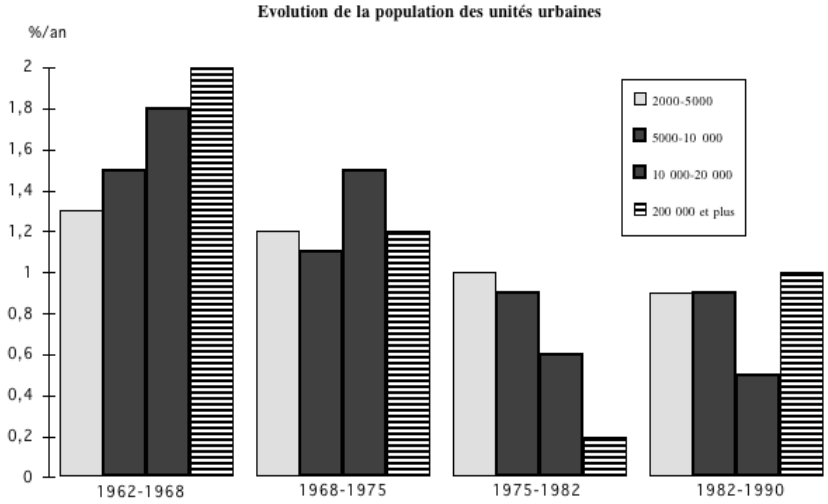
Source : DTTAR, Atlas de l'Aménagement du Territoire, La Documentation Française, Paris, 1988

In France, the small city always played a role as the centre of rural areas, which the rate of net migration is relatively high during the period from 1968 to 1975.

Table: Demographic evolution, 1952-62, 1962-68

	Annual variation, %		**Net migration, ‰**	
	1954-1962	1962-1968	1954-1962	1962-1968
Small cities (5000 -20000 inhabitants)	1.57	1.71	7.9	9.2
Cities (more than 20000 inhabitants)	2.05	1.94	12.9	10.5
Cities (less than 5000 inhabitants)	1.00	1.33	4.1	7.3

Source : Insee



Source: L'insee

Table : The lose and win of small cities, since 1962

Year	Lose	Earn
1962-1968	53	480
1968-1975	111	422
1975-1982	241	292
1982-1990	257	276

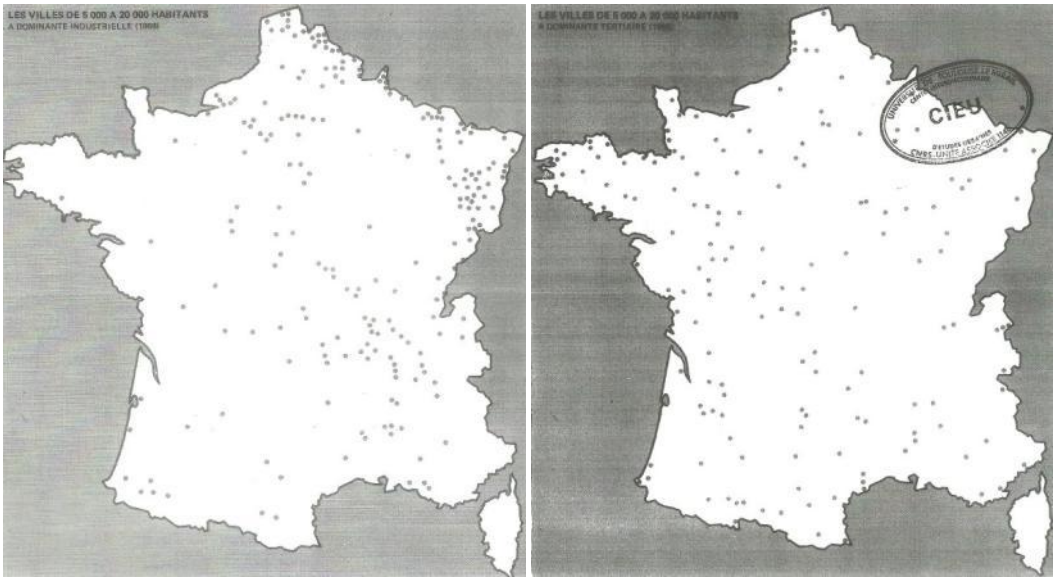
Source: Insee

The function of small cities was improved with the amelioration of services (e.g. bank agency, school, market, tourism station) and the living condition. Actually, in the small cities, 47% of active populations there were employed in the industrial sector[160]. And this category of cities mainly absorbed the labor force with rural origin and less qualified ones. During the same period, they lost most of young population (< 40 years old)[161].

In addition, the industry dominated small cities were mainly concentrated in the eastern part of France. In the contrary, a quite number of tertiary small cities were located in the West France, which was often related to some tourism resources (i.e. Trouville, Megeve, Berck, Lourdes etc).

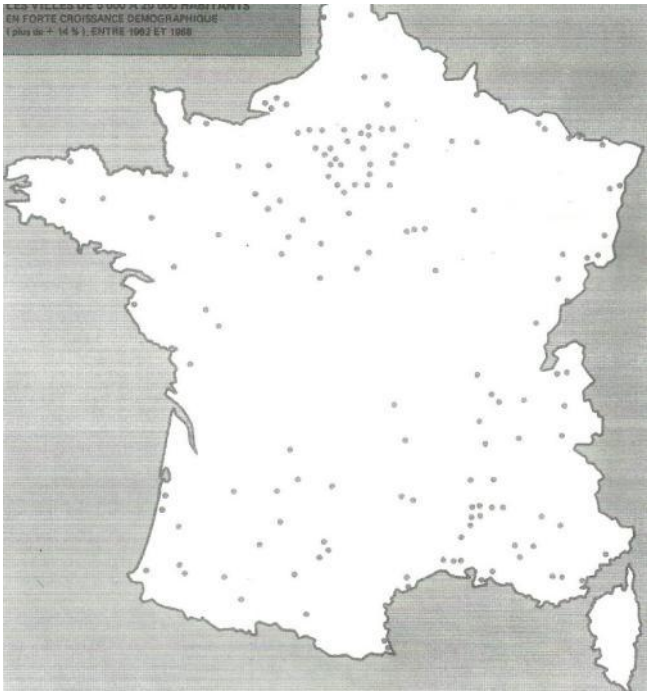
[160] Jean-Paul Laborie, op. Cit., p. 274

[161] Marconis (R.), Recherches sur la mobilite dans la croissance urbaine, Graulhet et Lavaur, Revue Geographique des Pyrenees et du Sud-Ouest, 1968, p. 169-184



Source: Les petites villes en France, la documentation photographique, 1972

In general, the small cities with a high rate of population were closely related to the location. From 1954 to 1968, the small cities with the highest growth rate of population (search for employment) concentrate in the Paris region, the South-East (esp. la region lyonnaise and la Provence) and the South-West (influenced by the repatriate). And after the 1975, the cities with a high growth rate were more concentrated in the Mediterranean area and the 'peri-urban' area of big cities due to the pursuit of good living condition.



Source: Les petites villes en France, la documentation photographique, 1972

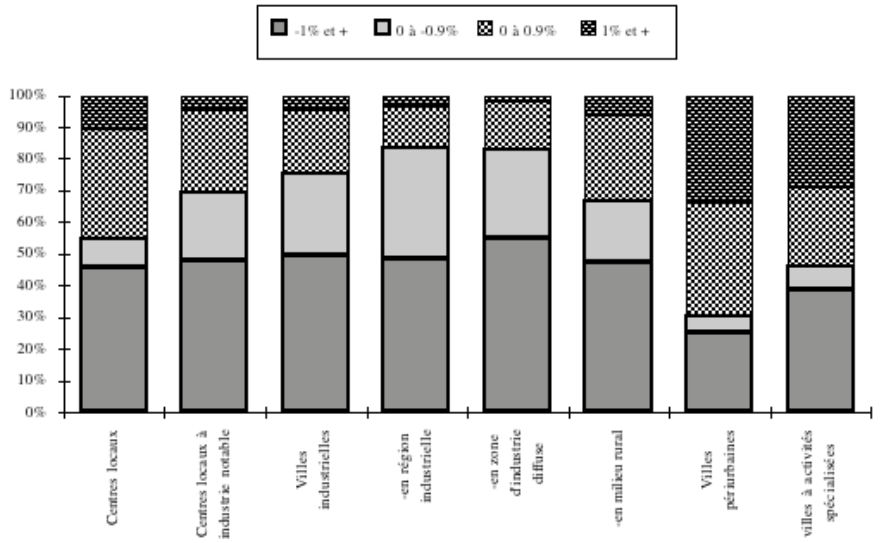
Table : Localization of small cities (the annual demography growth), %, 1975-1990

Localisations	**From 1 to 1.99**	**More than 2%**
Région parisienne	16	10

Rhone-Alpes	14	5
Côte méditerranéenne et aire marseillaise	5	13
Aire métropolitaine lilloise	1	2
Autres	18	4
Total	54	34

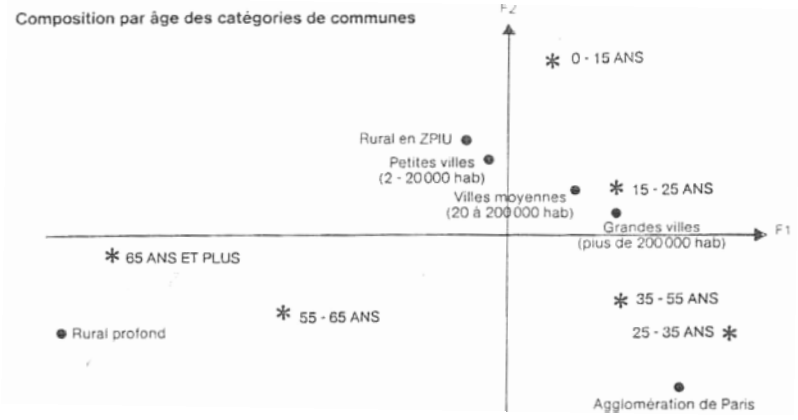
Source: L'insee

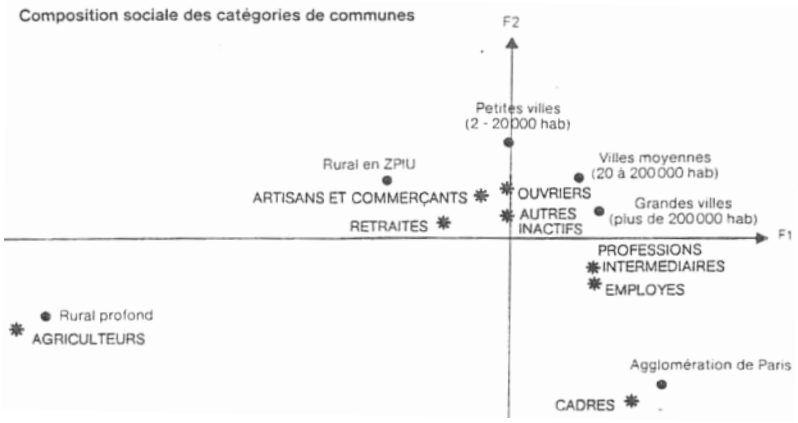
Figure : The growth and regression of small cities, 1982-1990



Source: Insee

Moreover, according to the table below, the categories of inhabitants (esp. age and occupation) were diversified in different urban settlements. The old were more concentrated in rural area and small cities; the agglomeration of Paris was attractive for population with an age of employment; more youth (<25 years old) stayed in the medium-sized cities and big cities. According to the occupation, more management staff and employees were in the agglomeration area of Paris; while more workers stayed in the medium-sized cities and big cities.





Source : D. Pumain, 1989

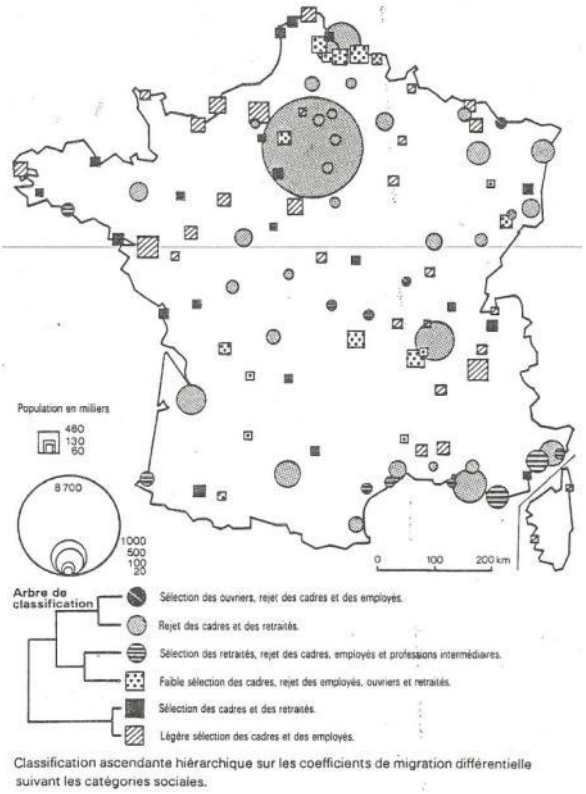


Figure : Social composition and differential migration

Source: D. Pumain and Th. Saint-Julien, Migrantions et changements dans le systeme urbain francais (1975-1982), Paris, 1990, pp. 134

Case: The Midi-Pyrenees Region

We takes the case of the Midi-Pyrenees region to describe the process of urbanization and migration at the regional level.

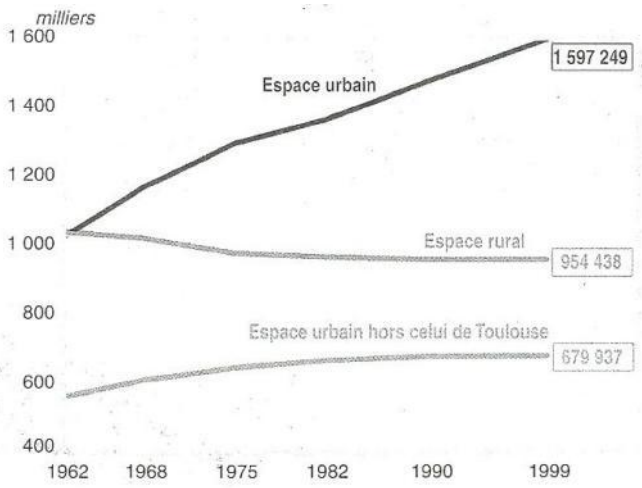
- **Situation of urbanization and migration**

——Urbanization

Although the level of urbanization of the Midi-Pyrénées region was relatively low in France for

a long time, it went through a rapid urbanization process during the '30 glorious years'.

Figure: Evolution of population in the urban and rural space of Midi-Pyrénées, 1962-1999



Source: Insee, recensement de la population

Table : The urbanization rate of the region Midi-Pyrénées, 1954-1975, %

Region	Rate of urbanization		Number of urban population		
	1954	1975	1954	1975	% of national urban population, 1975
Midi-Pyrénées	41.1%	59.0%	812000	1330270	3.5%
France	56.0%	73.0%	23947000	38400000	100.0%

Source: Travaux et recherches de prospective, schéma général d'aménagement de la France, le grand sud-ouest diagnostics pour l'avenir, La documentation Française, Paris, 1979

However, due to the unbalanced development, the urbanization levels of eight departments were quite different. In general, the departments with a high urbanization level were those with a high degree of industrialization; while the departments with a low level of urbanization belonged to the traditional agricultural areas (e.g. Lot and Gers). Among them, the Haute-Garonne department (Toulouse as its capital) had the highest urbanization degree, which was obviously higher than the second rank (the Tarn department).

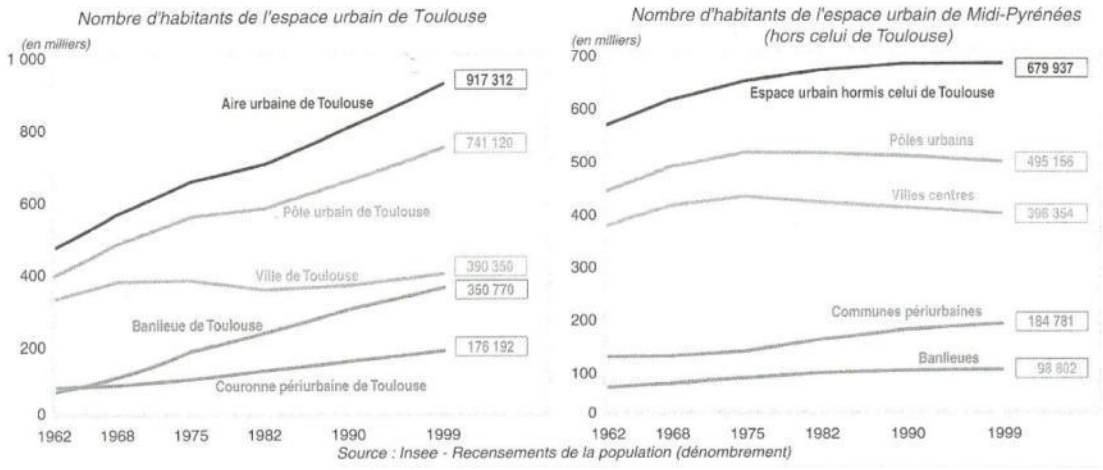
Table: Urbanization level of eight departments, 1962—1975, %

	1962	1968	1975
Ariège	30.24	33.52	35.43
Aveyron	32.56	35.37	37.61
Haute-Garonne	68.54	71.26	73.69
Gers	14.14	15.85	17.70
Lot	17.33	19.51	20.96
Hautes-Pyrénées	44.59	47.90	49.29
Tarn	51.34	54.17	56.12
Tarn-et-Garonne	38.64	41.46	42.63
Midi-Pyrénées	44.71	48.54	51.53

Source : L'Insee

In addition, compared with other cities of Midi-Pyrenees, the population growth of Toulouse metropolitan area was much higher during the '30 glorious years', which accompanied the rapid development of Toulouse (i.e. the balanced metropolis policy). However, the growth rate within the city was not in consistent: the population of centre city increased slightly, but that of its suburbs grew rapidly at the same time.

Figure: Evolution of population in urban space, 1962-1999

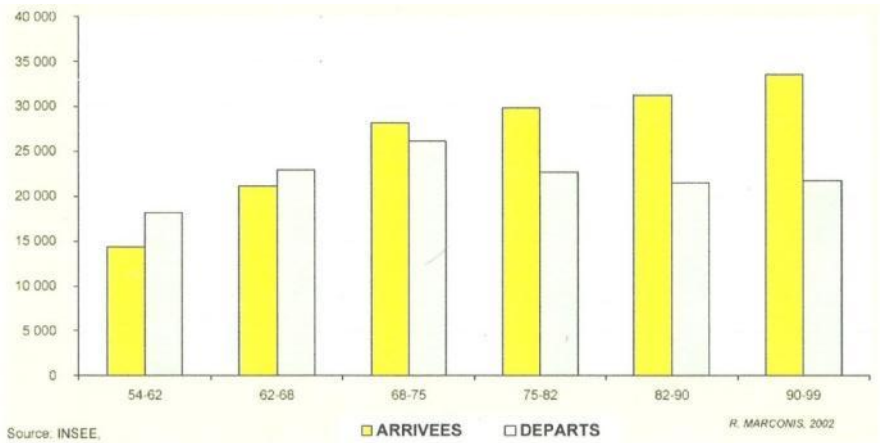


Source: Insee, Recensements de la population

——Migration

In general, from 1954 to 1968, the out-migration was more than in-migration in the region. During the period, the main direction of the Midi-Pyrénées region's out-migration was the Paris region and the Aquitaine region. From 1968 on, because of its economic development, amelioration of facilities etc (partly caused by the balanced metropolis policy and service de-concentration policy), the in-migration became more than the out-migration. Besides, its population augmented also due to migration from French population coming to France after the independence of Algeria (rapatrié, 1962). And the trend continued and accelerated afterwards.

Tableau: Inter-region annual migration in Midi-Pyrénées, 1954—1999



However, some unbalances also appeared in the eight departments of the Midi-Pyrénées region,

which was in correspond with the different development status. The Haute-Garonne department remained to have the highest net rate of in-migration during the period from 1962 to 1975. While, population continued the 'out-flow' status in some traditional rural departments, such as the Aveyron and Gers department.

Table：Demographic evolution in Midi-Pyrénées, 1962—1975

	1962—1968			1968—1975		
	T	N	M	T	N	M
Ariège	+0.16	-0.21	+0.37	-0.06	-0.31	+0.26
Aveyron	-0.34	+0.20	-0.54	-0.16	--	-0.15
Haute-Garonne	+2.55	+0.55	+2.00	+1.70	+0.51	+1.19
Gers	-0.04	+0.04	-0.08	-0.49	-0.11	-0.38
Lot	+0.16	+0.06	+0.10	-0.05	-0.15	+0.10
Hautes-Pyrénées	+1.12	+0.32	+0.79	+0.11	+0.12	-0.01
Tarn	+0.65	+0.27	+0.38	+0.23	+0.12	+0.12
Tarn-et-Garonne	+0.71	+0.30	+0.41	-0.02	+0.12	-0.13
Midi-Pyrénées	**+1.02**	**+0.29**	**+0.73**	**+0.54**	**+0.17**	**+0.37**

T : total N : croissance naturelle M : solde migratoire

■ Situation of urban-rural settlements

According to the following table (from 1954 to 1975), with the rapid process of urbanization in France, the out-migration from the rural settlements of the Midi-Pyrénées region became a continuous trend (esp. the village with less than 1000 inhabitants). Since the late 1960s, the 'peri-urban' phenomenon emerged like the other part of France. The re-flow of population appeared in the rural settlements with more than 200 inhabitants. On the other hand, the urban settlements of the Midi-Pyrénées region always faced the increase of population during the same period, especially in Toulouse which remained the highest growth rate from 1954 to 1982. It is also reflected in the figures below.

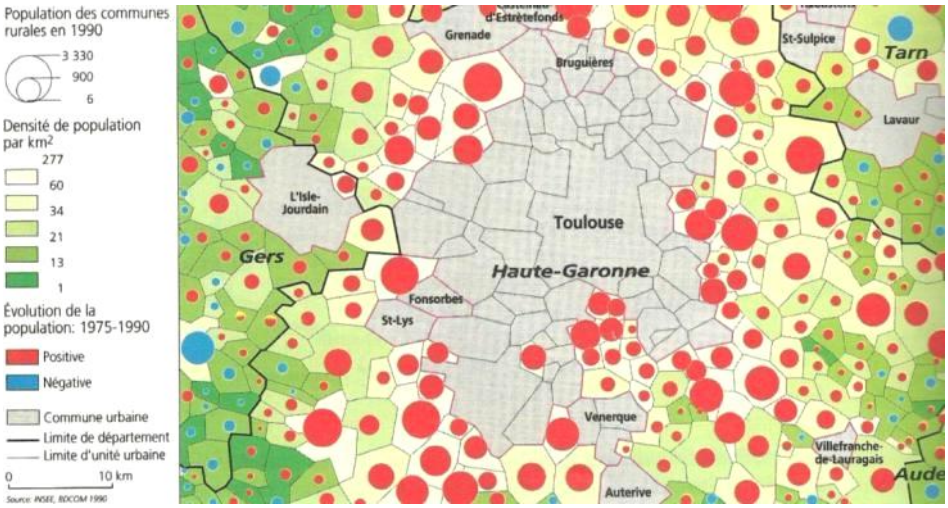


Figure: The rural area in urban periphery

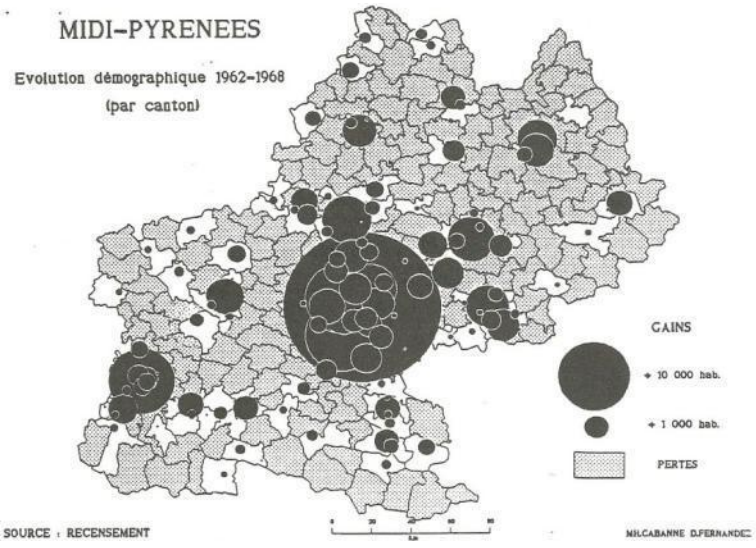
Source: RECLUS, 1998

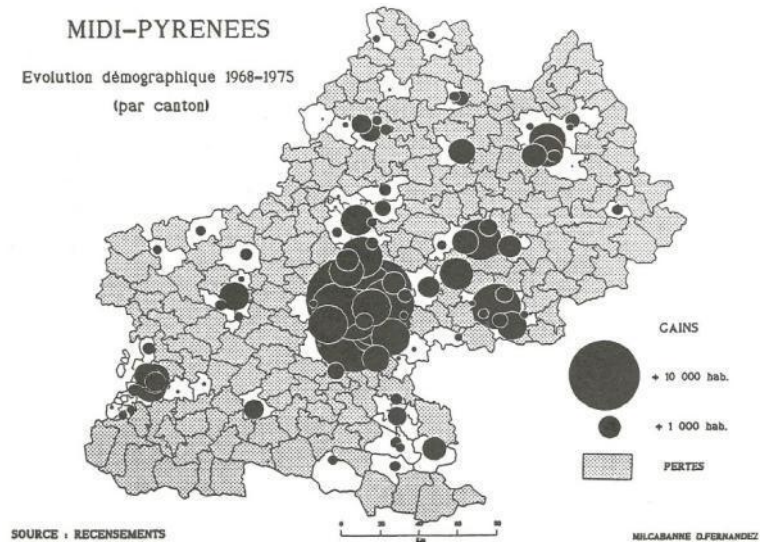
Table: Evolution of urban/rural settlements in Midi-Pyrénées, 1954—1982

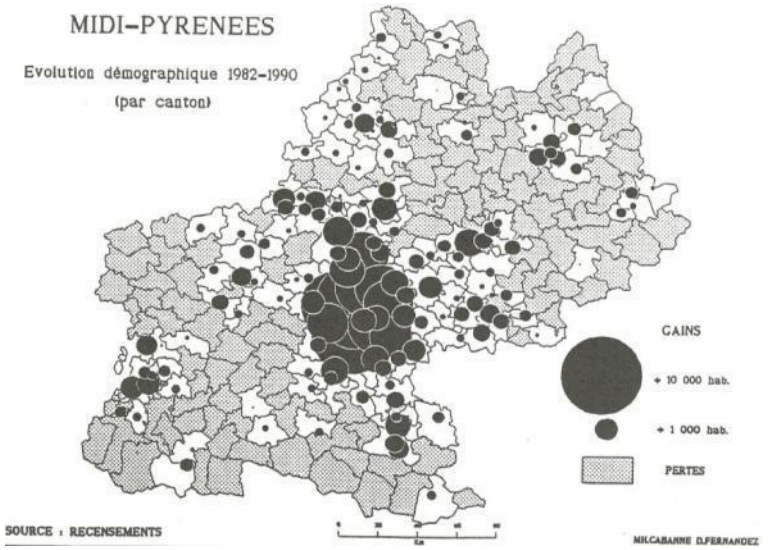
	Variation, %/year			
	54-62	**62-68**	**68-75**	**75-82**
Rural commun				
Less than 50 inhab.	-2.4	-3.4	-2.4	-1.5
50 - 99 inhab.	-2.1	-2.1	-1.7	-0.6
100 - 199 inhab.	-1.7	-1.5	-1.5	-0.2
200 - 499 inhab.	-1.2	-0.9	-0.9	+0.3
500 - 999 inhab.	-0.6	-0.3	-0.3	+0.7
1000 - 1999 inhab.	-0.2	+0.5	+0.8	+1.1
2000 inhab. and more	+0.2	+1.1	+1.0	+1.4
Total (rural commun)	-0.9	-0.5	-0.4	+0.6
Urban commun				
Less than 5000 inhab.	+1.0	+1.6	+0.9	+0.9
5000 - 9999 inhab.	+1.5	+1.9	+0.7	-0.2
10000 - 19999 inhab.	+1.4	+2.4	+0.3	-2.7
20000 – 49999 inhab.	+1.4	+1.1	+0.8	-0.9
50000 - 99999 inhab.	+2.3	+2.5	+0.9	+1.8
100000 - 199999 inhab.	--	--	--	--
200000 hab. and more	+2.6	+3.1	+2.0	+2.9
Total (urban commun)	+1.9	+2.3	+1.2	+1.5
Total	+0.5	+1.0	+0.5	+2.5

Source : L'Insee

Figure : Demographic evolution in Midi-pyrénées, by canton







According to the table below, in different departments of the region, the growth level from 1962 to 1968 was generally higher than that from 1954 to 1962. Among these departments, the growth rate of the urban settlement in Haute-Garonne department (which Toulouse belongs to) was significantly higher compared with the others. And the growth rate of rural settlements in the department was also positive during the period from 1962 to 1968.

Table : Rate of annual average variation of population, 1954-62,1962-68,%/year, Midi-Pyrénées

Population	**Ariège**		**Aveyron**		**Gers**		**Haute-Garonne**		**Lot**	
	62-68	54-62	62-68	54-62	62-68	54-62	62-68	54-62	62-68	54-62
Rural communs										
Net migratoire	-0.4	-0.9	-1.1	-1.1	-0.9	-1.1	+0.8	-0.5	-0.4	-0.5
Urban communs										
Net migratoire	+1.5	+0.8	+0.3	+0.5	+1.8	+1.2	+2.5	+2.1	+1.5	+1.3

Population	**Hautes-Pyrénées**	**Tarn**	**Tarn et Garonne**	**Région Midi-Pyrénées**	**France**

	62-68	54-62	62-68	54-62	62-68	54-62	62-68	54-62	62-68	54-62
Rural communs										
Net migratoire	-0.2	-0.9	-0.5	-1.0	-0.3	-0.7	-0.4	-0.9	-0.6	-0.9
Urban communs										
Net migratoire	+1.6	+1.3	+1.0	+0.9	+1.3	+0.7	+1.7	+1.4	+1.0	+1.1

Source : RGP 1968

Moreover, for the urban system of the region, its capital (Toulouse) had a high urban primacy ratio, which position was further strengthened in the period of the 'balanced metropolis policy'. In 1975, Toulouse was the only city with a population of 20 million to 200 million inhabitants, which was followed by the four medium-sized cities (50000-99999 inhabitants).

Figure: Urban system of Midi-Pyrénées region, 1975

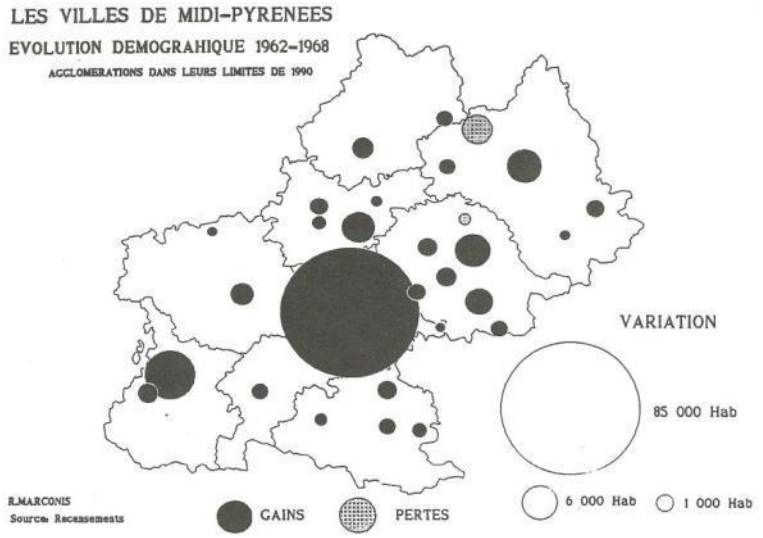
Table : Urban structure in Midi-Pyrénées (population of agglomerations from 50000 to 200000), 1975

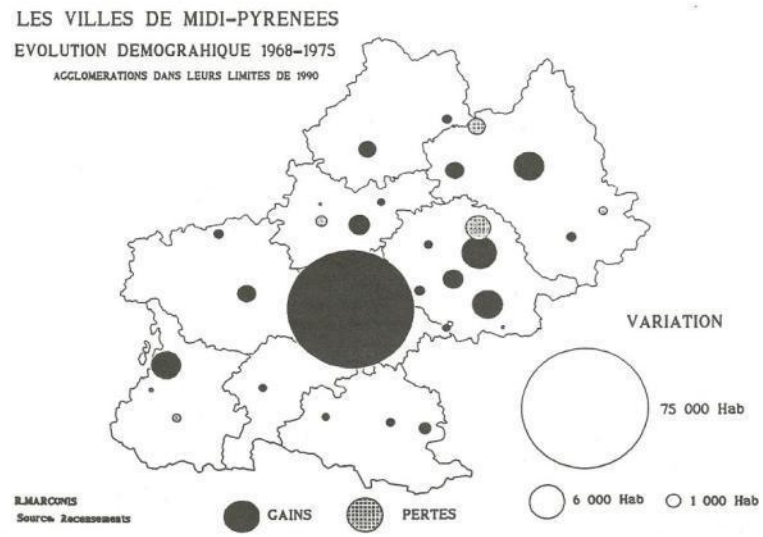
Region	Urban population (50000-99999)	Urban population (100000- 199999)	Urban population (200000 -200 million)	Total
Midi-Pyrénées	4 (Tarbes/Montauban/ Albi/Castres)	--	1(Toulouse)	5
France entière	52	29	25	106

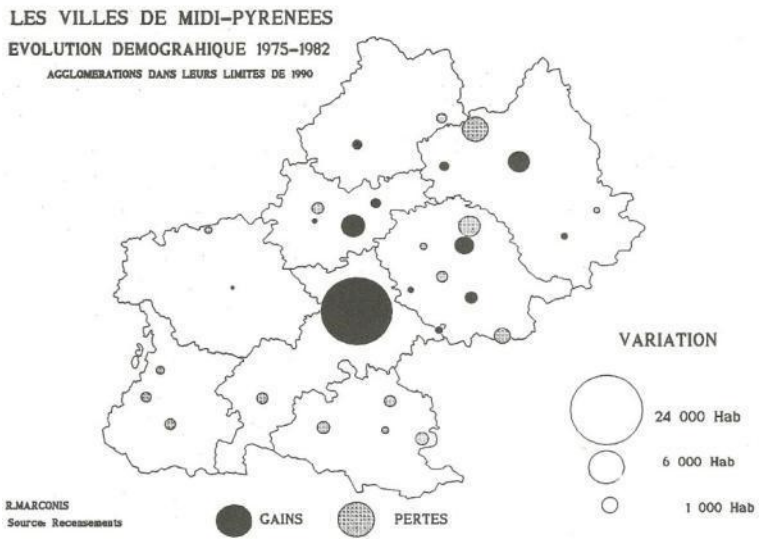
Source : Travaux et recherches de prospective, schéma général d'aménagement de la France, le grand sud-ouest diagnostics pour l'avenir, La documentation Française, Paris, 1979

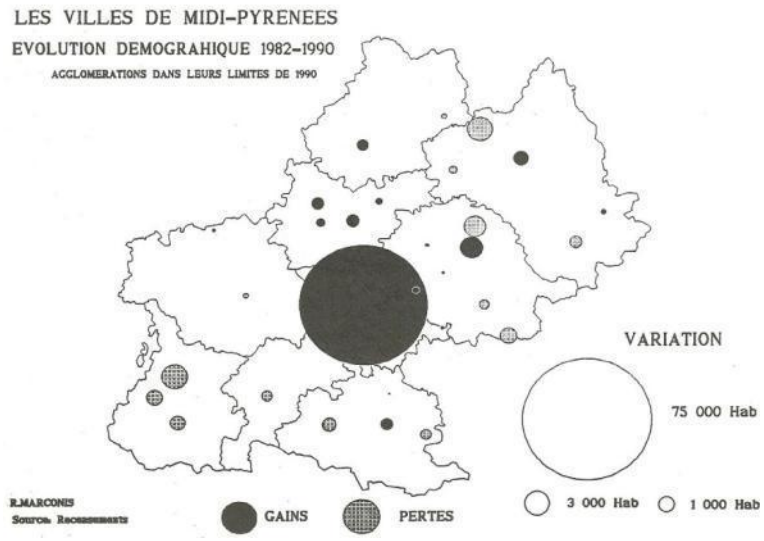
The figure below shows the evolution of the region's urban system during the period from 1962 to 1975. During the period, the core position of Toulouse was always significant with a high growth rate. Although from 1975 to 1982, the massive urbanization process gradually reached the

end, the growth of urban population slowed down and the 'peri-urban' phenomenon emerged generally, Toulouse remained a positive growth rate. Furthermore, during 1982 to 1990, the growth of Toulouse's population re-accelerated which was obvious compared with the other cities.









7.4 Brief conclusion

During the 30 glorious years, the direction of migration from crashing into Paris (at the initial phase) to moving into big regional cities (in the mid-period), and to more kinds of destinations (i.e. medium-sized and small cities, rural areas) in the late phase.

In general, the emphasis of regional planning basically led the direction of migration to a certain degree, i.e. the development of balance metropolis, new towns, medium-sized and small cities as well as the rural area in France.

In fact, the process basically catched the demand of population, from chasing the economic objectives (high income, job opportunity) to diversified aims (economic and non-economic objectives, i.e. the pursuit of high living condition).

Chapter 8: The position of the Paris region and balance metropolis: balance or polarization

During the ’30 glorious years’, the position and function of the Paris region and balance metropolis were gradually adjusted. However, with the changing context, some new demand emerged which could not fully meet the original target.

8.1 The debate of the position of the Paris region

8.1.1 The position of the Paris region after the ‘30 glorious years’

Along with the ‘industrial de-concentration’ policy, the rate of industrial employment in the Paris region decreased significantly. The proportion of industrial creations decreased from about 1/3 in 1954 to 9% of total in 1965[162]. The trend continued afterwards. From 1967 to 1973, the number of industrial enterprises (with more than 100 labors) in the Paris region reduced by 22%, and the average rate of France was only 11%[163]. And compared with the percentage in the year 1968 (24.1%), the proportion of industrial employment there reduced to 21.7% of France in 1975. In addition, certain categories of industry (i.e. automobile, aeronautics, pharmaceutical industry, electronic etc), which were once concentrated within or around Paris, were redistributed during the ‘30 glorious years’. However, in the same period, the Paris region still got 24% of created employment in the field of construction and public works (le batiment et les travaux public) and 28% of them in the tertiary sector[164].

[162] Pierre Merlin, L’amenagement du territoire en France, Paris: La documentation francaise, 2007, pp. 47
[163] Ernest Labrousee, Fernand Braudel, Histoire économique et sociale de la France (1950-), Rongkang Xie, Wenjie Huang (translators), Shanghai : Fudan University Press, 1990, pp 385
[164] Pierre Merlin, L’amenagement du territoire en France, Paris: La documentation francaise, 2007, pp. 56

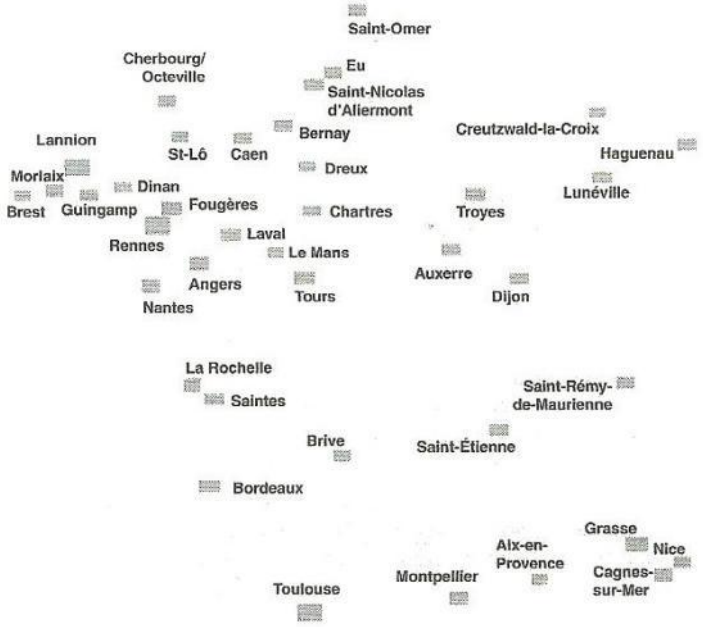


Figure: The de-concentration of electronic industry, 1955-1970

Source: Pierre Durand, DATAR, Industries et regions, l'amenagement industriel de la France, La documentation francaise, Paris, 1972

Table: Evolution of French industrial/tertiary employment, year

	Variation of industrial employment/year		Variation of tertiary employment/year	
	1954—1962	1962—1968	1954—1962	1962—1968
The Paris Region	11900	-16300	33800	52900
Other	27400	30500	73400	294000
Total	39300	14200	107200	346900

Source: L'Insee

During the period, the industrial structure of the Paris region changed with the general industrial transformation in France and the development of industry-related services sector (e.g. commerce, research). Although a large scale of industrial de-concentration projects were from the Paris region to the provinces, a quite number of industrial companies (esp. big companies) only transferred their factories (the manufacturing sectors) to the provinces and kept the management and innovation/research sectors in the Paris region. Therefore, it resulted in a new kind of differentiation between the Paris region and the other provinces. This could be reflected by the employment structure (as shown in the table below) and the proportion of high-technology companies.

Table: Structure of industrial employment, 1975

Fonctions	Ile de France (%)	France (%)	Specificity of Ile de France
—Production	45.0	61.6	0.73

—Organisation, gestion et encadrement	6.8	7.1	0.96
—Manutention, magasinage, conditionnement et transport	6.9	7.2	0.96
—Fonctions techniques	11.3	6.8	1.66
—Administration, finance et informatique	20.3	12.2	1.66
—Fonctions commerciales	8.0	3.8	2.11

Source : STISI, Structure des emploi dans l'industrie en 1976

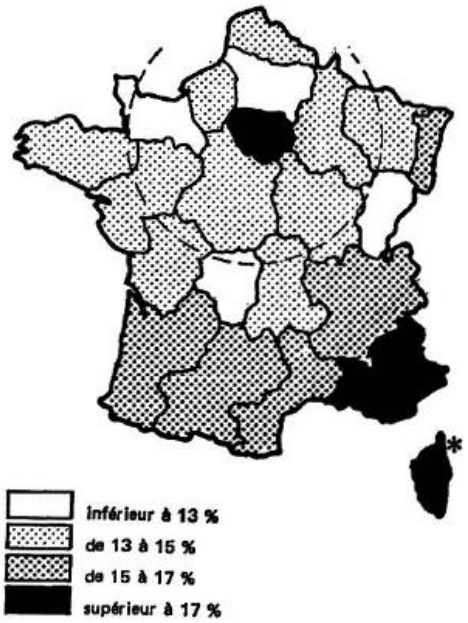


Figure: The proportion of service employment in industry sector

Source: Enquete structure des employs de 1974

Table: Proportion of employment of activities with technology content in 'Ile-de-France', %, 1980

Oil and natural gas	Para-chemistry and pharmacy	Electrical and electronics	Naval and aeronautical construction	Enterprises marketing service	Insurance	Financial organization
31.9	39.7	38.2	25.7	41.7	46.9	39.3

Source: Insee

In addition, although the proportion of workers declined, the Paris region was still the concentrated area of talents: more than half of engineers in France worked in the Paris region (in 1975); the proportion of engineers and advanced administrative (ingenieurs et cadres administatifs superieurs dans l'emploi regional, 1975) in 'Ile-de-France' was 8.1% (much higher than French average level: 4.2%)[165]. And the unbalance was even more significant in some sectors after the '30 glorious years'. For example, after the active period of de-concentration action (1960-1970), the

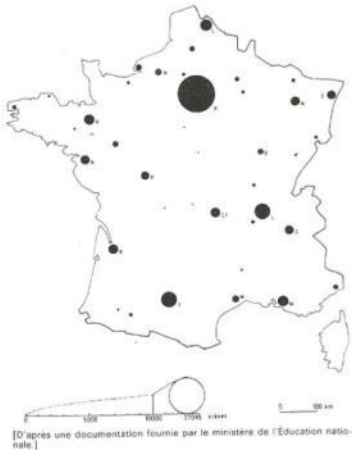
[165] Insee, recensement de 1975

public research was re-polarized in Paris in the 1980s[166]. Therefore, some scholars proposed the model of 'Paris decides and the province products' (Ollivro, 2006) in the new era again.

Economic leadership in France（1973）

The distribution of political, economic, artistic and scientific population in France（1983-1984）

The distribution of engineers students in France（1973-1974）



The distribution of high-level management institution（1975）

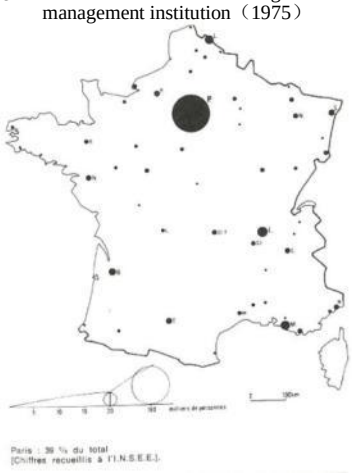


Figure: Leader position of Paris in France

Source: D Noin, L'espace francais, A Colin, 1984

Table: Socio-professional structure, 1987

	Ile-de-France (%)	Autre Regions (%)
Agriculture	0.4	8.1
Merchant and enterpriser	6.3	8.5
Manager	17.5	7.8
Intermediated profession	24.0	19.1
Employee	30.6	25.6
Worker	21.2	30.9
Total	100.0	100.0

Source : Enquete sur l'empoi, Insee, mars 1987

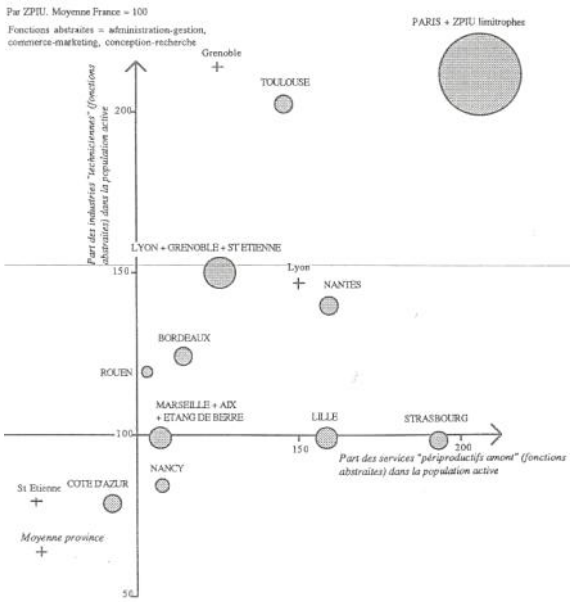
[166] UTH 2001, La metropole parisienne systeme productif et organisation de l'espace, 20/21, 1990 (dec.), pp. 12

Table: The structure of employment in the different regions, 1973

	Engineers and techincal manager in production	Senior manager and technical manager in service	Qualified worker	Worker without particular qualification	Qualified service personnel	Service personnel without particular qualification
Région Parisienne	**2.87**	**8.52**	21.89	16.24	**23.55**	7.59
Centre	1.01	3.65	30.87	31.21	15.49	5.01
Nord	1.15	3.37	35.28	27.81	14.46	5.05
Pays de la Loire	1.05	3.56	33.22	27.19	16.15	4.58
Bretagne	0.86	3.71	31.80	27.63	18.48	5.29
Rhône-Alpes	1.62	4.38	30.15	28.46	15.31	5.31
Languedoc-Roussillon	1.02	4.94	30.87	21.65	20.34	7.34
Provence-côte d'Azur-Corse	1.58	5.44	29.40	19.44	20.86	7.84

% des effectifs salariés de telle région employés dans tel emploi

Source : Enquêtes « structure des emplois », ministère du travail et INSEE



Source: ESE, 1985

As a result, the Paris region gradually became an area dominated by the services sector and the sectors with a high component of technology and innovation. Besides, the service de-concentration action did not weaken the position of the Paris region in some fields.

Table: Activities of office employment in 1975, %

	France	The Paris region

Industry	13	31
Commerce	15	20
Transport	21	23
Service (market)	26	44
Bank and assurance	75	85
Service (non-market)	41	48

Source: Bureau d'informations et de prévision économiques

Although the proportion of 'the more important enterprises (enterprises les plus important)' which created the headquarters in Paris decreased from 55% (in 1955) to 48% (in 1969)[167] during the initial period, more than 3/4 of global top 500 enterprises (77.6%) set the headquarters in the Paris region in 1976[168], which was even higher than the rate in 1958 (75.0%). In addition, in 1976 the headquarters of 114 (total number: 157) industrial companies (>500 employments) in the West France were located in the Paris region[169].

The Paris region gathered a very high proportion of employment and administrative service, but the manufacturing sector concentrated only 18% of national employments in 1990 and 21% of the storage-transportation function.

——*F. Damette and P. Beckouche, la métropole parisienne, système productif et organisation de l'espace ; l'étude de l'Insee sur la structure des emplois*

8.1.2 The consideration of the position of the Paris region in the new era

As mentioned above, although it went through the process of de-concentration during the '30 glorious years', the Paris region still remained the core position of France (e.g. management, research and education). And the background changed after the '30 glorious years'. Different from the thought of Jean-Francois Gravier[170] in the 1940s, the scholars began to think about the relation between Paris and other regions in another way.

By the impact of European integration policy since the 1980s, the consideration of development began to jump out of the view of a single country, and a wider perspective of Europe (even the whole world) was widely adopted. Besides, as some scholars mentioned, the competitiveness in the new era may be cities (or the metropolitan region) rather than countries.

[167] J.F Gravier, Paris et le desert francais en 1972, Flammarion, 1972, pp. 233
[168] Localisation des centre de decision des entreprises Bureaux-Provinces, 1977
[169] Therese Saint-Julien, Croissance industrielle et systeme urbain, Paris : Economica, 1982, pp. 44
[170] He even cited the word of A.Sauvy 'Les grandes villes sont les tombeaux de la race'.

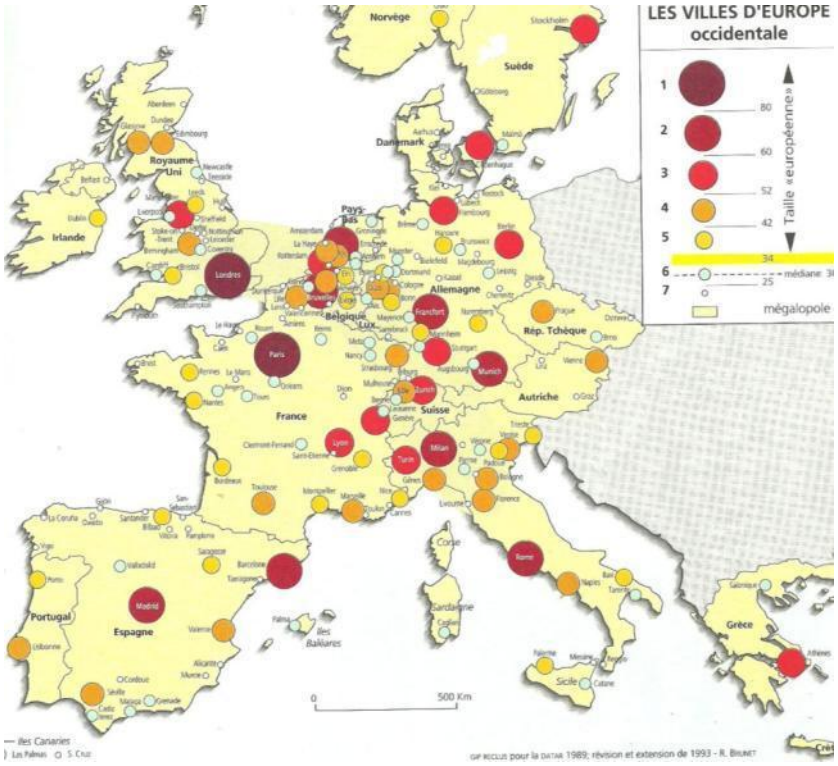


Figure: The position of big cities in Europe

Source: GIP RECLS pour la DATAR, 1989 ; revision et extension de 1993-R.Brunet

However, two opposite opinions about the development of the Paris region still existed. Someone still held the opinion of 'Paris is over-concentrated', such as one report of 'chamber of commerce and industry of Lyon' (1973), which might be seen as a requirement of local development and political balance. And some others raised questions for the de-concentration policies carried out in France for a long time, especially the service de-concentration policy which were mainly implemented during the late phase of the '30 glorious years'. They considered that these polices undermined the strength of Paris to some extent compared with some international cities, such as London and New York. Some contradiction emerged between the desire of the international strategy and the restrictive actions. Actually, in the 1960s, some idea of 'the development of France was firstly the growth of cities; Paris was not the only object to contest[171]' was expressed in the white paper (livre blanc, 1963) and the planning of the Paris region, which was in contrary to the thought 'Paris and its desert'. In addition, the emphasis on problems of regional unbalanced development was gradually replaced by the competitiveness of cities in the new era.

After the '30 glorious years', the fact proved that: the policies of controlling the investment in the Paris region were weakened after several years[172]. The process of service de-concentration action slowed down at the same time. This kind of thought could be found in the implementation process of government. As shown in the table below, from 1985 to 1988, the most part of

[171] Michel Micheau *et al*., 40 ans d'urbanisme en France, Beijing: Social Sciences Academic Press, 2007, pp. 101
[172] Michel Savy, 50 years of regional planning in France, Urban planning international, 2009(4), pp 8

permitted office surface was in the Paris region, rather than in the provinces. And as the achievement of 'Centre national d'art et de culture Georges Pompidou' shows that: 'the culture of provinces could not be improved by the way of undermining the culture of Paris'[173].

Table: Surface of allowed office space

	1969-1973		1974-1984		1985-1988		
	M^2/an	% marché nat. (m^2)	M^2/an	% marché nat. (m^2)	M2/an	% marché nat. (m2)	% marché nat. (valeur)
Total France	3.0 m	100	2.7 m	100	4.8 m	100	100
Province	1.7 m	56	1.9 m	71	2.8 m	58	30
Ile-de-France	1.3 m	44	0.8 m	29	2.0 m	42	70

Source: Comité de decentralization, 1988

In fact, since the 1970s, the position of Paris was generally emphasized by the central government as well as scholars. However, in the European (even in the world) perspective, the position of the Paris was challenged by many competitors. Its ranking varied on the basis of different evaluation indices.

Base on the ranking prepared by DATAR (1989), which emphasized more on infrastructure, quality of the labor force, socio-cultural variables (i.e. cultural facilities, major fairs and exhibitions) , Paris (score is slightly behind that of London) and London were in the first rank in the report. However, as shown in the table below, Paris lagged behind London in some fields in the new era.

	Number of decision center of enterprises (Top 2000 Forbes, 2006)	**Number of HQ of non-europea n enterprises (Top 2000 Forbes, 2006)**	**Part of international location in the first 15 Europearn cities, 2003-2007, %**	**Internatio nal implanati on of strategy fuction, 2007**	**Part of strategic fonctions in total international implantations, 2003-2007, %**
Paris	66	6	19	46	19
Londres	72	23	25	80	36

Source : Marini, 2007 ; Association Paris-Ile de France-Capitale Economique/Ernst & Ypung, 2008

[173] Ernest Labrousee, Fernand Braudel, Histoire économique et sociale de la France (1950-), Rongkang Xie, Wenjie Huang (translators), Shanghai : Fudan University Press, 1990, pp 386

	Metropolitan region	Scientific creativity	Air transport capacity
1	London–Cambridge	100	100
2	Paris	70	69
3	Randstad Holland	33	25
4	Bonn–Dusseldorf–Cologne	33	21
5	Stockholm–Uppsala	26	23
6	Brussels–Louvain–Ghent	24	12
7	Franfurt–Mainz–Giessen	22	42
8	Munich	22	17
9	Heidelberg–Karlsruhe–Stuttgart	22	17
10	Copenhagen	19	21

Source : Andersson, 1986

In addition, according to the table below, the employment's added-value of the Paris region was less than some European areas (i.e. some regions in Germany and Netherland). The situation is also proved by the rankings of Cheshire (1986), which involved some economic variables (i.e. unemployment, gross domestic product per capita, migration etc): Paris only ranked the 23rd[174]. Thus, we might conclude that: besides for some special advantage (i.e. culture, mode industry etc) the economic competitiveness of Paris was not that strong compared with certain cities in Europe and in the world.

Table: Evolution of added-value employment and apparent labor productivity

	Added-value/employment	
	1973	1980
Deutschland	**9743**	**20816**
-Hamburg	13444	30250
-Nordrhein	10366	21853
-Hessen	9880	22292
-Rheinland	9267	20643
-Baden	9628	20357
-Bayern	8612	19104
-Berlin	10778	24000
France	**8723**	**20019**
-Ile-de-France	10813	23479
-Nord-Pas-de-Calais	9071	20846
-PACA	8286	20533
Italia	**6208**	**13138**
-Lombardia	7371	15722
-Lazio	6588	13778
-Campania	5400	10529
Nederland	**9596**	**23723**
-West-Nederland (utrech)	9833	23250

[174] Using data from 1971 to 1988

-Noord Holland (amst.)	9111	22000
-Zuid Holland (rott.)	10364	23909
-Zeelaned	12000	26000
Belgiqu	**8974**	**20730**
-Bruxelles	11400	
United Kingdom	5371	14707
-South East	5793	14813
Danmark	**8739**	**16833**

Source : Eurostat, 1985

As W.F. Lever (1993) mentioned, the competitiveness of cities was strengthened by the growth of multinational enterprises, the city marketing by government to attract investment, the development of new Europe-wide economic sectors (i.e. the financial services), the competitivenss of the European institutions and the 'hallmark' events since the 1980s. Thus in the new context, the government began to stress and enhance the competitiveness of the Paris region in many fields besides its traditional advantages (mainly the non-material resources: e.g. management, technology, innovation and culture) in regional planning. It also involved exhibition, education and tourism etc. And some scholars and governors proposed the objective of Paris' position in the new era and some practices to reach the goal. For example:

'The future of Paris should relate closely to its economic development (incl. industry). Paris should become a decision centre, a crossroad among economic leaders of different countries….The second direction: Paris becomes an international capital of the economic orders. Suppose the de-concentration of service activities in Paris, it's not reasonable for its reputation…And Paris has some privileged elements: urban management, green space….for the attractiveness of one capital.'[175]

'The challenge of the Paris region is that it should establish itself as the first economic metropolis of Europe (especially in the tertiary sector) and play an important role in the national domain.'[176]

'Paris becomes the cultural pole: the French capital, the place of teaching and training, the concentration area of cultural equipment.'[177]

Furthermore, in addition to strengthen the position of the Paris region (as the economic region), the French government began to reconsider the integrated-development of the 'Paris basin' since

[175] DATAR, loi de finances, 1974
[176] P. Pommelet, Une capitale pour l'Europe, Le Monde, 26 Novembre, 1987
[177] DREIF (direction regionale de l'équipement d'ile de France, Paris et sa region en Europe et dans le Monde), 1988 (fev.), pp. 23

the 1970s. And the relations between the medium-sized cities in the Paris basin (i.e. Amiens, Saint-Quentin, Reims, Troyes, Tours, Le Mans) and Paris become more important.

The two major directions proposed by government in the 1970s: for the regions in the Paris basin, the activities need to be located close to Paris and enjoy the excessive growth of Paris; to organizer the development of the whole Paris basin so that each of them could get the most profit[178]*. And the three directions of regional planning about Paris and the Paris region were: to control the quantitative growth of the region; to develop the irreplaceable function of Paris; to ameliorate the living condition for inhabitants.*[179]

Case: The Regional Planning of the Paris Region and the Paris basin

The content of regional planning of the Paris region evolved during the '30 glorious years'. According to these regional planning (from the 1950s to the 1990s), its major content turned gradually from 'the urban expansion and the polycentric structure of development' to 'more natural space and the reconsideration of the Paris region's position'. This evolution also reflected the demand in different development phases. It has to be noted that: in the 1960s, the government emphasized the coordinated development (esp. industrial development) of the Paris basin mainly due to the industrial de-concentration; since the 1970s, the integrated development of the Paris basin was more considered as way of strengthening the position of the Paris region (in the Europe perspective or the world).

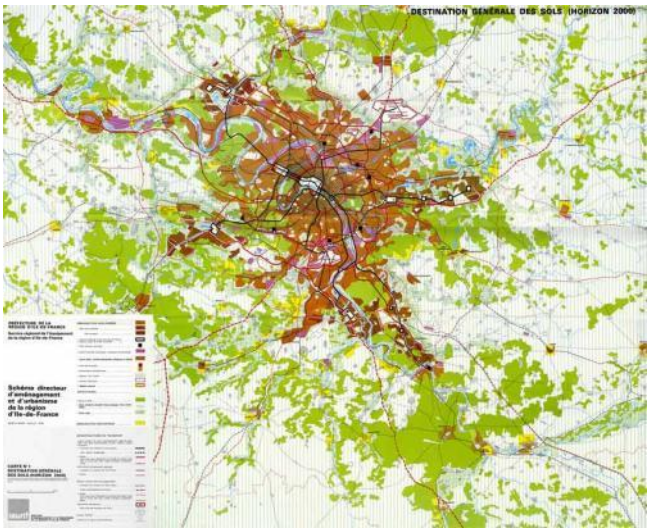
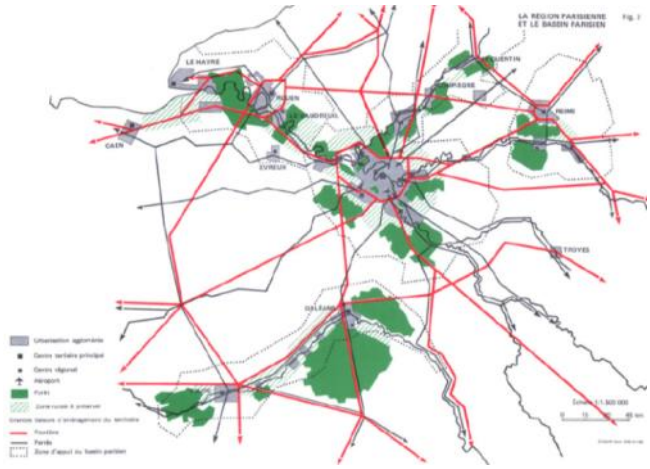
'Regional and urban planning of the 'Ile-de-France' region (le schema directeur d'amenagement et d'urbanisme de la region Ile-de-France, 1976)' proposed to ensure Paris as the role of international metropolis, and to affirm the Paris region as the European pole and the capital of French-speaking world, in the economic (technique, commercial etc), transport and cultural fields (museum, theatre, exposition, festival and etc) [180]*.*

'Regional planning of the Ile-de-France region (le schema directeur de la region d'ile-de-France, 1994)' emphasized the position of European capital and the World city (the important pole of service and research, the rich tourism and cultural resources, the transportation network); proposed to improve the whole attractiveness and competitiveness of the region and to combine the other cities in the Paris Basin[181]*.*

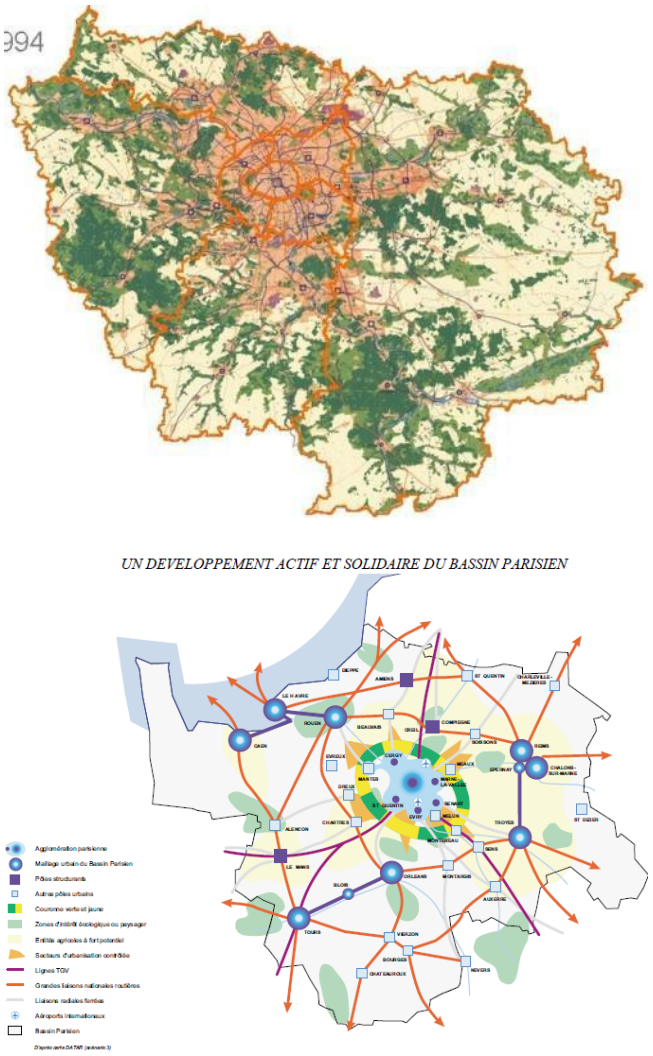
Table: Regional planning of the Paris region, the 1950s - the 1990s

[178] Le SDAURIF, 1976
[179] DATAR, Loi de Finances pour 1973, pp. 79
[180] Le SDAURIF, 1976
[181] Le SDRIF, 1994

Name	Year	Major objective and measures
Regional planning of the Paris region (Plan d'amenagement de la region parisienne, PARP)	1956	■ Decentralization from the Paris region to provinces ■ Decongestion from the centre city of Paris to its suburbs ■ Regenerate the suburbs by housing cluster (grand ensemble) ■ Accelerate the 'move-out' of industrial enterprises
Regional planning and general organization of the Paris region (Plan d'amenagement et d'organisation generale de la region parisienne, PADOG)	1960	■ Stabilize inhabitants and decentralize employments ■ De-concentration and de-congestion from Paris (e.g. accommodate population in suburbs of Paris or big cities in the Paris region and the Paris basin) ■ Focus on the development of suburbs ■ Large-scale of housing cluster (incl. public housing) were constructed (esp. in ZUP, zone a urbaniser en priorite). ■ Construction of transport facilities
Director program of the Paris region (Schema directeur de la region de Paris, SDAURP)	1965	■ Promote the growth of two urbanization axes parallel to the River Seine ■ Creation of new towns and new growth poles in the Paris agglomeration area (e.g. la Defense) ■ The construction of transport facilities (e.g. RER and metro (extend to the suburbs), highway) ■ Creation of leisure zone, green space, protection zone, etc
Director program and urban planning of the Paris region (le schema directeur d'amenagement et d'urbanisme de la region ile-de-France, SDAURIF)	1976	■ Organization of polycentric structure ■ Protection and planning of rural space ■ Introduce the idea of network of green lines (trame vert) and balanced natural zone ■ Development of periphery small cities and medium-sized cities ■ Organization of transportation

		 
Director program of ile-de-France (Schema directeur d'ile-de-France, SDRIF)	1994	■ The European ambition: as a grand European and the world's metropolis ■ Propose to strengthen the integrated development of the Paris basin ■ Reasonable growth defined by CIAT[182] ■ It determined the department frame for housing, office and local activities ■ It prescribed a common obligation to open certain urbanized parts for natural zone and agricultural area[183]

[182] comité interministériel d'aménagement du territoire
[183] 75 ans de planification, http://www.iau-idf.fr/lile-de-france/75-ans-de-planification.html



During the initial period after the World War II, Paris faced the problems of the crash of population and the lack of facilities (e.g. housing) at the same time. Afterwards, in a wider scope, Paris met the problems below: its congestion, the disordered suburbs, some isolated cities and wide rural space, and some development zones. The consideration of 'de-concentration' was reflected in its regional planning and some research concerning the Paris basin (i.e. the seminar in Remis, 1957) since the 1950s. And with the implementation of industrial de-concentration policy (from Paris, since 1955), the development of the Paris basin began to be paid attention by governments. Afterwards, four support zones (la vallee de la Basse-Seine, la Loire-Moyenne, la vallee de l'Oise et de l'Aisne, la vallee du Champenois) were chosen and related organizations were created in the late 1960s.

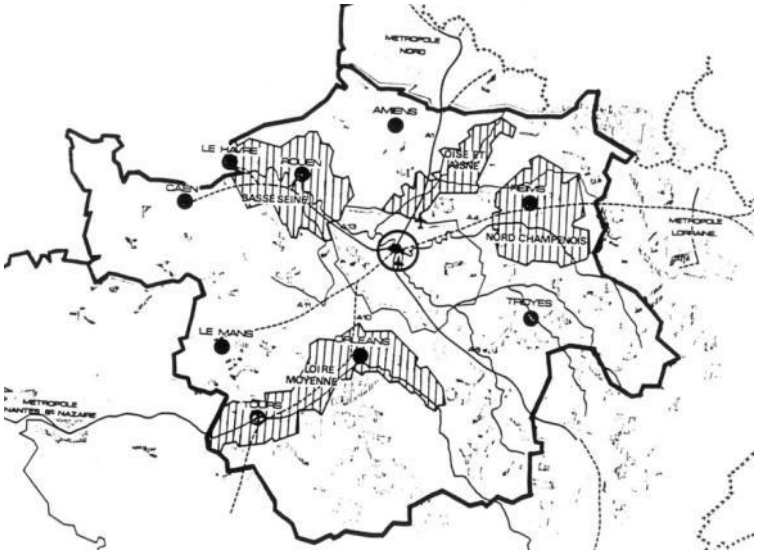


Figure: four support zones in Paris basin

Source : Jean Philippe Lamy, 1991

For example, the 'PADOG' (1960) had the three major objectives: the creation of four new urban centers; the construction of the nine housing clusters (grand ensemble); the development of the big agglomerations (located 100 km (or less) far from Paris, such as Rouen, Amiens, Reims, Troyes, Orleans, and Le Mans)[184]. It followed by the planning of the Paris basin (le plus grand Paris[185], a scope of 200 km) and other related planning afterwards. And the scheme of organization (Paris basin, 1965) proposed that the Paris agglomeration should be situated and planned in a wider scope (Paris basin)[186].

In 1966, the inter-ministerial committee of regional planning put forwards two targets about the Paris basin: to organize the layout of Paris in a wider scope, which could benefit from the development of principal urban centre; to harmonize the policy in the fields of public facilities, communication and education.

The white paper (livre blanc) of the Paris basin was adopted by the government in 1970. In 'la vallee de la Seine', a planning program (un schema d'amenagement) was implemented, which contained the content of the new town of Rouen, the facilities of port and the international commercial centre in le Havre. In the 'vallees de l'Oise et de l'Aisne', a white paper proposed to develop a service pole around the University of Technology and the industrialization of 'la vallee' around Saint-Quientin in Compiegne. In 'Loire moyenne', the white paper of 'city-garden' was carried out in 1971. Finally, the planning program of the north support zone of Compiegne (la

[184] Claude Cottour *et al*., Une breve histoire de l'amenagement de Paris et sa region, 2008, pp 70

http://www.driea.ile-de-france.developpement-durable.gouv.fr/breve-une-histoire-de-l-a1261.html

[185] Schéma directeur d'aménagement et d'urbanisme de la région de Paris de 1965, p.27

[186] Ministre de la construction, Bassin parisienne : shema d'organisation, 1965

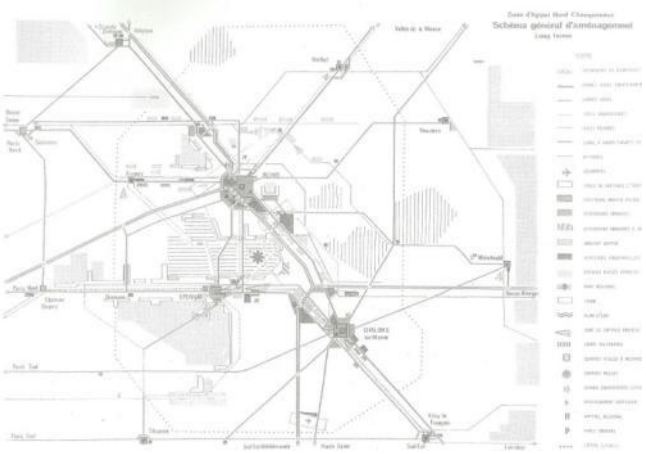
zone d'appui nord champenoise) was released in the year 1971.[187]

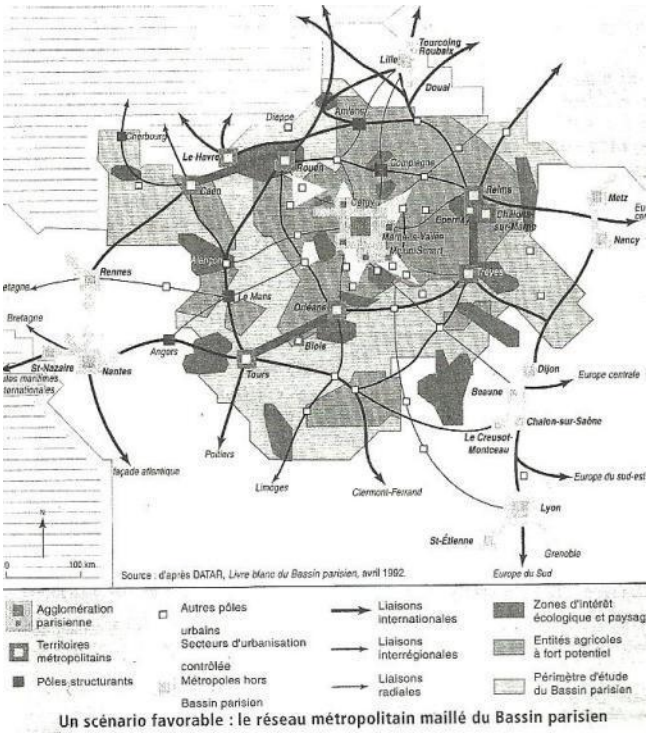
——*M. Michel Giraud, président du conseil d'administration du district de la région parisienne*

Table: Regional planning of the Paris basin, the 1960s-the 1990s

Name	Year	Major objective and measures
Paris basin : scheme of organization(Bassin parisienne: shema d'organisation, ministre de la construction)	1965	About the city's essential function of reception capacity, the trend of urbanization and the prediction about infrastructure (i.e. road, railway), the harmonious living, urban and industrial organization.
Planning Sheme of Basse Seine (schéma directeur d'aménagement de la Basse Vallée de la Seine)	1967	The predictions: the inhabitation, the industrial complex in Havre, the centre of teriary activities (Rouen). Some proposals: respect the built-up area and green area, engaging urbanization in new sites; avoid of continuous urbanization from Paris ; develop the complementarity of Rouen and Havre ; try the new urban planning etc.
Planning report of la vallee de l'Oise	1967	The predictions: the upper part of la vallee de l'Oise which benefited from the Paris-Europe axis should become an organization region; the nether part should not become the continuous zone of urbanization. The content: the population, the urban center, the industrial activities and transport facilities etc.
White paper about the future of Basse-Seine (livre blanc sur l'avenir de la Basse-Seine)	1967	It was adopted by CODER of Haute-Normandie in 1967 and approved by the interministeriel comit about regional planning (comite interministeriel d'amenagement du territoire) in 1967. Specific decisions: create one pulic organization for planning in Basse-Seine; create one new town in Rouen since the VI Plan.
Planning report of la Loire Moyenne	1968	The objective: to become the support zone Paris basin and the key area in the Loire valley (industry, education and research, culture, regional centers, tourism, transport).
Research organization of planning for la Loire moyenne and la zone Nord-Champenoise	1968	Objectives : the geography position between Paris and the strong regions in the North-West ; the privileged situation (some major transport axis); the important de-concentrated area of activities (esp. the tertiary).

[187] RB, le dialogue s'intensifie entre les regions du bassin parisien, juin-juillet. 1973, n 18, pp. 2

(l'organisation d'études d'aménagement pour la Loire moyenne et celle pour la zone Nord-Champenoise)		
White paper of Paris basin (livre blanc du Bassin Parisien)	1969	Major objectives : plan the Paris basin ; control the growth of Paris ; profit the whole Paris basin. Major principles: lead the activities to the regions other than the area near Paris; organize the development of the whole Paris basin where each part could get better profit.
nine new towns (9 villes nouvelles)	1970 s	Five new towns in the paris region and one in la basse vallée de la Seine
White paper of the support zone Nord Champenoise (livre blanc de la ZANC)	1971	The objectives : the agriculture modernization ; the industrialization (esp. in the branches in the national plan); the tertiary industry which could offer high level service; the communication node which could relate it to Paris, East of France, Germany etc.
Genral planning scheme of the support zone Nord Champenoise (Schéma général d'aménagement de la zone d'appui Nord Champenoise)	1973	About the communication relations, the industrialized zone (along the major road axis), the support for the small and medium-sized cities and urban centres, the planning of some area (i.e. Grand Remis, la Vallee de l'Aisne, Sud des Ardennes, la Vallee de la Marne etc), the scheme in rural area, tourism/recreation area etc. 
White paper (livre Blanc)	1992	Promote the poly-centric structure in the version of 2015. The study proposed three scenarios : the concentrated metroplolis like the current situation; multi-pole metropolis which inhibits the growth pole of Paris; the network structure, characterized by the emergence of metropolitan area of European size (Rouen-Caen-Le Havre,Tours-Blois-Orléans,Reims-Troyes-Chalons-en-c

		hampagne). The area are structured by the political and technique relation.. 

Case: The Paris Basin

After the '30 glorious years', the major regional growth remained in the Paris region and the area nearby, for example: the main growth of net migration was concentrated in the Paris region and in the scope closely around the Paris region in the Paris basin (as shown in the figure below, 1982-1990, i.e. Oise, Eure, Eure-et-Loire, Loiret); from 1982 to 1990 (as shown in the figure below), the relatively rapid growth of private employment (<2.5%) also mainly emerged in the Paris region.

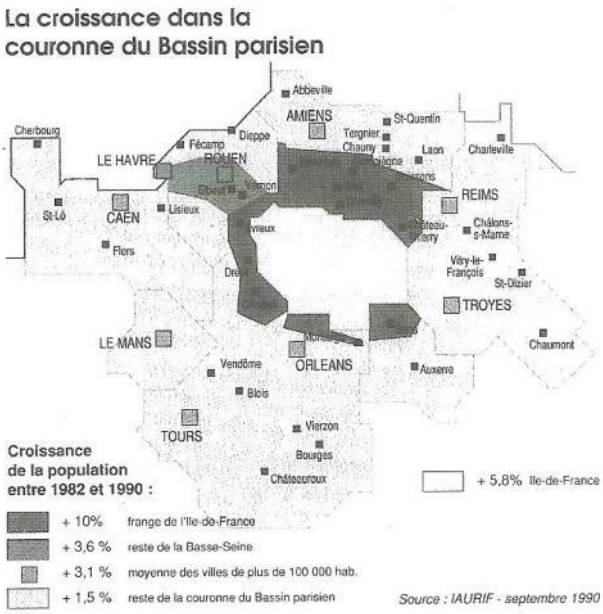


Figure: The growth in the ring of Paris basin (la couronne du Bassin parisien)

Source : IAURIF, septembre 1990

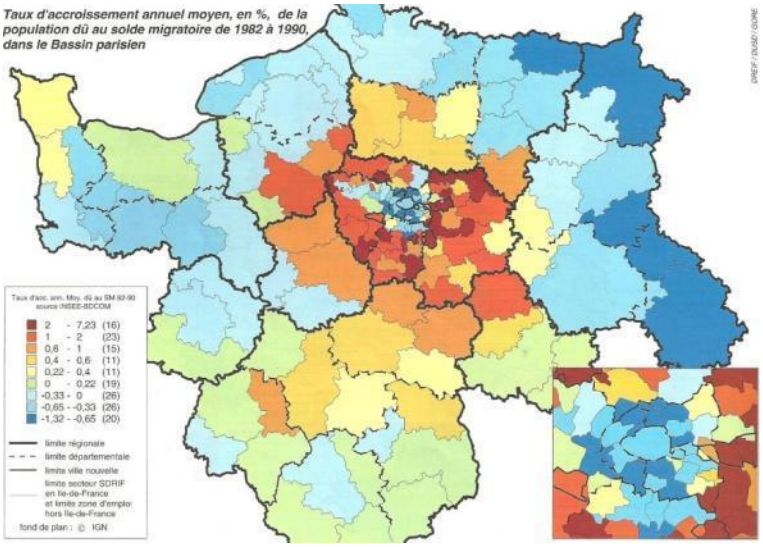


Figure : Annual average rate of growth, net migration, 1982-1990

Source: DATAR, pour une metropolisation raisonnee: diagnostic socio-economique de l'Ile-de-France et du Bassin parisien, p. 57

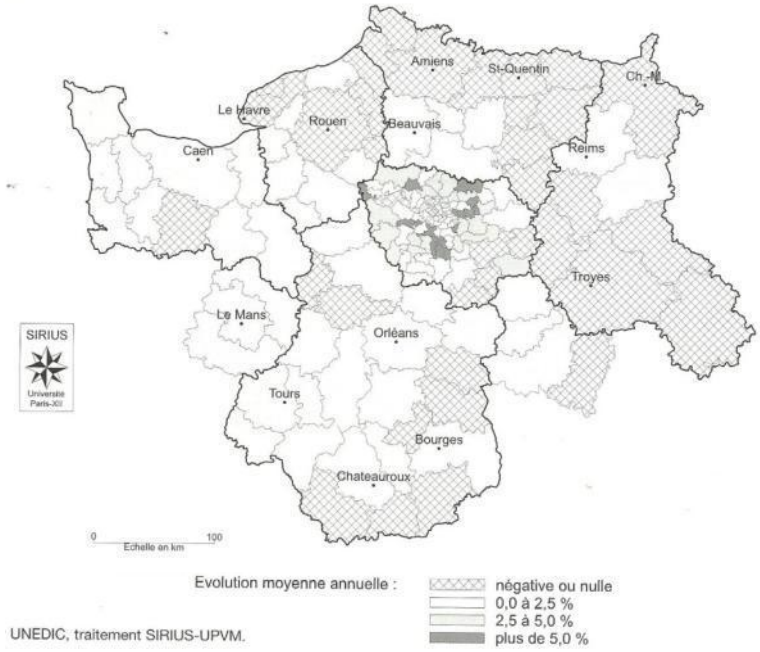


Figure : Annual average number of employment (l'emploi salaries prives), 1982-1990

Source: UNEDIC, traitement SIRIUS-UPVM

The unbalance could also be reflected by some other indices, such as GDP, employment structure, income etc. According to the table below, the disparity between the Paris region and the other part of the Paris basin was narrowed slowly. However, like many polarization areas, the development of the Paris region deprived resources of its nearby region to a certain degree. The benefit of the other part of the Paris basin from the Paris region was relatively limited.

Table: Part of Ile-de-France and Paris basin in France, 1982-1996

	Year	Ile-de-France	Paris basin
Population (b)	1982	18.5	11.5
	1990	18.8	11.2
	1996	18.9	11.0
Total employment (b)	1982	22.0	18.1
	1990	23.0	17.5
	1996	22.2	17.3
Private employment (Emploi salarie prive) (c)	1982	26.0	17.2
	1990	26.5	16.9
	1996	25.7	16.6
Employment of engineer and manager (d)	1982	49.9	10.1
	1990	50.9	9.5
	1996	50.8	9.4
GDP (e)	1982	27.1	16.9
	1990	28.7	16.4
	1996	29.1	16.0 (1994)
Revenes (f) France=indice 100	1982	127	95.0
	1990	135	94.0
	1996	133	94.0

Note : Region Bourgogne, Champagne-Ardenne, Picardie, Haute et Basse-Normandie, Centre ; sauf pour les revenus : Champagne-Ardenne, Picardie, Haute et Basse-Normandie, Centre, Yonne, Sarthe.
(b) Source : Insee ; (c) Source : Unedic ; (d) Hors secteur non marchand et hors etablissements de moins de 20 salaries. Source : ESE, Insee ; (e) Produit interieur brut en valeur, Insee ; (f) Revenus moyens des foyers fiscaux, Source : DGI-Insee.

In addition, the development within the Paris basin was not unbalanced, which was based on the production structure of the Paris region and its own economic basis to a large extent. In general, the north-western and the south-western area of the Paris basin related more closely to the Paris agglomeration, but the connection in the east was relatively weak (it was a crisis arc from l'Aisne to l'Aube).

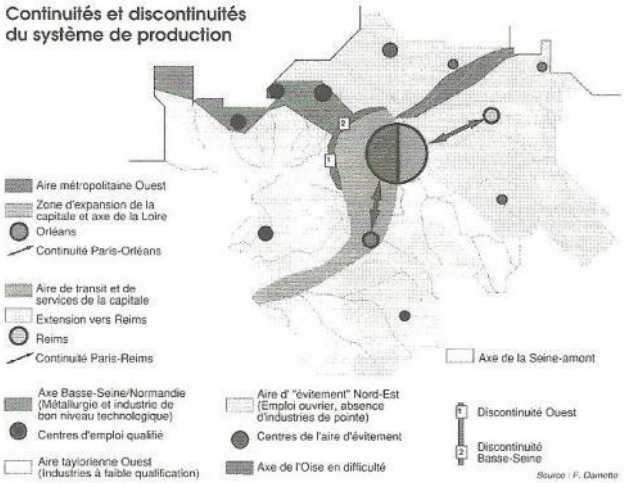


Figure : Production system
Source : F. Damette

Moreover (according to the tables below), the major cities in the Paris basin were highly under the influence of Paris (the shadow effect), whose national ranks were far behind many French big cities, and none of them were in the top two class of European cities. Only Le Havre (communication) and Rouen (research and technology) emerged at the European level. Besides, most of the capital cities (department or region) lost populations during the period from 1975 to 1982. The trend continued afterwards. For example, in the Haute-Normandie region, although the connection among region's major cities became closer; the out-migration of employment was even stronger during the period from 1982 to 1990, compared with the previous phase (1975-1982).

Table: The principal unity under the Paris influence

Urban unity	Distance (to Paris, km)	Population (thousand inhabitants)	National rank
Orléans	108	263	21
Rouen	112	389	13
Amiens	115	161	39
Reims	130	215	29
Le Havre	175	248	25
Le Mans	183	194	32

Caen	200	199	31
Tours	205	297	17

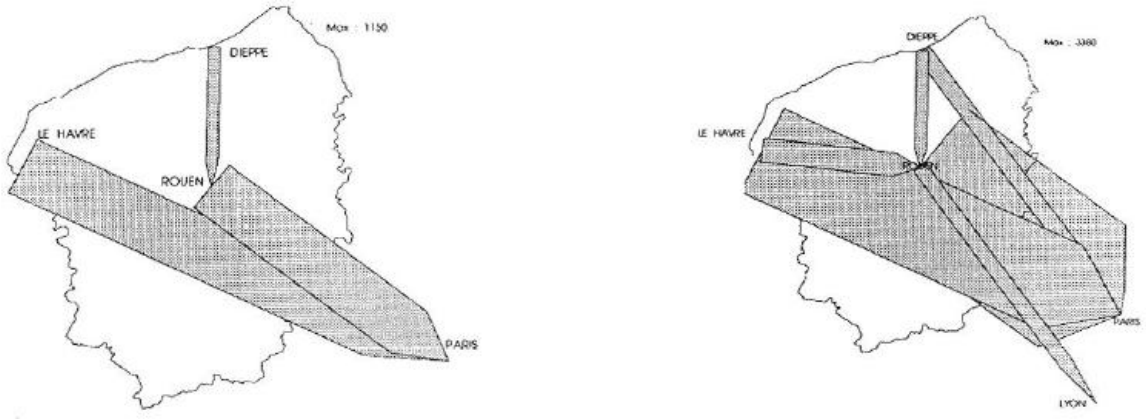
Source : L'insee, 1999

Table: Inter-urban activies (bilans interurbains d'actifs), 1975-1982 and 1982-1990 (part of cities in the Paris basin)

Aire urbaine	1975-1982		1982-1990	
	Earn	Rank	Earn	Rank
Orleans	3768	10	1827	17
Le Mans	-2424	389	-5304	393
Amiens	-1620	378	-3933	388
Rouen	-1564	376	-3905	386
Caen	-148	245	-3094	381
Reims	-2312	385	-2524	374
Troyes	-1228	370	-1805	362
Tours	460	55	-1743	360
Chalons-sur-Marne	-964	366	-1430	352
Saint-Quentin	-2084	383	-2069	370
Le Havre	-2836	389	-5304	393
Dijon	-920	365	-2006	368

Source : recensements de la population 1982 et 1990, insee

Figure : Net flow of actives (have employemt), until the end of the period (Haute-Normandie, 1975-1982, 1982-1990)



Source : Philippe Julien, La metropolarisation des actifs structure le territoire, Economie et statistique, N. 290, 1995-10, pp 47

In addition, the proportion of management staff and engineers in some big cities of the Paris basin increased slightly, along with the development of employment structure in France. However, the proportion was still far behind that of many regions, such as the Midi-Pyrenees region, the Rhone-Alps region etc. And although there were twenty-two universities in Paris basin (13 in the 'ile-de-France' region, nine in the provinces), the density of students was relatively low in the

provinces of Paris basin. For example, the number was 11/1000 inhabitants compared with 28.5/1000 inhabitants (in the 'ile-de-France' region) and 18.4/10000 inhabitants (the whole France); the ratio of doctors was less than 6%, in the comparison with 34% in the 'ile-de-France' region[188]. However, the growth of university population was strong in the Paris basin from 1982 to 1988: Basse Normandie (41.0%), Centre (27.3%), Champagne Ardennes (28.7%), Haute Normandie (31.1%), Picardie (29.7%), France (14.5%)[189].

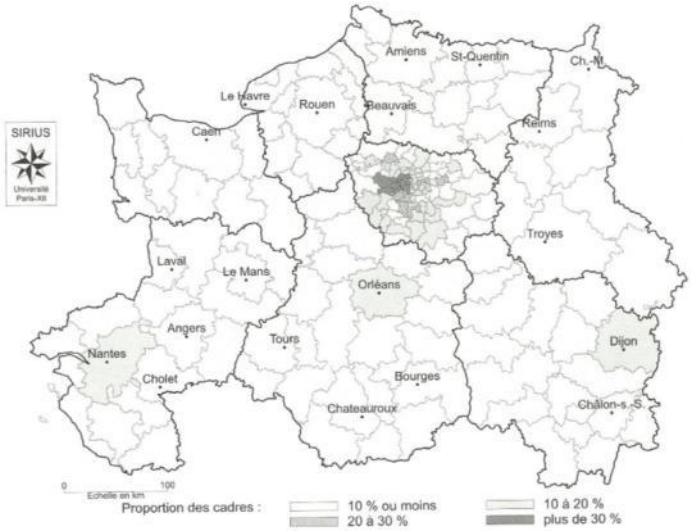


Figure : The proportion of manager in employment in Paris basin, 1995

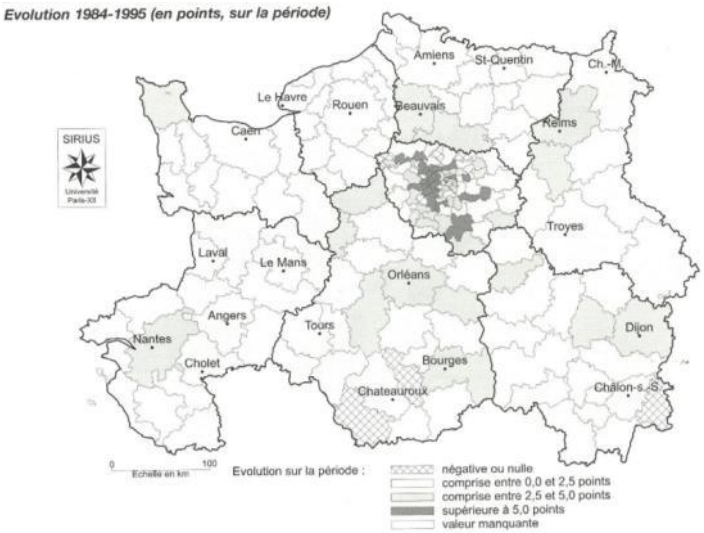


Figure : Evolution, 1984-1995

Source : ESE (etablissements de plus de 20 salaries du secteur narchand), traitement SIRIUS-UPVM

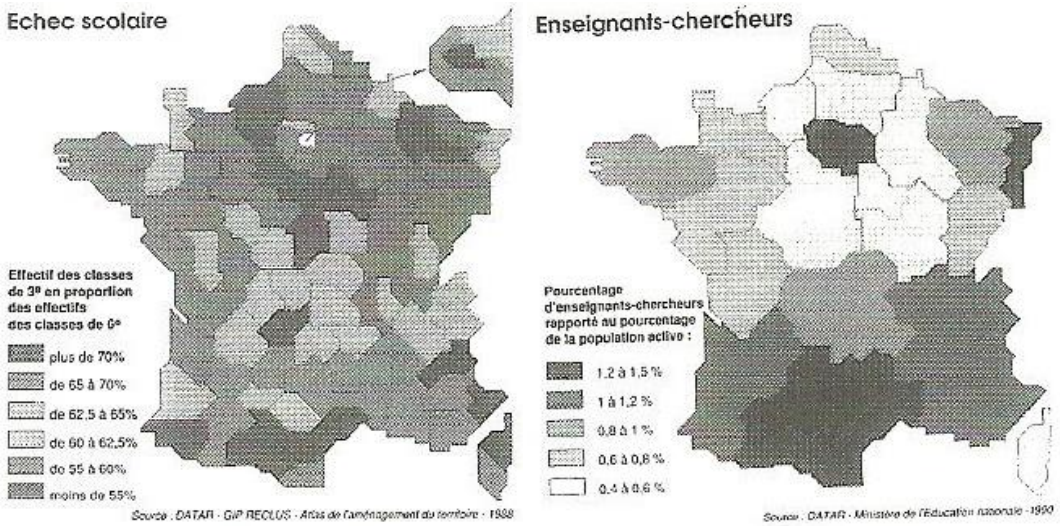
Table : Evolution of engineer and manager , 1984-1990-1995

	Proportion (%)		
	1984	1990	1995
Paris	19	25	27

[188] DATAR, Amenagement le Bassin Parisien : Premieres reflexions, Septembre, 1990, pp. 9
[189] Ministere de l'Education Nationale/DEP

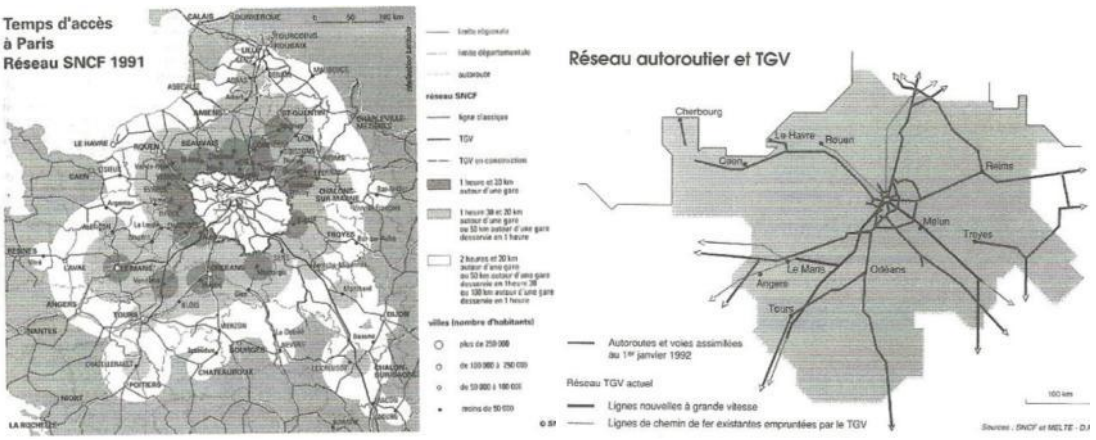
Small ring (total petite couronne)	17	22	25
Big ring (total grande couronne)	12	16	19
Employment zone (Zones d'emploi)			
Amiens	6	7	7
Rouen	6	8	9
Caen	5	6	7
Le Havre	6	6	7
Orleans	9	11	13
Tours	7	7	8
Reims	6	8	9
Chalons-en-Champagne	5	5	6
Troyes	5	6	6
Auxerre	6	6	7
Ile-de-France	**17**	**21**	**24**
France metropolitaine	**9**	**11**	**13**

Source : ESE, Insee



Source : DATAR-GIP Reclus-Altas de l'amenagement du territoire, 1988 ; DATAR, Ministre de l'education nationale, 1990

Besides, with the amelioration of transportation network, the phenomenon of 'working in Paris and living in other regions' emerged and increased obviously. Among them, the kind of phenomenon emerging in the west part of the Paris basin was the most significant. According to the figure below, the relation of railway transportation between Paris and the western part of the Paris basin was quite frequent.



Source : SNCF; SNCF et MELTE-O.R.

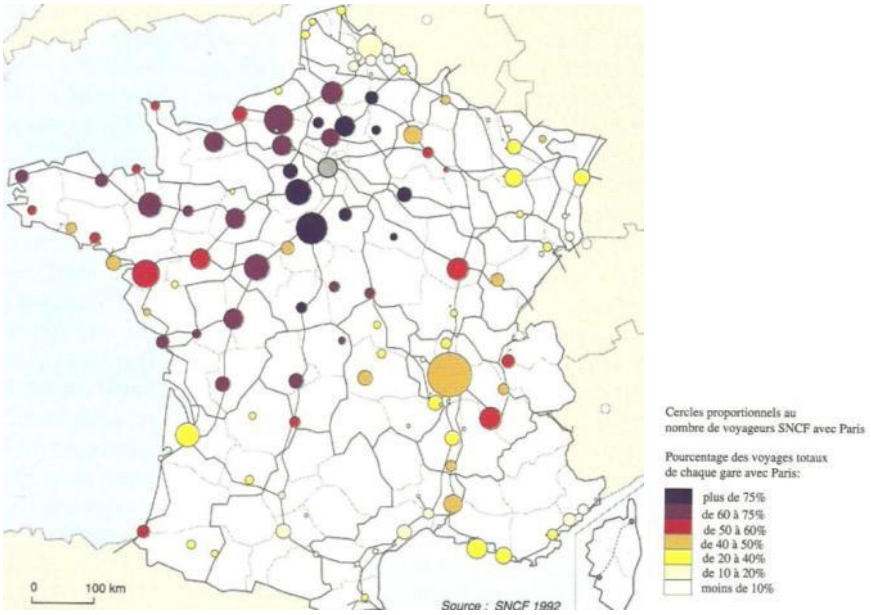


Figure : Proportion of railway traffic passengers with Paris, 1992

Source : Felix Damette, La France en villes, Paris : la documentation Francaise, 1994, pp. 107

8.2 The debate of the urban system and the position of balance metropolis

8.2.1 The evolution of urban system in France

The evolution of urban system in France related closely to the development of balance metropolises and the medium-sized, small cities nearby.

The balanced-metropolis policy was influenced by Fran ois Perroux (1955)'s 'growth pole theory'. According to his theory, development firstly emerged in some growth poles, expanded with the attraction and the radiation effect, and affected the whole region finally.

In fact, during the '30 glorious years', these balance metropolises gradually formed the eight

metropolitan areas jointing some surrounding cities. This balanced metropolis policy laid the foundation for the urban system in France. According to the figures below, the structure of urban system in France was turned from the 'single-centre core with a high primacy ratio' to the 'multi-centre network' to a certain degree. And some agglomeration areas were formed. However, in general, the attractiveness of Paris was still strong, the influencing scope and relation intensity was quite different among the agglomeration areas, and a large amount of area outside the influencing area of the Paris region and eight balanced metropolitan areas still existed, such as some part of the Limousine region and the Auvergne region.

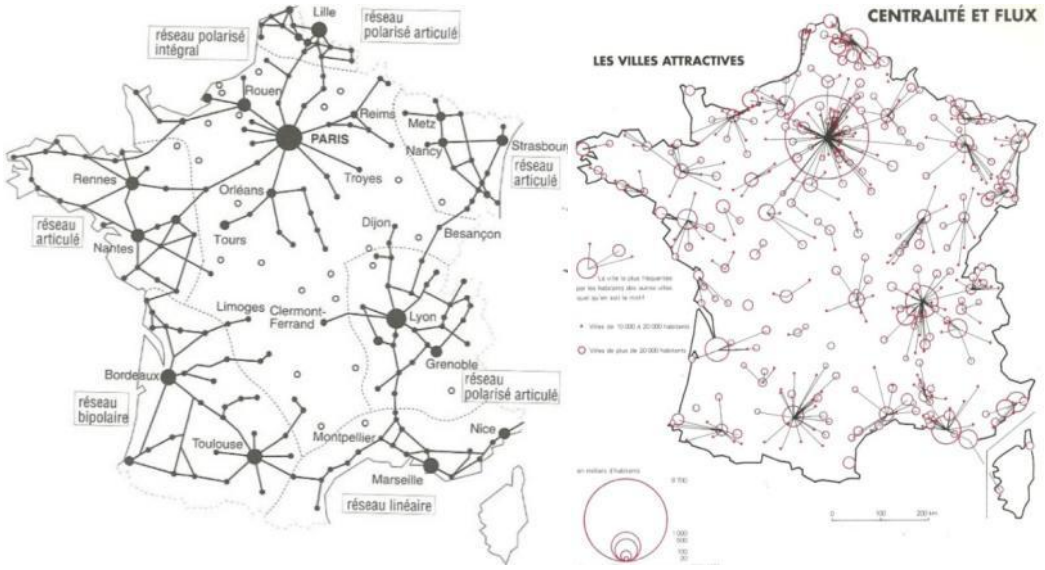


Figure: French urban system since 1980

Source: M.Fabries-Verfailie, P.Stragiotti, La France des villes, Breal, 2000

Figure: The attraction of cities in France, 1979-1980

Source: Insee, inventaire communal, 1979-1980, Pumain D, Saint-Julien Th, Atlas des villes de France, 1990

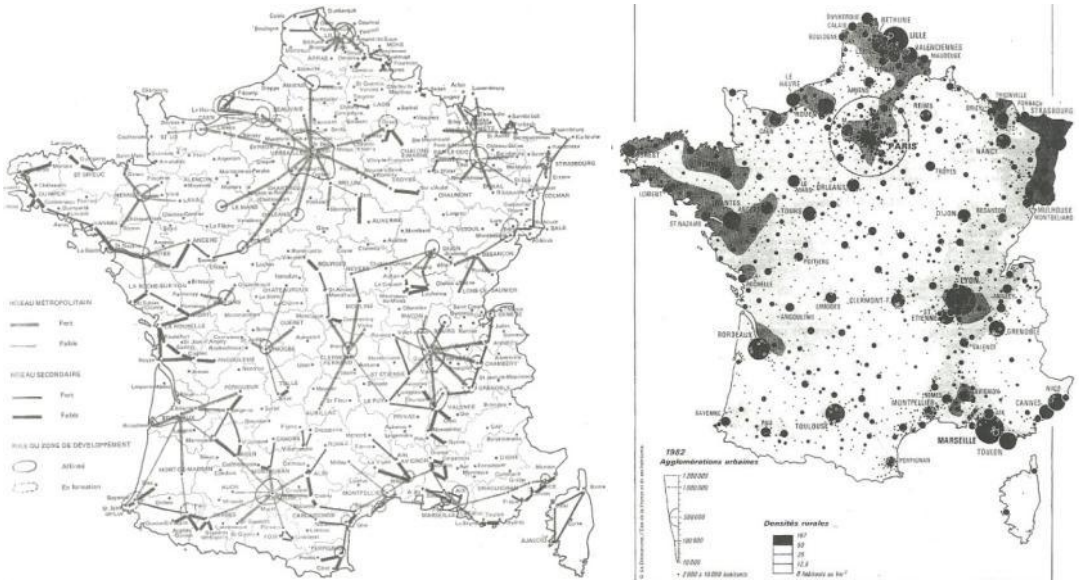


Figure : Systeme of cities, 1973

Source : DATAR, scenarios pour les villes moyennes : deux avenirs possible, Paris : La documentation

francaise, 1974 ; DATAR

Except for the urban system in the Paris basin, France could be divided into several sub-'urban systems': the north, the north-east, the west (Bretagne and part of centre), the south-west (Bordeaux-Toulouse), the Lyon area and the south coastal area. Among them, the relation intensity of cities in the Lyon area and the south coastal area was much stronger compared with the others, which was in correspondence with the direction of migration.

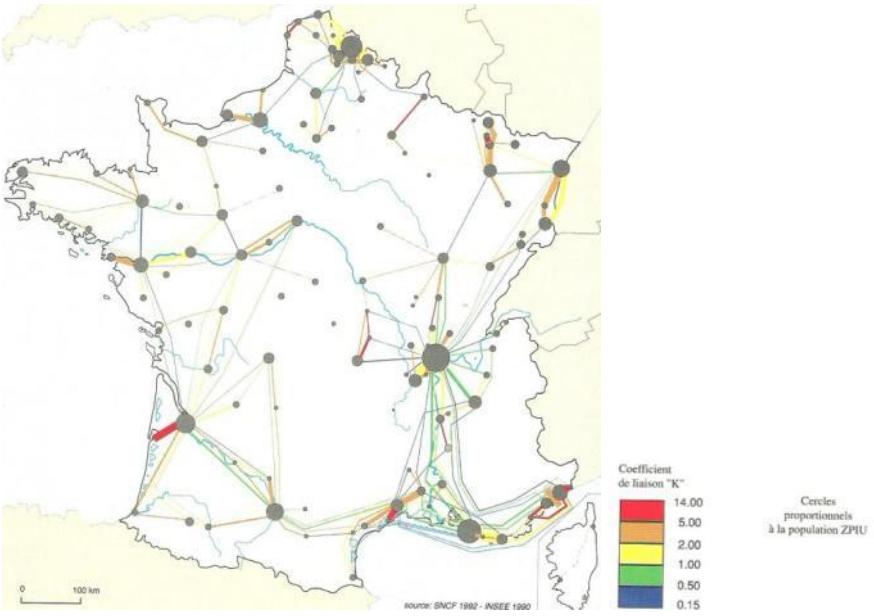


Figure : The railway traffic between cities of provinces, more than 20000 passengers/year

Source : Felix Damette, La France en villes, Paris : la documentation Francaise, 1994, pp. 112 ; SNCF, 1992 ; Insee, 1990

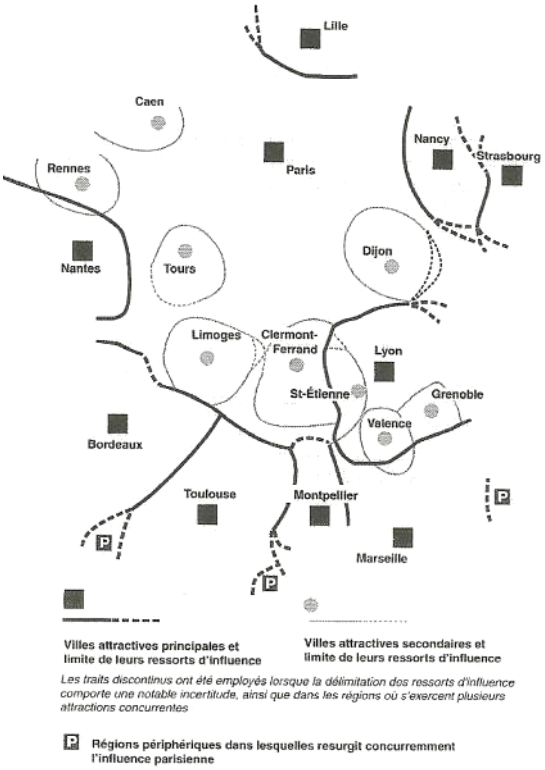


Figure: The balance metropolises and the regional influence

Source : Jean Hautreux, Les pricipales villes attractives et leur zone d'influence, direction de l'amenagement du territoire, Paris, 1962

In addition, with the amelioration of transport, the relation intensity among different regions evolved. According to the figures concerning the volume of transportation during the '30 glorious years', the polarization structure (Paris as the core) was still obvious. The strong relation remained to be concentrated in the eastern part of France and in the Paris basin, the kind of concentration was more significant for the motorway compared with the railway. And the trend continued after the '30 glorious years'. However, the relation intensity in some parts of France was strengthened during the '30 glorious years'. According to the freight volume of rail transportation in the 1980s, the relation between Paris and the metropolises in the south-east of France (e.g. Bordeaux and Toulouse), and the relation in the Mediterranean area became stronger.

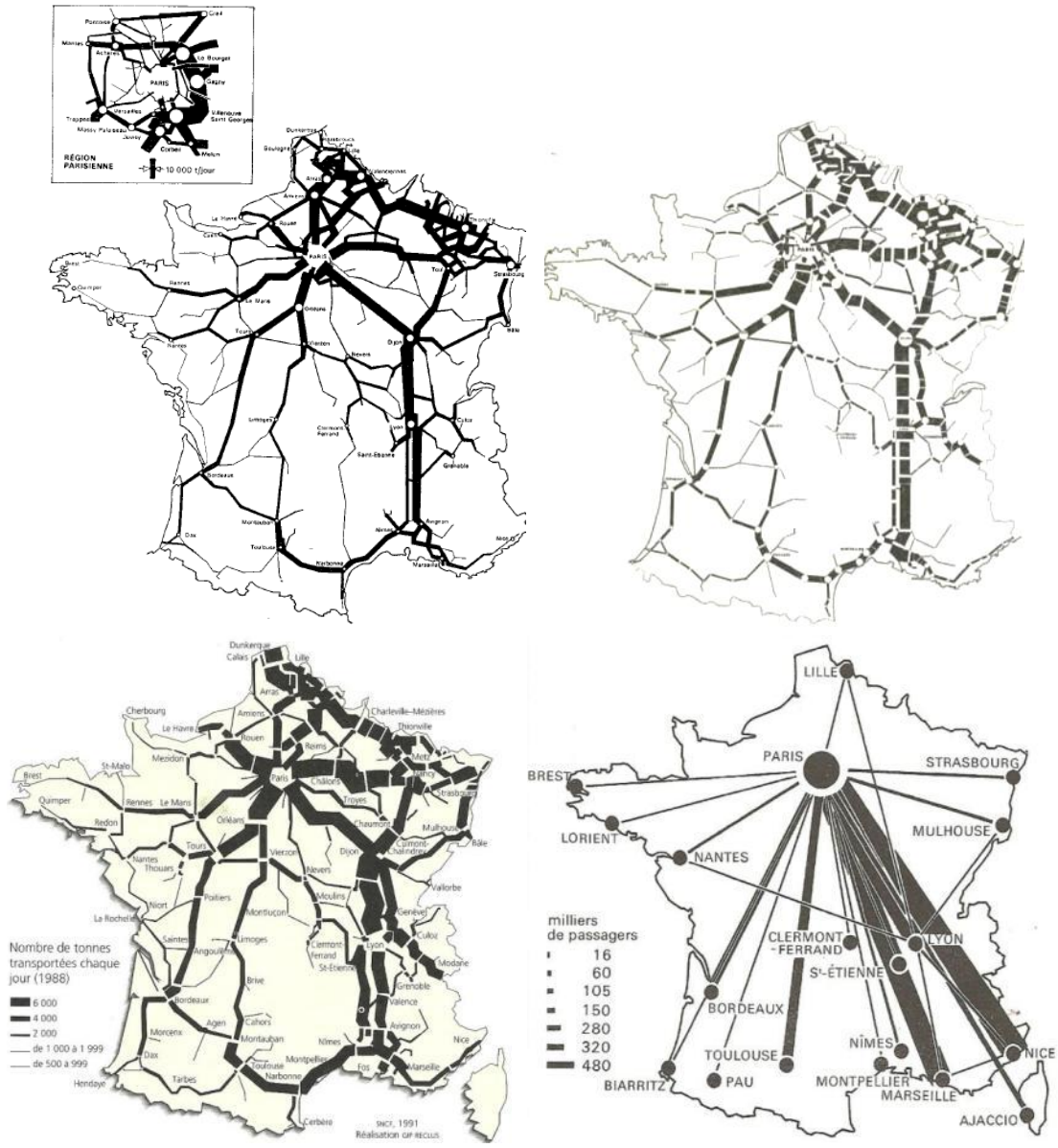


Figure : Railway passenger transport, 1963, Unit : 1000 tonnes

Source: le SDAURP, 1965

Figure: Freight transport of SNCF, 1976, Unit: 2000 tonnes

Source: SNCF

Figure : Railway freight transport, 1988

Source : SNCF, 1991, DATAR, Visages de la France, Paris : Reclus, la documentation Francaise, 1993, pp. 54

Figure: Internal aerial passenger transport, 1968

Source : Les collections de l'Insee, Statistiques et indicateurs des regions francaises, 1969, p.150

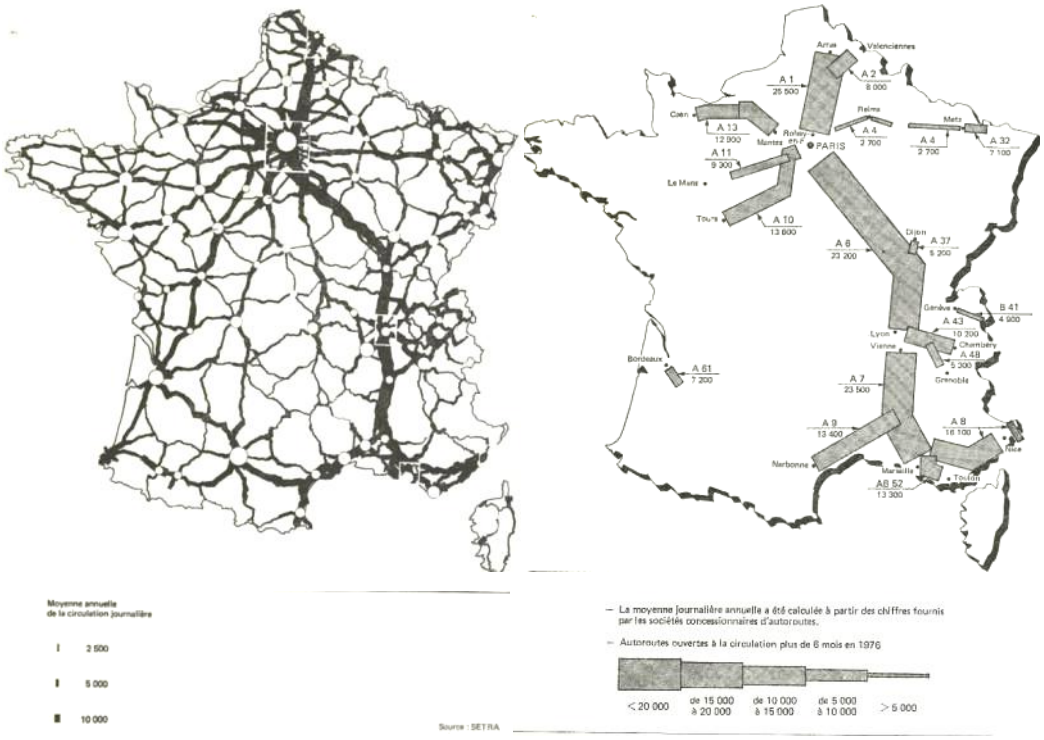
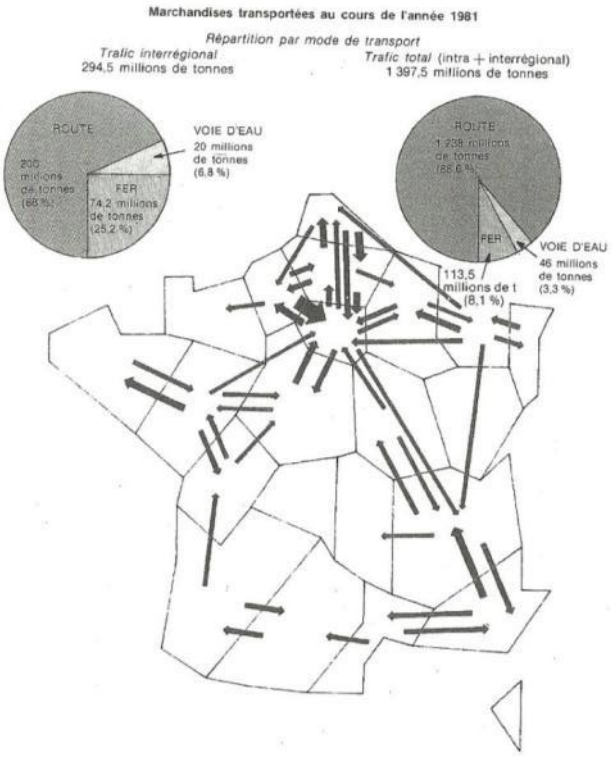


Figure: Road traffic, 1976

Source: SETRA

Figure : Railway traffic, 1976

Source : DATAR



Source: H. Andrieu, Altas des transporte de machandises (Tome 1: transports interregional par branche d'activité), la documentation française, Paris, 1984, pp.16

Besides, the employment relation in France could also reflect the kind of polarization structure. According to the figure below, the intensity and the scope of relation in the area around the Paris region was much stronger and wider than in the other parts of France.

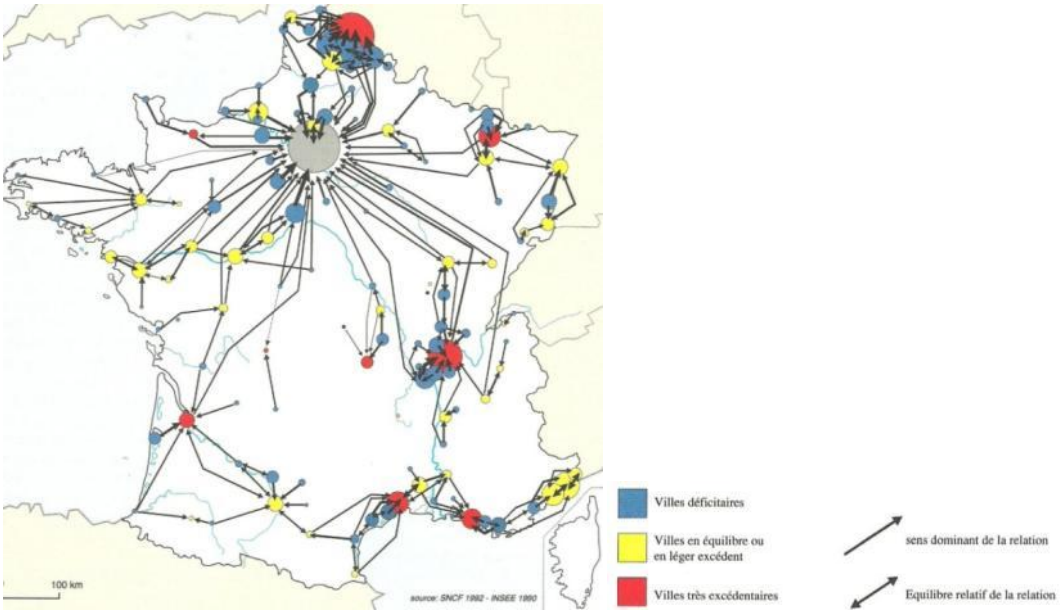


Figure : Cities and relation of work (direction of movements)

Source : Felix Damette, La France en villes, Paris : La documentation francaise, 1994, pp. 125

Furthermore, the core position of the Paris region still remained in many fields (i.e. urban population, the economic development and some fields mentioned above). According to the figure below, the proportion of the population in the Paris agglomeration was still much higher than in

the city of the second rank (in 1975). In addition, the proportion of the Paris region's GDP (PIB) and employment in France continued to increase during the '30 glorious years' and afterwards.

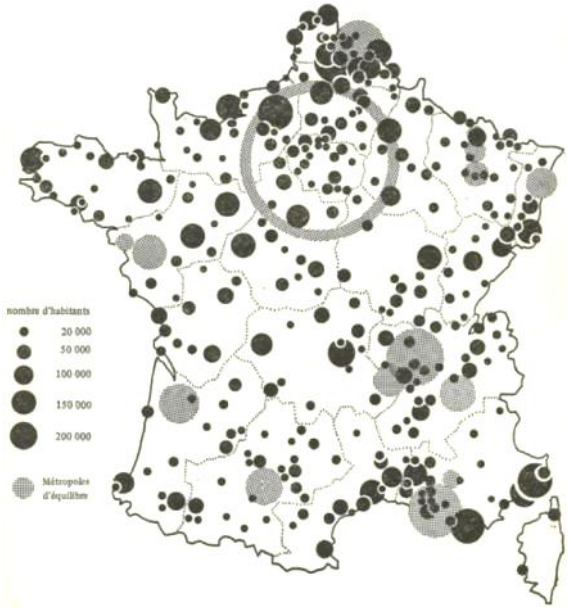


Figure: The agglomerations of above 20000 inhabitants, in the 1970s

Source : Insee et centre de recherche et d'urbanisme

Rank	Aires urbaines	Population		Proportion dans la population de la France urbaine (%)	
		1968	1975	1968	1975
1	Paris	8315275	8676266	23.07	22.22
2	Lyon	1130784	1220753	3.14	3.13
3	Marseille	1034100	1096713	2.87	2.81
4	Lille	891117	936240	2.47	2.40
5	Bordeaux	576665	621540	1.60	1.59
6	Toulouse	458180	526076	1.27	1.34
7	Nantes	405716	453500	1.13	1.16
8	Nice	392635	437566	1.09	1.12
10	Grenoble	332805	389088	0.92	1.00
12	Stasbourg	342189	365323	0.95	0.94
15	Saint-Etienne	332836	334846	0.95	0.94
16	Nancy	281433	305555	0.92	0.86
33	Metz	167502	182581	0.46	0.47

Source : Insee, recensement genegral de la population de 1982

UNITÉS URBAINES	NB D'HABITANTS EN MILLIERS	% DE LA POPULATION
Paris	8 707	16
Lyon	1 221	15,1
Marseille	1 111	
Lille	936	
Bordeaux	640	
Toulouse	541	
Nantes	465	
Nice	449	
Toulon	410	
Grenoble	392	
Rouen	380	
Strasbourg	373	
Valenciennes	350	
Lens	327	
Saint-Étienne	317	
Nancy	307	
Grasse-Cannes-Antibes	295	5,6
Tours	263	
Béthune	258	
Clermont-Ferrand	256	
Le Havre	255	
Rennes	234	
Montpellier	221	
Mulhouse	220	
Orléans	220	
Dijon	215	
Douai	202	
Brest	201	
Reims	200	
28 unités	de 200 à 100	7,1
171	de 100 à 20	13,4
1554	unités urbaines de moins de 20	16,1
31545	communes rurales	26,7
Total	54 334	100

Source : RGP 1982, villes et agglomerations urbaines, Insee

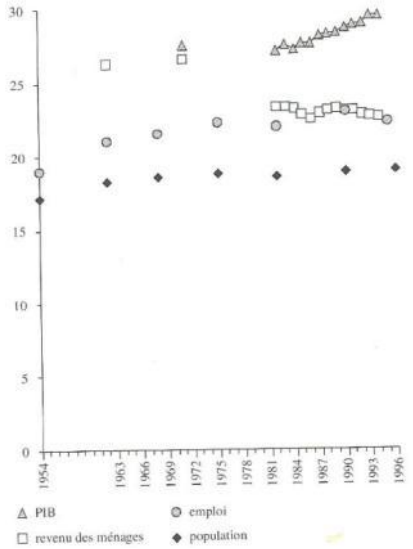


Table: Proportion of Ile-de-France in metropolitan France, 1954-1996

Source: Insee

Compared with the general structure of France, the structures of sub-'urban systems' were different: in the Paris basin, the polarization structure was obvious: the centre (Paris) linked some important metropolises around it (e.g. Orleans, Troyes, Reims, Amiens, Rouen, Caen, Le Mans and Tours); in the Nord-Pas-de-Calais and the Rhone-Alpes region, the polarization structure was significant; the structure of the east (e.g. Lorraine and Alsace) and the west (Bretagne) area expressed as a kind of 'multi-centres'; the south-west area was dominated by two metropolises (Toulouse and Bordeaux); the urban system in the Mediterranean area showed a linear structure (from Nice to Perpignan); the Central France was absorbed by the South-West and the Rhone-Alpes area in addition to two relatively weak regional capitals (Limoges and Clermont-Ferrand). The structures were based on the historical geographic situation and the development of some cities, which influenced the development model in the new era to a certain degree.

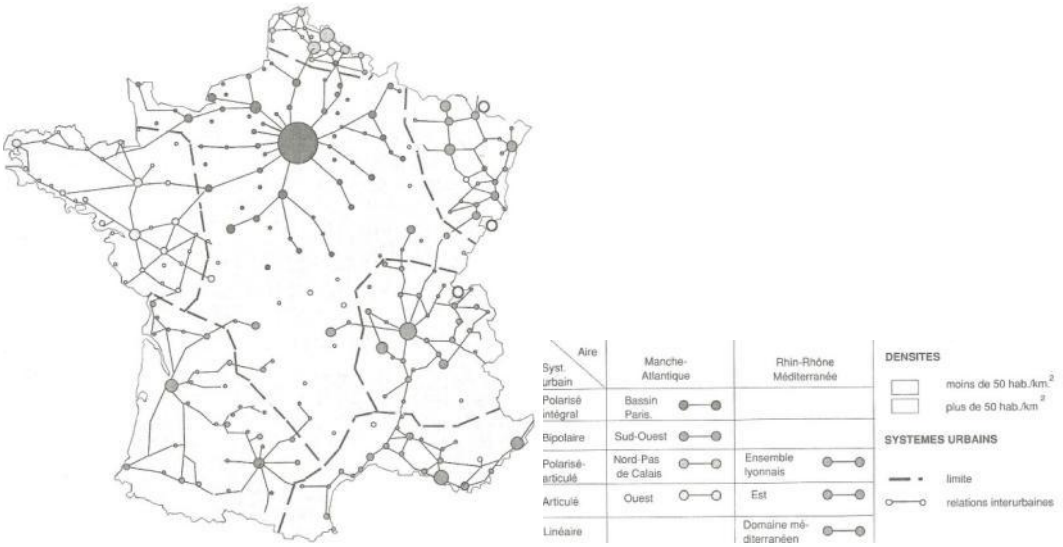


Figure: Regions and urban system

Source: Felix Damette and Jacques Scheibling, Le bassin parisien : System productif et organisation urbaine, Paris : La documentation francaise, 1992, pp. 32

Similar with the general structure of France, the polarization structure of urban system existed in some regions of France for a long time, especially in the central and in the southern areas. However, the degree of centralization in these regions was further strengthened in the new era. For example, the growth of population and the economic concentration was quite high in these capitals of regions compared with the other parts. The core city deprived the resources of the other cities to a certain degree.

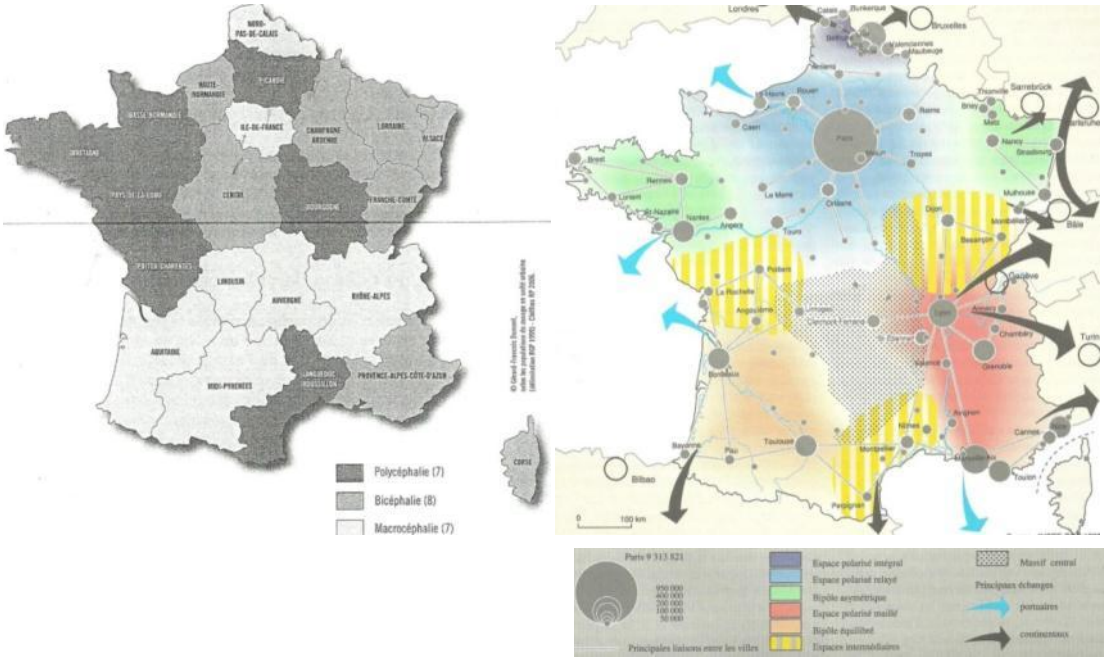


Figure: Urban system of France

Gerard-Francois Dumont, La France en villes, Paris: Editions Sedes/Cned, 2010, pp. 80

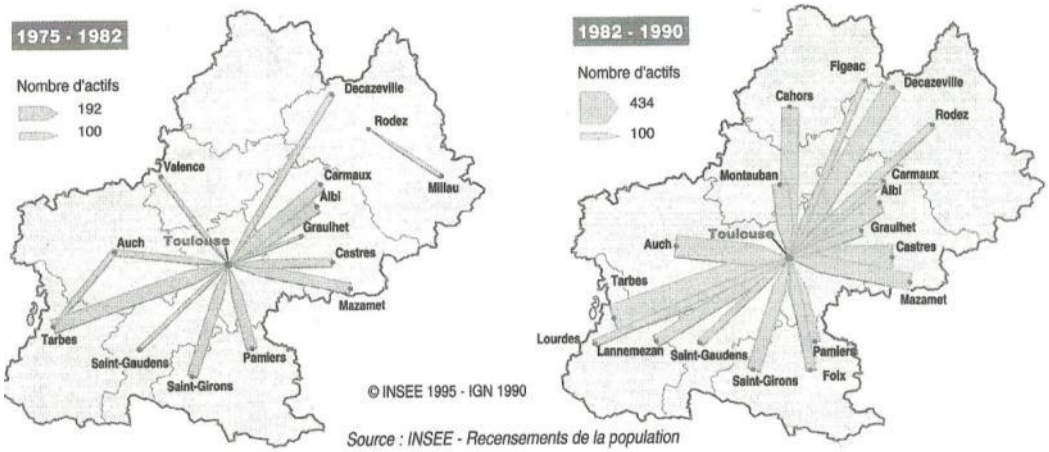
Figure : Polarized space, 1990

Source : Felix Damette, La France en villes, Paris : la documentation Francaise, 1994, pp. 251

We could take some regions as examples. According to the figure below (in the Midi-Pyrénées

region, traditional 'polarization' region), the net migration from the other cities to Toulouse (1982-1990) was even more significant than that in the period from 1975 to 1982. The position of Toulouse further promoted, and that of medium-sized and small cities declined at the same time.

Table: The net migration among cities of Midi-Pyrénées



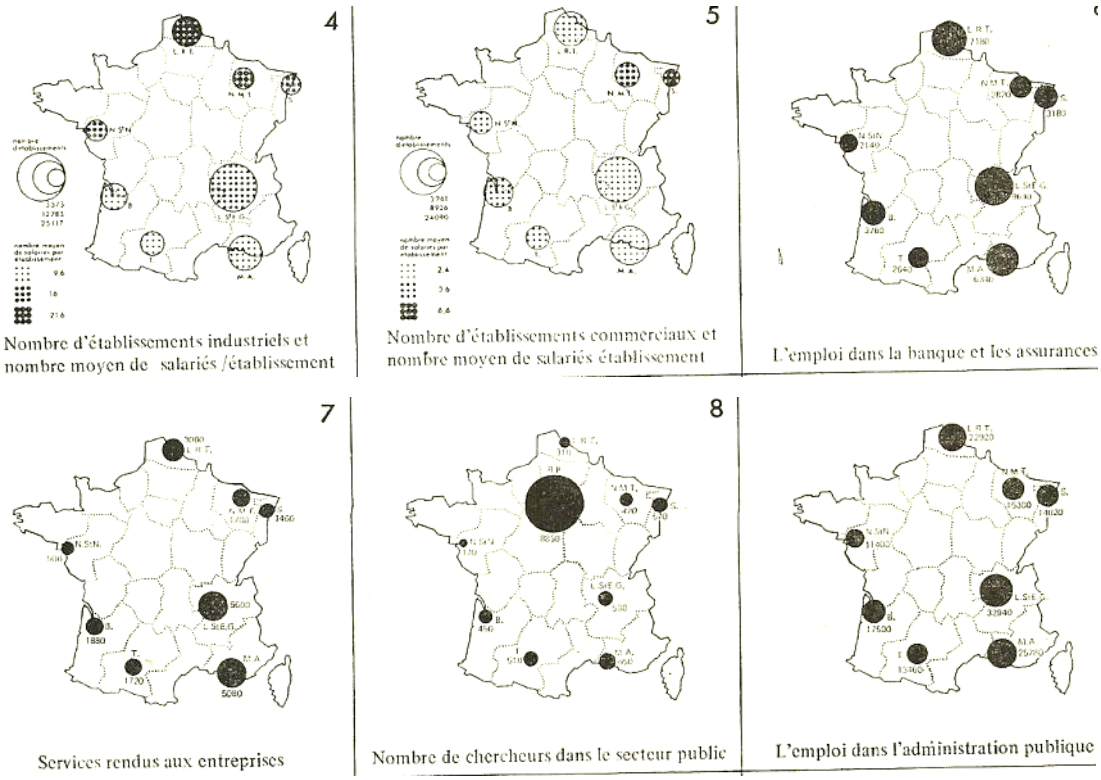
Source : INSEE - Recensements de la population

And in the Nord region, the position of its capital (Lille) was also strengthened, which accounted for more than 34% of employments in 1982. And the employments in some other cities declined from 1975 to 1982: Roubaix (-17%), Tourcoing (-10%) and Wattrelos (-6%)[190]. The result was partly due to the amelioration of transportation (TGV and new train station), the creation of new towns (Villeneuve d'Ascq, it became one techno-pole in the 1980s) etc.

8.2.2 The position of the balanced metropolis after the '30 glorious years'

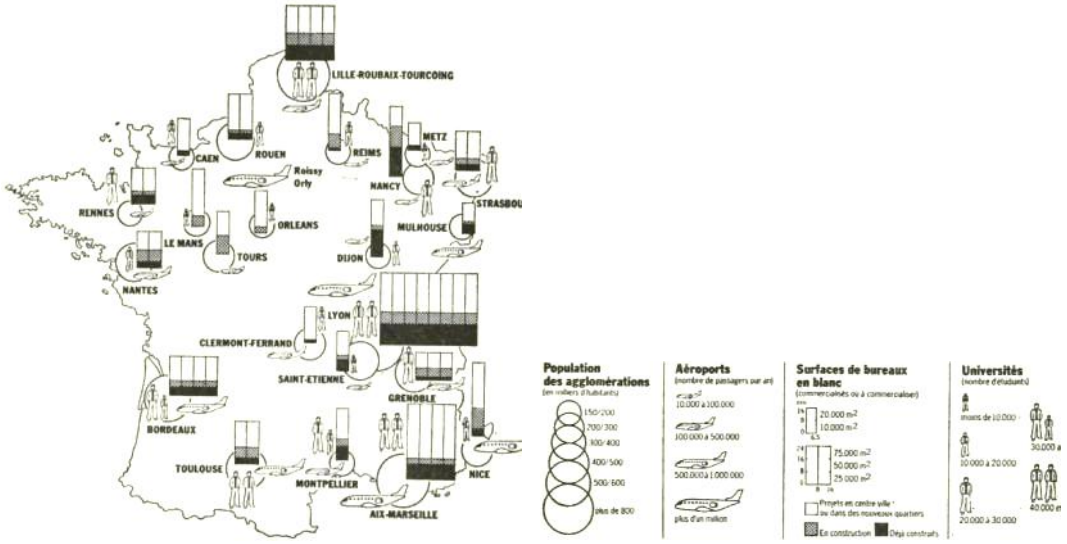
Benefit from the 'balanced metropolis' policy in the 1960s, these chosen cities gradually became important growth poles of regions. Some functional nodes (e.g. education, research) were created there, which balanced the powerful influence of the Paris region to some extent and improved the development of regional area. As shown in the figures below, these balance metropolises concentrated some high-level service, such as universities, banks, branches of ministry, research centre, specific commerce etc.

[190] Federico Cunat *et al.*, De la conurbation industrielle aux conflits de centralite : reflexions a propos de la metropole lilloise, DATAR, metropoles en desequilibre, Paris : Economica, 1993



Source : DATAR, Loi de Finances pour 1970

Figure: Major regional centres



Source: Association bureau province

As Michel Colot (1996) concluded some impact of the service de-concentration action[191]: several important educational nodes (like Lyon, Grenoble, Toulouse, Lille, Bordeaux and Montpellier) and some research nodes (such as Lyon for medical research, Grenoble for energy research and Toulouse for spatial research) were created, which were in the advanced position in France and even in Europe.

[191] Sous la direction de Francois Caron et Maurice Vaisse, L'amenagement du territoire 1958-1974, Paris : Editions L'Harmattan, 1996, pp. 91

In addition, the de-concentration action of research resources continued in the 1980s and afterwards. The 'Ile-de-France' region absorbed about 1/4 of students in 1995 compared with 1/3 of them in 1982. The number of CNRS researchers in the Paris region continued to decline, from 53% in 1989 to 46% in 1995[192]. Besides, the upgrading of employment structure (e.g. management staff, engineers) accompanied the development of these cities there.

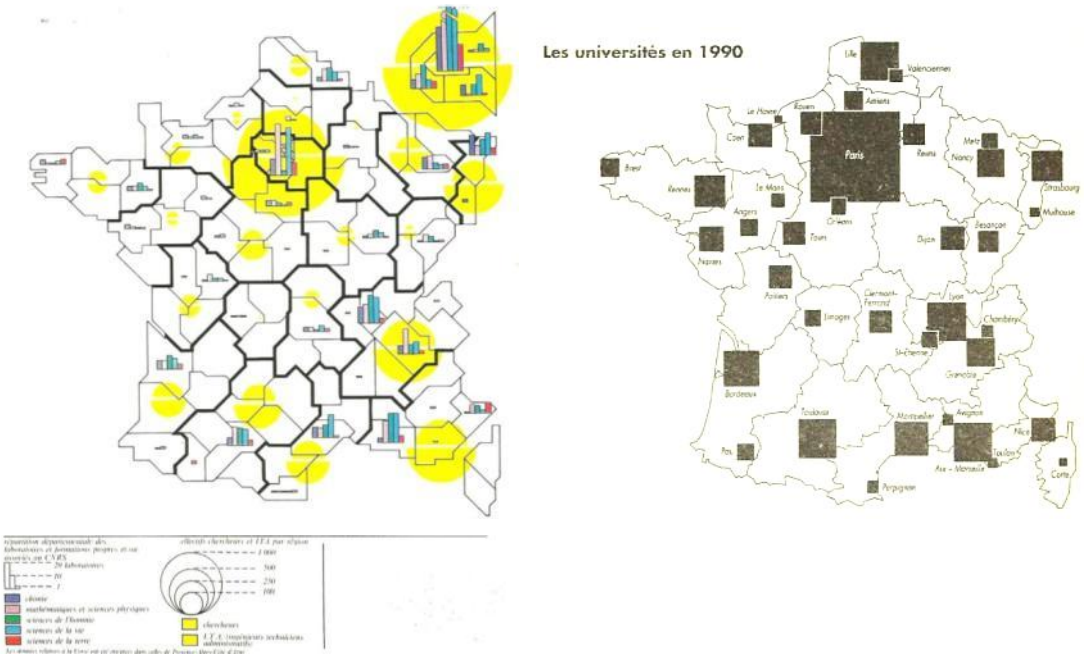


Figure: Laboratories and researcher of CNRS, 1982

Source : CNRS, Atlas de l'innovation, Anvar, 1982

Source : Jerome Monod and Philippe de Castelbajac, L'amenagement du territoire, Paris : Presses Universitaires de France, 1993

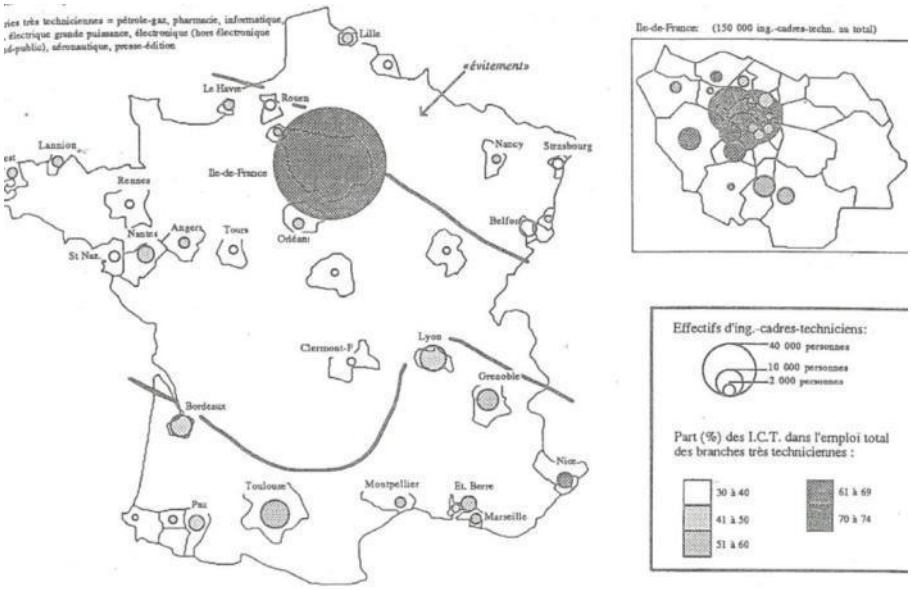
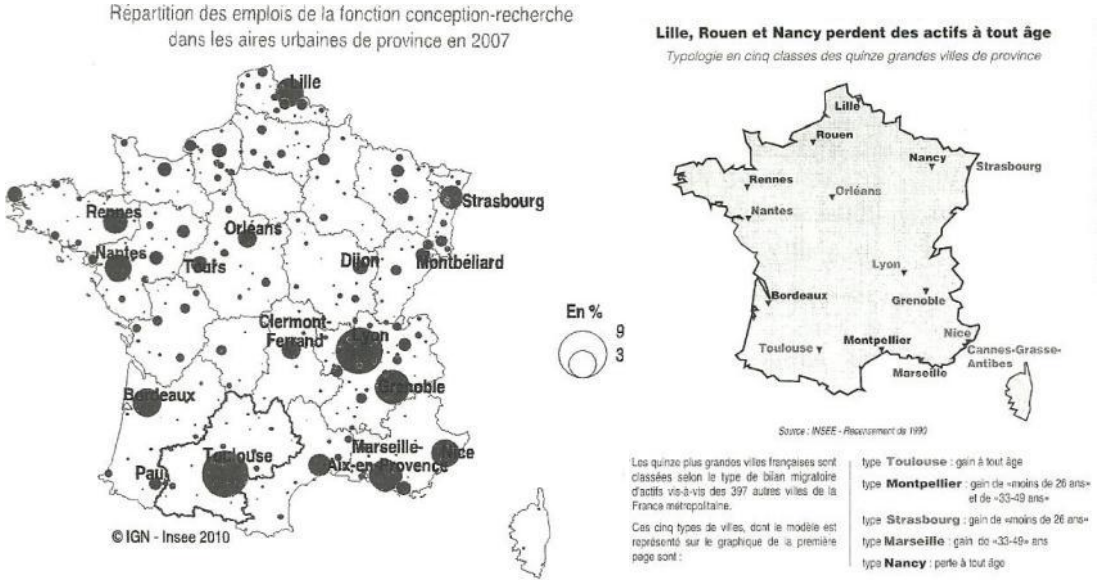


Figure: The engineers-technicians-managers in industrial branches

[192] DATAR, Pour une métropolisation raisonnée : Diagnostic socio-économique de l'Ile-de-France et du Bassin parisien, Paris : la documentation française, 1999, pp. 97

Source : UTH 2001, La metropole parisienne system productif et organisation de l'espace, 1990, pp. 25



Source : Insee-Recensement de la population 2007-Exploitation complementaire au lieu de travail

On the other hand, some other functions with local characteristics were created based on their own resources and the actions of de-concentration etc, such as: the bank and assurance function in Strasbourg, the public research function in Toulouse and Strasbourg, the management and commerce function in Lyon, the transport function in Marseille and the industrial production function in Lille and Lyon[193]. In the new era, the specialization of these French cities was further strengthened such as the international relation (Lyon, Marseille, Strasbourg and Nice), the development of space industry and research (Toulouse), the concentration of education and research (Montpellier), the port (Le Havre and Nantes) etc. These cities play a role of specialization function in face of the polarization of Paris to a certain degree.

Table: The hierarchy of French cities

Rank 1	Paris	International metropolis with world influence
Rank 2	Lyon, Marseille, Lille	European metropolis > 1 million d'habitants
Rank 3	Nice, Toulouse, Bordeaux, Nantes, Strasbourg, Grenoble	European metropolis 400000--1 million inhabitants
Rank 4	Rouen, Metz, Montpellier, Rennes, Orléans, Clermont-Ferrand, Dijon, Caen	Intermediated metropolis 200000--550000 million inhabitants
Rank 5	Toulon, Douai-lens, Nancy, Tours, Saint-Etienne, Bethune, Avignon, Le Havre, Mulhouse, Angers, Reims, Brest	200000--550000 million inhabitants

Source :Raymond Woessner, La France : aménagement les territoires, Edition SEDES, 2010, pp 31

Table: Position of some major French cities

[193] Philippe Julien, Specificites des grandes villes de province, Economie et statistique, N 294-295, 1996, 4/5, pp. 143

Rank	International	Communication	Economy	Research	Culture
1	Paris, Marseille	Paris, Marseille	Paris	Paris, Lyon, Grenoble, Toulouse, Montpellier	Paris, Lyon
2	Strasbourg, Lyon, Nice, Toulouse	Lyon, Nice, Strasbourg, Nantes	Lille, Marseille, Strasbourg	Lille, Rennes, Marseille, Nancy, Strasbourg	Strasbourg, Toulouse, Lille, Lyon, Montpellier, Grenoble, Marseille, Bordeaux, Rennes
3	Bordeaux, Nantes, Lille	Le Havre,Toulouse, Bordeaux, Lille, Montpellier	Bordeaux Nantes Toulouse Clermont Nice	Nice, Bordeaux, Metz, Nantes, Rouen	Nice, Nancy, Nantes

Source : Roger Brunet (dir.), Les villes europ éennes, la documentation fran çaise, Datar, 1989, pp 75

Table: Metropolitain indices

ZPIU	**Metropolitan weight (% of national total), 1984**			**Metropolitan weight (% of national total),1988**			**Indices metropol.(Total France=100)**	
	Industry	Service	Total	Industry	Service	Total	1984	1988
Paris	558.8	597.5	579.7	498.0	610.8	560.1	307	295
Lyon	38.9	38.7	38.8	36.7	37.7	37.3	138	132
Lille-Roubaix-Tourcoing	14.0	21.6	18.1	12.4	20.1	16.7	88	84
Marseille-Aix-Berre	18.5	19.4	19.0	12.8	19.0	16.2	66	57
Toulouse	23.0	14.6	18.5	25.2	18.6	21.5	155	167
Bordeaux	16.7	14.8	15.7	16.1	15.3	15.7	101	98
Strasbourg	8.7	15.3	12.3	8.9	15.6	12.6	109	112
Grenoble	21.1	10.0	15.1	21.2	12.9	16.6	164	173
Nice cote d'Azur	14.9	9.5	12.0	18.6	10.6	14.2	75	84
Nantes	11.4	9.9	10.6	8.4	11.3	10.0	103	96
Rouen	9.7	8.0	8.8	7.6	7.8	7.7	80	71
10 metropoles	176.9	162.0	168.8	168.0	168.9	168.5	104	102
Rest France	264.3	240.5	251.5	334.0	220.4	271.4	39	42
Total National	1000	1000	1000	1000	1000	1000	1000	1000

Source : Felix Damete, Metropoles en France : Dynamique des fonctions 1895-1990, 1993 (juin), pp. 62

Moreover, in the new era, the former objective of 'countering the influence of the Paris region' was gradually replaced by the thought of 'strengthening local competitiveness in the European scope'. More factors should be reconsidered to improve the competitiveness of metropolis. For example, Hall (1992) proposed that the emerging of a new geography of Europe ignores national frontiers. However, the most competitive cities are mainly located in the area of 'the blue banana' (an arc extending from London to Milan, including some important cities, i.e. Paris, Brussels, Amsterdam, Cologne, Frankfurt and Munich), which have more scale economies and access advantages compared with the cities in the periphery. Therefore, more divergence would be created as frontiers become more permeable to capital and labor, and the European market becomes more integrated (Keeble *et al.*, 1982; Peschel, 1990; Vickerman, 1992; W.F. Lever, 1993). As Jean-Pierre Paulet (2010) mentioned, the six important factors for metropolis are: location, economic structure, social structure, culture, environment quality and urban policy. [194]

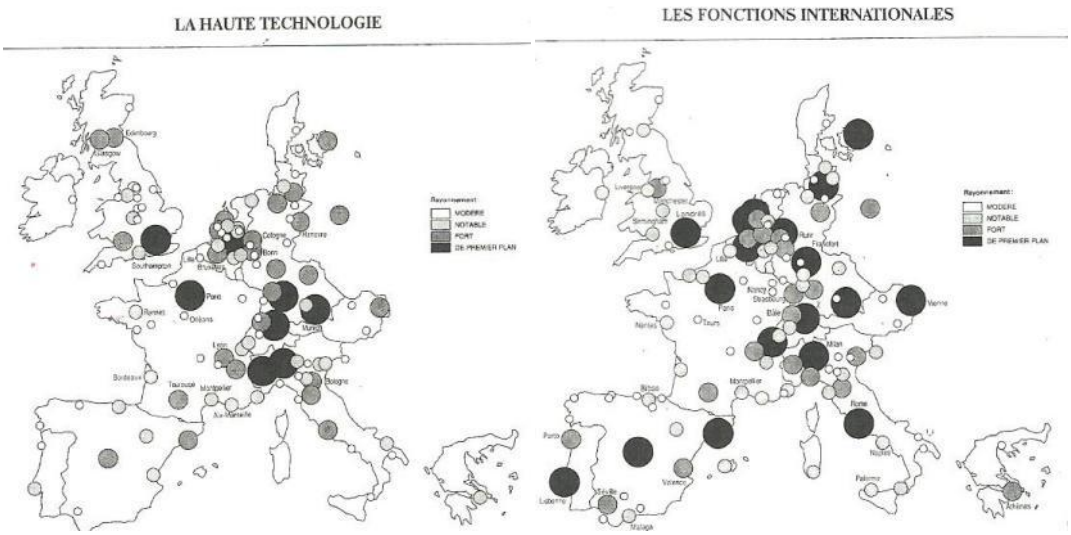
In fact, according to a report of DATAR in 1989, the competitiveness of these French cities was not that strong compared with the other cities in Europe: the No. 2 city in France (Lyon) just ranked 21[e], far behind many European cities, such as Manchester, Hamburg, Rotterdam and Zurich. In addition, on the basis of European city ranking by Cheshire (1986)[195], almost half of the top 30 cities belonged to Germany and most of the others were concentrated in the area of 'blue banana[196]', expressing as a 'core-edge' structure in Europe. Among them, only six French cities (Strasbourg, Nice, Dijon, Lyons, Mulhouse, and Orleans) belonged to the group of top 30 cities in addition to Paris.

Table: The general rank of French cities in Europe

Rank 1	Paris
Rank 2	None
Rank 3	None
Rank 4	Lyon
Rank 5	Marseille, Strasbourg, Toulouse
Rank 6	Lille, Nice, Grenoble, Bordeaux, Montpellier, Nantes, Rennes

Source : Roger Brunet (dir.), Les villes europeennes, la documentation francaise, Datar, 1989, pp 16
Note: By 7 indexes: international relation, communication, economic power, research and technology.

[194] Jean-Pierre Paulet, La France villes et systems urbains, Paris : Armand Colin, 2010, pp. 202
[195] Involving some economic variables (1971-1988)
[196] It is a discontinuous corridor of urbanization in Western Europe, with a population of around 110 million. It stretches approximately from North West England in the north to Milan in the south (Wikipedia).



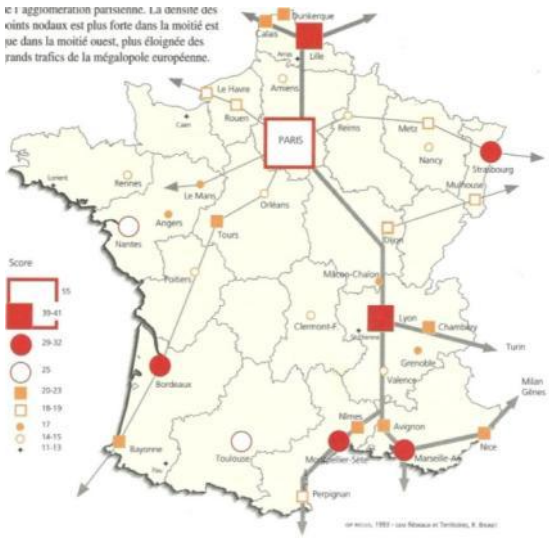
Source: GIP, Reclus, DATAR

Table: The 10 first agglomerations of Germany and France, unit: thousand inhabitants

Allemagne	**1990**	**France**	**1990**
Rhin/Ruhr-centre	4598	Paris	9319
Berlin	3624	Lyon	1262
Rhin/Ruhr-Wupper	2461	Marseille	1231
Rhin/Ruhr-Cologne	2147	Lille	959
Hambourg	2051	Bordeaux	696
Munich	1594	Toulouse	650
Francfort	1355	Nice	517
Stuttgart	1138	Nantes	496
Dresde	768	Toulon	438
Breme	736	Grenoble	405
Total	20472	Total	15973
En % de la pop. du pays	26%	En % de la pop. du pays	28%
Dont agglo.principale	6%	Dont agglo.principale	16%

Source: J-C. Boyer, Insee

However, the function of specialization and localization were emphasized in the new era. As Pierre Merlin (2007) mentioned the first three metropolises (Lyon, Marseille and Lille) could compete with other European metropolises to some extent: Lyon as the second economic metropolis in France, Marseille as the capital of the Mediterranean area, Lille as the important industrial metropolis (European logistics benefit from the transport network, active construction policy of high-level equipment, a regional marketing with local characteristics, function with international level, culture and gastronomy etc, Julien, 2002). In addition, Strasbourg and Toulouse are competitive due to their specialized function (European affairs for Strasbourg, aerospace for Toulouse).



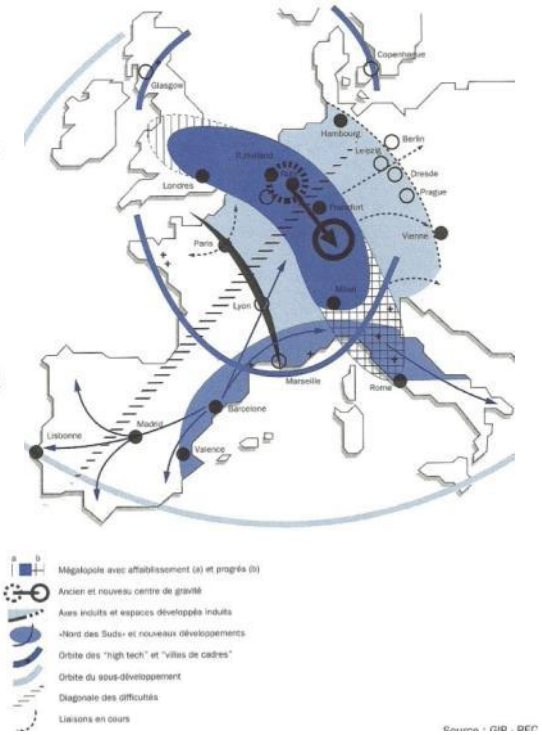


Figure: Nodal points **Figure: The underlying Europe: structure and dynamics**

Source : R.Brunet, Reseaux et Territoire Source: GIP, RECLUS

Besides, except for Paris, the function of these big cities and areas near the frontier became more important than before, such as Lille (France and Belgium), Strasbourg (France and Germany), Lyon (France and Swiss), Toulouse (France and Spain), which linked the countries nearby more closely, and participated in the international competition and cooperation. However, the cross-frontier relations depend on the distance from the major economic core in Europe and the convenient transportation to a certain degree. Take Toulouse as an example: although it is near the frontier of France and Spain, it is far away from the decision core of Europe (the famous 'blue banana' proposed by Roger Brunet) and the limitation of transportation (no TGV link) prevented its economic connection. On the other hand, the relations of some cities (Lille, Lyon, and Strasbourg) with the other countries were strengthened, due to the amelioration of transport, the connection with the decision core etc.

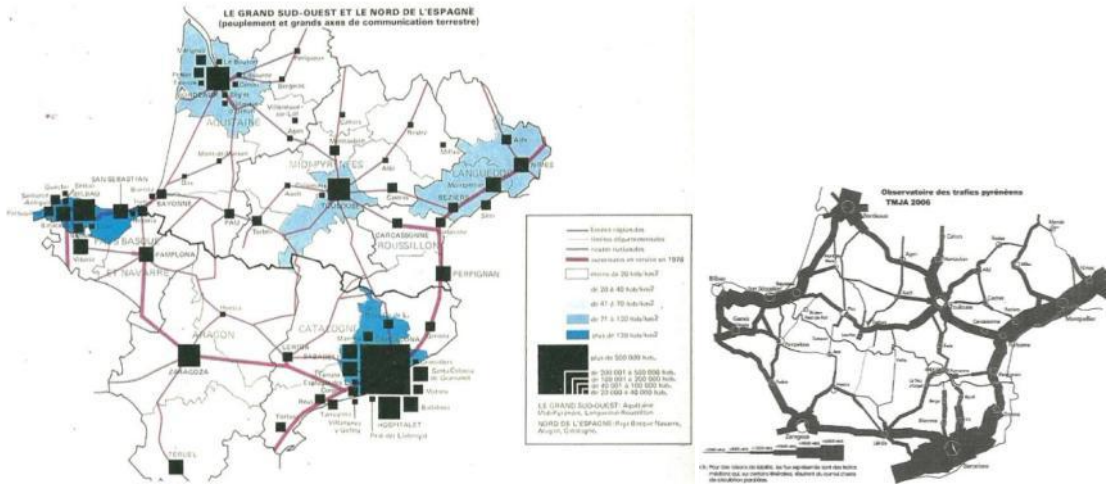
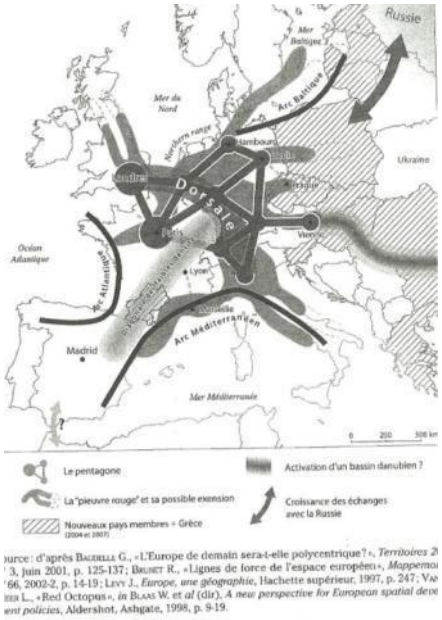


Figure: The South-East of France and the North of Spain, 1979

Source : Travaux et recherches de prospective, Schema general d'amenagement de la France, le grand sud-ouest : diagnostics pour l'avenir, Paris : La documentation francaise, 1979

Figure : Traffic around and through the Pyrenees

Source : Observatoire des trafics Midi-Pyrenees, 2008



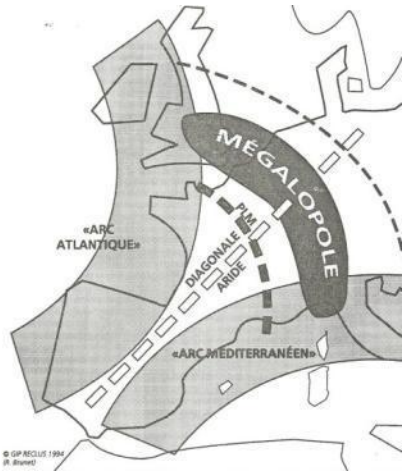
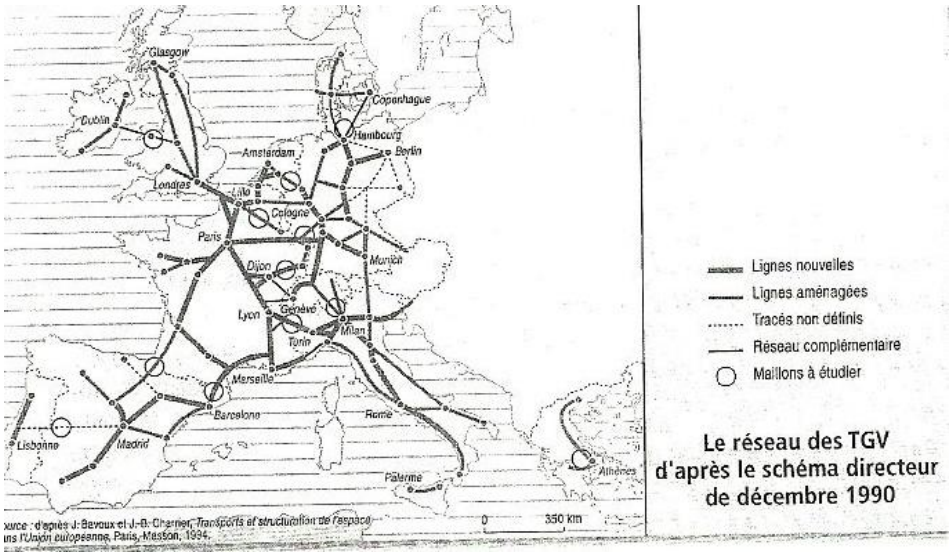


Figure : The major lines of the European territory

Figure : The structure of Western Europe

Source : GIP, RECLUS, 1994



Source : J.Bavoux and J.B.Charrier, Transports et structuration de l'espace dans l'union europeenne, Paris-Masson, 1994

Moreover, in the new era, the competitions among different agglomeration areas (rather than single city) become more important. In contrary to the 'concentration' development, more demand of regional cooperation emerged in the new era since the 1990s, for example, the Lyon area (Lyon-Saint-Etienne for the research function; Annecy-Chambery-Grenoble for the Alps service),

the Loire-Bretagne metropolitan area (Rennes, Lannion and Brest for TIC; Vannes, Nantes and Angers for the bio-technology; St-Brieux, Rennes and Laval for the food industry; Brest and Quimper for the food security) , Clermont-Auvergne Metropolis etc.

Figure: The metropolitan cooperation

Source: DATAR

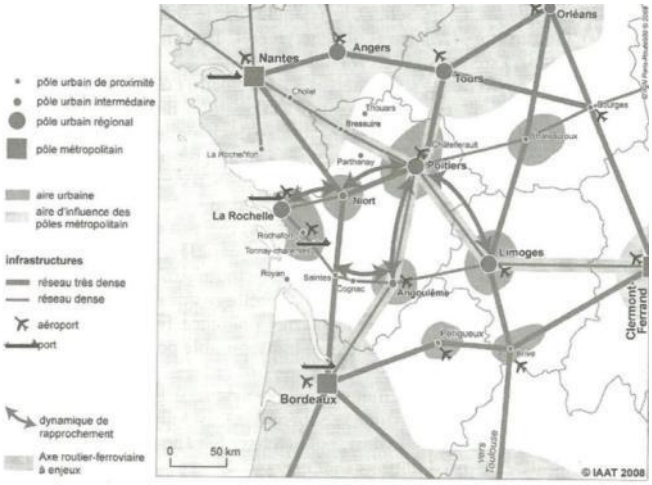


Figure : The strategy of West Atlantic

Source: DATAR

Case: The Midi-Pyrenees Region

■ Balanced metropolis policy

In 1964, on the basis of some factors such as the urban population, the influencing scope and the development of industry, La DATAR chose the 8 balance metropolises (métropoles d'equilibre) for balancing the impact of the Paris region. Besides, compared with the 'top-down' implementation in the previous phase, the local government began to have more initiatives, i.e. the

regional planning about urban agglomeration area was prepared and implemented at the local level.

For Toulouse, this kind of policy played some stimulating roles in the three major aspects (as follows)[197]: 1. the aspect of education and research: to gather the research resources on aeronautics and aerospace, such as Centre d'études et de recherches aéronautiques, two engineer schools (l'ENAC (Ecole nationale de l'aviation civile), Sup Aero (Ecole national supérieure de l'aéronautique)), and CNES (Centre national d'études spatiales); 2. the aspect of space lay-out: the construction of new district including residential area and industrial area (such as la ZUP du Mirail, including the industrial-university zone, now become a 'technopole'), the renovation of the city centre, the construction of internal (connecting lines with industrial area, new city etc) and external (connecting lines with Paris, the Méditerranée area etc) road; 3. the aspect of economy: to strengthen the development of the light machinery (mécanique légère) and the electrical/electronics industry (the number of employments created by the priority industries (1975-1977) is shown in the table below), to restructure the chemistry industry, to develop the food industry and to develop some new activities, such as the electronics-information in Toulouse and Bordeaux (Dumas, 1985).

In addition, the main measures carried out during the process were: the financial preferential condition for the industrial zone and the development grant at the national level (la prime de développement industriel aux entreprises nouvelles qui s'installent sur le territoire de la Commune, based on 21/05/1964 act).

And the content could be summarized into two major parts: to promote the industrial upgrading combined with the education and research resources; to create the new spaces for development while improving the living condition in cities. These actions laid the foundation for the development of Toulouse in the new era.

Table : The domestic industry and the labor

Filiated aeronautical and aerospace industry **Major establishments/number of employments**	
Toulouse and Midi-Pyrenees	**Employment**
SNIAS in Toulouse	7200
Dassault in Toulouse	1700
Ratier Forest in Figeac	1100
CEAT a Toulouse	1100
Air France in Toulouse	830
Latecoere in Toulouse	900
Filiated: oil, gas and chemical industry **Major establishments/number of employments**	
Toulouse and Midi-Pyrenees	**Employment**
APC Toulouse	2000
Filliated : elecricity, electronic	

[197] Toulouse, métropole d'équilibre, métropoles d'équilibre et aires métropolitaines, la documentation français

Major establishments/number of employments	
Toulouse et Midi-Pyrenees	**Employment**
CII in Toulouse	1600
Motorola in Toulouse	2000

Source : Zones industrielles de France n15, 16, 17 (1975-1977) CONATEF

It can be said that: the effect of the policy mainly emerged after the '30 glorious years'. Except for the industrial transformation and the urban construction, the influence of 'research and education' concentration was obvious, and lasted for a long time.

Benefit from the de-concentration action of university and research institution, Toulouse became the second largest University City in France (just behind Paris), and the most important node of research and training on aerospace. According to the table below, the number of students (esp. in engineer school and research institution) increased significantly after the implementation of the policy. The transfer of research institution from Paris to Toulouse began in the 1960s and continued until the 1990s.

Table: Evolution of effective students in Toulouse, 1962—1970

Annees	**1962**	**1965**	**1970**
Law	1670	2564	7688
Medicine	1757	2296	7446
Science	6217	8831	7919
Litteratuce	4040	6771	12059
Engineer school/research institution	230	2000	6700
Total	13914	22462	41812

Source : rectorat de l'academie de Toulouse in Ch. Beringuier, A.Boudou, G.Jalabert, Toulouse-Midi-Pyrenees, la transition, Stock, Paris, 1973

Table: The de-concentration of Paris' activities in agglomeration of Toulouse

Etablissement	**Sector**	**Beginning period**	**Location**	**Effective 1994**
CNES	Espace	1960	Toulouse SE	2200 (avec filiales)
ENSA plus CERT	Aérospatiale Ens. Rech.	1960	Toulouse SE	600
ENAC	Aviation Ens.Form	1960	Toulouse SE	500
INRA	Rech.Agron	1970	Auzeville SE	400
Centre Calcul des Douanes	Administrat.	1970	Auzeville SE	80
Centre Gest.des Douanes	Administrat.	1970	Toul. Mirail	180
DT télécom	Serv. Tech.	1970	Blagnac Ouest	600
Météorologie	Adm.Rech.Ens.	1980	Toul. Mirail	800
Air Inter	Administr.	1990	Toul. Mirail	550
Air France	Gestion	1990	Toul. Mirail	375
Dir. Navig.	Serv. Tech.	1990	Toul. Mirail	450

Aerienne				
CNRS	Gestion Rech.	1990	Toulouse SE	200
SCESS	Agric. Rech.	1990	Auzeville SE	130
France Télécom	Administ.	Prévu	Toulouse	(300)

Source : Guy Jalabert, Toulouse : métropole incomplète, Ed. ECONOMICA, 1995

Furthermore, in the 1970s the overall industrial structure of France faced a complete adjustment. The beneficiary regions in the previous period met the problems of the decline in the traditional industry. For example, in the north-eastern region (e.g. Nord-Pas-de-Calais, Lorraine), the traditional pillar industries (e.g. coal, metallurgy and textile) faced the competition of some new-emerging industry, and the industrial employment continued to decrease since the 1960s. In the context, the significance of education and research for further economic development appeared. At the time, Toulouse gradually became the growth pole in France with the gathering of education/research and industry. In the 1980s, its industry was more dependent on the development of 'techno-poles', which made it became the growth-node in France (even Europe wide). In the field of aeronautics, the production companies (and its affiliated company) related well to the schools and research centers. For example, the companies (Matra-Espace) combined technology and industry, which involved some other local and foreign companies. This kind of coordination could also be found in Matra & Cnes, and the program of Airbus.

The difference of the population migration before and after the implementation of policy could also reflect the evolution. Some studies show that: from 1954 to 1962, the categories of migration into Toulouse included[198]: the migration from rural area; the migration from small cities in the region; the migration from the other parts of France; the migration of students; the migration of overseas provinces (Outer-mer) and North Africa (Afrique du Nord). During the period, the migration into Toulouse was mainly from the settlements with a population of 2000—50000 inhabitants and the Paris region; and most of them aged 21—44 years old. Among them, workers (mainly skilled workers and construction workers) and staff accounted for the major part of employment. The characteristics of employment reflected its development phase: the process of rural-to-urban urbanization continued; the purposes of migration were mainly for industrial or construction jobs. The situation was also expressed by the sample of the survey in 1958(sondage)[199]: among the migration into Toulouse, 30% of them were low skilled workers (Manœuvres), 46% were construction workers (bâtiment et divers). And for the out-flow population, 56% of them belonged to the youth group aged less than 40 years old; students and workers (39%) accounted for a main part. In addition, although Toulouse became one of the 4 major cities for repatriates from Algeria (Marseille, Nice, Toulouse, Montpelier) in 1962, the number of repatriates was relatively less than the cities around the Mediterranean Sea.

Table : Distribution of active migrants by socio-professional category

[198] Secrétariat général du gouvernement, les grandes villes françaises Toulouse, La documentation française, 10/02/1966, N° 3262

[199] fichier électoral de Toulouse, 1954 à1959

Occupation	Proportion of total migration (1)(%)	Proportion of Toulouse's employment (2)(%)
Private service	10	6.9
Worker	45	36.3
Employee	22	19.3
Middle manager	19	12.6
Liberal professions and senior manager	4	7.0

(1) Sondage sur les fiches S.S de changements de lieu de travail en 1958

(2) D'après le recensement de 1962

From 1968 to 1975, the attractiveness of Toulouse became stronger: 35% of migrants in the Midi-Pyrenees region which were in the other regions in 1968 were localized in the agglomeration area of Toulouse in 1975[200]. The polarization position of Toulouse was strengthened, which was illustrated in the situation of migration between Toulouse and other parts of the region.

Table : The migrants from agglomeration of Toulouse, Inter-regional migration

Residence in 1968	Residence in 1975			
	Toulouse		Rest of Midi-Pyrenees	
	Numbre	%	Numbre	%
Ile-de-France	17230	25.9	35875	27.3
--Paris	5395	8.1	13965	9.8
Aquitaine	11850	17.8	22025	16.8
Languedoc-Roussillon	9590	14.4	15895	12.1
Provence-cote d'Azur	4065	6.1	7845	6.0
Rhone-Alpes	3345	5.0	6425	4.9
Other regions	20355	30.8	43190	32.9
Total	66435	100.0	131255	100.0

Source : Robert Marconis, Migrations definitives et migration de travail dans l'agglomeration de Toulouse et ses abords, Revue geographique des Pyrenees et du Sud-Ouset, Tome 53, Fasc. 1, 1982, pp. 82

Table : Migrations between agglomeration of Toulouse and the Region Midi-Pyrenees

	Immigration	Emigration	Net
Haute-Garonne (excl. Toulouse)	15980	29675	+13695
--rural commun	10145	22720	+12575
Other departements			
Ariege	4400	3160	-1240
Aveyron	3180	1325	-1855
Gers	4830	2095	-2735
Lot	2325	1405	-920
Hautes-Pyrenees	3365	1770	-1595

[200] Robert Marconis, Migrations definitives et migration de travail dans l'agglomeration de Toulouse et ses abords, Revue geographique des Pyrenees et du Sud-Ouset, Tome 53, Fasc. 1, 1982, pp. 81

Tarn	7000	3960	-3040
Tarn-et-Garonne	5220	3040	-2180

Source : Robert Marconis, Migrations definitives et migration de travail dans l'agglomeration de Toulouse et ses abords, Revue geographique des Pyrenees et du Sud-Ouset, Tome 53, Fasc. 1, 1982, pp. 87

However, during the period, the types of migrants were different from the previous phase: Toulouse was attractive for the population with an age of between 15 and 34 years old in the same region, but the trend was negative for the other population, partly due to the process of peri-urbanization. But Toulouse still absorbed the population (except for population with an age between 25 and 34 years old, maybe because of searching for jobs) from other French regions.

Table : Migrations by groupes of age

Ages in 1975	**Migrations between Toulouse and others**	
	Rest of Midi-Pyrenees	Other French regions
0-14 years	-2816	+3235
15-24 years	+11000	+8360
25-34 years	+790	-565
35-64 years	-6385	+4535
More than 65 years	-2720	+300

Source : Robert Marconis, Migrations definitives et migration de travail dans l'agglomeration de Toulouse et ses abords, Revue geographique des Pyrenees et du Sud-Ouset, Tome 53, Fasc. 1, 1982, pp. 89

After the '30 glorious years', the migration into Toulouse changed significantly. According to the following table, after 1975 (esp. from 1982 to 1990), migration into Toulouse came from more parts of France, and among them the intermediate professionals (prof.int) accounted for the majority. At the time, the process of the rural-to-urban urbanization had gradually entered into the end. The categories of migration mainly concentrated in the services sector, and the occupation level was advanced than the previous period. Toulouse gradually evolved from a regional economic centre into one of the national centers with its typical characteristic. Toulouse now has 3 major attractiveness: an image of better living in the south-west (e.g. the agreeable climate, the living environment, the short distance from the mountain and sea etc); the dynamic environment (society, economy and culture); and the increase of employment (esp. in some private sector)[201]. In the 1990s, Toulouse became the most attractive city for the young population (18-24 years old), and 71% of new migrants were less than 40 years old[202].

Figure: Net flow of actives in Midi-Pyrénées (min. 150 actifs)

[201] Toulouse, Guides Bleus, Hachette Livre, 2006, pp. 11

[202] Insee (Midi-Pyrenees), Migrations residentielles: Midi-Pyrenees attire d'abord les jeunes, Nomero 119: Juillet, 2009

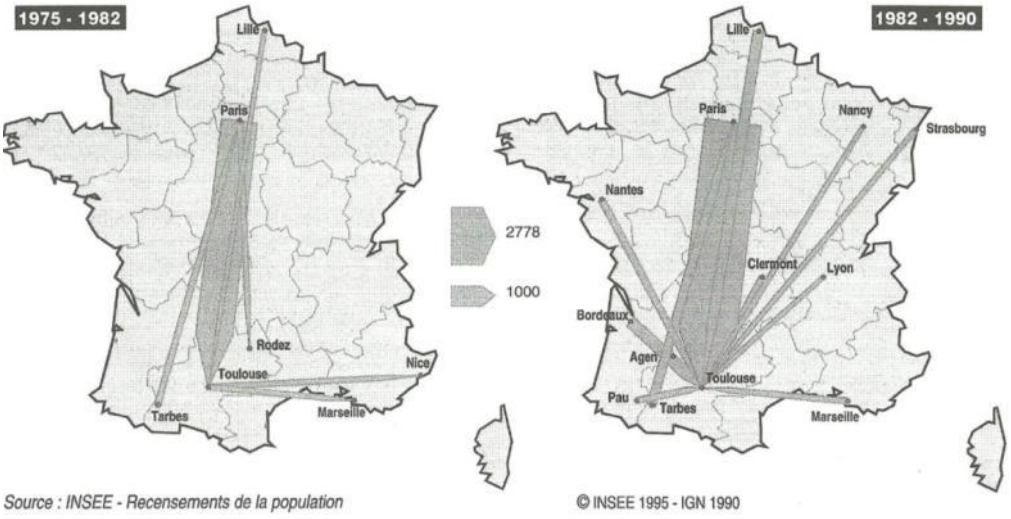
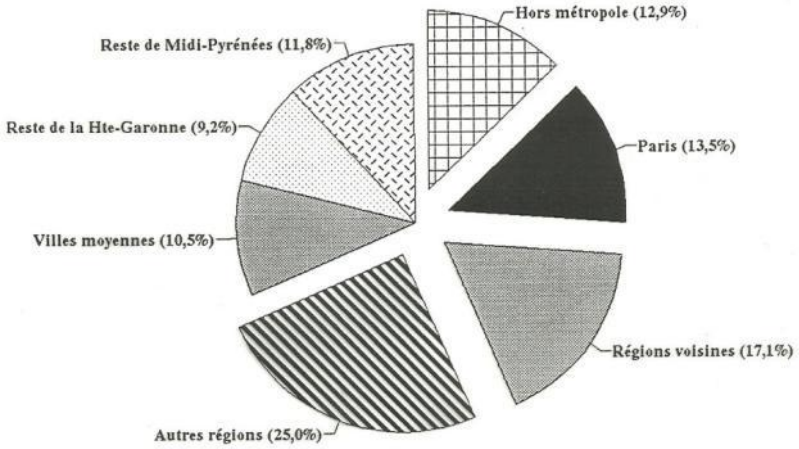
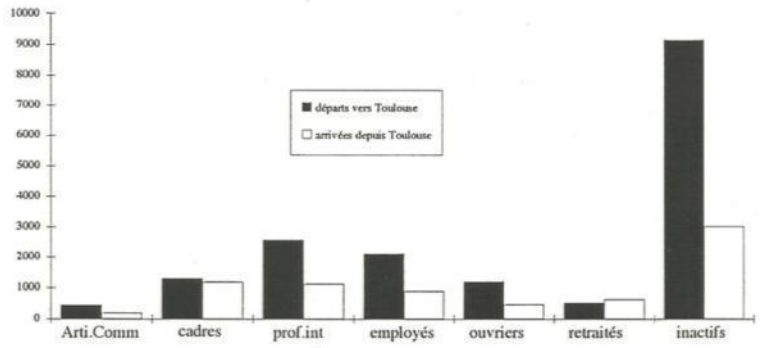


Figure: The orgines of migrants in Toulouse, 1982—1990



Source: L'Insee

Figure: Migration by professional category



Source: L'INSEE

Figure: Evolution of the proportion of certain professions in ZPIU of Toulouse and Midi-Pyrénées(survey ESE), %

	1968		1985	
	ZPIU	Other Area	ZPIU	Other Area
Engineer	3.4	1.4	9.9	3.1
Technicien	10.4	4.0	14.6	4.0

Senior and liberal adminstrative manager	3.5	2.2	5.4	3.3
Average administrative manager	4.4	3.1	8.3	4.8

Source : Danielle Galiano : stratégies spatiales de groupes et systèmes productifs locaux, thèse université des Science Sociale

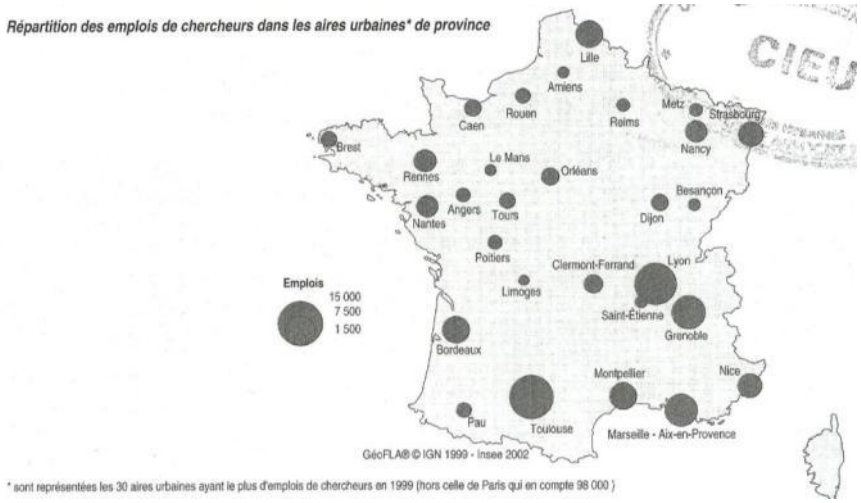
Table : Migration between ZPIU of Toulouse and the 34 cities of more than 5000 inhabitans in Midi-Pyrénées, 1975-1982

Age	Into ZPIU	From ZPIU	Net migration
Less than 20 years	4188	3176	1012
20-34 years	9892	3892	6000
35-59 years	2292	1832	460
More than 60 years	720	804	-84
Total	17096	9704	7392

Source : SGAR

In addition, compared with the other areas of the region, Toulouse became the gathering area of the high-level talent in the new era. In France, the proportion of senior management and technical staff in the Midi-Pyrénées region (mainly concentrated in Toulouse) was relatively high. On the basis of the data of l'insee 'French cities' strategic employment (emplois stratégiques, emplois de fonction urbaine à haut qualification induisant la création d'autre emplois)', Toulouse ranked 4th (accounting for 11.7%), which was just behind Paris (15.23%), Grenoble (11.32%) and Montpellier (11.21%). In addition, the proportion of both the research employment and the research-industry employment ranked 3rd in 1990 among the total French agglomerations[203]. The kind of concentration trend continued afterwards.

Figure: Distribution of researcher in urban area of province



Source: Insee, recensement de la population 1999

[203] Insee, RGP

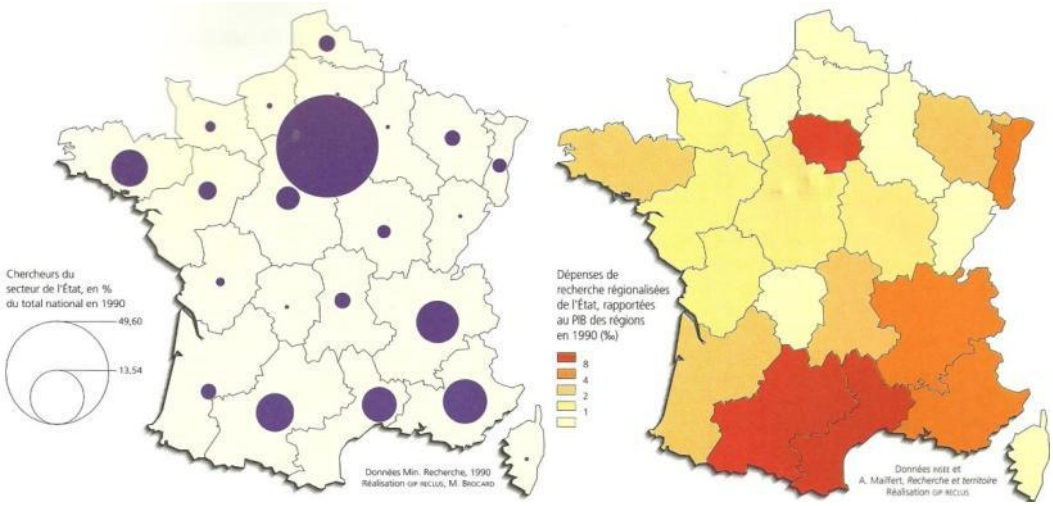
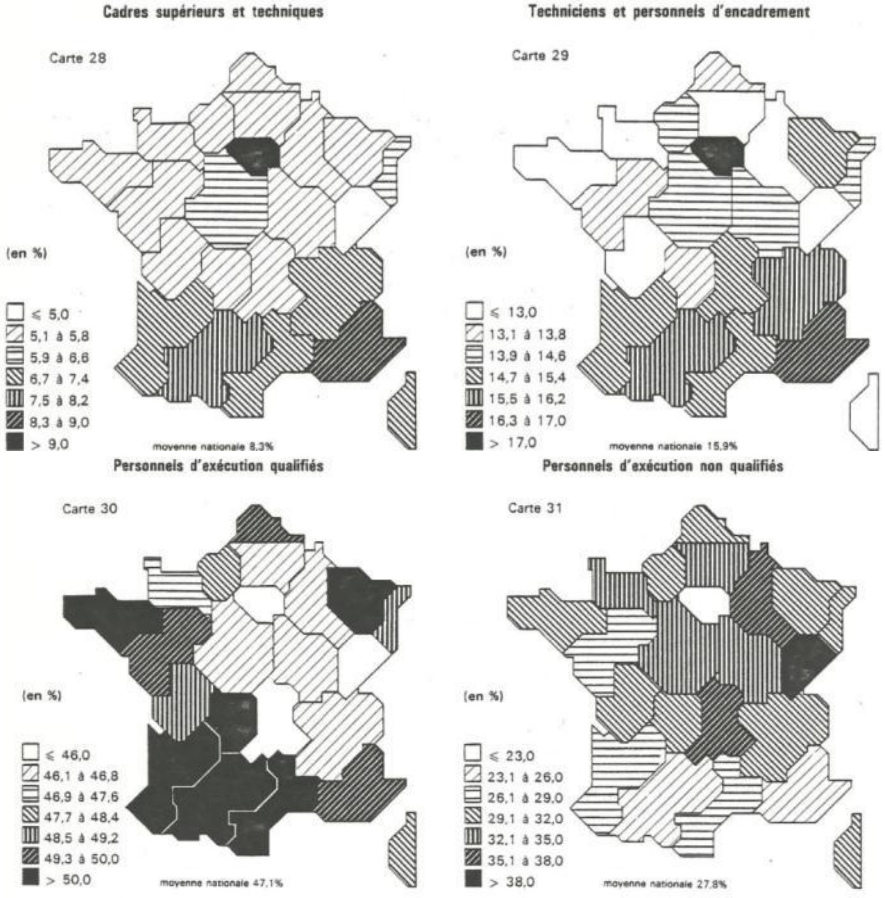


Figure : The researcher of nation and public researcher

Source : DATAR-RECLUS, La Documentation Francaise, Altas de France, 1993

Carte : Structure of employment qualification, 1978



Source : Sesame-Datar, L'emploi régional de 1954 à 1979, septembre 1981

In addition, Toulouse's attractiveness for students led to the overall attractiveness of the Midi-Pyrénées region to some extent. According to the data of l'insee[204], the student proportion of the total population (Midi-Pyrénées region) was 3.9%, which ranked No.2, only behind that of the Paris region (4.8%). And in the 21 century, the Midi-Pyrenees region ranked the first in the field of

[204] INSEE, recensement de la population, 1999

R&D expense, which was also in the high position in Europe. It included some big research institutions (CNRS, INRA, INSERM, CNES, and ONERA), universities and engineer schools (SUPAERO, ENSICA, and ENIT) and research centers of companies (i.e. Motorola and Siemens). In the region Midi-Pyreness (2004), 52400 salaried employments were directly or indirectly related to the aerospace industry, which were mainly concentrated in the areas around Toulouse, Figeac, Tarbes and Pamiers[205].

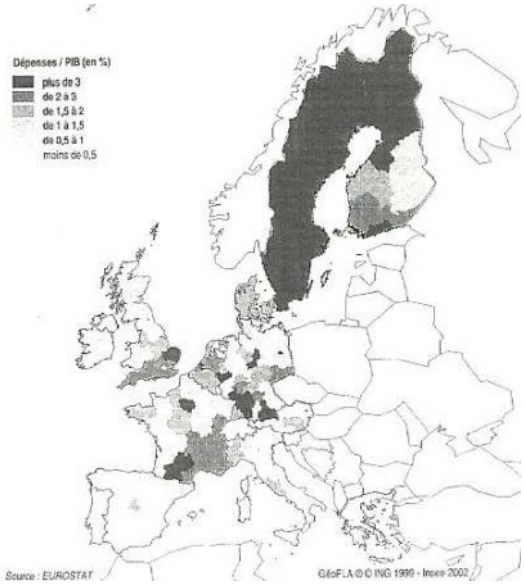
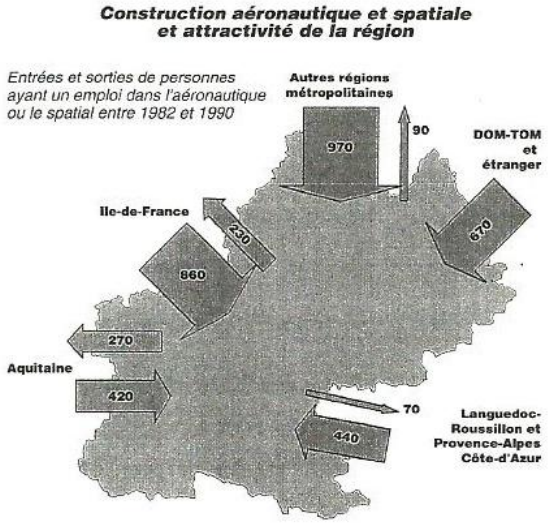


Figure: Total expense of research and development, % of GDP, 1999

Source: EUROSTAT



Source: Insee, Recensements de la population

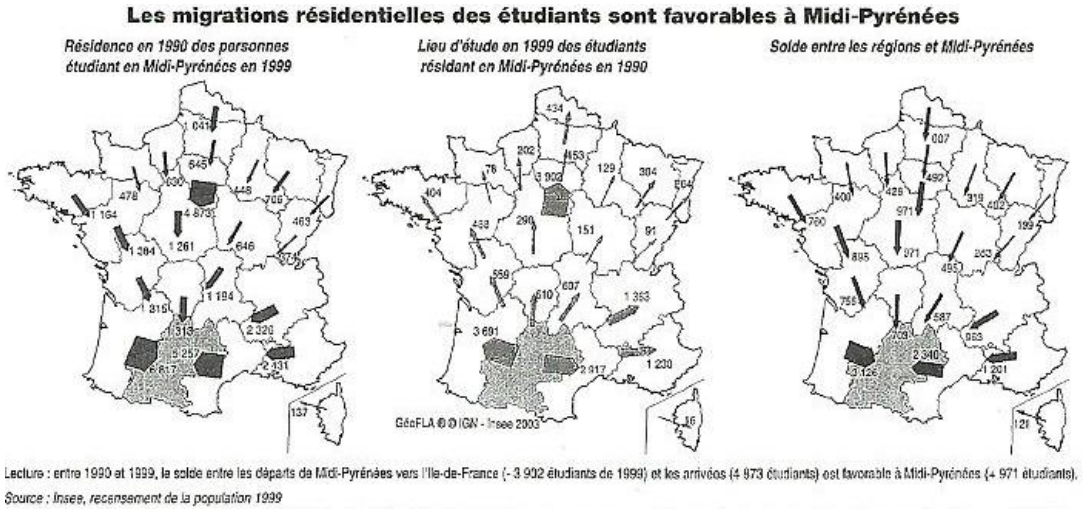
Table: Rank of region by the attraction for students

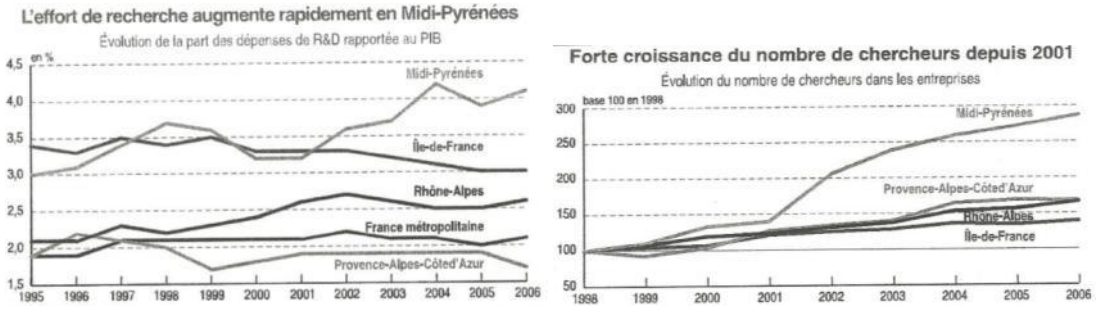
	For the objective of study	All objectives
Ile-de –France	1	2
Midi-Pyrénées	2	1

[205] Insee (Midi-Pyrenees), En Midi-Pyrenees, plus de 55000 emplois salaries sont lies a l'industrie aeronatique, Numero 104 : octobre 2007

Nord-pas-de-Calais	3	11
Languedoc-Roussillon	4	3
Aquitaine	9	7
Provence-Alpes-Côté d'Azur	8	4

Source : INSEE, recensement de la population 1999





Source: Insee, MESR-DEPP

The growing attractiveness of Toulouse accelerated its urbanization process. According to the figure below (from 1962), the growth rate of Toulouse's population was much faster than the other cities. Within the agglomeration area, the suburb (banlieu) had the most significant growth rate of population compared with the other parts of Toulouse, which was corresponding with the construction of new town (e.g. la ZUP du Mirail, le complexe universitaire et industriel de Rangueil-Lespinet) and new industrial zones (complexe scientifique, zone industrielle sud, ZUP du Mirail, complexe aéronautique, zone industrielle nord).

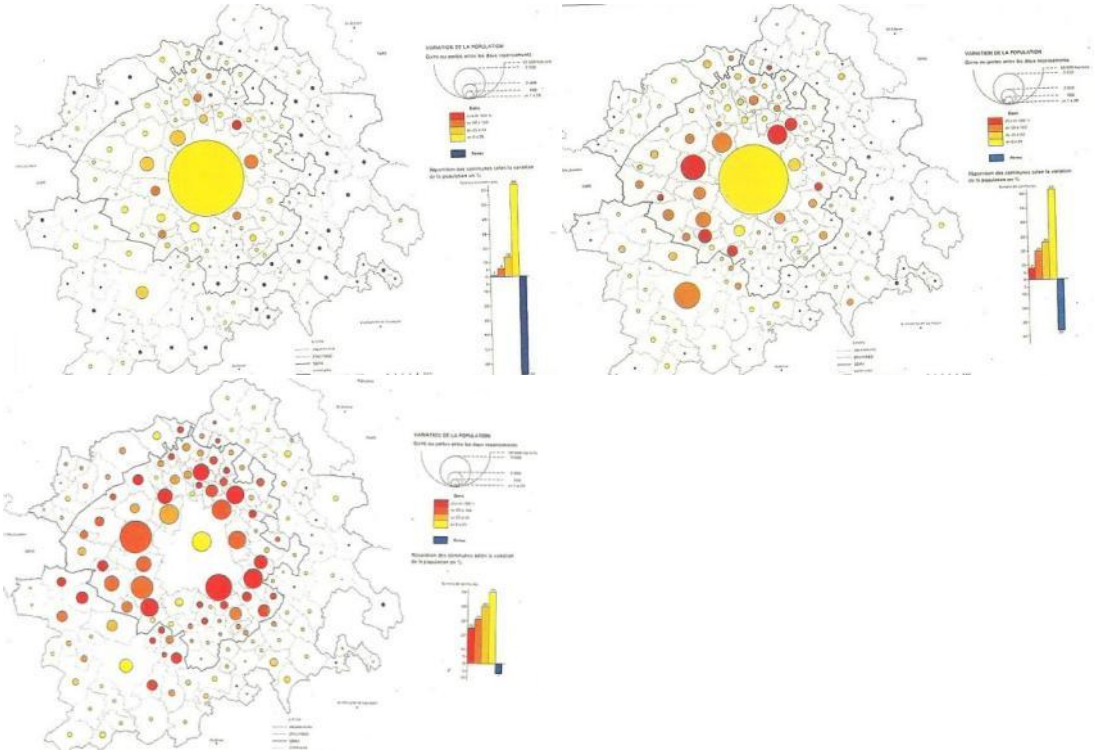
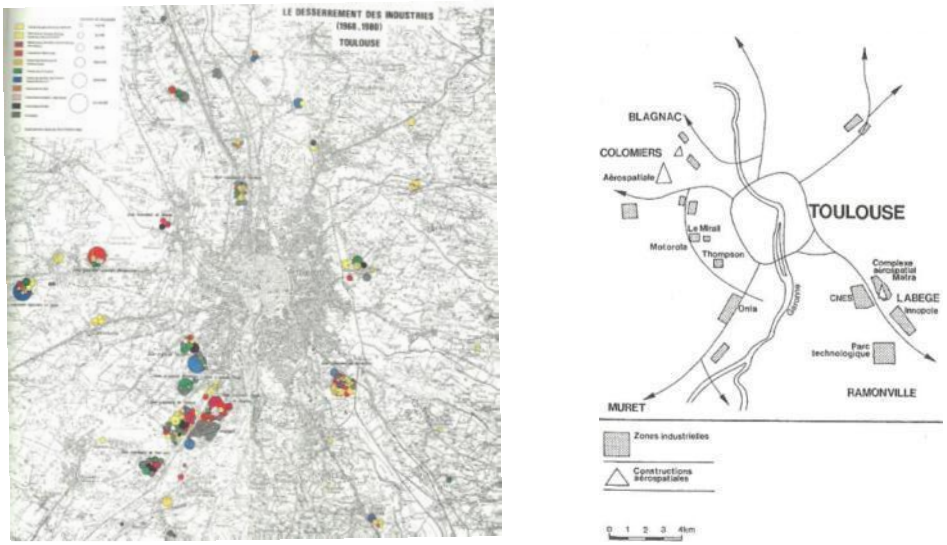


Figure: The population evolution of Toulouse agglomeration, 1954-1962-1968-1975

Source: DATAR, Atlas de L'Aménagement du Territoire, Paris : La Documentation Fran çaise, 1988

As shown in the following figure, the industrial companies of Toulouse were mainly located in the industrial zones of the suburbs and formed some clusters related to the residential area.



Source: DATAR, Atlas de L'Aménagement du Territoire, Paris :La Documentation Fran çaise, 1988

Figure: Activity Center and technologic park in Toulouse metropolis

Source: Dezert (B.), Metton (A.) AND Steinberg (I), La periurbanisation en France, SEDES, 1991

Take 'la ZUP du Mirail' as an exemple. It was situated in the south-west part of Toulouse, which was created in the year 1960 and covered 800 hectares. It included the industrial area (e.g. factory of CII and Motorola), the residential area, and some universities, which corresponded to the stage of development (development of new industry, employment and residence (mainly workers at that time) and education areas). However, the Mirail became an area with a high social

segregation afterwards. in the 1990s, more than half of the residents of 'Grand Mirail' lived in the social housing (HLM), and quite a number of them were relatively poor (workers and employees, coming from family of single parents, foreign and many children)[206].

Photo: Construction of 'le Mirail" (Toulouse)

Source: Dominique Delpiroux, Le reve envole du Mirail, 10/12/2008

http://www.ladepeche.fr/article/2008/12/10/505756-le-reve-envole-du-mirail.html

Figure : Plan of 'le Mirail" (Toulouse)

Source : Toulouse le Mirail-Études urbaines et paysagères (http://www.aarp.fr/post/2009/02/mirail)

Table: Proportion of collective and individual housing, 1978

	Toulouse-Le Mirail (1ère tranche)		**Colomiers Villeneuve**	
	Numbre	%	Numbre	%

[206] Insee (Midi-Pyrenees), Le Grand Mirail : mythe ou realite, numero 8 , decembre 1995

Collective housing	8020	92.6	2754	60.3
Individual housing	639	7.4	1814	39.7
Total	8659	100.0	4568	100.0

Source : Genevieve Dompnier, Toulouse le Mirail et Colomiers villeneuve vingt ans après (1960-1982), revue géographique des pyrénées et du sud-ouest, tome 54, fasc 1, pp. 127-143, Toulouse, 1983

- **Medium-sized city policy**

The medium-sized city policy appeared in the late period of the '30 glorious years'. At that time, the background had changed: on one hand, the public had some new requirement (e.g. democratization of decision-making, environment protection etc), who was more in pursuit of the living condition; on the other hand, the 'Keynesian' type national policy gradually ended, followed by the action of 'decentralization of power'. The policy also reflected the change of 'la DATAR''s objectives: to further balance the French territory, to guide the layout of economic development, and to optimize the living condition.

In the Midi-Pyrénées region, the policy involved seven cities: Albi, Auch, Cahors, Castres, Montauban, Rodez, and Tarbes. Take Montauban as an example, its medium-sized city policy included: the construction of new housing, the renovation of city centre, the beautification of old residential area and the construction of industrial & commercial area (100 ha, 2 km far from the city centre). In the Midi-Pyrénées region, the effect of the policy was more reflected in the field of renovation of the city centre and providing some necessary services, than the creation of new jobs and the attractiveness for rural migration. The possible explanation is: this situation was related to the scale of medium-sized cities, the industrial structure (e.g. the problem of slow-developed industry (backward technology, lack of funds, simple industrial structure, inconvenient transport, labor shortage etc)), the development stage (in the ending period of rapid urbanization), the resident's new requirement and the attractiveness of Toulouse (various development elements accumulated in Toulouse).

Furthermore, along with the whole economic transformation, the industrial employment decreased obviously, and services sector became more important than before, which could offer more employment than the industrial sector. The attractiveness of the industrial zone declined (the new-emerging industrial-university zone could not be installed in these medium-sized cities easily), but a few of these cities became the typical service city afterwards (e.g. tourism, commerce). These cities with a tertiary dominance had relatively little negative influence in the period of industrial crisis, such as Montauban and Auch. Moreover, the importance of tourism and 'better living condition' in these medium-sized cities became more obvious (e.g. better environment, lower price of housing and transport). Besides, some cities benefited from the agriculture-related industry (e.g. agro-industry, agro-tertiary).

Table: Rank of six largest employments areas after Toulouse (according to the employment

branch, excl. agriculture), 1975-1986, %

Industry		Commerce		Services merchant		Service (no-merchant)	
Rodez	+3.8	Montauban	+32.3	Rodez	+43.7	Castres	+45.5
Auch	-4.8	Rodez	+22.7	Auch	+42.0	Montauban	+32.6
Montauban	-10.8	Albi	+18.8	Montauban	+34.7	Tarbes	+28.3
Castres	-14.0	Auch	+18.0	Albi	+31.9	Albi	+27.7
Albi	-18.4	Castres	+12.3	Tarbes	+26.1	Auch	+16.7
Tarbes	-21.6	Tarbes	+6.6	Castres	+24.5	Rodez	+11.5

Source : SGAR

Table: Employment in employment zone, 1975-1989

Employment zone	Variation(industial) %	Variation (service no merchant) %	Variation (service merchant) %	Variation (commerce) %
Albi	-27.3	26.3	43.3	22.8
Auch	-4.5	--	45.8	26.5
Cahors	-2.9	29.7	43.0	--
Castres	-18.1	42.6	44.9	--
Montauban	-5.5	37.7	45.7	36.1
Rodez	8.2	--	52.7	26.3
Tarbes	-25.2	26.4	36.7	7.9

Source : C.Dupuy et J.P Gilly, Toulouse et les dynamismes intra-regionaux de Midi-Pyrenees, Revue geographique des pyrenees et du sud-ouest, Tome 62, Fasc.3, 1991

However, the disparity between these cities and Toulouse further expanded after the '30 glorious years'. As someone referenced the phrase of Jean- françois Gravier, the situation could be expressed as 'Toulouse et le désert Midi-Pyrénéen'[207]. For a long period, the relation of industrial activities between Toulouse (e.g. chemistry and aerospace) and other parts (e.g. the textile industry in the basin Castres-Mazamet, the metallurgical-mining industry in Carmaux or Decazeville and the electro-mechanical industry in Tarbes) was weak. Improved by the 'balance metropolis policy', the attractiveness of Toulouse was strengthened (in the past, one part of Aveyron was attracted by Montpellier; the south-western part of Gers and western part of Haute-Pyrenees were absorbed by Pau[208]), Toulouse (with concentrated resources) deprived the development opportunities of other areas to some extent.

Since the late period of '30 glorious years', the industrial structure gradually changed from the industry to the services sector, which accompanied the general industrial decline in the region (e.g. the textile industry in Castres-Mazamet, the leather industry in Graulhet and Millau, old metallurgy factories). According to the table below, the growth of employment in the

[207] Le monde, Le dynamisme de Toulouse étouffe les villes de Midi-pyrénées, 30/01/1997
[208] Guy Jalabert and Jean-Pierre Gilly, La dynamique de la metropole Toulousaine: continuite et ruptures, metropolies en desequilibre, Paris: Economica, 1993, pp 122

medium-sized cities (1975—1990) was less than that of Toulouse. The gap was not narrowed during the period of the 'medium-sized city policy'. In contrary to the policy's objective, the effect of creating employment for the rural migrants (esp. industrial employment) was limited (but function as the node of providing public service). On the other hand, during the same period, the employment proportion of Toulouse in the region increased all the time: 34.6% in 1975, 36.2% in 1982 and 37.1% in 1986[209]. And from 1982 to 1986, 80% of the new-created employment emerged in Toulouse.

Table: Employment in employment zone, 1975-1990

Employment zone	Var % 75-82	Var % 82-90
Toulouse	9.66	12.82
Albi	0.49	-1.38
Auch	3.68	-1.67
Cahors	6.85	-2.34
Castres	0.13	1.01
Montauban	-0.24	4.77
Rodez	6.73	1.22
Tarbes	2.93	-3.62

Source : INSEE Midi-pyrénées, Tableaux économique 1991

Table : Evolution de la part de certaines professions dans la ZPIU de Toulouse et dans l'ensemble de Midi-Pyrenees (enquete ESE, %)

	1968		1985	
	ZPIU	Reste région	ZPIU	Reste région
Ingénieur	3.4	1.4	9.9	3.1
Technicien	10.4	4.0	14.6	4.0
Cadres supérieurs	3.5	2.2	5.4	3.3
Cadres moyens	4.4	3.1	8.3	4.8

Source : Danielle Galiano, stratégies spatiales de groupes et systèmes productifs locaux, thèse université des Sciences Sociales

In the new era (esp. after the decentralization of political power in 1972), some measures were implemented for balancing the development and solving the problems of industrial decline, such as the construction of transportation and some 'production channel (filiere)' policy.

[209] L'Insee

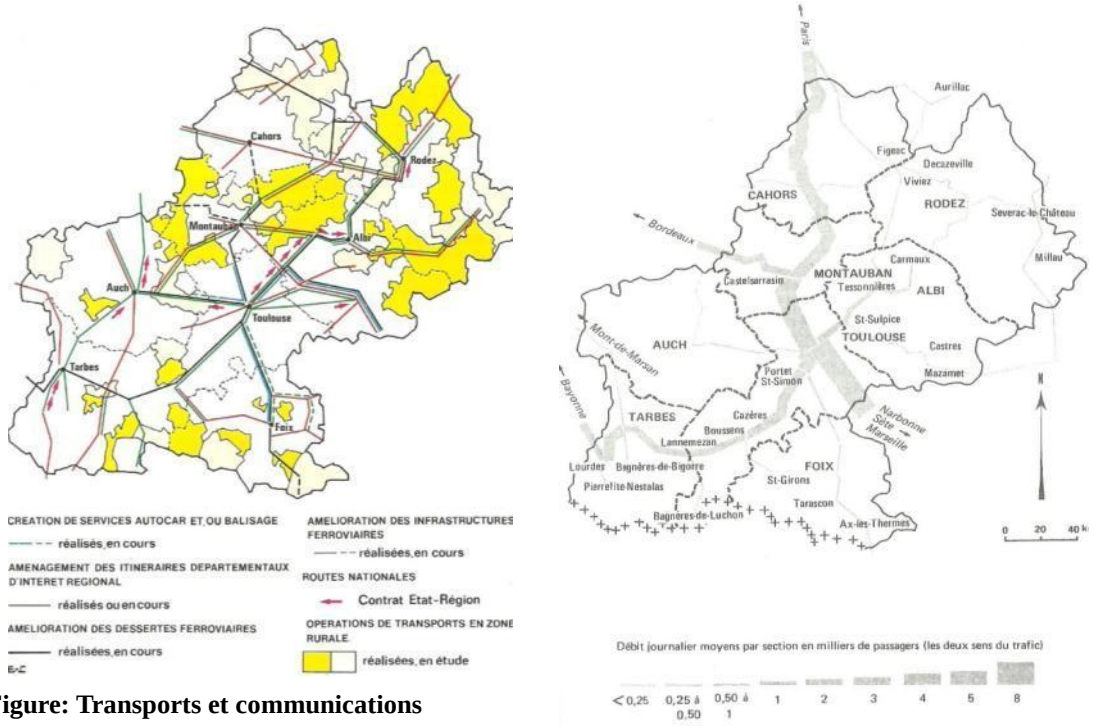


Figure: Transports et communications

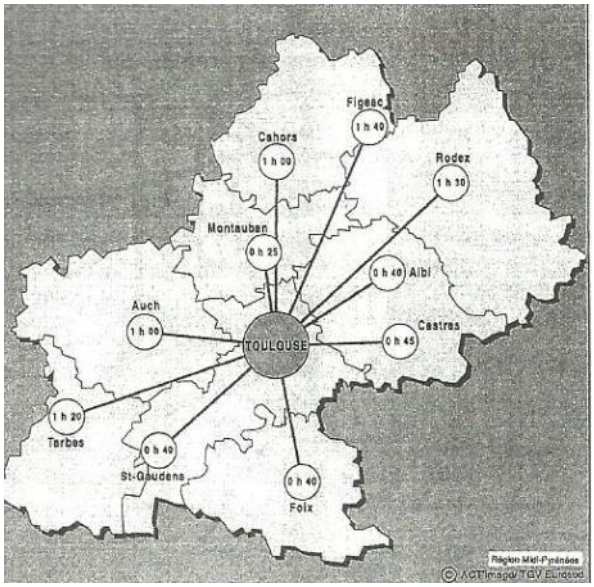
Source: Region Midi-Pyrenees

However, the polarization trend still existed. According to a report of insee (Vincenau *et al*., 1989), among 467 offices (cabinet) investigated, 414 of them were located in the agglomeration of Toulouse.

'L'un des seuls endroits de la region ou s'externalisent, avec une certain vigueur, des travaux destiné aux industries d'équipements '[210].

Actually, during the '30 glorious years', the government hardly considered the profit of Toulouse for other cities nearby. However, after the 1990s, some new measures were carried out, such as the creation of university division in Albi (une ecole des mines) and in Rodez (un IUT), the diffusion of high-technology in each departmental capital after the installation of CRITT (centre regional d'innovation technique et technologie) and further strengthen the transportation link. In the new era, the medium-sized cities began to benefit from the diffusion of Toulouse's education and research resources, which improved the innovation development of the whole region. Among them, the four medium-sized cities in the Midi-Pyrenees (Albi, Montauban, Castres, Auch), which were all less than one hour of time-distance from Toulouse, were the major beneficiaries (esp. the administrative employment, assurance and bank employment etc). The strengthen of relation between Toulouse and other cities in the region Midi-Pyrenees could improve the competitiveness of the whole region in Europe.

[210] Guy Jalabert and Jean-Pierre Gilly, La dynamique de la metropole Toulousaine: continuite et ruptures, metropolies en desequilibre, Paris: Economica, 1993, pp 129



Source: Transports Midi-Pyrenees, novembre-decembre 1995, n. 374, pp. 16

Table: The metropolitan management function in urban areas of Toulouse and other medium-sized cities

Les cadres des fonctions metropolitaines (CFM) dans les aires urbaines de Toulouse et des villes moyennes environnantes

	Number of CFM, 2006	**Number of CFM, 1999**	**Weight of employment, 2006**	**Total,%, 1999**
Urban area of Toulouse	69151	44140	13.7	11.0
Medim-sized urban area near Toulouse				
Albi	2343	1590	5.9	4.5
Montauban	2336	1483	5.9	4.4
Castres	1697	1425	6.5	5.8
Auch	1060	717	5.5	4.0
Medim-sized urban area of metropolitan France	136664	107	5.0	4.3

Source: Insee, Recensements de la population-Exploitation complementaire-Emploi au lieu de travail

According to the data on 'la dépense globale en recherche' (2004), Midi-pyrénées ranked 3rd, just behind l'Ile-de-France and Rhone-Alpes; and it also ranked 30st in the scope of Europe[211].

[211] Based on «l'indice composite regional de l'innovation : le top 35 des regions performantes en matiere d'innovation, 2006

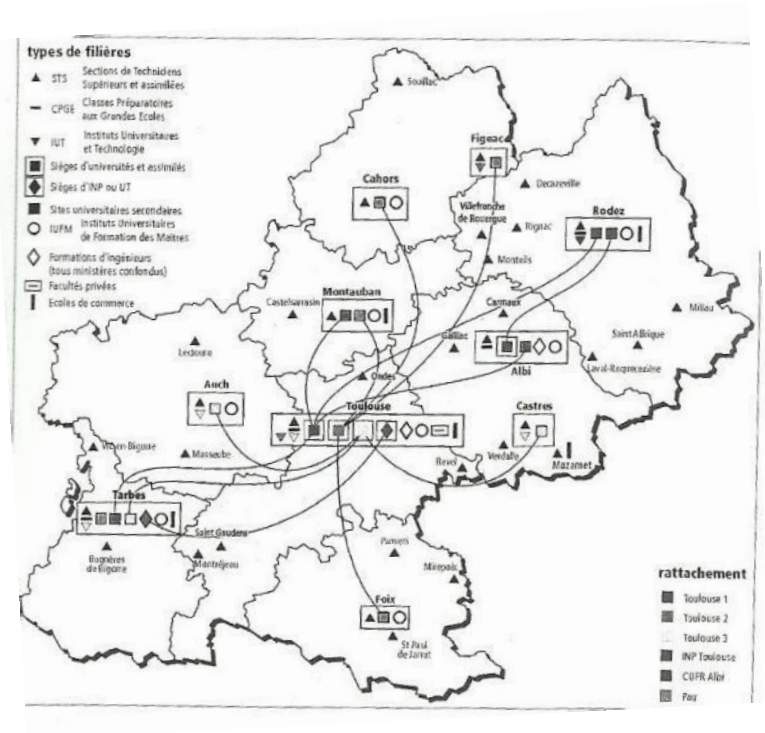


Figure: The filliated senior education in the 21st century

Source : référentiel métropolitain : aire métropolitaine Toulousain

In addition, the rural migration in the Midi-Pyrénées region could also partly explain why the effect of 'medium-sized city policy' was not obvious for the rural migrants. On the basis of the investigation (7 cantons of the region) of Bernard Kayser (1966)[212], the phase from 1954 to 1964 was the peak period for the rural migrants into small and medium-sized cities; the intra-regional migrations accounted for a large part (30%, mainly into the nearby medium-sized and small cities or the industrial zone); the proportion of migration into Toulouse at that time was less than that of migration into the Paris region; the occupation concentrated in the intermediate professional, staff and workers. However, the medium-sized city policy was implemented in the last period of '30 glorious years'. At that time, the massive urbanization process (from rural area to urban area) gradually entered into the end; the objective of attracting the rural migrants was actually replaced by providing services for the rural areas nearby.

Moreover, the following tables could show the attractiveness of the medium-sized cities for a typical group of migrants. Since 1975, the population of medium-sized cities in the region continued to migrate: from 1975 to 1982, the employment showed a trend of migration into Toulouse, which was more significant in the period from 1982 to 1990. Based on the data of population (1982—1990), the youth (less than 32 years old, esp. less than 26 years) accounted for the major part of migration from other cities to Toulouse. While during the same time, the medium-sized cities attracted the population of more than 33 years old. Besides, the proportion of

[212] Bernard Kayser, l'exode rural et ses conséquences dans la région Midi-pyrénées, Toulouse : AMPRA, 1966, includes 7 cantons of the region:
Najac(Aveyron),Latronquiere(Lot),Masseube(Gers),Lectoure(Gers),Souillac(Lot),Vielmur(Tarn),Conques(Aveyron)

occupation was quite different. The ratios of 'retired population (retraités)' and 'management (cadres)' (from Toulouse to the other cities) were much higher than those from other cities to Toulouse, and the ratio of 'intermediate professional (prof.inter)' was obviously small.

Table : The migration, since 1962

Category	1962-68	1968-75	1975-82	1982-90	1962-90
Toulouse	+67302	+46190	+1906	+47227	+162625
Medium-sized city	+34772	+8513	-11068	-10592	+21625
Other area of Midi-Pyrénées *	-10574	+1897	+66961	+66456	+124740

*Reste de Midi-Pyrénées : petites unités urbaines et espace rural

Table : Some demographic data about medium-sized cities

	Variation 54-62 (annual)	Variation 62-68 (annual)	Variation of industrial actives (62-68)	Proportion of tertiary actives in P.A. (1968-)
Albi	1.8	2.0	-15.3	56.4
Auch	2.9	2.4	-0.9	67.6
Cahors	1.8	2.2	-6.1	66.2
Castres	1.6	1.6	--	46.4
Montauban	1.2	1.9	+16.8	57.2
Rodez	2.1	3.7	-0.7	68.2
Tarbes	2.6	3.0	+7.2	50.0

Source : Petites villes et developpement regional, rapport d'orientation, decembre, 1973

Table : In-migration and out-migration, 1982-1990

	With Toulouse			With other cities in France			
	In-migration	Out-migration	Net migration	In-migration	Out-migration	Net migration	With Paris
Toulouse	--	--	--	46796	30430	16366	2778
Albi	636	980	-344	2808	2541	267	-60
Auch	260	560	-300	1464	1224	240	-16
Cahors	244	476	-232	1612	1472	140	-8
Castres	244	476	-232	1612	1472	140	-8
Montauban	712	928	-216	2708	2329	379	-116
Rodez	300	412	-112	2052	2144	-92	-40
Tarbes	484	918	-434	3089	3565	-476	-411

Source : INSEE, recensement de la population de 1990

Table : Net flow of actives among cities of Midi-Pyrénées (mini. 50 actives)

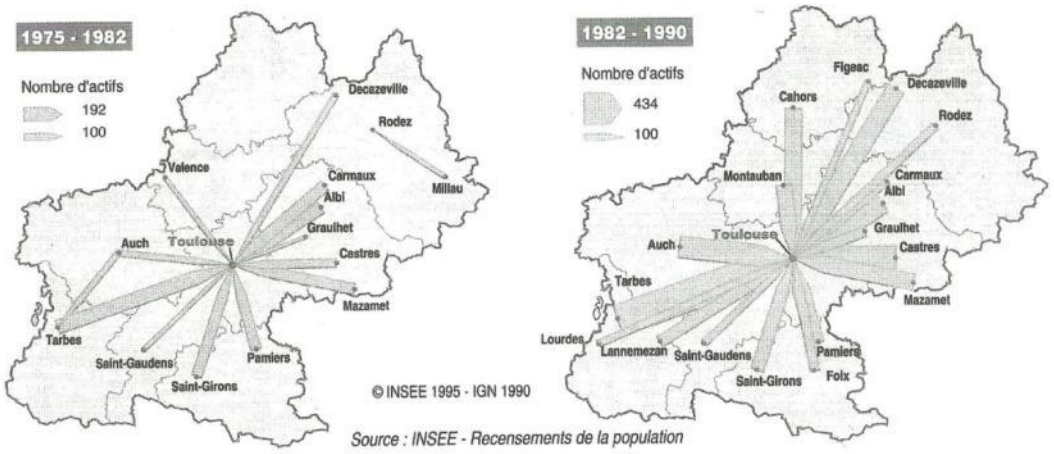
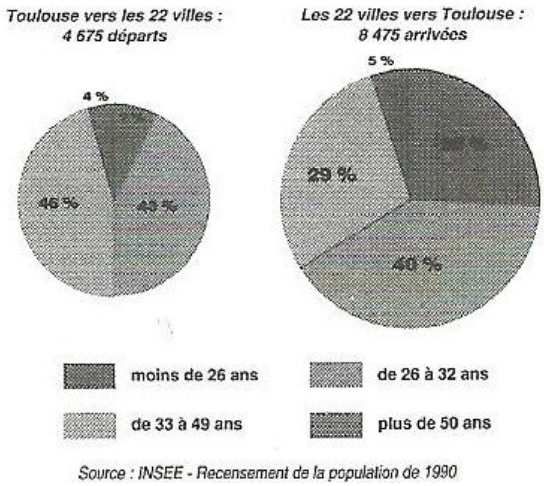


Figure: Flow of actives between Toulouse and the 22 cities in Midi-Pyrénées, 1982-1990



8.3 Brief conclusion

In general, the effect of regional planning on urban system in France was under debate. On one hand, after the ’30 glorious years’, the Paris region became an absolute service dominated area, where concentrated headquarters of companies, talents and research/education institutions and certain high-end industry. Besides, several regional centers were created during the period, which improved the formation of urban system at the regional level.

On the other hand, the former emphasis of ‘balanced development’ (counter the influence of the Paris region) in one country was challenged by the new demand of ‘strengntening local comptitiveness’ with the changing context. As some scholars said, the former target reduced the position of the Paris region in the world to a certain degree., which was proved by actual situation. At the regional level, although certain resources (i.e. industy, education/research, facilities) were evenly distributed to some extent, the integrated development with other sized of cities were ignored during the ’30 glorious years’. However, it was gradually amerliorated along with the change of development direction and the process of political decentralization in the new era.

Chapter 9: The actual effect in rural areas: the demand of both rural and urban population

During the 30 glorious years, the rural areas in France were changed remarkably with the process of rapid urbanization. Basically, the actual effect in rural areas could be seen as the result of following the demand of both rural and urban population in different development phases.

9.1 The evolution of industrial improvement in rural area

9.1.1 The overall situation of rural economy

After the World War II (esp. from 1945 to the mid-1960s), France improved the agriculture modernization rapidly, taking some measures such as the agriculture mechanization, the agricultural technology, the regrouping of land, the training of peasants, the establishment of agricultural cooperation organization etc. These policies of agriculture modernization resulted in a large scale of rural migrants.

In fact, in the 1950s, the semi-official companies were responsible for the development of the less-developed rural areas. During the period, the tasks of these companies were concentrated on the agriculture mechanization and the construction & the renovation of rural basic equipment, which followed by some social measures about peasants retirement and training afterwards.

According to the figure and table below, in the scope of regional development company (esp. in the south-west and central area), the reduction rate of agriculture employment was relatively high after the 1950s (esp. in the 1960s).

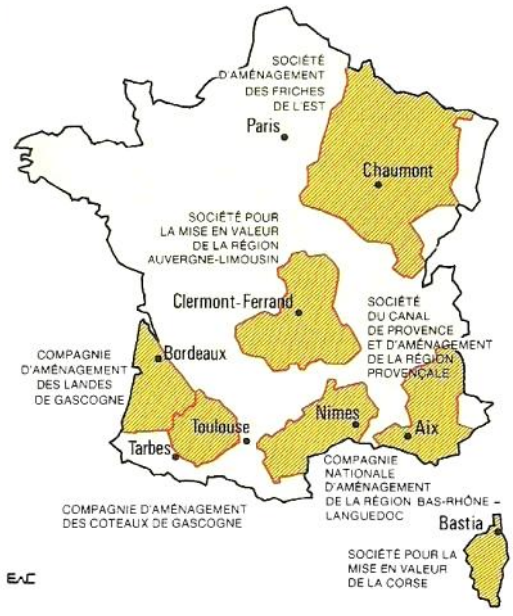


Figure: Regional development company

Source: Les societe d'amenagement regional, rapport du CES (Comite Economique et Social), 13.3, 1984

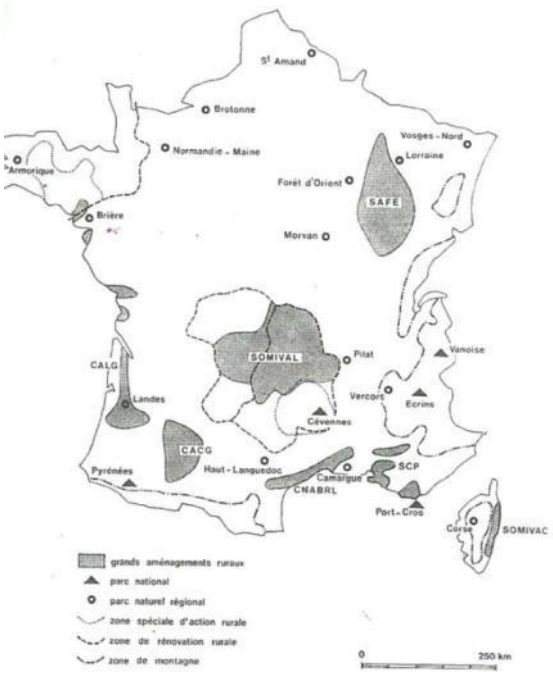
Table: The evolution of agricultural employment, %

Unit: %	**Annual reduction rate**			**Annual reduction rate**	
	1954—1962	**1962—1968**		**1954—1962**	**1962—1968**
Eastern Region			**Western Region**		
Nord	3.2	3.5	Basse-Normandie	2.3	2.6
Picardie	3.8	3.1	Bretagne	3.2	4.2
Haute-Normandie	2.8	3.5	Pays de la Loire	3.1	3.6
Champagne-Ardenne	**2.9**	**2.7**	Centre	3.7	4.7
Lorraine	**3.6**	**3.0**	Poitou-Charentes	3.2	3.5
Alsace	5.2	3.5	**Limousin**	**4.0**	**4.7**
Franche-Comte	4.1	4.6	**Auvergne**	**3.8**	**3.8**
Bourgogne	3.6	4.6	**Midi-Pyrenees**	**3.4**	**4.6**
Rhone-Alpes	4.0	4.6	**Languedoc-Roussillon**	**2.3**	**4.1**
Provence-Cote d'Azur-Corse	**3.7**	**1.6**	**Aquitaine**	**3.9**	**4.3**
Region Parisienne	4.4	2.5	**France**	3.5	3.8

Source: M.Parodi, L'Economie et la société Française de 1945 a 1970, Paris: Armand Colin, 1971; INSEE, Statistiques et indicateur des régions françaises, éd., 1969, P 26

However, the national-level regional planning concerning rural areas had not appeared until the 1960s, such as the 'rural renovation zone' (1967), the 'mountain economic zone' (1967), the 'national park' (1963), 'regional park' (1967). These policies mainly focused on: the construction and renovation of rural facilities; the agricultural modernization and upgrading of rural industry and services sector; the environment protection.

Since the 1960s (as shown in the figure below), the areas with a high proportion of agriculture employment and the under-populated areas were mostly delimitated as the 'rural renovation and mountain economic zones (1967)' and the natural parks. The measures of these policies improved the development of these areas and protected the natural space there. Compared with the previous period, the content of policy became more comprehensive, which included some new contents (e.g. environment protection and rural tourism). In addition, the focus on rural equipment gradually turned from the construction of rural basic equipment to the amelioration of the living condition and the construction of tourism facilities, which further absorbed the flow of urban residents in the new era.



Source: Pierre Brunet, La role des amenagements concertes dans la transformation des espaces ruraux francais, l'aménagement rural : actes du V colloque Franco-Polonais de géographie (Cerisy-la-Salle, septembre 1977), université de Caen, 1980, pp. 272

After the '30 glorious years', although the employment structure in France became more similar to some extent, the unbalances in different rural areas still existed. The traditional rural areas were still the ones with relatively high rate of peasants. Based on the employment structure, a diagonal line remained to exist in France (from the Champagne region to the Pyrenees Mountains), which could divide France into two parts.

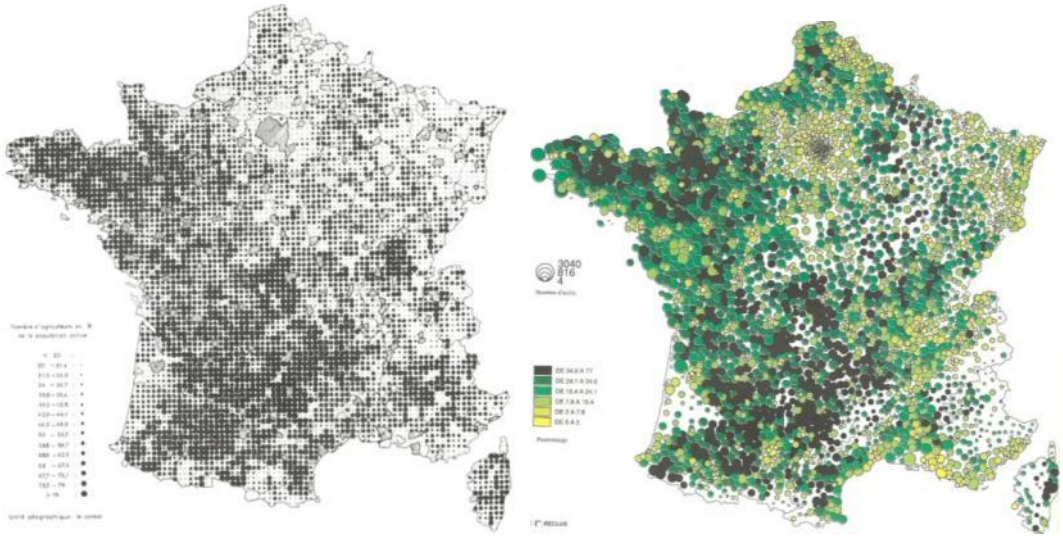


Figure: The proportion of peasants in total labor force in 1954, %

Source: Atlas de la France rural, CNRS, 1968

Figure: The proportion of peasants in total labor force in 1982, %

Source: RGP, 1982

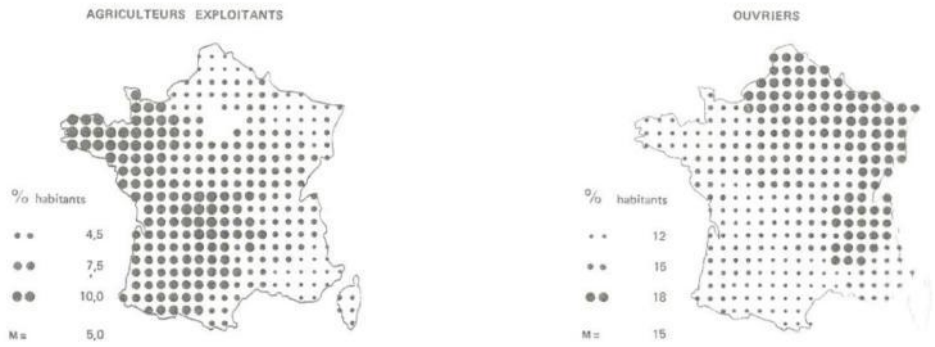


Figure: The active population by socio-professional category, 1968

Source : schema general d'amenagement de la France : la transformation du monde rural, 1972 (fev.)

However, although the agriculture dominated areas still existed, the productivity of agriculture was improved, and the agriculture production became more specialized with local features, such as the grain-plant in the Paris basin, the dairy production in Bretagne, the grape-plant in Bourgogne, and the livestock breeding in 'Massif Central'.

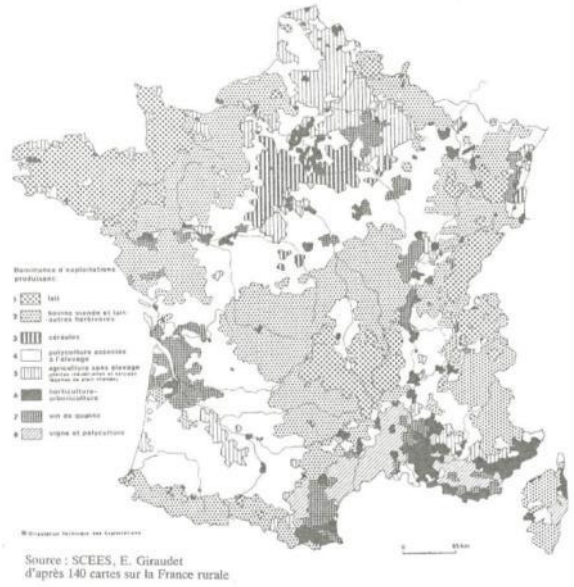


Figure: The system of agricultural production

Source: Scees, E. Giraudet

In addition, with the implementation of regional planning in rural areas, the economic structure of rural areas became more diversified (as shown in the figure below): 1. the agriculture dominated areas were narrowed significantly; 2. the industry and service dominated areas expanded rapidly. In general, the industry dominated rural area was mainly located in the more industrialized area, such as the Nord region, the Paris basin, the Lorraine-Alsace region and the Lyon area. And the service dominated rural area mainly emerged in the mountainous and the coastal area.

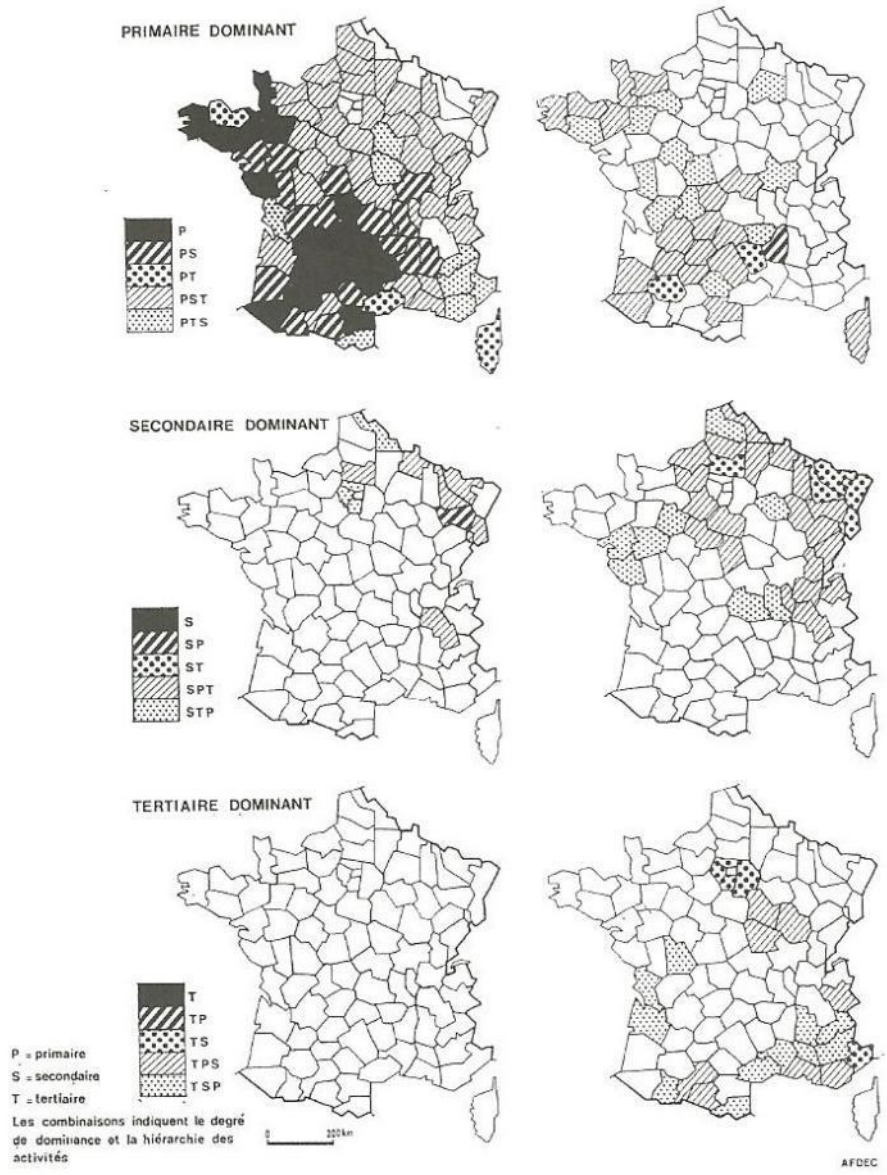


Figure: The change of industrial activities in rural areas

Source : Centre de recherches sur l'évolution de la vie rurale, l'aménagement rural : actes du V colloque Franco-Polonais de géographie (Cerisy-la-Salle, septembre 1977), université de Caen, 1980

9.1.2 The industrial and service situation of rural area

During the '30 glorious years', the industry sector (esp. food industry) in rural areas developed rapidly. In general, the rural areas with a relatively high proportion of industrial employment were mainly concentrated in the Basin Parisian and the region Rhone-Alpes. And the industrial categories in different rural area were different.

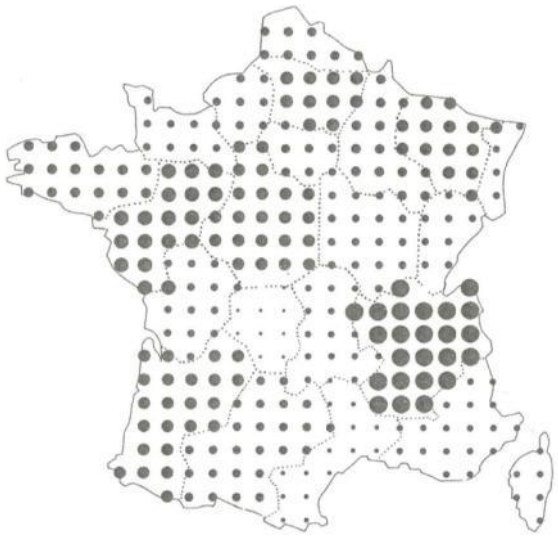


Figure: Distribution of industrial employment by region (in the communs with less than 2000 inhabitants), 1966

Source : Schema general d'amenagement de la France : la transformation du monde rural, 1972 (fev.)

On the whole, France could mainly be divided into several industrial areas: the industrial de-concentration area in the Paris basin, the food industry in Bretagne, the traditional industrial area in the east and north, and the craft & building industry in the south of France. The distribution related closely to the local features and industrial basis of developments.

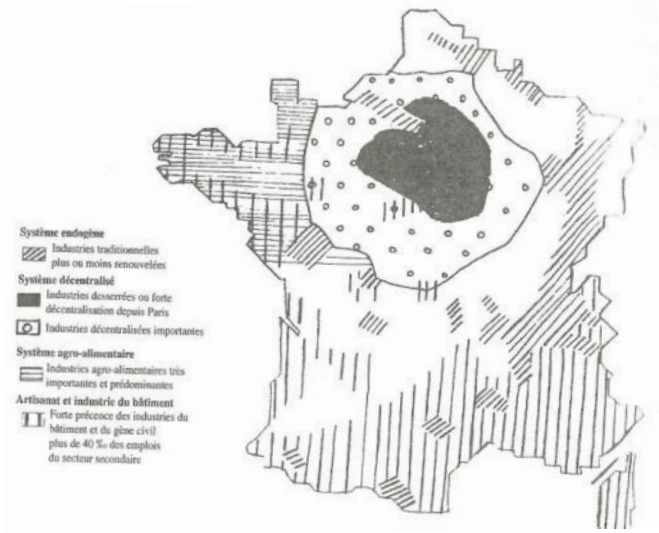


Figure : The system of rural system in France

Source : Bertrand Hervieu (dir.), l'amenagement de l'espace rural, Paris : La documentation francaise, 1993, pp. 644

For example, benefiting from the industrial de-concentration action since the year 1955, the rural industry in the Paris basin developed rapidly. From 1951 to 1980, 63% of transfer projects into rural areas were located in a scope of less than 250 km around Paris[213]. According to the figure below, the rural areas in the Paris basin and the west part of France were mainly the areas with a high proportion of industrial employment.

[213] Bertrand Hervieu, L'amenagement de l'espace rural, Paris : La documentation francaise, 1993, pp. 610

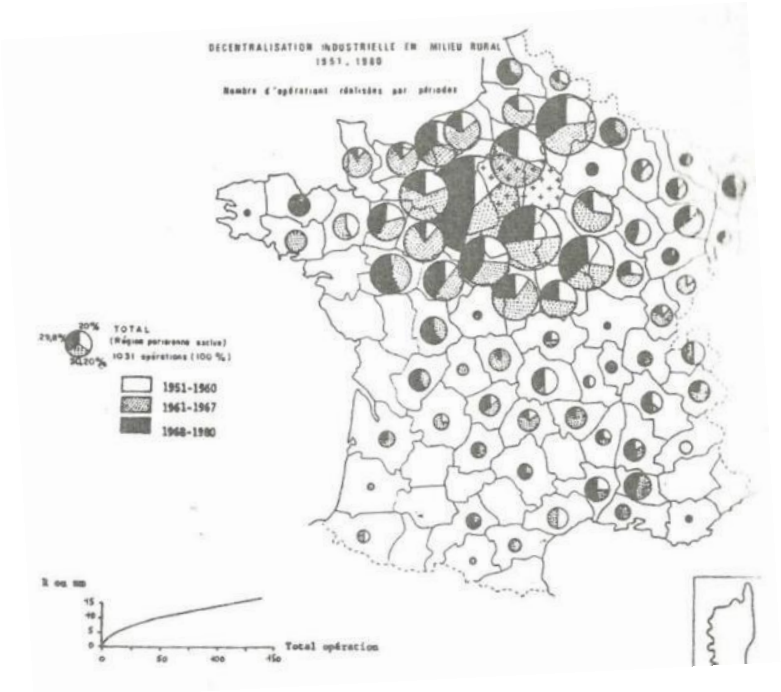


Figure: The industrial de-concentration in rural area, 1951-1980

Source : Bertrand Hervieu (dir.), l'amenagement de l'espace rural, Paris : La documentation francaise, 1993, pp. 648

Compared with the urban industries, the industries in the rural area mostly belonged to the food industry, the furniture industry, the leather industry, the metal production industry etc.

Table: Distribution of industrial employment by category, 1966, unit : thousand

Category of activity	Rural commun	Urban commun	Total
Oil and fuel	53	389	442
Production of metals	589	2071	2660
Metallurgy and mechanical engineering	2207	14555	16762
Electrical industry	268	4735	5003
Glass industry	118	534	652
Construction and public workers	3256	13063	16319
Chemicals, rubber, tobacco	578	4121	4699
Food industry	1395	3551	4946
Textile and clothing	1404	7046	8450
Leather	389	1224	1613
Wood and furniture	791	1320	2111
Paper and cardbord	398	2978	3376
Other industry	174	843	1017
Total	11620	56430	68050

Source : ministère de l'agriculture – direction des aménagement ruraux – groupement d'étude pour l'équipement rural

Among them, the food industry began to grow quickly since the 1960s, partly due to the technique process, the creation of agriculture organization and the new requirement of residents. From 1964 to 1974, the rate of food industry's added value increased by 50%, which was much higher than the others[214].

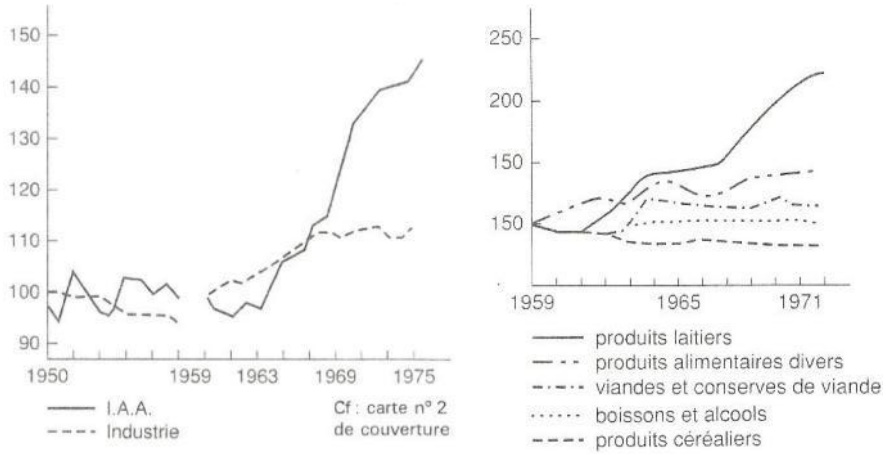


Figure: Rate of added-value in IAA and industry

Figure : Rate of added-value by some categories of IAA

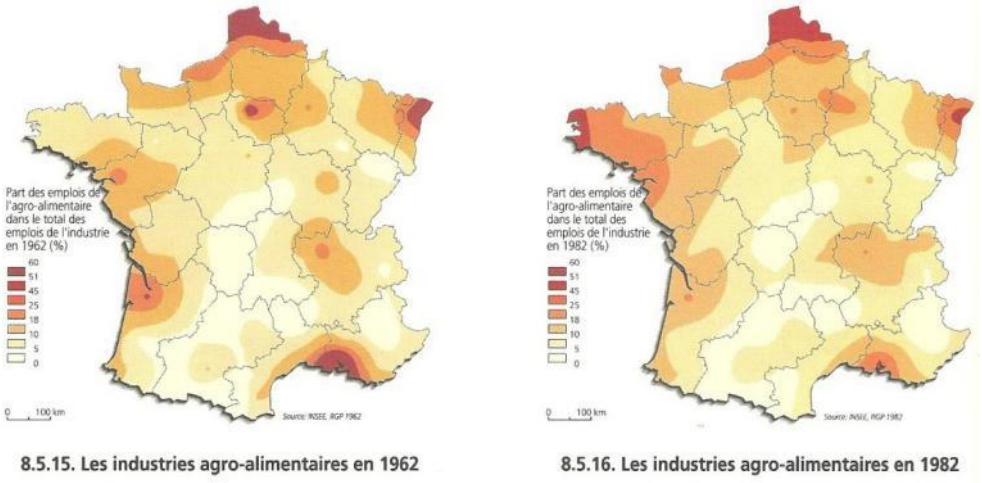
Source : Pierre Limouzin, Agricultures et industries agro-alimentaire francaises, Paris : Masson, 1992

Table: Evolution of added-value in agriculture and food industry, unit: billion francs

	1960	1970	1975
Output of agriculture	36	47	68
Output of Food processing industry	13	32	61

Source: SCEES Graph, Agri, 87

In addition, according to the figures below, the scope of food industry with a high proportion expanded, especially in the western part of France (e.g. Bretagne).



8.5.15. Les industries agro-alimentaires en 1962

8.5.16. Les industries agro-alimentaires en 1982

Figure : The agro-food industry, 1962, 1982

Source : Atalas de France, RECLUS, 1998

During the '30 glorious years', the development of services sector in rural area was significant.

[214] Pierre Limouzin, Agricultures et industries agro-alimentaires francaise, Paris : Masson, 1992, pp. 47

According to the table below, the proportion of tertiary employment increased all the time.

Table : Proportion of tertary employment in employed population, %

	1954	1962	1968	1975	1982
Rural area	--	21	27	33	41
France	35.2	39.5	44.7	51.4	57.6

Source：L'Insee

However, the development of rural tourism was mainly concentrated in certain area of France. On the basis of the figure and table below (in the 'ZFD' area), more measures were taken there (most of them belonged to the mountainous area): e.g. more tourism and vacation facilities were constructed there compared with other parts of France.

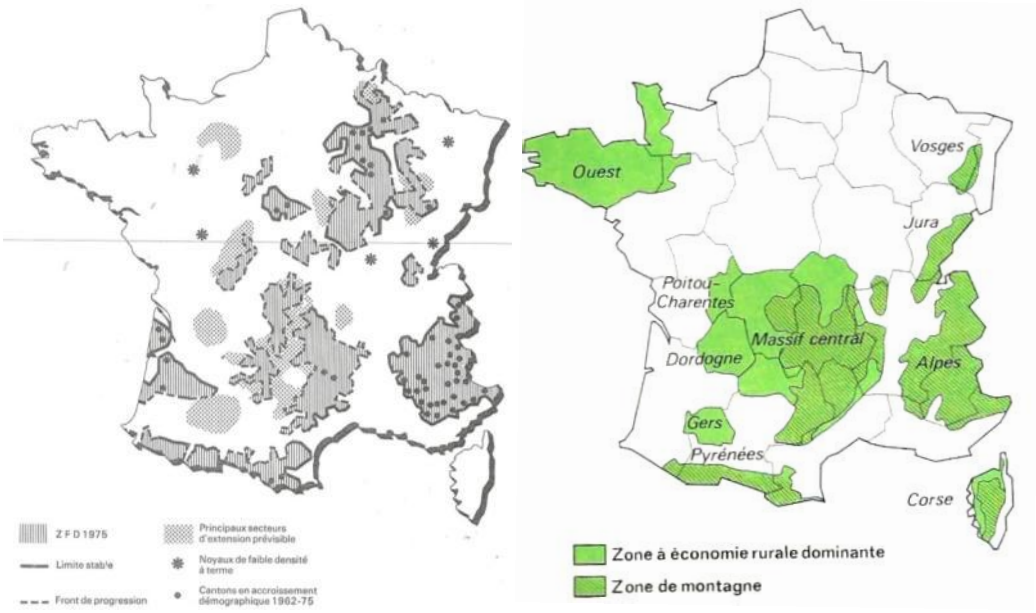


Figure: The trend of ZFD in 1985

Source: DATAR, schéma général d'aménagement de la France : la france rurale images et perspectives, Paris : la documentation française, 1981, pp. 96

Figure: Rural and mountain renovation zone

Source : DATAR, 1977

Table : Proportion of cantons (have tourism and residential activities), %

	Cantons in ZFD	Rural cantons (non-ZFD)
Cantons with spa	3.0	1.9
Cantons with tourism station touristique	4.0	2.9
Cantons with ski station	16.0	3.8
Second housing, 1975	24.6	13.3
Growth of second housing, 1954-1975	3.4*	
Cantons with holiday villages	18.0	4.8

*valeur mediane pour cette serie

Source : DATAR, schéma général d'aménagement de la France : la france rurale images et perspectives, Paris : la documentation française, 1981, pp. 104

	Cantons in ZFD	Rural cantons (non-ZFD)
Distribution of housing, 1975		
——Major housing	62.1	77.4
——Vacant housing	13.3	9.3
——Second residence	24.6	13.3
Major residence completed since 1962	15.1	18.9
Major residence (comfortable)	22.0	26.7

Source : DATAR, schéma général d'aménagement de la France : la france rurale images et perspectives, Paris : la documentation française, 1981, pp. 111

9.1.3 The population evolution of rural area

The rural migration

In general, the proportion of agriculture employment decreased while those of employment in industry and services sector increased in rural France during the '30 glorious years'. From 1954 to 1968, 4.34 million peasants in France left rural area, especially the youth (20-34 years old, accounted for 16.2% of total peasants and 37.5% of total out-migrants) [215].

Table: Evolution of rural employment structure, %

	Agriculture	Industry	Service
1962	55	22	23
1968	50	25	25
1975	39	31	30
1982	35	29	36

Source : Bontron (J.C.), Emploi rural : le renouveau, Econ et Fiances agricoles, déc. 1987, pp. 17-20

According to the figures below, during the period from 1954 to 1962, the attractive areas for migrants were mainly concentrated in the eastern part of France. However, after the '30 glorious years (from 1982 to 1990)', the disparity between the western and eastern part of France was not that significant anymore. During the period, a considerable part of the western area of France began to be attractive for migrants (esp. the part of the Paris basin, Bretagne, the South-West area).

[215] Jean-Claude Gégot, La population française: aux XIXe et XXe siècle, Paris: Ophrys, 1989, pp 33

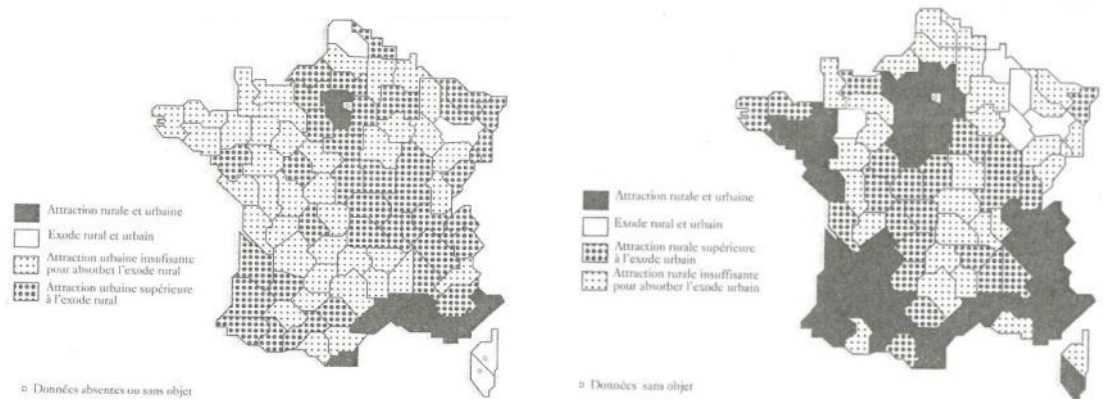


Figure: The net urban and rural migration, 1954-1962, 1982-1990

Source :Bernard Kayser, Nassaince de nouvelles campagnes, Edition de l'Aude, 1993

The category of age

In general after the '30 glorious years', compared with the urban areas, there were still more old population and less young population in rural areas (esp. the non-ZPIU rural area).

Table : Structures of rural and urban population by age, 1982

Age	Rural population, %	Urban population, %
0-19 years	28.9	28.7
20-34 years	21.5	24.7
35-49 years	16.7	18.0
50-64 years	17.3	15.7
65 years and more	16.6	12.9
Total	100.0	100.0

Source : L'Insee

Table : Structures of population in communes non-ZPIU and ZPIU by age, 1982, %

Age	Rural communs non-ZPIU	Rural communs in-ZPIU
0-19 years	25.9	30.8
20-34 years	19.3	21.3
35-49 years	15.1	17.7
50-64 years	19.7	15.8
65 and more	20.0	14.4
Total	100.0	100.0

Source : Robert Chapuis et Thierry Brossard, Les ruraux francais, Paris : Masson, 1986, pp. 16

Concerning the old peasants, France could be divided into the North and the South (esp. in the centre and some mountain areas), and the trend continued during the '30 glorious years' and afterwards.

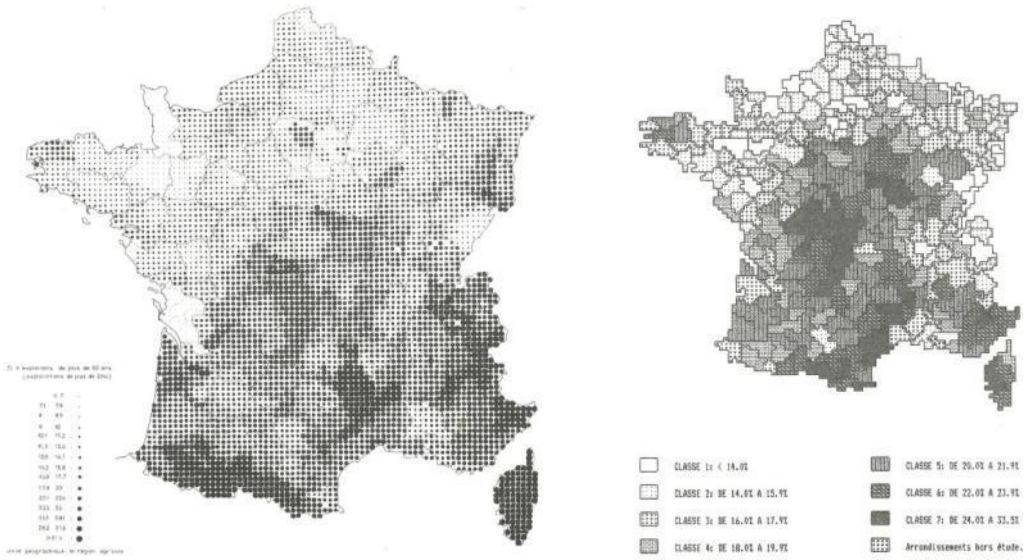


Figure: The farmers with the age of more than 65 years, 1955

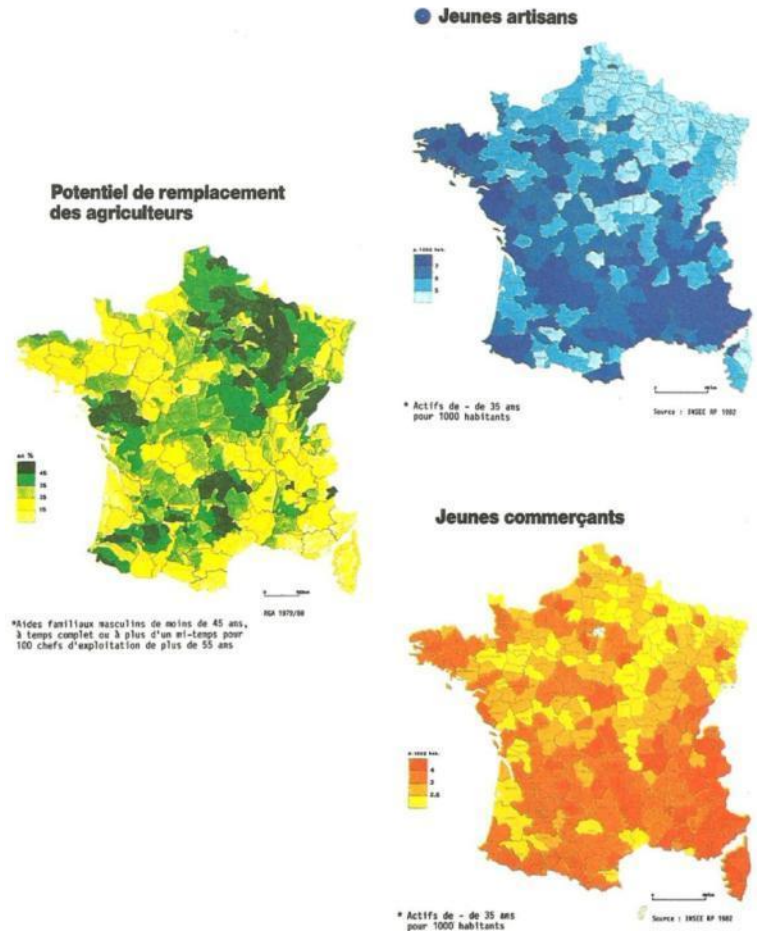
Source : Insee

Figure : The proportion of old population

Source : Robert Chapuis et Thierry Brossard, 1986

However (according to the figure below), more youths began to return and work in the rural area (esp. in the West and the South of France) since the late period of the '30 glorious years'. This was partly due to the mechanism of peasant's retirement and training, the development of rural industry and the amelioration of public facility and living condition etc. As shown in the figures, the rural area became more dynamic than before.

Figure: The potential renewal in rural area, 1982



Source : Nouvelles images de la France rurale, SEGESA, DATAR, 1988

The category of occupation

During the '30 glorious years', the structure of rural inhabitant obviously changed. Among all the categories of residents there, the intermediate and senior management staff and the retirees became the groups with the fastest rate of growth. The significant growth of the intermediate and senior management staff started after the late 1960s.

Table: Evolution of rural household, unit: thousands

Category	1962		1968		1975		1982		1990	
	N	%	N	%	N	%	N	%	N	%
Farmer (Agriculteurs exploitants)	1377	37.9	1093	36.1	778	27.6	671	21.2	439	14.1
Agricultural worker (Salari és agricoles)	341	9.4	232	7.7	147	5.2	110	3.5	--	--
Industrial and commercial enterpriser (Patrons ind.et commerce)	449	12.4	366	12.1	331	11.7	365	11.6	361	11.5
Liberal profession	53	1.5	54	1.8	102	3.6	175	5.5	255	8.2

and senior manager (Prof.lib.et cadres sup.)										
Intermediate manager (Cadres moyens)	126	3.5	129	4.3	194	6.9	325	10.3	533	17.1
Employee	125	3.4	123	4.0	166	5.9	180	5.7	303	9.7
Worker	1039	28.6	928	30.7	1000	35.4	1212	38.4	1230	39.4
Service personnel	50	1.4	47	1.5	50	1.8	55	1.7	--	--
Other categories	71	1.9	54	1.8	54	1.9	66	2.1	--	--

Source : SEGESA

	Number	Proportion, %
Employee	1106000	18.6
Intermediate profession	760000	12.8
Manager and intellectual profession	232000	3.3
Artisans, traders, enterpreneurs	54300	9.7
Retirees	2410000	40.5

Source: Insee, 1982

In addition, the proportion of industrial workers (esp. the drivers, non-qualified workers) in rural areas was more than that in urban areas, and the proportions were almost the same in the two areas (in 1982). However, the rural area gathered more non-qualified workers.

Table : The socio-professional categories in the rural and urban communes, 1982

Socio-professionnel category	Rural commun	Urban commun
Farmer	20.6	1.4
Artisans, traders, enterpreneurs	9.7	7.5
Manager, Intellectual senior profession	3.3	9.7
Intermediate profession	12.8	18.6
Employee	18.6	29.8
Industrial worker	32.7	32.4
Agricultural worker	2.3	0.6
Total	100.0	100.0

Source : Insee

Table : Qualification level of rural and urban worker, 1982

Socio-professional category	Rural commun	Urban commun
Skilled workers of professional type	20.7	21.8
Skilled worker of craft-type	19.2	20.6
Drivers	8.1	7.4
Skilled workers of manut., magas., transports	4.3	6.0

Unskilled worker of industrial type	35.2	30.4
Unskilled worker of craft-type	12.5	13.8
Total	100.0	100.0

Source : Insee

9.2 The new function of rural area

9.2.1 The change of resident's demand

During the '30 glorious years', residents gradually have more requirement for better living condition. And the amelioration of rural housing and facilities (e.g. the water, electricity, transport and sanitary equipment), the creation of natural and rural leisure area (e.g. the national park, the regional natural park) improved by regional planning concerning rural area, met the new demand. According to the tables below, the unbalances in many fields among different category of settlement (esp. between the big rural settlement and urban settlements) was not significant anymore.

Table : Household equipment by the size of commune, %, 1982

	Rural commun	Small cities	Medium-sized cities	Big cities	Paris agglomeration
Car	77	74	75	71	64
Television	91	93	93	91	88
--color TV	46	58	60	63	59
Refrigerator	96	96	97	96	95
Washing machine	86	85	84	80	72
Dish washer	20	20	19	19	21

Source : Insee

Table: The equipment of housing, %

Housing equipment	Rural communs non-ZPIU	Rural communs ZPIU	Big cities
Runing water	98	99	99.8
Hot water	77	83	91
Bath or shower	69	80	88
Interior WC	71	81	87
Central heating	41	56	76
Telephone	71	74	77

Source: Insee, Recensement, 1982

Table : Sports, cultural and leisure equipment by size of commune, 1980

	Rural communes									Urban communes
	Average	0-99 hab.	100-199	200-499	500-999	1000-2000	>2000	Non-ZPIU	ZPIU	
Swimming pool, beach	5.3	0.9	1.8	3.0	7.4	18.8	38.0	4.7	6.9	52.5
Indoor sports facility	4.9	0.1	0.5	1.7	6.5	24.4	45.5	3.2	10.0	59.0
Football & rugby field	36.0	1.6	8.3	31.2	70.8	92.1	100.0	30.3	53.8	85.4
Volleyball, basketball, handball field	28.9	3.0	10.6	27.7	48.5	68.3	79.1	24.5	42.9	75.2
Tennis field	9.7	0.7	1.7	5.5	15.8	37.7	79.1	7.7	16.1	58.9
Theater	3.5	0.4	0.7	1.7	5.6	13.2	25.4	2.7	5.8	27.5
Music school	5.9	--	0.3	2.1	10.3	28.3	39.0	3.7	12.7	52.1
Library	14.4	2.9	6.2	12.2	21.2	38.3	52.1	12.0	22.2	61.8
Cultural center	1.3	0.3	0.3	0.7	1.8	5.0	8.7	0.8	2.7	20.9

Source : Inventaire communal

Therefore, some rural areas began to become attractive areas due to the better environment, the suitable facilities, the low price of housing etc.

Table : Price of housing by size of commune, 1978

Type of commune	Rent index	Purchase price/ m^2	
		New housing	Old housing
Rural communs	100	2030	1560
Small and medium-sized cities	140	2070	1600
Big cities	155	3310	1850
Paris agglomeration	240	3640	3260
Average (urban)	180	2670 F	2240 F

Source : CERC

Since the 1960s, some back-flow of population appeared in some large rural settlements and some rural ZPIU areas (esp. the rural areas of 30-40 km far away from agglomeration), which was in consistence with the construction of individual housing and the amelioration of transport facilities. The individual demand improved the process of ‘peri-urban’ phenomenon in the metropolitan areas, and the concentrated areas of housing in cities were gradually abandoned by the middle class. Moreover, the phenomenon accompanied the growth rate of second housing (especially in Ile-de-France, Normandie and the Lyon area in the 1970s), which was mainly

located in the scope of 20-80 km around cities[216]. In addition to the 'peri-urban' phenomenon, the 'counter-urbanization' process emerged, which was mainly in the scope of about 150-200 km around Paris in the Paris basin, and of 50-60 km around the regional metropolises.

%/year	1954-1962	1962-1968	1968-1975	1975-1982
Evolution of urban and rural population, 1954-1982				
Rural communes	-0.45	-0.44	-0.12	+0.86
Urban communes	+1.86	+1.79	+1.17	+0.31
Evolution of urban and rural migration, 1954-1982				
Rural communes	-0.96	-0.75	-0.14	+0.99
Urban communes	+1.08	+0.97	+0.38	-0.27
Variation of population in rural commune (ZPIU and non-ZPIU), 1954-1982				
Rural communes in ZPIU	+0.27	+0.57	+1.28	+1.93
Non-ZPIU	-0.80	-0.87	-0.75	+0.50
Total	-0.45	-0.44	-0.12	+0.86
Evolution of urban and rural migration (ZPIU and non-ZPIU), 1954-1982				
Rural communes in ZPIU	-0.40	+0.03	+0.97	+1.76
Non-ZPIU	-1.23	-1.07	-0.63	+0.78
Total	-0.96	-0.75	-0.14	+0.99

Source : L'Insee

Table: Evolution of migration in different settlements during three periods, annual rate, %

	Net migration			Total		
	1954—1962	1962—1968	1968—1975	1954—1962	1962—1968	1968—1975
Rural settlements						
0—49	-2.28	-2.54	-2.11	-2.06	-2.70	-2.69
50—99	-1.94	-1.93	-1.52	-1.57	-1.82	-1.86
100—199	-1.60	-1.50	-1.07	-1.13	-1.30	-1.26
200—499	-1.28	-1.12	-0.57	-0.78	-0.85	-0.65
500—999	-0.90	-0.66	-0.03	-0.38	-0.33	+0.01
1000—1999	-0.50	-0.14	+0.63	+0.01	-0.23	+0.78
2000 inhab et more	-0.39	+0.07	+0.89	+0.19	+0.52	+1.17
Rural total	-0.96	-0.69	-0.03	-0.46	-0.38	+0.01

Source: L'Insee

Table: Annual variation of population in rural commune, %

	1954-62	1962-68	1968-75	1975-82	1982-90
Commune in the periphery of agglomeration	+0.27	+0.57	+1.28	+1.93	+1.30
Commune away from agglomeration	-0.80	-0.87	-0.75	-0.50	+0.50

[216] G. Cazes *et al*., L'amenagement touristique, Paris : Presses Universitiaires de France, 1980, pp.102

Source : Que-sais-je, N 987

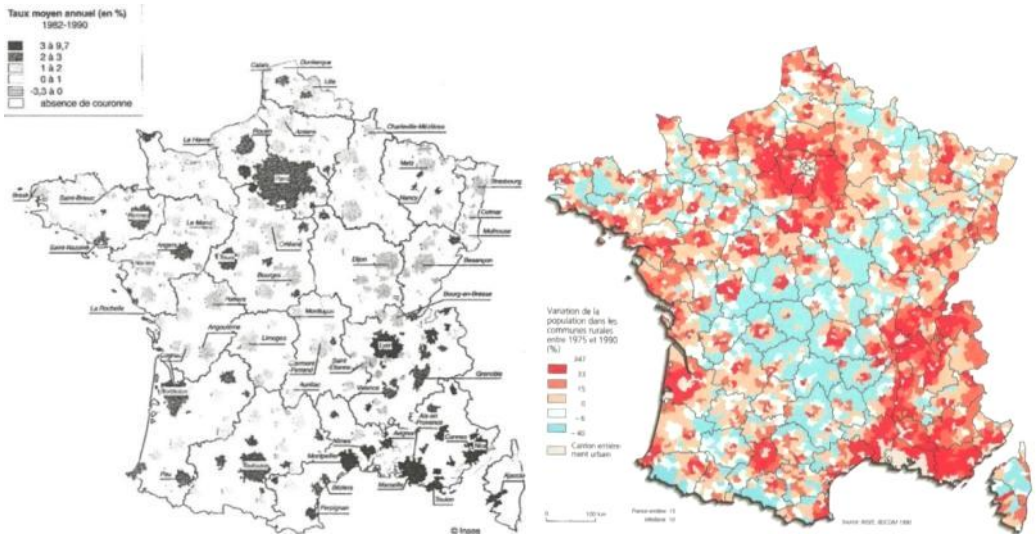
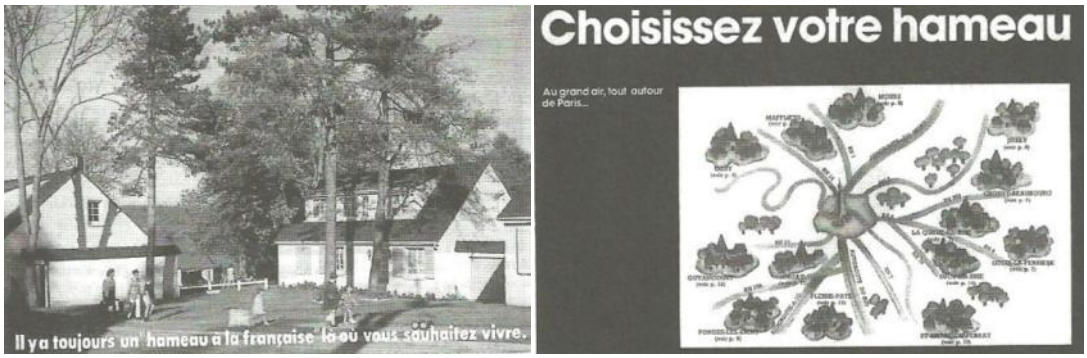


Figure: Rate of evolution of population in the peri-urban area, 1982-1990

Source : Thomas le Jeannic, Trente ans de periurbanisation : extension et dilution des villes, Economie et statistique n 307, 1997-7, pp. 29



Source : GEFIC, Bati-Service, 1974

Figure : Variation of population in rural commune, 1975 -1990

Source: RECLUS, 1998

Source: Insee, 2001 et l'Altas de France, Paris, Reclus-la documentation francaise, 2001

In addition, According to the table below, since the late period of the '30 glorious years', the growth of population in the 'peri-urban' area became more significant than the other types. And for the traditional rural area, although the population continued to decrease, the speed slowed down after 1975.

Table：French population changes in different area, 1962-1982

Type	1962-1968	1968-1975	1975-1982
City Centre	1.29	0.58	-0.06
Natural growth	0.76	0.73	0.51
Net migration	0.54	-0.15	-0.57
Suburbs	2.66	2.09	0.93
Natural growth	0.92	0.86	0.67
Net migration	1.74	1.23	0.26
Sub-urban rural area	-0.27	0.12	1.19
Natural growth	0.35	0.07	-0.06
Net migration	-0.62	0.05	1.24
Traditional rural area	-1.35	-1.64	-1.05
Natural growth	0.10	-0.28	-0.55
Net migration	-1.46	-1.36	-0.49
Metropolitan area	1.15	0.81	0.46
Natural growth	0.67	0.58	0.40
Net migration	0.48	0.23	0.07

Source: L'Insee, resensements de la population, resultats du denombrement

However, on the basis of the table below, the urban centre was still the place which could provide more employment. And the 'peri-urban' area and rural dominated space mainly functioned as residential areas. Compared with the period during the '30 glorious years', the construction amount in rural area became more than that in urban area during the period from 1975 to 1982.

Table: Active population and employment in metropolitan areas, %

	Urban poles		Périurbain commune		Rural dominated space	
	Active population	Employment	Active population	Employment	Active population	Employment
1962	59.1	62.0	11.7	9.5	29.2	28.5
1968	62.2	65.5	11.3	8.8	26.5	25.6
1975	65.2	69.6	11.7	8.2	23.0	22.1
1982	62.9	70.1	14.0	8.4	23.1	21.4

Source : recensement de la population (SAPHIR), insee

Table: The construction of principal residence in rural and urban area, 1982

Constructed housing	Rural commune	Urban commune

1949-1967	11.3	27.8
1968-1974	11.6	18.3
1975-1982	18.3	14.8

Source : Insee

Table : Socio-professionnel structure: all communes rurales, %

	1962	1982
Farmers (exploitant agricole)	37.9	21.1
Agricultural worker (salari éagricole)	9.4	3.5
Artisan, mechant (artisan, commer çant)	12.4	11.6
Liberal professional, senior manager	1.5	5.5
Middle manager	3.5	10.3
Employee	3.4	5.7
Worker	28.6	38.5
Others	3.3	3.8

Source : L'insee

9.2.2 The demand of tourism and recreation

Due to the increase of income and leisure time, people were more in pursuit of recreation and tourism. The new requirement accompanied the construction of some leisure facilities in rural areas. For example, in the periphery area of the national parks (with one objective of organizing the rural area for the demand of urban agglomerations nearby), the credit of state was mainly concentrated on the consolidation of land, the amelioration of public service and old rural housing and the construction of rural housing (e.g. gite rural, chamber d'hotel) and road.

Table: The living mode for rural tourism

	1961	1970	1984
Residence of parents and friends	46.7	35.3	26.2
Tent or RV	10.1	17.4	21.7
Second housing	9.1	13.3	23.3
Retal housing	10.6	18.6	16.6
Hotel	18.6	6.9	5.0

Source : Grolleau (H.) et Ramus (A.), Espace rural, espace touristique.o.c.

Moreover, the in-flow of tourists encouraged the construction of hotels (e.g. petite hotellerie rurale) and second housing (residence secondaire). This also involved some leisure equipments, such as the hiking and cycle tracks, the vacation centers and the recreation bases, the rural camping sites and museums.

Table : Evolution of different lodgings, 1974 -1984, %

B&B rural cottage	+135.0	2.4% of total tourism accommodation park, 1976
Camping	+58.5	
Tourism hotel (hotellerie de tourisme)	+13.5	
Hotel (non-unified)	-20.0	24.0% of total in 1976 21.0% of total in 1984
Holiday city (ville de vacance)	+56.0	
Para-hotel (para-hotellerie)	+23.0	2.0% of total in 1976 3.3% of total in 1984

Source : Henri Grolleau et Andre Ramus, extraits du rapport sur le tourisme rural en France, Le tourisme contre l'agriculture ?, Paris : Adef, 1986

According to the figures below, during the period from 1982 to 1990, the construction of new housing was concentrated in the agglomeration area of big cities (i.e. Paris, Lyon, Strasbourg, Toulouse etc), the coastal and mountainous areas; while the second housing was mainly in the coastal and mountainous area (i.e. the Mediterranean area, the Pyrenees mountains, the Alps mountains), which were attractive due to its specific resources (i.e. nature, culture).

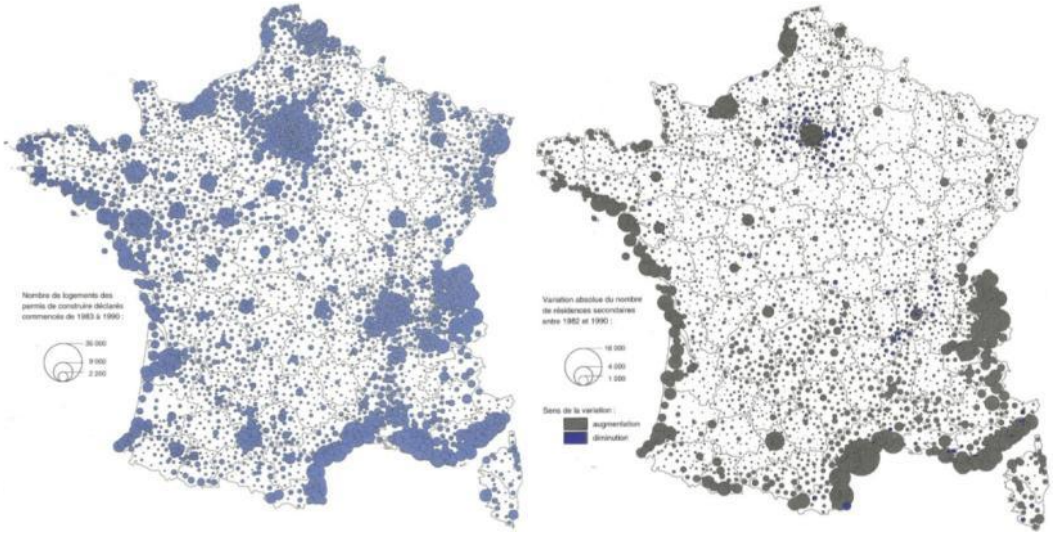


Figure : Construction of new housing, 1983-1990

Source : DAEI, SICLONE, 1992

Figure : Evolution of second residence, 1982-1990

Source : Insee, Bdcon, 1990

However, the kind of construction was guided by regional planning concerning rural areas, in addition to the individual spontaneous action. According to the figures below, the construction of these facilities was mainly consistent with the scope of regional planning in rural areas (e.g. the Massif Central, Limousine, the Haute-Loire).

The development company of Auvergne-Limousine focused the agricultural action in some fields by guidance, such as the experimental station, contractual farms, one tourism project

(creation of 18 holiday villages, 7 water planning, rural cottages, camping etc). [217]

Figure: Rural and mountain renovation zone

Source : DATAR, 1977

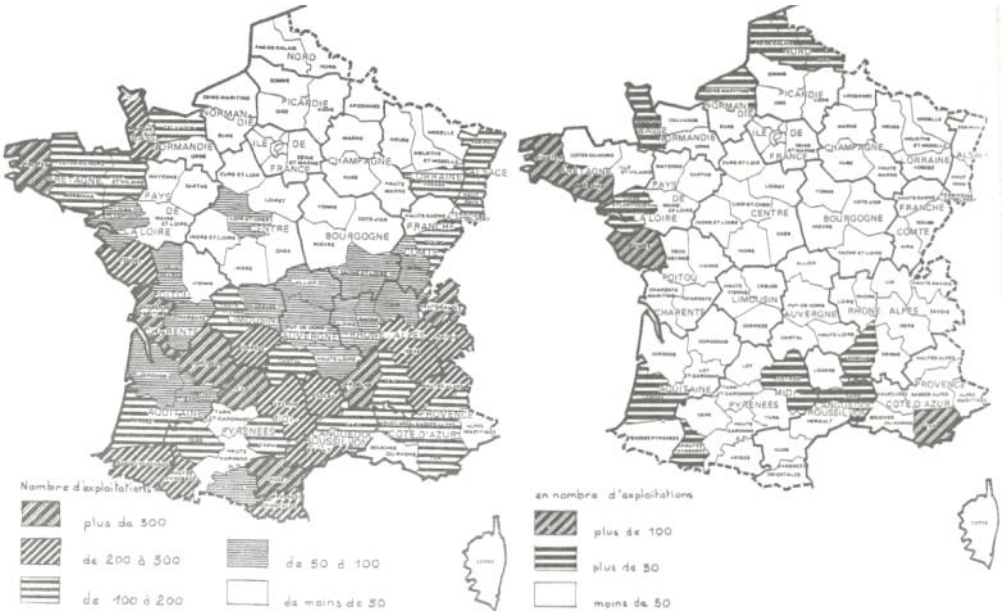


Figure : Distribution of farmer owners of rural hotel

Figure : Distribution of farmer receiving campers

Source : recensement general de l'agriculture, RGA, 1980

Table : Capacity of residence, 1978

	France	Massif Central	Limousin	Haute-Loire
Tourism hotel	4.5	8.7	3.4 (9.75)	2 (3)
Prefecture hotel (hotellerie de	4.4	7.5	2.5 (4.25)	2 (3)

[217] Pierre Brunet, le role des am énagement concert és dans la transformation des espaces ruraux fran çais, l'aménagement rural :actes du V colloque Franco－Polonais de G éographie, Universit éde Caen, 1980, pp. 270

prefecture)				
Rural and commual hotel (gites ruraux et communaux)	0.9	2.2	1.9 (3.0)	1.5 (1.7)
Camping-Caravaning	15.0	11.9	11.3 (12.1)	5 (4)
Furnitured location (locations de meubles)	--	--	4.4 (5.7)	16.0 (20.2)
Holiday villages, Maisons familiales et colonies	2	3	8.5 (10.8)	7 (7)
Second residence	73	66	21.1 (29.2)	52 (54)

Source : Ecole nationale d'administration, rapport : L'amenagement public de l'espace, 1980

Table : Leisure equipment in Limousin and Haute-Loire, %

	Limousin : Evoultion, 1972-1979	**Haute-Loire, 1974-1979**
Tennis field	+97	+20
Swimming pool	+63	+66
Water planning (Plans d'eau amenages)	+44	+370
Riding center (equitation centres)	+104	+500
Holiday village	+57	+18

Source : Ecole nationale d'administration, rapport : L'amenagement public de l'espace, 1980

Case: The Midi-Pyrenees Region

The regional policies of rural area in the Midi-Pyrenees region included three major parts during the '30 glorious years': 1. Development of agricultural and tourism: organization of meat production chain, reorganization of arable land, popularization of agriculture science ,creation of technical training school for hotels etc; 2. Environment protection: strengthen the green axe of Toulouse—Clermont Ferrand, creation of national park & regional park etc; 3. Development of rural facilities: agricultural irrigation (water reservoir, river bank, etc), electricity, road etc.

According to the table below, in the most agricultural departments, the agriculture land was gradually concentrated during the '30 glorious years', which improved the process of agriculture modernization. In addition, in the new era, the food industry (industrie agro-alimentaire) became the industry with the highest number of employments, which was followed by the aeronautics industry (aeronautique) in the new era. The food industry also met the demand of population, which emphasized more on the quality (e.g. bio-production) and the specialization of production.

	Ari ège		**Aveyron**		**Gers**		**Lot**	
	1955	1970	1955	1970	1955	1970	1955	1970
Farmer (numbre)								
< 5 ha	6800	1621	9042	2812	3636	2770	3890	1918
5-20 ha	8390	4223	17029	10234	12139	5931	12260	7044
20-50 ha	2135	2022	6691	6839	9772	8184	4100	4058

50 ha	265	589	2279	2522	1018	2162	560	1004
Total	17590	8455	35041	22407	26565	19047	20810	14024
Average SAU by exploitation	10.6	18.9	17.4	26.4	18.6	26.8	14.6	20.5

Source : ministre de l'agriculture (région midi-pyrénées), Annexe statistique au schéma régional d'aménagement rural

Table : Consolidation in Midi –Pyrénées

	Completed project (thousand hectare)			**Proportion of SAU** (%)		**Current project** (thousand hectare)	
	1965	1973	1975	1965	1975	1974	1975
Midi-pyrénées	37	165	191	1.2	6.8	52	43

Source : L'insee

Table : Food and aeronautics industry

Source : Insee, Estimations d'emplois au 31.12.1999

For example in department la Haute-Garonne[218], during the '30 glorious years', the number of peasants decreased from 35300 in 1955 to 17500 in 1975. Due to the departure allocation for old peasant (l'indeminite viagere de depart) and the installation grant for young peasant, the average age became younger (in 1963, 70% peasants aged more than 50 years; in 1975, the proportion was 60%). Food industry became important, including cereal, milk, fruit, wine etc.

Furthermore, the evolution of 'Le V Plan" and 'Le VI Plan' reflected the process of development: from focusing on the basic production and the living facilities to emphasizing the better living condition, production modernization, and the protection of natural area.

The objectives of 'Le V Plan' were: hydraulic and river planning; normalize the function of irrigation (Gascogne hillside system); specific action of mountain zone; rural collective equipment for retaining population; modernization of agriculture structure; increase the number of

[218] Rosa Dimitstein Arditi, La politique d'aménagement rural en France: analyse critique, université de Toulouse-Le Mirail, 1979

beneficiaries (IVD); general and technique training for young people and adult; encourage land concentration .

The objectives of 'Le VI Plan' were: protect the rural zone, creation of regional park; expanse the surface of wood; creation of rural renovation fund (fond de renovation rural); ameliorate the living condition of rural population (electricity, water supply, school and etc); modernization of agriculture production equipment and barn; ameliorate economic organization.

During the period of '30 glorious years', the attractiveness of the Midi-Pyrénées region increased remarkably. For the Midi-Pyrénées region, its natural (e.g. Pyrénées montain) and cultural resources (e.g. the historical city like Toulouse and Albi; the most important place in Christian pilgrimage (Lourdes)) are abundant. And by a series of rural policies during the '30 glorious years', its agriculture was improved with the process of massive urbanization; its environment was protected; and rural facilities (e.g. rural housing, electricity and road) were further ameliorated. These actions laid the foundation for the region afterwards.

For example, the Pyrénées National Park is devoted to preserve biodiversity and landscapes, studying wildlife and plant species; also it offers a variety of outdoor activities, including hiking, skiing, mountainous climbing and observing wildlife.[219]

Table: Peripheral zones of national park in Pyrénées (specific programme of equipment), 1970, unit: thousand francs

Minister	Project	Total
Agriculture	Project of planning (water planning, accommodation, road, gate of park, ski lifts etc)	2,212
Equipement	National road	1,70
Internal affairs	Departement and communal road	0,40
Total		4,312

Source : loi de finances pour 1971, aménagement du territoire

[219] Trip Advisor. Retrieved on February 2, 2008

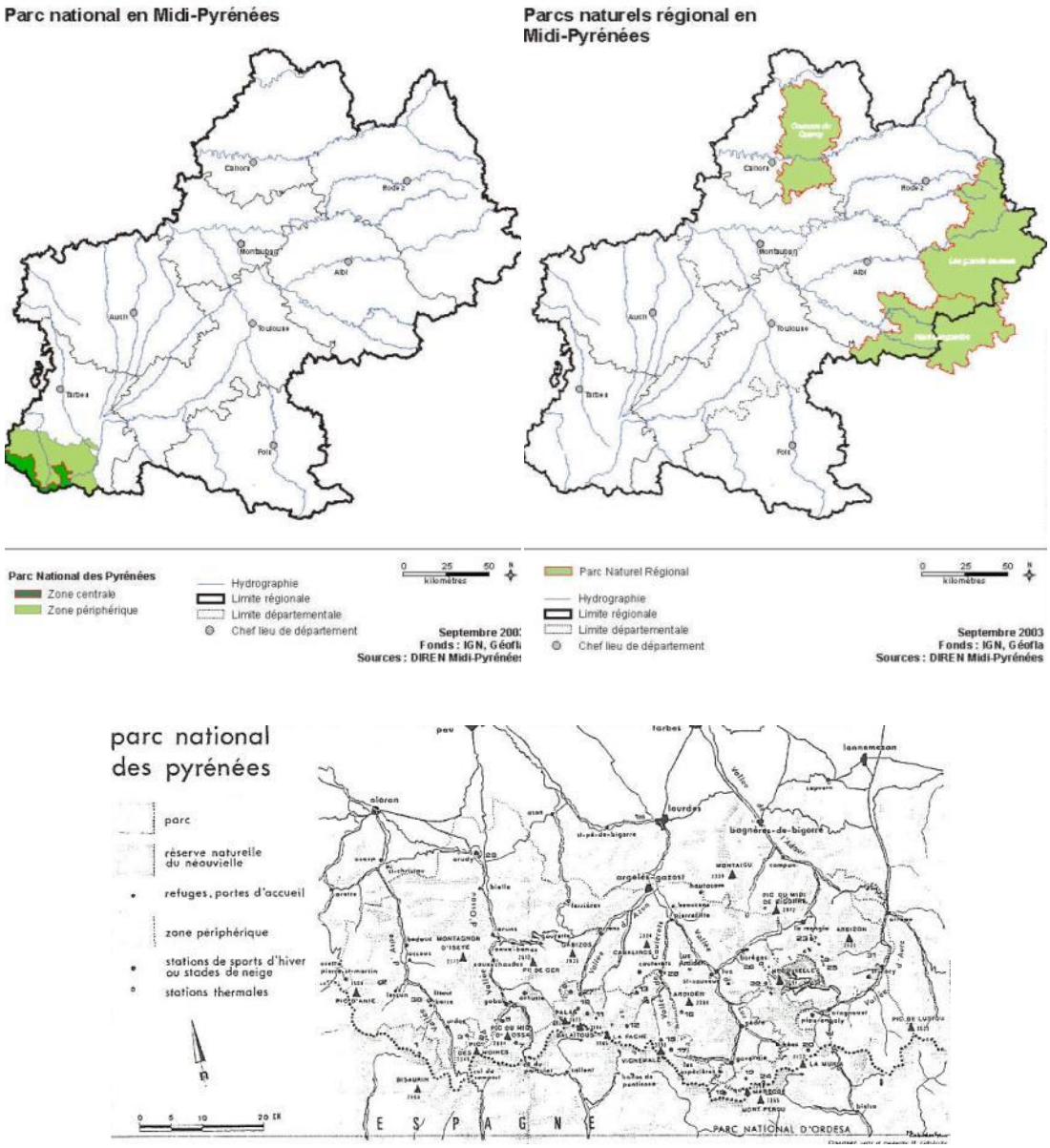


Figure: National park of Pyrenees

Its increasing attractiveness accompanied the change of residents' requirement (esp. the pursuit of the living condition). In addition, the demand of tourism and leisure grew, which improved the number of tourists, secondary housing, vacation residence and the construction of vacation station (e.g. station of winter sports). The trend continued afterwards and improved the growth of related employments. For example, in the tourism zone of Pyrenees Mountains (2003), 8300 private salaried employments were related to the tourism sector (esp. in the summer time)[220]. Under the background, the Midi-Pyrénées region was no longer a relatively lagging agricultural region, but became an attractive destination with a good 'quality of life' (weather, tourism resources, culture, environment, housing etc).

[220] Insee (Midi-Pyrenees), Numero 99: mai 2007

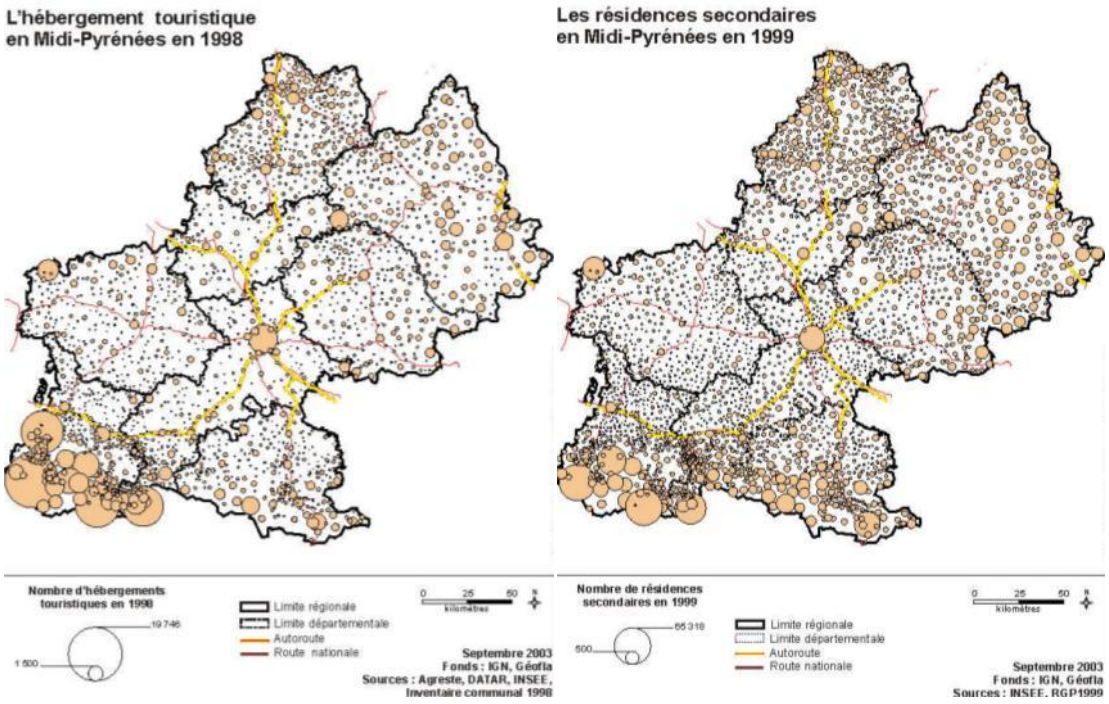


Photo: One of the world's most popular religious pilgrimage destinations (Lourdes)

Photo: A fortified medieval village with a strong Cather history (Cordes sur Ciel)

Source:http://gofrance.about.com/od/photogalleries/ig/Midi-Pyrenees-Picture-Gallery

Photo: Hiking in Pyrenees national park Photo: The gorges du Tarn

Source: http://www.holidayfrancedirect.co.uk/travel-guide/midi-pyrenees_geography.html

Source:http://gofrance.about.com/od/photogalleries/ig/Midi-Pyrenees-Picture-Gallery

Besides, as shown in the tables below, like many areas of France, the back-flow of population has emerged in some big rural settlements since the late 1960s. The process of suburbanization and counter-urbanization became obvious. The trend, which could be seen as the change of lifestyle, has been still continuing in the 21st century.

Table: Evolution of rural settlements in Midi-Pyrénées, 1954—1982

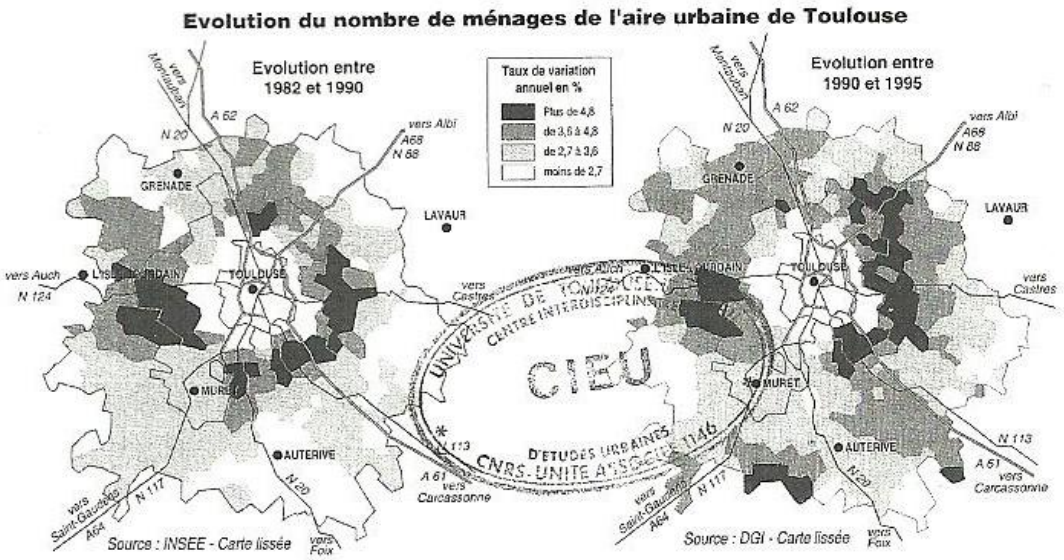
	Variation (%/year)			
	54-62	**62-68**	**68-75**	**75-82**
Rural communs				
Less than 50 inhab.	-2.4	-3.4	-2.4	-1.5
50-99 inhab.	-2.1	-2.1	-1.7	-0.6
100-199 inhab.	-1.7	-1.5	-1.5	-0.2
200-499 inhab.	-1.2	-0.9	-0.9	+0.3
500-999 inhab.	-0.6	-0.3	-0.3	+0.7
1000-1999 inhab.	-0.2	+0.5	+0.8	+1.1
2000 hab. and more	+0.2	+1.1	+1.0	+1.4
Total	-0.9	-0.5	-0.4	+0.6

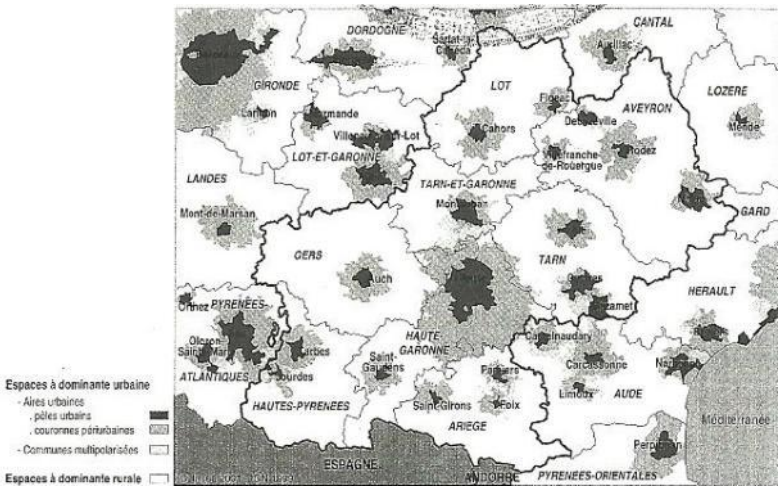
Source : L'Insee, Midi-Pyrenees

Table : Evolution of population, 1975-1990

	Rate of annual variation, %	
	1975-1982	1982-1990
City center	-1.0	+0.4
Suburb	+3.6	+3.2
Urban pole	+0.6	+1.6
Peri-urban area	+3.1	+2.3
Urban area of Toulouse	+1.0	+1.7

Source : Insee-Recensements de la population



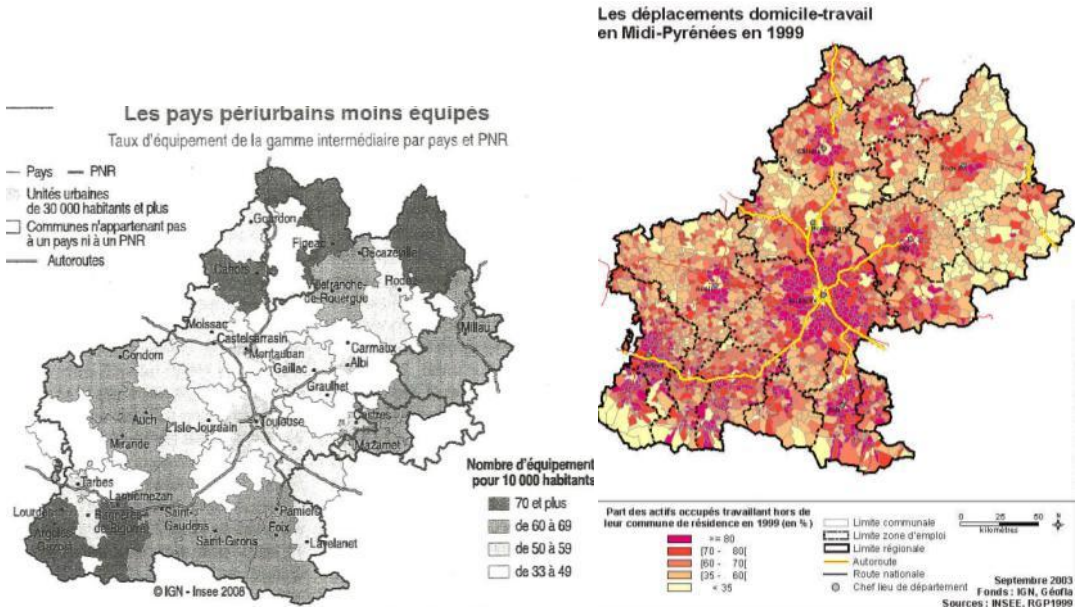


Source : Insee-Recensement de la population 1999

Table: Demographic renewal in rural area (evolution of population), 1990-2006

	Annual evolution (%)		Relate to net migration (%)	
	1999-2006	1990-1999	1999-2006	1990-1999
Expanded rural Midi-Pyrenees	1.1	0.2	1.3	0.5
Rest of Midi-Pyrenees	1.3	1.0	0.8	0.5
Midi-Pyrenees	1.2	0.5	1.1	0.5
Espace rural elargi France metropolitaine	0.9	0.5	0.7	0.4
Reste of metropolitan France	0.5	0.3	-0.1	-0.3
Metropolitan France	0.7	0.4	0.3	0.0

Source : Insee-Recensements de la population



Source: Insee-Base permanente des equipements 2007-recensement de la population 2006

9.3 Brief conclusion

After the ’30 glorious years’, rural area in France become an attractive and multi-functional area again, which was improved by a series of planning in rural area (i.e. basic facilities, rural renovation, natural protection etc). Generally, it basically followed and met the demand of both rural and urban residents in different development phases. It turned from emphasis on agriculture modernization, basic facilities and service to attention on multi-industry, ‘high-quality’ facilities, protection of natural and cultural resources.

On one hand, the development of agriculture modernization, diversified industry (esp. food industry, tourism) and suitable public service/facilities improved the income and living condition of local farmers.

On the other hand, good living environment (nature, culture etc), special local resources and equal public service/facilities attracted a considerable number of citizens, which met their demand of ‘high-quality’ living condition, tourism and recreation.

Chapter 10: Conclusion of regional planning's effect

In the chapter, we briefly summarized the conclusion of the previous chapters (chapter 6-9). In fact, regional planning was born with the aim of remedying the failure of market (e.g. the Matthew effect), because the unbalance could not be narrowed by market based on the development experiences of a considerable number of countries. As Hugh Glout mentioned, most of regional support system was for the growth of employment during that period. However, their objectives changed with the context. The actual situation after the implementation of regional planning could be seen as the product of market as well as government intervention. And it is also influenced by the change of background (i.e. the evolution of the politics, society and economy).

During the '30 glorious years', France basically completed the process of rural-to-urban urbanization and turned from a big agricultural country to a modern one. And the background changed dramatically: the perspective of economy evolved from nationalization to globalization; its society became a consumer one; the decentralization of political power resulted in more active local initiatives. After the review and analysis above, we find that regional planning endured success as well as failure; these regional planning with obvious, positive effect all belonged to those following and catching up with or predict the development change and the inherent law. As Armstrong and Taylor (1999) found that during the process of intergration of EU, each step was influenced by regional policy, but the regional policy in each phase and its influence is different. These regional planning caught and foresaw the decisive factor and solved some major problems during certain phase, which closely followed the changing background.

10.1 The change of employment distribution and economic organization

The balanced growth of employment was the major objective of regional planning during the first and the middle period. In general, a number of employments (esp. industrial employments) were created outside the Paris region or in the west part of France. Along with the 'Fordism production', the manufacturing sector dispersed, for example factories transferred in the Paris basin. It was largely due to the demand of market at that time (i.e. saving cost, expansion of enterprises). And it could also explain some effect of some supportive area by certain regional planning (i.e. industrial de-concentration) was not that obvious, which is partly due to inconvenient transport facilities, insufficient/less-qualified labor etc. Moreover, the expection by some theories of regional economy were not reached, i.e. the 'trickle-down effect' in the Paris basin did not lead to the balanced development of the whole region finally. The guidance by

market could not fully catch up with the changing background. For example, the industrial structure and the mode of production changed, but the separation between the production sector and research/management sector, the neglect of medium-sized and small enterprise hidered the formation of economic clusters in the Paris basin to some extent, which prevented its further development in the new era.

On the other hand, some regional planning, which accompanied the changing context, led the rapid growth in some area. For example, the newly created employment of service accompanied the expansion of service sector and de-concentration of education and research institutions. Some clusters were finally formed, together with the creation of research sector, local specialized industry etc. The case of Toulouse is a successful one, where it gathered some specialized industry (i.e. aerospace industry), universities and related research institutions based on its existing industrial base.

In addition, the function of regional planning could be explained by some theories as follows. Space is considered to be created by economic, political factors. For example, scholars proposed some new theory from the perspective of Marxist political-economics. For example, H. Lefebvre proposed the theory of ‘production of space’, who considered that urban space is the product and the manufacturing process of capitalism production and consumption. And according to D. Harvey’s ‘urbanization of capital’ theory, the capital is invested on the productive field of production and consumption resources during the first period (the primary circuit of capital); and the investment turned to the physical environment of production and consumption due to the ‘over accumulation’ casued in the above period (over-production, decrease of profit, cost of labor); the capital is finally invested in the social consumption (education, welfare etc).

From the point of view, the regional planning could be considered as a tool of leading or interfering in the direction of investment during the different periods, which follows the change of background. The case of Toulouse and the Paris basin could be seen as the result of investment in different periods. It has to be noted that the direction of investment should have predicatablity and evolve with the changing context.

Moreover, the content of regional planning is gradually amerliorated by some experience and new theories. For example, the importance of small-sized and medium-sized enterprises had been considered since the 1970s. Big companies are not the only way of forming scale-economy, improving competitiveness. The significance of cluster is gradually paid attention by scholars and policy makers, which could bring out the polarization effect as well as the scale effect. Moreover, it is closely related to the innovative field (research institution, university, training center etc). The industrial production area caused by the Fordism production gradually lagged behind the newly-emerging economic clusters and network in the new era (i.e. the neo-Fordism production system (flexible product system) since the late-1960s). Thus, the industrial area (i.e. Nord, Paris basin) could not compete with some newly-emerging industrial clusters in France. In addition, simple industrial transfer is questioned. Creating economic clusters with local, typical characteristics (i.e. specialization) is considered as an active attempt.

10.2 The evolution of urbanization process and migration

During the '30 glorious years', the migration came through the process from rural-to-urban urbanization, inter-urban mobility (i.e. suburbanization) to 'peri-urbanization', counter-urbanization and gentrification. And the direction of migration changed. For example, along with the creation of employment outside Paris and the developed area, migration did not continue to concentrate there. It was also due to the construction of transport facilities and the amelioration of living condition, the specific resources (weather, culture, natural resources) in the less-developed area.

In France, the aims of migration become more diversified, which gradually turn from the economic objectives as the major aime (e.g. jobs, income) to add some non-economic factors (e.g. living condition) during the '30 glorious years', which also accompanied the change of society (a modern, consumer society) and the economic expansion (from the Ford-style production to the post-Ford style system). In addition, according to some urbanization theories (i.e. differential urbanization) and the experiences in France, the migrants' destinations change from concentrating in mega-city or big city to flowing into smaller size of cities. The flow of migrants became more dispersed than before due to the new requirement. Thus, the evolution of background offers opportunities to different levels of area and sizes of cities (i.e. the south part of France).

During the period, the aim of regional planning in France also evolved and basically follow the changing background, which added the content of ameliorating living condition besides simply creating employments etc (e.g. emphasis on environment, culture, service, cities with typical characteristics). The objective is not only for pursuing more profit of capital, but also for the social harmony and environmental protection, which meet the residents' demand in the new era.

10.3 The change of organization of urban system

The mono-centric model with a scope of region or nation prevailed for a long time. Cities, as the core of region, are considered as the growth pole of area nearby, which could produce some effect (i.e. the polarization effect and the trickle-down effect). It was deduced by certain theories of regional economy in the 1950s and the 1960s. In France, for the aim of national balance and regional development, eight metropolises were chosen outside Paris. However, the effect of the 'balanced metropolis' policy was not the same (e.g. Toulouse and Nancy). And the driving force of region was different, which could not guarantee the continous development. It was due to local economic basis, location, development phases, organization and cooperative way of urban system in the region etc.

With the process of globalization, the economic-geographic landscape is shown as a network of centralization and de-centralization (headquarters, innovation centers, production units, etc). The inter-connection becomes more frequent than before. At the same time, the significance of national

border is not that obvious in the face of globalization and localization. Industry is considered as being organized by locality and local cluster, not only by the national space (Feldman, 1999). The importance of sub-national region and super-national region rose. Moreover, the competition and cooperation of region or nation exist at the same time.

Under the background, the aims of regional planning changed. Although France carried out the 'balanced metropolis policy' from the 1960s, the thought of political/economic balance in one country is gradually weakened. In addition, these metropolitan areas not only function as the counterbalance area of the Paris or regional growth pole, but also face wider competitiveness in Europe or even in the world. The 'network' structure and the effect of local features (localization VS globalization) are further strengthened. Besides, the cooperation of cities and regions beyond border has become important.

On the other hand, under the background, some world cities emerged, which performed as 'control centers of the global economy (J. Friedmann *et al.*, 1992)'; and some other areas become production bases. Nodal centers (regional or sub-regional level), functioning as center of national, regional headquarters, banks, productive service companies and important educational, medical, public institutions etc, rank behind the world cities. Besides, there are also some specialized productive-service center and dependent centers (i.e. traditional production center, holiday center, residential center etc), which are another part of urban network.

At the same time, more metropolitan area and cross-border region emerged which could also be explained as 'pursuing the maxim of surplus value'. Besides, as cities and regions participating in the process of globalization, its competitiveness is becoming more and more significant.

Therefore, the position of Paris is further strengthened in a wider scope and perspective, and the intergrated development of its metropolitan area began to be highly considered. The function of localization become obvious in the context of globalization. The local feature of some other cities (i.e. Lille, Lyon, and Toulouse) turned out to be more specialized, which not only function as regional growth poles, but also as the specialized nodes in a wider scope.

10.4 The evolution of function of rural area

The rural-urban relation gradually turns from 'separation' to 'integration', which is proved by the historical experiences and some theories & thought, i.e. E. Howard's garden cities of tomorrow, Lewis Mumford's thought (the equal importance of rural and urban area), T.G. Maggie's Desakota model etc. And the function of rural area is paid attention by scholars as well as policy makers. Along with the economic and social development, rural area is not considered as an exploited, disadvantaged area, but a typical, equal area of living and production, which is not opposite to the urban area. Under the background of industrialization and globalization, rural area is also seen as the important area of nature and culture. In addition, the increase of rural area's significance reflects the change of residents' demand (i.e. counter-urbanization), for example the pursuit of

nature, convenient neighborhood etc.

In France, regional planning in rural area basically followed the process of development. It turned from improving productivity of agriculture, guaranteeing basic facilities to creating typical productive area and qualified living and leisure area. The emphasis varies according to different phase of development: ‘agricultural productivity’, ‘environment protection’, ‘infrastructure, facility and welfare’, ‘typical characteristics (i.e. culture, environment, craft/agricultural product)’ etc.

After the 1975 crisis, a certain inversion of development occurred. Regions of the Southern part of the country, that had previously been somewhat left aside by fordist industrial decentralization, suddenly appeared as benefitting from a set of comparative advantages: a more autonomous productive system (more medium size firms, independent from Paris headquarters), an average higher school training level (degrees), good living conditions likely to attract mobile qualified manpower (executives, engineers, etc.). The shift from manpower led industry to knowledge based economy gave the Southern regions a new scope. In addition to the ‘residence economy’ (as Laurent Davezies called it).

Chapter 11: The Situation of China

After the ‘open-up’ policy in 1978, China entered into a rapid development phase. And the rate of urbanization had sped up since the late 1990s. Since then, a large scale of regional planning with the aim of ‘balance development’ started. Compared with the situation and practices in France, those in China are special as well as similar during the ‘great development’ period.

11.1 The overall situation of China

After the creation of P.R. China in 1949, China went through some twists and turns during the process of development. Especially in the period of ‘cultural revolution (1966-1978)’, the development of China was stagnant (e.g. the economic development, the urbanization process). However, since the year 1978 (the establishment of the ‘open-up’ policy), the overall economy of China began to revival again. As shown in the figures below, the whole economic structure of China changed quite slowly before the year 1978 (even fall back) compared with the transitional period after the year 1978. As shown in the figure below, the structure of GDP in three sectors (agriculture, industry, service) turned from ‘28.2: 47.9: 23.9 (in 1978)’ to ‘10.1: 46.8: 43.1 (in 2010)’. And its structure of employment was changed from ‘70.5: 17.3: 12.2 (in 1978)’ to ‘36.7: 28.7: 34.6 (in 2010)’.

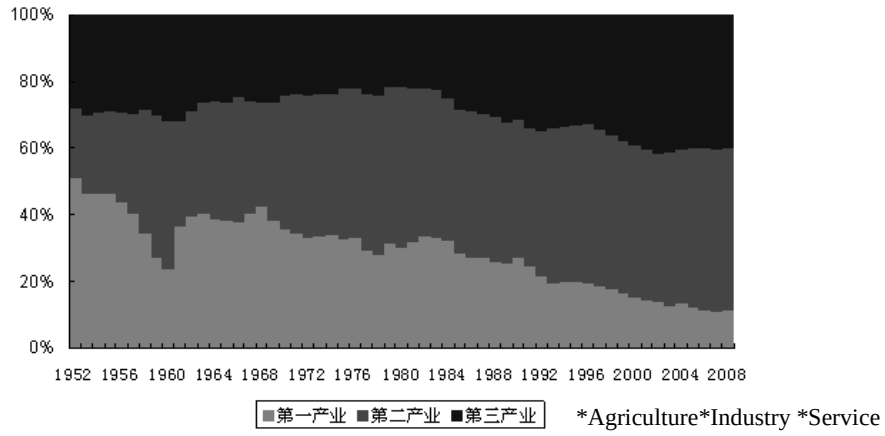


Figure: The proportion of added-value in three economic sectors (agriculture, industry, service), %, 1952-2008

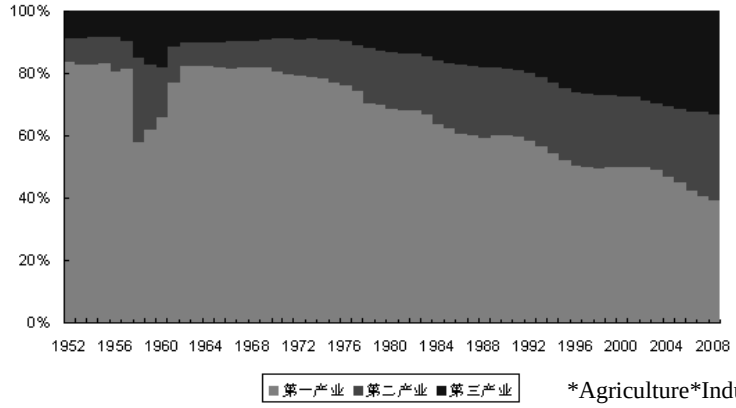


Figure: The proportion of employment in three economic sectors (agriculture, industry, service), %, 1952-2008

Source: National Bureau of Statistics of China, the report of 60th anniversary of P.R.C

The new economic policy under economic reforms has not only granted government sectors greater freedom in management, but also legalized private business and industries, including joint ventures with foreign investment (Yang, 1994). The policies stimulated the growth of international trade and export-oriented industries (Wei, 1997), especially in the eastern regions.

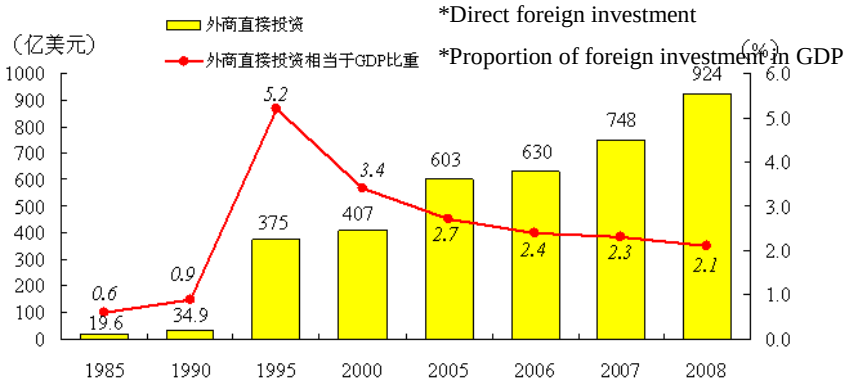


Figure: The amount of foreign investment, unit: one hundred million US dollars

Source: National Bureau of Statistics of China, the report of 60th anniversary of P.R.C

In the rural area, the rural reforms (i.e. reform of 'household responsibility system' and agricultural market etc), which was carried out since the 1980s, promoted the agricultural productivity and the emergence of a considerable number of surplus labor force. On the other hand, the urban reforms and its structural adjustment improved urban economy and increased labor demand (Wei, 1997).

Table: Some indices of agriculture in China, 1978-2010

	1978	1990	2000	2010
Total grain production (10,000 tons)	30476.5	44624.3	46217.5	54647.7
Share of grain/per capita (kg)	319	393	366	409
Grain yield (kg/ha)	2527	3933	4261	4974
Agricultural employment (%)	70.5	60.1	50.0	36.7
Total agricultural machinery power (kw)	11749.9	28707.7	52573.6	92780.5

Amount of chemical fertilization (10,000 tons)	884	2590	4146	5561

Source: China's Statistical Yearbook, 2011

After the 'open-up' policy in 1978, the service sector develops rapidly along with the fall of the proportion in the agricultural sector. The proportion of employment in the service sector increased from 12.2% in 1978 to 34.6% in 2010, while that of employment in agriculture dropped from 70.5% in 1978 to 36.7% in 2010. During the period, the restructuring in the traditional industry (e.g. the adjustment of light and heavy industry proportion) and the rapidly-developed new industry (e.g. electronic, biological, aerospace, pharmaceutical etc) begin to provide a number of new employments, especially in the eastern costal area.

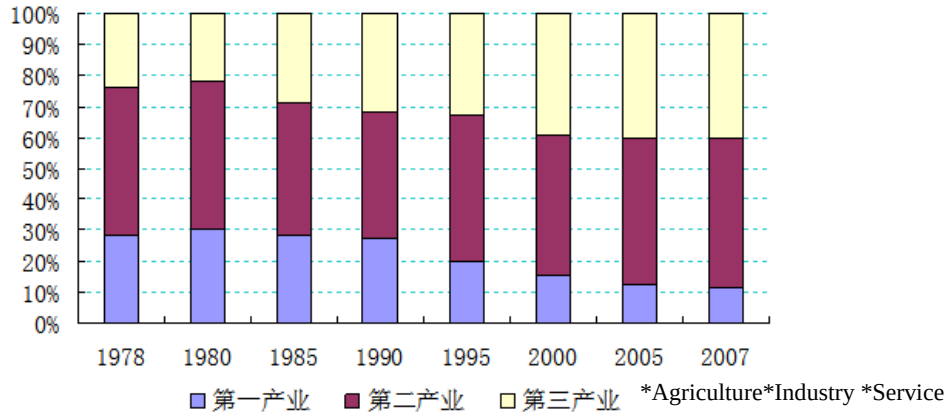


Table: The proportion of added value in three economic sectors (agriculture, industry, service), %

Source: National Bureau of Statistics of China, the report of 30 years' development after the open-up policy (in 1978)

On the other hand, the process of urbanization is accompanying the economic development. Along with the relaxation of long-standing controls over rural-to-urban migration, the urbanization of China accelerates, especially after the 1990s.

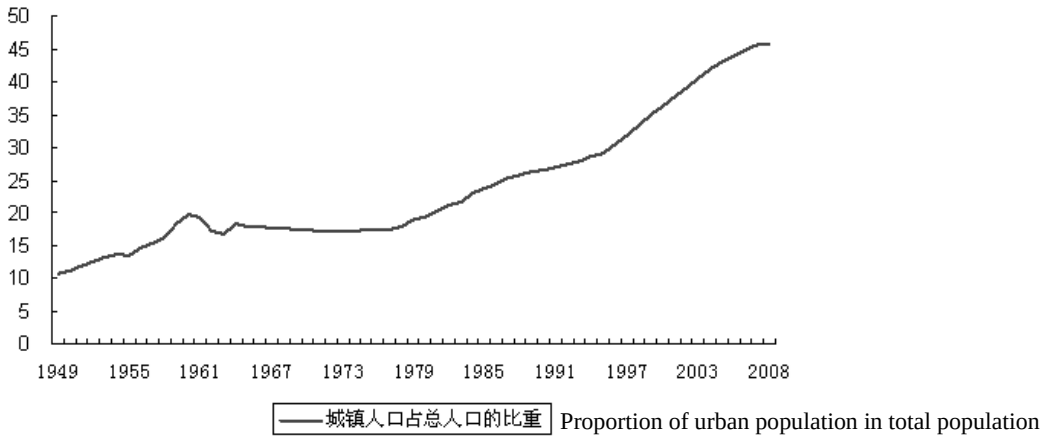


Figure: Urban population/total population, 1949 -2008, %

Sources: National Bureau of Statistics of China, the report of 60th anniversary of P. R.C

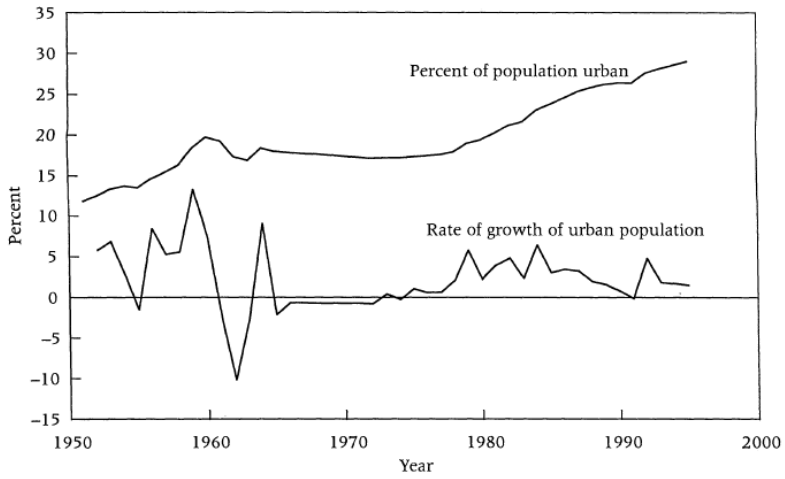


Figure: Urbanization in China, 1951-1995

Source: SSB, 1994, 1997

Moreover, the development of urbanization also could be reflected by the number (esp. the big city and small city) and the size of cities. From 1979 to 1991, the number of new-built cities was 286, which was 4.7 times more than that in the previous 30 years. Since the year 1992, the urbanization process has entered into a stable-development phase[221]. According to a report of the National Bureau of Statistics of R.P. C, in 2007, the population of the prefecture-level cities (and above) increased by 1.2 times more than that in 1978, and the administrative land surface grew by 2.2 times compared with that in 1978[222].

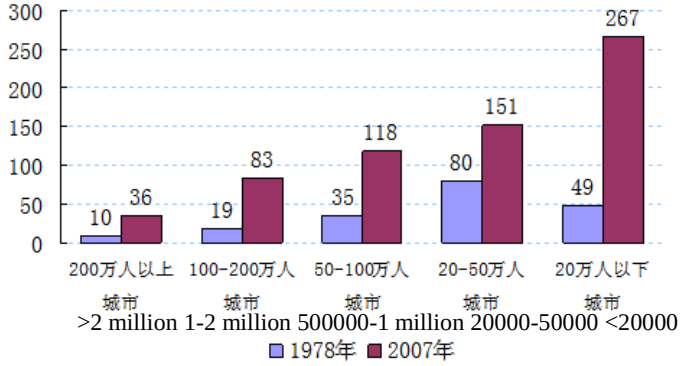


Table: The number of cities, 1978 and 2007

Source: National Bureau of Statistics of China, the report of 30 years' development after the open-up policy (in 1978)

Table: The evolution of cities in China

City Size	1949	1978	2007	Growth rate (2007/1978)
>2 million population	3	10	36	2.60
1-2 million population	7	19	83	3.37
50,000-1 million population	6	35	118	2.37
20,000-50,000 population	32	80	151	0.89
<20,000 population	84	49	267	4.45

[221] National Bureau of Statistics of China, the report of 60th anniversary of P.R.C

[222] National Bureau of Statistics of China, the report of 30 years' development after the 'open-up' policy

Total	132	193	655	2.39

Source: National Bureau of Statistics of China, the report of 30 years' development after the open-up policy (in 1978), the report of 60th anniversary of P.R.C

11.2 Brief Review of Regional Plans/Policies and Urbanization Policies in China

11.2.1 Regional Plans/Policies in China

The category of regional plan/policy in China

The regional planning/policy in China could be mainly divided into two types as follows:

- **Regional economic/social policy**

This kind of policy has been formulated since around the year 1950 (a short time after PRC was established). It is charged by National Planned-Economy Commission, which new name is National Development and Reform Commssion (NDRC). The major task of this kind of policy includes: regional economic (agriculture, industry, service)/social development, and distribution of productive forces. In the 21st century, the content of natural protection begin to be emphazied by government. Besides, this kind of policy could be divided into several levels: nation, province, border admistrative area of provinces or cities and administrative area of city and town.

- **Regional planning**

This kind of planning has been formulated since the 'open-up' policy in 1978. It is nowadays charged by Minister of Housing and Urban-Rural Development (MOHURD). Regional planning includes two legal categories in China, including urban system plan (five levels: nation, province, border admistrative area of provinces and cities, admistrative area of city and town) and master plan (admistrative area of city). In the 21st century, certain non-legal plan is paid attention by government, i.e. rural-urban integrated plan.

- **Relationship**

NDRC and MOHURD belong to the department of government at the same level. Both categories of plan/policy emphasize the layout of productivity, social development, urban-rural construction and natural protection.

In general, the regional economic/social policy is an important reference for regional plan in China. The regional economic/social policy mainly emphasizes the strategic part of regional development (i.e. aim and major task), which is not a spatial layout as regional plan. In addition, the period of regional economic/social policy is five or ten years, which functions as an assessment for government practices. While, the period of regional plan in China is twenty years or even longer.

The process of regional plan/policy from 1949 on

The development process of China is quite unstable after 1949 (the year when P.R.C was established), which is influenced by a series of regional plans/policies.

- **From 1949 to 1978: Balanced-Development Regional Plans/Policies**

During the period, China's central government put forward the 'balanced-development strategy' and considered the unbalanced situation of China quite early, but mainly with the political and military purposes (not focused on the economic development). At that time (P.R.C was just established), most factories and cities were concentrated along the eastern coastal area of China (the urban population accounted for 69% of the total urban population in China[223]). Thus, the central government emphasized much more on the development of the inland area and the 'third front' area (regarding the transfer of factories, the construction of facilities etc), which included eleven provinces in the central or western part of China, such as Sichuan Province, Guizhou Province, Shanxi Province, Gansu Province, the western part of Hunan Province etc. During that period, the central government continued to invest in these areas. For example, from 1966 to 1970, the basic construction investment in the 'third front' area accounted for 41.1% in total (Wang, 1986). In addition, China introduced the first regional plan from the Soviet Union in the 1950s, which objective was for better lay-out of productivity. In the year 1956, China's state council proposed the idea of regional plan in one document of the central government and implemented them in several regions. However, it was suspended during the period of political movement afterwards.

Table: The distribution of basic construction investment, %

	Inland area	Coastal area
1963-1965	58.3	35.0
1966-1970	64.7	--
1971-1975	54.4	--

Source: Dongsheng Chen, regional economics, Henan people's press, 1993

The balanced-development strategy improved the development of the central/western region in China (especially in the field of manufacture) to a certain extent. Although the economic disparity among different provinces was not widened, the policy sacrificed the general efficiency of the economic development in China. In addition, because industrialization in the inland regions mainly relied on the advanced old-industrial regions (i.e. Shanghai, Beijing, Tianjin and Liaoning Province in the eastern coastal area of China) for capital goods, technology, and service, industrialization did not bring about corresponding rapid economic growth in the backward 'newly industrialized' regions (Ron *et al.*, 1999). And due to the over-emphasis on politics, China developed quite slowly during the previous 30 years.

[223] National Bureau of Statistics of China, the report of 60th anniversary of P.R.C

■ From 1978 to 1999: Efficiency-Focus Regional Policies

After the 11th plenary meeting of China's communist party (1978), the principal objective of the central government was totally turned from the 'political conflict' to the 'economy development'. Thus, China entered into a period of 'economic efficiency as the core of development' (from 1978 to the early 1990s).

At that time, the central government needed to improve the economic development of China rapidly, but the funds were limited. Therefore, one famous leader of China (M. Xiaoping Deng) proposed the idea that 'allow a part of people and areas to get rich first by a legal way', which later became the well-known 'two step' strategy (economic efficiency as the major objective)——the eastern region (esp. the coastal area) develops first and the central/western region follow. A key policy shift under Deng was the opening of China to foreign investments[224]. Therefore, the government of China started to implement the 'development strategy in the coastal area', and approved a number of 'open coastal cities" and 'special economic zones'. The open-up structure was formed gradually and a coastal 'open-up' belt was created finally: the special economic zone—the open coastal cities—the coastal economic open zone—the inland area. These areas benefited from a series of preferential policies (i.e. the tax exemption, the management of foreign trade, the foreign investment, the open-up of financial service, the decentralization of some investment right). In addition, by the decentralization of permit authority for investment project in the 'open-up' area and the authority expansion of local economic management, the decentralization of investment decision-making was carried out[225].

During the period, the eastern region received more national and foreign investment, and got more preferential policies. For example, from 1981 to 1985, the proportion of the basic construction investment in the eastern, central and western region was 47.7%, 29.3%, 17.2% respectively; the investment on the eastern coastal region (Liaoning Province, Shanghai, Guangdong Province, Fujian Province, Shandong Province and Jiangsu Province) accounted for 40% of total[226]. Besides, the financial reformation improved the local initiatives (the retention proportion of local revenue increased), especially for the coastal developed area. A series of preferential policies combining to the local advantages of resources (location, transportation, labor-force etc) promoted the rapid development in the eastern region, which could provide more job opportunities for migrants compared with other regions. Although many cities in the inland regions began to benefit from the policy since the year 1994, the time-lags caused the disparity among different regions to some extent (i.e. investment).

Table: The major open-up policy of China

1979	Adopted special policies in Guangdong Province and Fujian Province, reformed regional economic management system
1980	Shenzhen, Zhuhai, Shantou, Xiamen were established as Special Economic Zone

[224] John Friedmann, China's urban transition, London: University of Minnesota Press, 2005, pp. 22
[225] Yiming Wang, Research on regional economic policy in China, Beijing: China planning press, 1998
[226] Dongsheng Chen, Regional Economics, Henan People's Press, 1993

1984	Fourteen open coastal cities
1985	Coastal economic open zone (253 cities and counties)
1988	Hainan Special Economic Zone was created
1990	Open Pudong area of Shanghai
1991	Open thirteen inland cities in border areas, five cities along Yangtze River and all inland provincial capital cities

Figure: The 'open-up' structure of China

Sources: C.Cindy Fan, Uneven development and beyond: Regional development theory in post-Mao China, 1997

As a result, the development of the eastern region improved the economic growth of China rapidly. Especially after the year 1990, the effect of 'open-up policy' began to emerge: the market system was created; the investors and the ownership structure became more diversified etc. Although at the same time, the central government started to support some central and western areas by some measures, such as the state investment, the special subsidy and the tax exemption policy, the gap among different regions still became wider and wider. However, the massive balanced policy had not emerged until the late 1990s.

Table: The share of GDP among eastern, western and central regions during different period

	The share of China's GDP in 1980, %	**The share of China's GDP in 1990, %**	**The share of China's GDP in 2000, %**
Eastern region	51.13	52.64	57.29

Central region	30.20	28.36	25.58
Western region	18.67	18.99	17.13

Sources: China's Statistical Yearbook

On the other hand, during the same period, the central government of China realized the importance of territorial plan. In 1981, they approved the resolution of this kind of plan and created the national bureau of territory in 1982. In the 1980s, the government drew up the national territorial plan (only shown as the normal commission papers) and several provincial territorial plans. In addition, regional plan emerged as the form of urban system plan and urban agglomeration plan. In the year 1989, 'law of urban plan' was promulgated, which made urban system plan become a part of urban plan structure in China. The urban system plan charged by the construction department evolved into a more comprehensive regional plan, which contained some social/economic/environmental content. Since the middle-1990s, almost every province has carried out urban system plan, and certain urban agglomeration plans and metropolitan plans have been draw up.

■ From 1999 on: Coordinated-Development Regional Policies

Facing the 'unbalance' problems among different regions and the changing background in China and in the world (e.g. the trade with the border countries, the limited energy and raw materials in the eastern region, etc), the central government of China began to consider the unbalance of development again. And urbanization has become their emphasis at the national level. In fact, since the beginning of the 1990s, they had started to propose some 'open-up' and growth strategy in the western/central regions, along with the rapid development in the coastal region (the 10 years' planning of economic and social development, 1991). From 1991 to 1995, the central government began to speed up the 'open-up' in the central and the western regions. For example, they used the 'axis growth' model, to develop the inland regions along the Yangtze River, the Yellow River, the Longhai railway line and some areas near the frontiers.

As shown in the figure below, from the late 1990s, the total investment in the eastern region decreased gradually, while that in central/western region increased. However, a large-scale of coordinated-development regional policy had not been carried out until the year 1999.

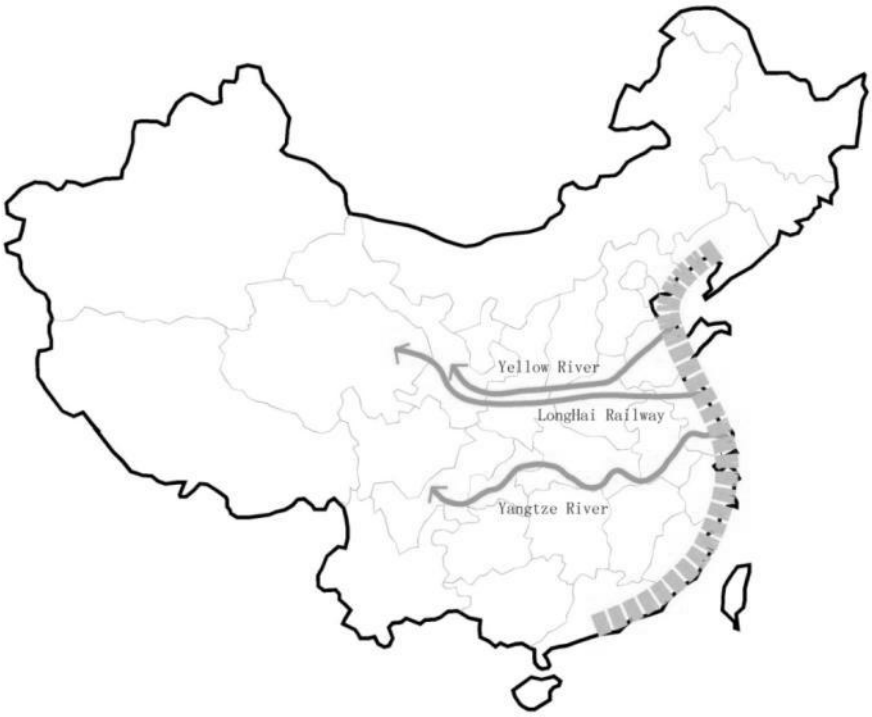


Figure: 'Axis Growth' model of China

Table: The distribution of the total investment in China

Year	Eastern Region		Central Region		Western Region	
	Share of the total (%)	Annual growth (%)	Share of the total (%)	Annual growth (%)	Share of the total (%)	Annual growth (%)
1991	57.04	24.41	24.21	20.34	14.68	24.91
1994	63.35	34.87	20.85	27.15	12.04	21.59
1996	62.21	11.91	22.16	20.93	12.54	20.45

Sources: China's Statistical Yearbook

Table: The annual growth of GDP among four different regions

	Eastern Region	Central Region	Western Region	North-east Region
Annual Growth of GDP from 1999 to 2005(%)	12.3	11.2	11.4	11.2
Annual Growth of GDP from 2005 to 2008(%)	13.3	13.0	13.3	13.2
Annual Growth of GDP from 1999 to 2008(%)	17.6	22.5	21.7	23.6

Sources: National Bureau of Statistics of China, the report of 60th anniversary of P. R.C

From the late 1990s, China's overall economy was enhanced notably. However, the huge disparity among different regions still existed. In the 21st century, China has gradually entered into the phase of rapid urbanization. At the same time, the central government began to pay more attention on the problem of development unbalance among different regions (such as the provinces in the western and in the eastern part of China, urban/rural areas). Actually, since the 1990s, China proposed to accelerate the development of the central and western regions, while

continuing to make full use of economic advantages in the coastal region. From the year 1999, a series of large-scale of regional planning with the coordination target were put forwards and implemented afterwards, such as 'western region development strategy (1999)', 'north-eastern region revitalization strategy (2003)', 'central region rise strategy (2005)'. 'Narrowing the gap among different regions' was proposed as a national strategy since then. These national strategies accompany a series of preferential policies and projects, such as the tax exemption (esp. for energy, electricity, electronics and information), the financial expenditure & monetary policies, and the open-up policy. For example, the tax proportion of the western region reduced from 15.14% in 2000 to 13.50% in 2007. Among the total tax, the enterprise income tax of the western region decreased from 12.28% in 2000 to 8.45% in 2007. Besides for the financial measures, the projects regarding public infrastructure were carried out, i.e. through massive projects in transport and communication. For example, in 2009, the new projects for 'open-up of western region' involved the construction of railway lines, highways, hydropower stations, electricity lines and airport. On the other hand, the development of urban agglomeration areas in coastal eastern area is still emphasized by government, which considers the regional integration with a wider scope, i.e. the grand Pearl River area (incl. Guangdong Province, Hongkong and Macro), broad Pearl River area (incl. the surrounding provinces).

Figure: China's four major regional policies from 1999

Table: The major regional policy of 'revitalization of north-eastern region', 2004-2010

Category of regional policy	Content of regional policy
Industrial (enterprise) policy	Direct grant for agriculture, seed and agricultural machine; Restructure of central enterprise; Industrialization of high-tech project in old industrial base; Expansion of the scope of VAT

	for military and high-tech production; some central enterprises to operate social work; Mid-to-long term plan of electricity-industry; Reformation of collective factory; Catalog of industries for foreign investment; the revitalization of the north-eastern region; 20 cities as service outsourcing cities; Integrated free trade zone in Suifenhe; Special investment plan for resource-based cities in the north-eastern region; further implementation of revitalization in the north-eastern region
Fiscal and financial policy	Direct grant for agriculture, seed and agricultural machine; Reformation sites of agriculture tax exemption; the preferential scope of enterprise income tax in old industrial base; Adjustment of enterprise resource tax in mine and oil area; Investment plan of the coal mining area; Expansion of the scope of VAT tax; Expansion of the scope of VAT for military and high-tech production; Investment plan of national debt; Exemption of the historical taxed of enterprises in old industrial base of the north-eastern region and the area of east-inner Mongolia; Expansion of part of financial policy in north-eastern old industrial base to the area of east-inner Mongolia; National financial transfer fund for resource exhausted cities; Special investment plan of resource exhausted cities
Resource-based city transition policy	Adjustment of enterprise resource tax in mine and oil area; Unified the enterprise asset depreciation and amortization policy; Policy of land and resource in old industrial area; Advise for the sustainable development of resource-based cities; Determine the list of resource exhausted cities; National financial transfer fund for resource exhausted cities; Special investment plan of resource exhausted cities
Social insurance policy	Amelioration of urban insurance system; Investment plan of the coal mining area; Transformation of shanty area
Open-up policy	Further open-up of old industrial base; Cooperative development plan of Tumen river area
Space lay-out policy	Development plan of coastal economic belt in the Liaoning province; Cooperative development plan of Tumen river area
Other policy	Creation of qualified personnel group; Flood control plan of Songhua river, Liao river and Hai river

Source: Fengjun Jin *et al.*, The evaluation of regional policy in north-east China since 2003, Economic geography, Vol. 30, No. 8, 2010

In recent years, besides the large-scale of regional strategy, more medium-scale and small-scale regional planning were approved by government, like ‘Mid-Shanxi and Tianshui region’, ‘western coastal region’. The regional planning began to involve different parts of China (the eastern region, the central region, and the western region). According to the ‘development report of cities in

China (2010)', the number of approved regional planning in four parts of China was: seven (the eastern region): two (the central region): three (the western region): three (the north-eastern region).Besides, the development of urban agglomeration areas is emphasized, which also become the major planning area for urbanization.. The trend shows that regional strategy of China turns from 'unbalanced' to 'balanced' objective. In addition, local governments have greater initiatives than before. Most of the medium-scale and small-scale regional planning were proposed and carried out by local government, which only had to be approved by the central government. It is to be noted that the aim of the regional planning is for more investment, projects as well as some preferential policies in local areas (i.e. financial, land policies).

Moreover, along with the continuous rural-urban migration, the idea of 'control the scale of large cities; develop towns' was slightly changed by 'coordinated-development among big cities, medium-sized cities, small cities and towns'. In addition, the rural area is more paid attention in these years than before. On 1st January 2008, 'law of town and country plan' was proposed officially, which is a signal of the equal attention on the urban area as well as the rural area. Besides, the central government proposed that China has entered into a phase of 'promoting agriculture by industry, developing rural area by cities'. And the 1st paper of central committee (CPC) for nine years (2004-2012) all concerned about the problems of 'rural area, agriculture, peasants' in China. As a result, many regional planning such as 'urban agglomeration plan', 'rural-urban coordination development plan' emerged.

In addition, the development strategy at the national level and the evolution of background accompany the direction change of China's regional planning. At present, the new trend of China's regional planning is 'multi-type, multi-level, multi-object'[227]. For example, there appeared some 'metropolitan plan', 'urban agglomeration plan' with a goal of enhancing regional competitiveness; 'urban-rural integration plan' with the purpose of coordinating the rural-urban development. Thus, at the current stage, China's regional planning focuses on the three major aspects: the economic development and environment protection, the enhancement of regional competitiveness (the metropolitan city as a centre), and the coordinated development between the urban and the rural area.

[227] Gonghao Cui, The new characteristics and development trends of China regional planning, Modern urban research, 2006(9), pp 5

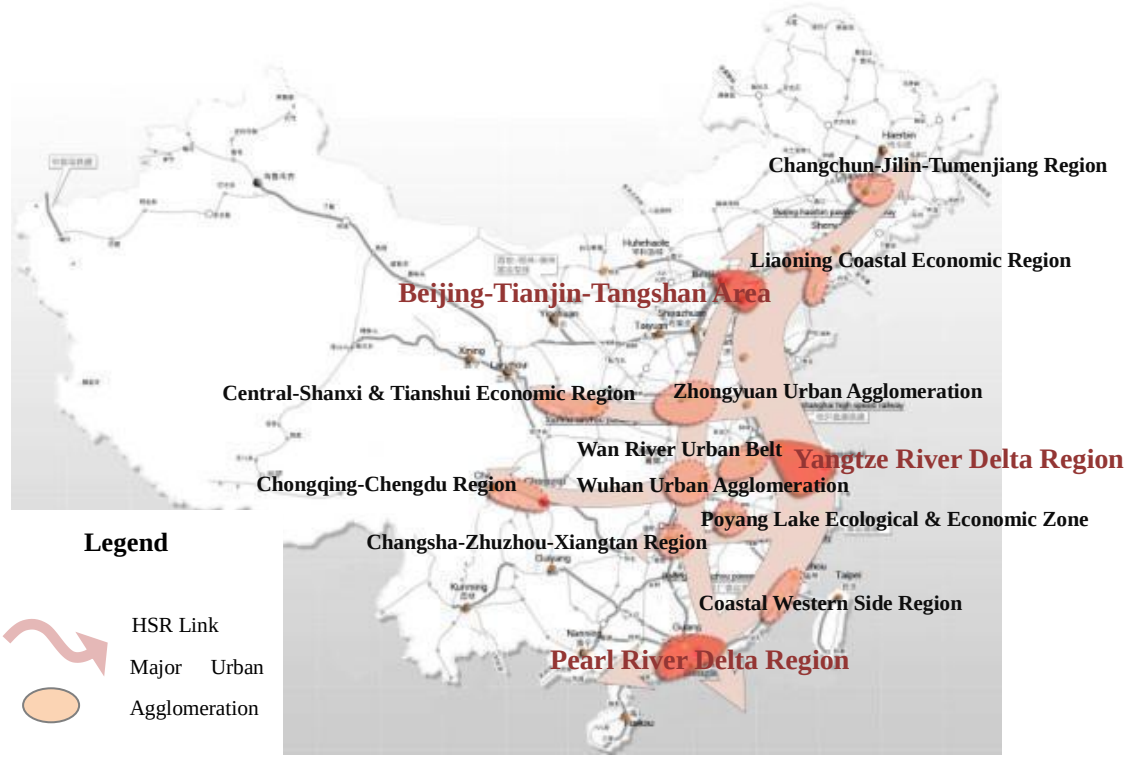


Figure: China's Major Urban Agglomeration

Note: The dark-red areas are Beijing-Tianjin-Tangshan area, Yangtze River Delta, Pearl River Delta; the light-red areas are sub-regions according to China's regional development strategies.

Source: a series of China's regional development plans of Nation strategy level

■ List of China's Regional Plans/Policies

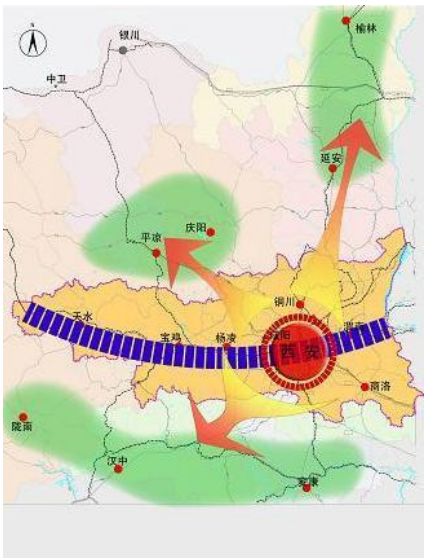
The major regional plans/policies in China are listed below, which reflect its evolution in different periods.

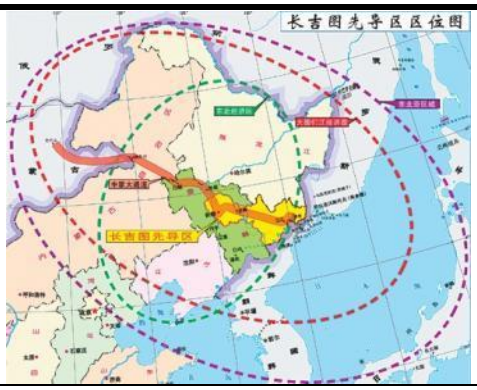
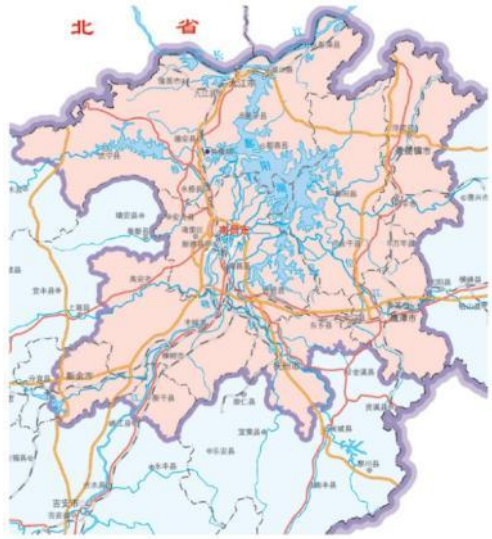
Table: The major regional plan/policy of China

Year	Content	Tool
1964	Establishment of 'Third Front' Construction	the most part of revenue from developed area (such as Jiangsu Province and Shanghai) had to be transferred and to subsidize the less developed area; more national funds and construction projects (such as factories, railways, roads and etc) were transferred and invested in the central/western area.
1973	Developed Guiyang, Chonqing, Anshun, Mianyang (all in western areas) as major cities	
1979	Carried out the special policies in Guangdong and Fujian Province, reformed regional economic management system	'Open-up & preferential policy' in the coastal area, and national capital investment, such as the special policies on foreign investment, the management of foreign trade, the exemption from taxes, the creation of economic technology zone etc
1980	Shenzhen, Zhuhai, Shantou, Xiamen were established as Special Economic Zone	
1984	fourteen open coastal cities	
1985	Coastal economic open zone (253 cities and	

	counties)	
1988	Hainan Special Economic Zone was established	
1990	'Open-up' policy of Pudong area in Shanghai	
1991	'Open-up' policy in thirteen inland border cities, five cities along the Yangtze River and all the inland provincial capital cities	
1999	Western Region Development Strategy	National investment, construction of key projects, some preferential policies (i.e. tax, land, resource, talented person)
2003	North-East Region Revitalization Strategy	Project investment, fiscal support, reform of state-owned enterprises, construction of infrastructure etc (Wang and Wei, 2005)
2004	Central Region Rise Strategy	It was included in the 11st five-year plan, which proposed some major contents: to enhance the food production capacity, to support the construction of coal bases, to speed up the adjustment of industrial structure, to construct the excellent raw material base, and to create a comprehensive transportation system etc.
2006	Development plan of areas along Yangtze river in the Jiangsu province	Including industrial layout, use of resources in the shorelines, construction of infrastructure, development and layout of cities and towns, sustainable development, Integration with Shanghai etc In order to improve the level of development, to narrow the disparity among different parts of China
2007	Coordinated Strategy between Rural and Urban region	The concept was firstly proposed in the 16th national congress of the Communist Party of China, which focused on the problems involving 'countryside, agriculture, and peasant', by the way of 'industry supporting agriculture, city supporting countryside'. The aim is to adjust the dual economic

		structure of urban-rural area, to narrow the rural-urban gap of development, and improve the sustainable development of agriculture and rural economy.
2008	Integrated development plan of Pearl river delta	Planned as the pilot area of scientific development, the area for further reform, the international 'gate' of 'open-up', the international base of advanced manufacturing and modern service, national economic center. It includes the creation of modern industrial system, the development of the capability of independent innovation, the modernization of infrastructure, the coordination of rural-urban area, the development of regional coordination, and the environment protection etc.
2008	Master plan of Wuhan metropolitan area	Planned as the growth pole of inland area, the gathering area of financial industry in the inland area
2008	Master plan of Changsha-Zhuzhou-Xiangtan urban agglomeration area	Expand the scope from the 'Changsha-Zhuzhou-Xiangtan' (as the core) to the other five cities ('3+5' structure, the 1.5 hour of drive-distance as radius) in Hunan Province, which emphasized the integrated development on economy (i.e. industry and market), living condition (i.e. employment and environment), and public facilities (i.e. transportation).
2009	Development plan of Central-Shan'xi and Tianshui economic zone	Planned as the growth pole of western part of China: division of three area (urban area, rural area, ecological area), space strategy (one core, one axis, three radiation), urban system, creation of innovative zone, development of local industry with characteristics, and construction of infrastructure etc.

		
2009	Development plan of Hengqin island 	Planned Hengqin island as a part of economic zone of Zhuhai, and the campus of University of Macau (UM); developed business service, leisure and tourism, R&D and high-tech industry, environmental protection. The aim is to become the demonstration area of cooperation among Guangdong, Hongkong and Macau, the area of technological innovation, the new platform of promoting industrial upgrading
2009	Plan of Coastal economic belt in Liaoning Province 	Including space strategy (urban system, urbanization etc), upgrading of economic structure, construction of infrastructure, national and international cooperation, environment protection. The aim is to develop the coastal economic belt and the old industrial bases, to improve the economic layout of China's coastal area, to promote regional coordinated and 'open-up' development.
2009	Cooperation development plan of Tumen river area	Including the optimization of the spatial layout, the upgrading of industry, the construction of infrastructure and environmental protection etc. The aim is to improve the competitiveness

		in the international cooperation of Tumen river area, to become the growth pole of east-northern part of China, to improve the economic, social development of the frontier area.
2009	Development plan of Huang river delta 	Including space layout (core protection zone, control development zone, intensive development zone), environment protection, creation of ecological industrial system, construction of infrastructure etc. The aim is to develop 'efficient ecological economy' (demonstration area of efficient ecological economy, national industrial bases with characteristics, development zone of reserve land, and growth area of Bo-Sea area).
2009	Plan of Poyang lake ecological & economic zone 	Including the construction of ecological system, industrial system (new industry, ecological agriculture, modern service), infrastructure system, urbanization system etc.
2010	Plan of Wan river urban belt	The major aim is the industrial transferring, including four development fields, specific development zone, plan of cities in the border area in the Yangtze River Delta etc.
2010	Plan of Hainan international tourism island	The aim is to become the international tourism island, including six development area, direction of industrial development, and construction of infrastructure etc.

2010	National urban system plan	Five national core cities were determined: Beijing, Tianjin, Shanghai, Guangzhou, and Chongqing.
2011	Plan of Coastal Western side area 	The aim is to become the demonstration area of cooperation between mainland China and Taiwan, the 'open-up' channel of service node, the important bases of advance manufacturing in the eastern coastal area, the center of natural and cultural tourism.
2011	Plan of Chengdu-Chongqing economic area 	Including the amelioration of spatial structure, the development of key area, the coordination of urban-rural area, the construction of modern industrial system and infrastructure, etc. The strategy aim is to become the important economic center of the western region, the national modern industrial base, the node of modern service in the west, the testing area of 'open-up' in the inland area, the demonstration area of urban-rural coordination, the guarantee area of ecological area in the upper part of Yangtze River.

Case: Master plan of Changsha-Zhuzhou-Xiangtan urban agglomeration area

For better understanding regional planning in China, we briefly introduce master plan of Changsha-Zhuzhou-Xiangtan urban agglomeration area as example.

Changsha-Zhuzhou-Xiangtan urban agglomeration area belongs to Hunan Province, which is located in the central part of China. It is the core (Changsha is the capital of the province) and the most developed area in Hunan Province.

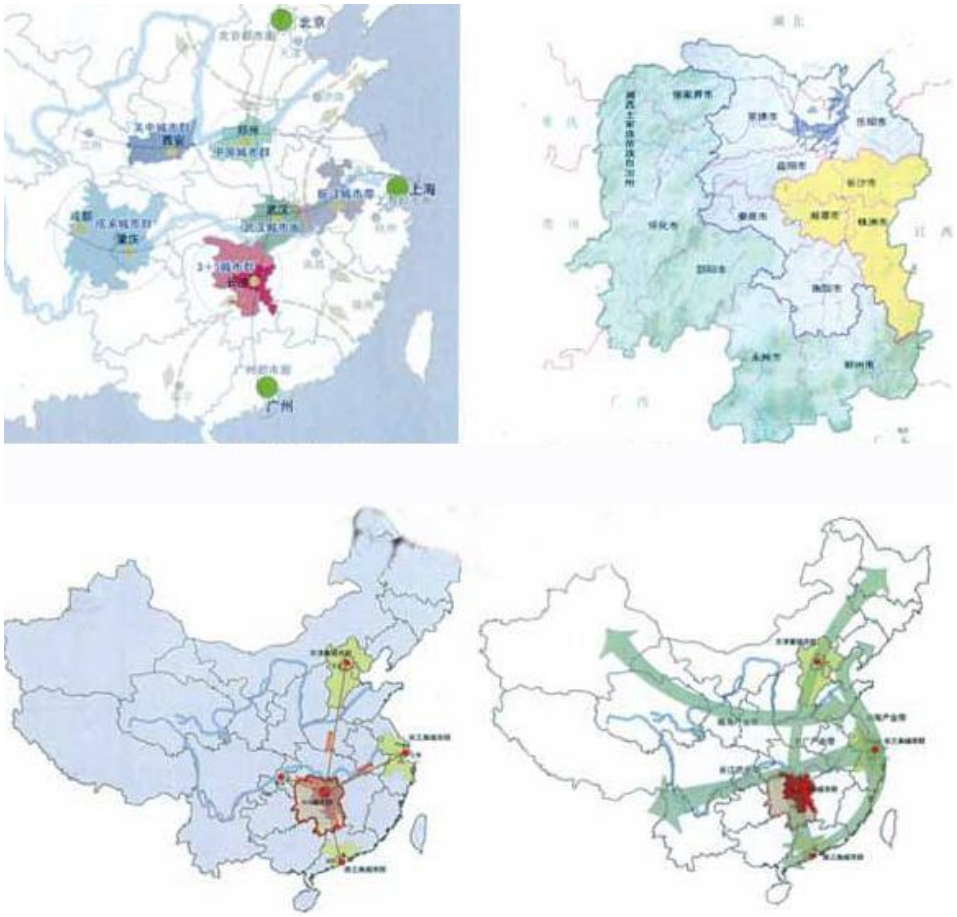


Figure: The location of Changsha-Zhuzhou-Xiangtan urban agglomeration area

Master plan of Changsha-Zhuzhou-Xiangtan urban agglomeration area was formulated in 2008, which is a comprehensive plan, including: economic, social, transportation, ecological parts etc. The planning period is from 2003 to 2020.

■ **Development target**

——Form a highly coordinated, multi-core urban agglomeration area (spatial layout, public facilities, ecological environment, market and industry)

——Form a 'network' urban agglomeration area connecting by rapid transportation network (highway, expressway and rail).

——Become one of competitive urban agglomeration areas in Central China

■ **Spatial organization**

——Changsha-Zhuzhou-Xiangtan as the core area

——One major axis (along the Beijing-Guangzhou railway, Wuhan-Guangzhou passenger railway, Beijing-Zhuhai highway and 107 national expressway)

——Two sub-axis: along 319 national expressway, 320 national expressway and 106 national expressway

——Green space among cities

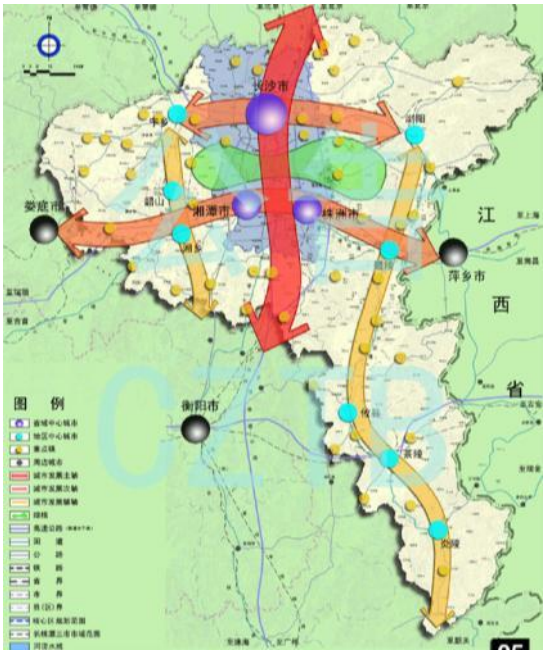


Figure: Spatial organization of Changsha-Zhuzhou-Xiangtan urban agglomeration area

■ **Function of major cities**

——Changsha: capital of Hunan Province, core city in Cenrtal China

——Zhuzhou: transportation hub city at the national level, important industrial, high-tech industrial and logistic center in Hunan Province

——Xiangtan: important industrial, education/research and tourism city in Hunan Province

Sectorial plan (part)

■ **Economic plan**

——Improve the level of modern agriculture, recreation agriculture; strengthen some leading industry (electronic, metal, mechanical, production of rail facility); improve the development of modern service (i.e. cultural industry, information service and logistics) and integrate the resources of tourism.

——Creat several agricultural production bases and some specialized parks (industry, service) at different levels (national, provincial, urban) in order to push the development of 'cluster', i.e. Changsha high-tech industry park, Furong cultural industry park.

——Organize several 'theme' tourism lines (i.e. history and culture, scenic belt along Xiang River)

——Form economic chain based on economic bases and parks.

■ **Land and ecological protection plan**

Control the scale of city for intensive use; creat ecological protection area (i.e. basic agricultural

land, natural protection zone); forbid polluting companies along the river

■ **Transportation plan**

——Make Changsha as the hub of highway and ports, Zhuzhou as the hub of railway, Huanghua airport as the hub of airline in the region

——Creat the integrated transportation network among three cities (by highway, expressway and rail)

Figure: Transporation plan of Changsha-Zhuzhou-Xiangtan urban agglomeration area

11.2.2 Urbanization Policies of China

Compared with some other countries, China's urbanization process is influenced by special urbanization policies in China.

■ **From 1949 to 1978**

During the beginning period after the establishment of P.R.C, China's urbanization developed steadily. However, due to the change of political context and the influence of the Soviet Union, China carried out a 'dual-tracks' strategy which 'stresses more on the industry (esp. the heavy industry) than the agriculture'. Thus, a large amount of resources and funds were invested in the field of heavy industry. Moreover, to make sure of its development, the central government limited the prices of agriculture, also blocked the migration of peasants. The 'hukou[228]' system was born during that period, which was related closely to job, supply of food, housing etc. This system highly hindered the urbanization process in China. On the other hand, the 'rural collective production system' (agriculture production by rural community) was implemented at that time,

[228] Hukou: local household registration status, which divide residents into urban residents and rural residents

which copied the way of the Soviet Union, and restricted the efficiency of agriculture productivity to a certain degree.

This economic strategy and production system resulted in the low-productivity of agriculture. Due to the lack of food supply and the change of national/international context (i.e. the cold war), China carried out some other policies influencing the urbanization process, such as 'urban youths move to rural area' during the period of 'Cultural Revolution'. At that time, the population migrated not so much due to an individual rational calculation of the costs and benefits of migration, but rather in response to the government's strategic and economic policies and sometimes because of the wider political changes in China [229](Liang and White, 1996).

- **From 1978 to 1999**

After the 'open-up' policy in the year 1978, the 'rural collective production system' was replaced by the 'household responsibility system'. With the increase of agriculture productivity, the problems of food supply were eased, and more and more rural surplus labor emerged. Besides, the reformation of the market in China started to demand geographic mobility. However, at that time, 'hukou' system was still strict. Thus, 'developing towns' became the best urbanization policy for the central government. In 1979, the idea of town development showed up in the paper of 11th plenary meeting of China's communist party for the first time. Since the year 1984, the 'hukou' system began to adjust by the central government. Rural communities and laborers were encouraged to establish Township and Village Enterprises (TVEs) and to create non-agricultural employments by using their own resources (Liu *et al.*, 2003).

In addition, although peasants could work in cities, they were not treated like citizens. 'Hukou' was still related to some urban welfare, such as children's education, medical insurance, housing subsidies etc. However, in 1989, 'control the scale of large cities, develop towns' was slightly converted into 'control the scale of large cities, develop towns and medium-sized cities', which was written in the 'law of urban plan'.

During this period, the 'urbanization from below' was the major theme of development. The peasants left agriculture production, but still worked in the factories of towns and rural area. However, along with the rapid industrialization (esp. in the eastern region) and adjustment of some policies (i.e. the 'hukou' policy), the 'urbanization from below' gradually evolved into the pattern of 'farmers migrating into cities'.

- **From 1999 on**

In the year 2000, the central government proposed the strategy 'coordinated-development among big cities, medium-sized cities, small cities and towns', which was quite different from the previous one in the 'law of urban plan'.

During the period, more and more peasants migrated into cities (esp. in the eastern area), but the

[229] Zai Liang and Michael J White, Internal migration in China, 1950-1988, Demography, Volume 33, Number 3, August 1996: 375

urban infrastructure (hospital, housing, school and etc) still could not sustain so many floating population. Although students with a high education level from the rural area can change their rural 'hukou' into the urban 'hukou' or someone can change the 'hukou' by the way of purchasing houses in cities, most peasants working in cities (the so-called rural migrant workers) cannot change their rural identities easily. They are allowed to work in cities, but hard to settle down in cities without the equal medical insurance, housing subsidies, and education resources etc as urban residents. Therefore, every big holiday (esp. the spring festival), these peasant workers carry the money earned in cities back to their rural hometown, which is a quite typical phenomenon in China.

However, in the recent years, compared with the previous rural migrant workers, the new rural migrants (esp. the young migration) begin to show their new demand: they do not want to earn money in cities and return to rural areas again, they are eager to become citizens. In comparison with the former years, it turned out to be much easier to get a local 'hukou' in medium-sized and small cities. However, for the large cities which prefer migrants with relatively high education degree or those with the ability to purchase commercial housing (Liang and Ma, 2004), it was still difficult to obtain a local 'hukou' for the majority of floating population.

Therefore, the central government proposed the idea of 'Chinese typical urbanization' in order to solve the problems. In 2010, the report of central government wrote that: 'improve the coordinated development of cities and towns, increase the load capacity of cities and towns; cities/towns play a leading role in improving rural area, promoting the benign interaction between the urbanization and the rural construction'.

■ List of China's Urbanization Policies

Table: List of China's major urbanization policies

Year	Content
1951	'The management regulation of urban hukou' was promulgated.
1953	The rural-to-urban migration was controlled.
1958	China began to carry out 'hukou regulation' which was promulgated as a law.
1979	'Controlling the scale of large cities, developing towns' became the principal direction.
1984	It was allowed for peasants to go to work and live in towns. The establishment standard of town was revised for the first time after 1960, which resulted in the rapid increasing number of towns in China.
1985	'Id card regulation' was promulgated in China, which meant that the migration of peasants was allowed, but their 'hukou' still belonged to rural area.
1989	'Control the scale of large cities, develop towns' was changed into 'control the scale of large cities, develop towns and medium-sized cities', which was written in the law of urban plan.
2000	The strategy of 'coordinated-development among big cities, medium-sized cities, small

	cities and towns' was proposed.
2004	In some provinces, the original rural 'hukou' and urban 'hukou' were totally replaced by resident 'hukou'; it's allowed to move' hukou' into county-level and town-level cities if only someone has a permanent residence or a stable employment (source of income) without other attached conditions.
2010	The idea of 'improving the coordinated development of cities and towns, increasing the load capacity of cities and towns; cities/towns playing a leading role in improving rural area, promoting the benign interaction between urbanization and rural construction' was proposed.

11.3 The situation after the 'open-up' policy

11.3.1 The development of China from 1978 to 2000

The development among different regions

The eastern area developed quickly based on its industrial basis and a series of preferential policies since the 'open-up' in 1978. The regional development of China is highly influenced by the unbalanced capital investment for decades (e.g. the costal eastern area got much more investment compared with the other parts of China) led by the regional plan/policy to a certain degree.

From 1978 to 2000, along with the evolution of the policy guidance since the year 1978, the gap of development among different regions of China became wider. As shown in these tables below, the disparity expressed by some indices (i.e. GDP, income) among different regions was more obvious after the year 1978. It was in accordance with a series of 'open-up' policies in the coastal eastern area. Sun (1998) attributed the huge unbalance to: better industrial combination in the eastern region (depended much less on agriculture), more frequent international trade, the attractiveness for foreign and domestic investment, and support of government.

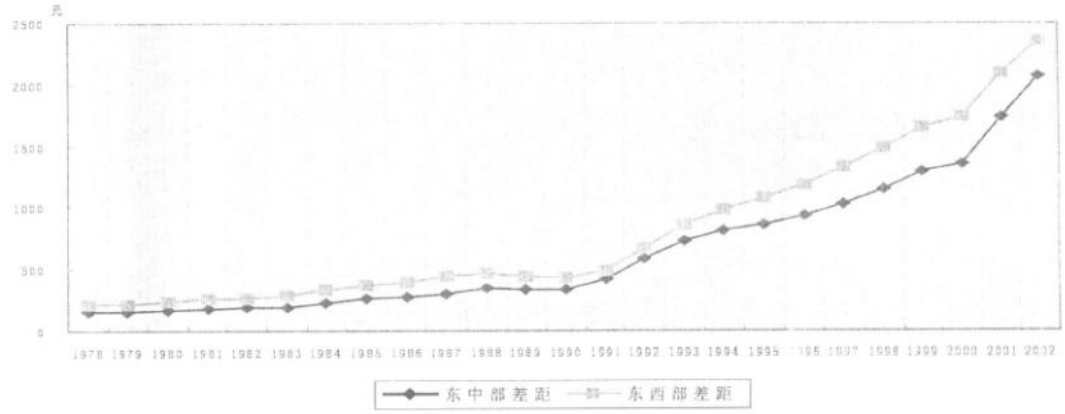
Table: The indices of three different regions, %

	GDP			**Gross industrial output value**			**Capital Construction**		
	1978	1990	1999	1978	1990	1998	1985	1990	1998
Eastern Region	45.88	53.23	55.08	51.03	56.01	60.48	45.84	49.12	53.84
Central Region	23.33	21.29	21.64	19.31	19.44	21.21	22.64	19.38	19.97
Western Region	16.76	14.64	13.53	13.15	11.91	9.02	18.43	18.46	17.48
North-eastern Region	14.03	10.83	9.75	16.51	12.63	9.30	13.09	13.04	8.71

Table: The growth rate of GRP and GRP per capita

	The growth rate of GRP (%)				GRP per capita (the average level=100)			
	Eastern Region	North-eastern Region	Central Region	Western Region	Eastern Region	North-eastern Region	Central Region	Western Region
1980	10.1	9.0	6.7	8.3	128.7	150.8	78.6	71.2
1985	14.8	9.6	13.5	13.0	131.3	139.5	80.1	70.3
1990	5.8	2.2	3.9	5.7	133.7	136.9	76.6	71.7
1995	14.7	8.4	13.6	9.9	149.2	119.5	72.2	63.5
2000	10.5	8.7	8.9	8.5	147.6	118.7	73.1	60.9

Source: National Bureau of Statistics of China, 1996; Wei *et al*., 2011



* Disparity between the south and the centre * Disparity between the south and the west

Figure: The gap of GDP (per capita) in three regions

Source: Naiquan Liu *et al*., The emphasis revolution of China's regional policy and its overall effect, Reform of Economic System, 2005 (Jan.), No.1, pp. 12

Table: The proportion of the direct foreign investment in the three regions of China, 1983-2003

	1983	1988	1990	1996	2000
Eastern Region	93.49	87.10	87.37	82.70	86.50
Central Region	4.07	7.28	7.86	11.11	9.06
Western Region	2.44	5.62	4.77	6.20	4.44

Source: China's Statistical Yearbook

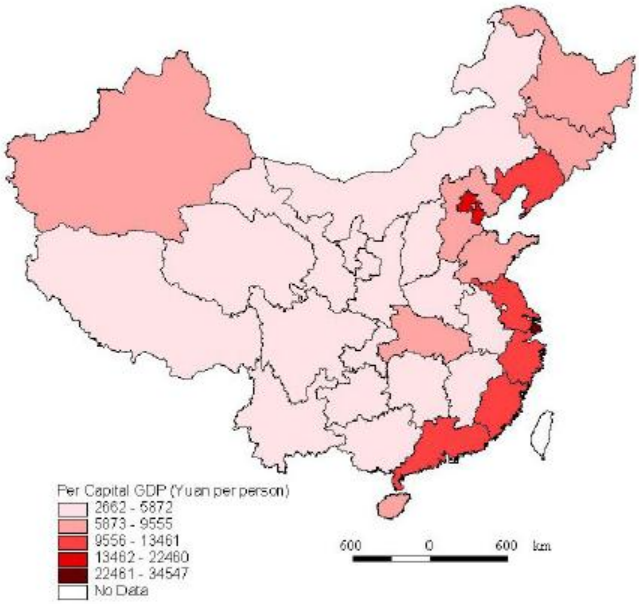


Figure: China's regional disparity in GDP/per capita, 2000

Source: Liu *et al*., 2003

According to Guo et *al*'s (2006) research, the distribution of China's regional economics showed an obvious concentration trend (esp. for the industry sector) from 1978 to 2000. The period (1990-1995) is the rapidest phase of concentration, while from 1995 to 2000 the trend became more stable than before. Besides, they proposed that the concentration trend was related closely to the regional plans/policy of China.

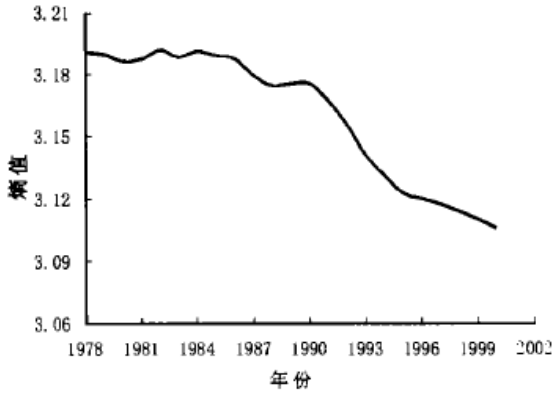
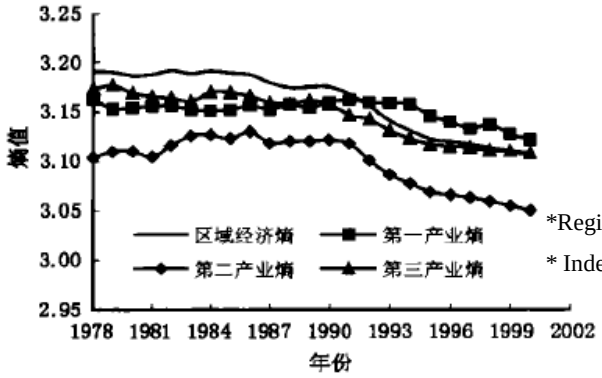


Figure: The trend of the regional economic distribution in China, 1978-2000

Source: Tengyun Guo *et al*., A quantitative analysis of the relationship between regional policy and regional economic distributions in China, Areal research and development, 25(4), 2006, pp. 2



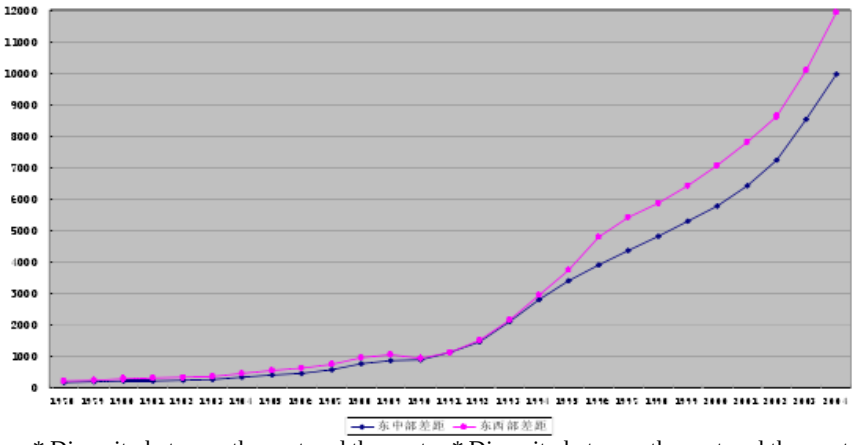
*Regional economy index * Index of agriculture
* Index of industry * Index of service

Figure: The comparison of agglomeration trends of regional GDP and three industrial GDP in China, 1978-2000

Source: Tengyun Guo *et al*., A quantitative analysis of the relationship between regional policy and regional economic distributions in China, Areal research and development, 25(4), 2006, pp. 3

In addition, Jia (2006) considered the influence of regional plan/policy on GDP, which was shown as a decreasing trend from the East to the West (from 1978 to 2003). That is to say: the effect of regional plan/policy on regional economic development was more obvious in the eastern regions than in the other part of China during the period. These policies positively improved the other elements of development.

Ron *et al.* (1999) found that the 'U-shaped' pattern of inter-provincial living disparities was mainly determined by the degree to which government intervened in regional redistribution of income. And Demurger *et al.* (2002) found that preferential investment and trade policies contributed directly to the differences in the growth rate of provinces. Kanbur and Zhang (2002) argued that the fiscal decentralization and the trade liberalization affected the regional inequality. However, the development is also based on its own industrial basis and the development potential etc.



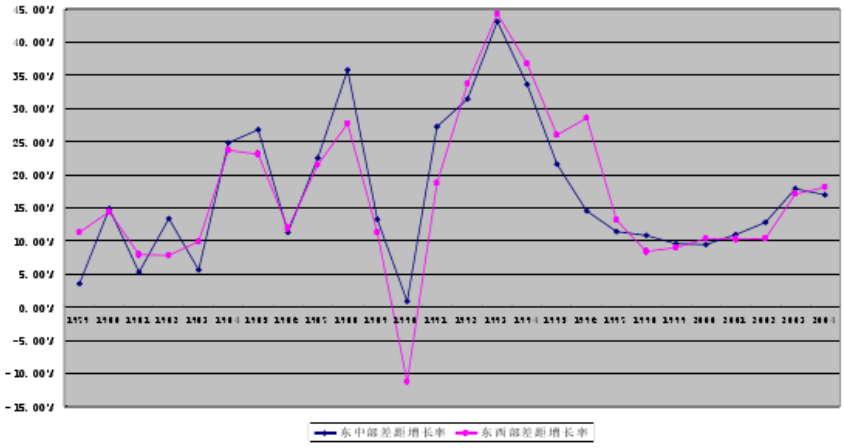
* Disparity between the east and the centre * Disparity between the east and the west

Table: The disparity of GDP/per capita among three different regions (Chinese yuan)

Source: Yanli Jia, Study of China regional policies' impact upon regional disparities, Doctoral Dissertation, Shanghai University of Finance and Economics, 2006, pp. 41

As shown in the figures below, the disparity of growth rate between the eastern and the central region has been narrowed obviously since the 1990s, which accompanied the policy of 'axis

growth' during the same period. The difference of the growth rate of GDP reached its highest point in the year 1993, and then dropped down afterwards. The rate fluctuated around the year 2001, due to some other factors besides regional policies, such as joining in WTO (Jia, 2006).



* Gowth rate of disparity between the east and the centre
* Growth rate of disparity between the east and the west

Table: The disparity of growth rate of GDP/per capita among three different regions (Chinese yuan)

Source: Yanli Jia, Study of China regional policies' impact upon regional disparities, Doctoral Dissertation, Shanghai University of Finance and Economics, 2006, pp. 42

Development of China's urbanization and urban system

■ Development of China's urbanization

On the whole, there were some fluctuations in the first 30 years after the establishment of P.R. China, while after the 'open-up policy' in the year 1978, the urbanization level increased steadily. However, due to some limitation of the urbanization policies, the process of urbanization was not in accordance with the industrialization process, the massive floating population had not emerged until the late 1990s. From the late 1990s to the beginning of the 21st century, the growth sped up more rapidly than before. Especially in the 21st century, China has entered into a period of rapid urbanization.

Table: The situation of China's urbanization, 1949—1978

Year	Total Population (ten thousand)	Urban Population (ten thousand)	Urbanization Level (%)	Cities	Towns
1980	98705	19140	19.4	223	2692
1985	105851	25094	23.7	324	9140
1991	115823	30543	26.4	476	12455
1995	121121	35174	29.0	640	17532
2001	127627	48064	37.7	--	--

Sources: China's City Statistical Yearbook 1978, 1985, 1993, 2007

Due to the control of 'hukou' system and the less-development of economy, the gap of urbanization among the three different regions was not huge in the initial and middle period. Moreover, promoted by the guidance of 'controlling the scale of large cities, developing towns', a

number of rural factories rose in the eastern region at that time, these peasants who left work of agriculture still stayed in the local rural areas.

From the late 1990s, the massive migration of the rural population emerged. However, the urbanization level among different provinces became diversified since then. The process of urbanization in the eastern region turned out to be much faster than that in the central and the western regions. Among them, the coastal eastern provinces developed notably (i.e. the Guangdong province, the Zhejiang province, the Jiangsu province and the Fujian province), which attracted a number of intra-provincial as well as inter-provincial migrants. As the trend continued, the gap of urbanization level between the eastern regions and the central/western regions became wider.

Table: The level of urbanization in four different regions, %

Year	Eastern Region	Central Region	Western Region	North-eastern Region	Average
1990	30.14	20.43	20.79	47.51	26.23
2000	45.34	29.73	28.73	52.14	36.89

Sources: China's Statistical Yearbook

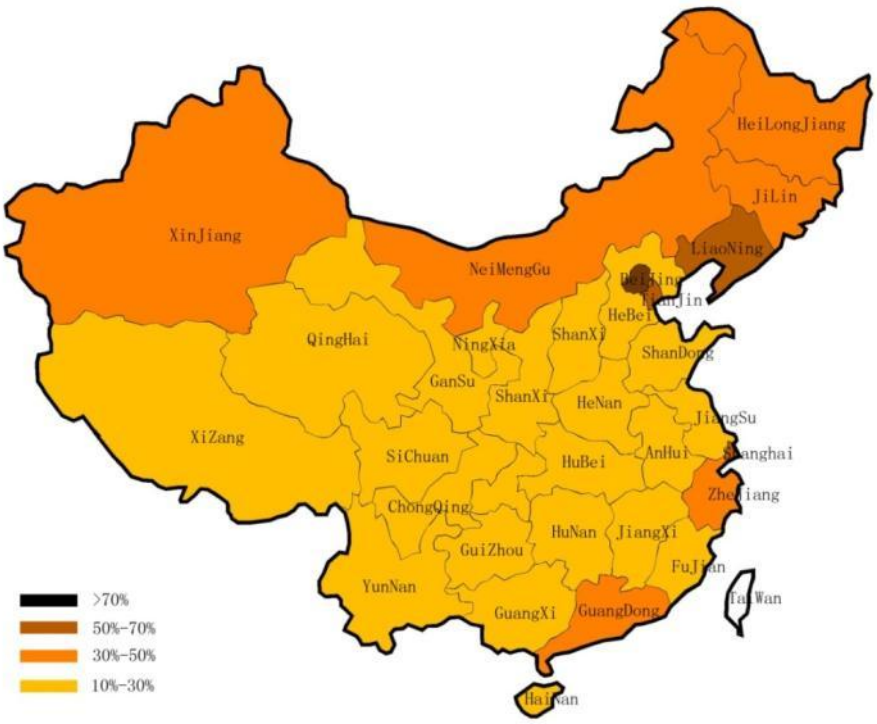


Figure: The level of urbanization among different provinces, 1990

Sources: China's Population Statistical Yearbook, 2001

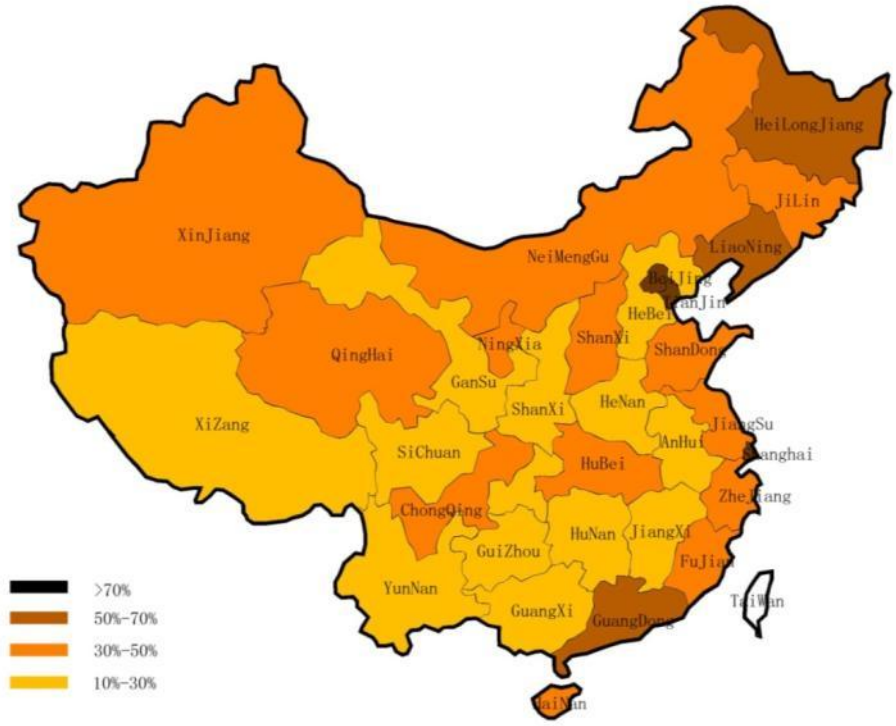


Figure: The level of urbanization among different provinces, 2000

Sources: China's Population Statistical Yearbook, 2001

■ Development of China's urban system

According to the report of National bureau of statistics of China, the number of cities in China increased from 132 (in 1949) to 193 (in 1978) and to 668 (in 1997). Among them, the number of big cities (>500,000 non-agricultural population) climbed from 12 (in 1949) to 81 (in 1997). The rapid growth of medium-sized and small cities accompanied the economic development in rural area (esp. in the eastern coastal area), and followed the policy of urban development ('control the scale of large cities; develop small and medium-sized cities') during the 20 years after the year 1978. According to the report of China's urban agglomeration (2010), its formation was improved by the regional cooperation and the development of village/town level enterprises in the 1980s, and its development was pushed by the creation of economic development zones and industrial clusters in the 1990s.

City Size (inhabitants)	>1,000,000	500,000-1,000,000	200,000-500,000	<200,000
Growth rate of city number (1949-1997)	6.4	4.8	10.0	5.5

Source: National bureau of statistics of China, Report of the 50th anniversary of P.R.C

As shown in the table below, due to the government's support in the inland area, the gap of city number among different regions decreased from 1949 to 1978.

Table: The number of cities among three different regions

Year	Total	Eastern Region	Central Region	Western Region

	number of cities	number of cities	Share of total (%)	number of cities	Share of total (%)	number of cities	Share of total (%)
1949	135	69	51.1	53	39.3	13	9.6
1957	176	72	40.9	73	41.5	31	17.6
1978	193	69	35.8	84	43.5	40	20.7

Sources: China's Statistical Yearbook, 1979

However, during the 20 years (1978-1998), the disparity become wider, which was not only expressed by the number of cities but also by the size of cities. In the year 2000, almost half of the mega-cities emerged in the eastern regions, and the trend continued. In addition, along with the rapid urbanization process, some big urban agglomerations were formed and concentrated in the eastern coastal area, such as the urban agglomeration around the Bo Sea (incl. Beijing, Tianjin, Qingdao, Shenyang, Dalian), the urban agglomeration of the Yangtze Delta (incl. Shanghai, Nanjing, Hangzhou, Ningbo), and the urban agglomeration of the Pearl River (incl. Guangzhou, Shenzhen).

Table: Growth rate of urban population in four city-and-town concentrated areas, 1982-1995

Growth Period	**Pearl River Delta**	**Yangtze River Delta**	**Beijing-Tianjin-Tangshan Area**	**Central and Southern Liaoning Province**	**National**
1982-1995	9.3	5.1	3.6	3.0	3.9
1991-1995	13.9	6.2	5.7	2.6	3.1

Source: X, Hu, 2006, pp. 26

The migration of labor-force

■ Floating population rise quickly, mostly from rural areas

During the Mao's era before economic reforms in 1978, migration was generally controlled by the government and the mobility was still limited in the early years of the post-Mao period (Wei, 1997). However, the urbanization process in China has accelerated since the mid-1980s after nearly three decades of urbanization (Shen, 2000), especially after the late 1990s. It was partly due to the development of the market economy and the lower control over migration. Some scholars considered that the expansion of the non-state sector and the loosening of the urban employment policy created the demand for migrants (Meng *et al.*, 2001, Cai, 2001), and investment (domestic and foreign) also increased the demand for migrant labor (i.e. Liang and White, 1997; Bao *et al.*, 2007).

A massive inflow of migrants began to crash from rural areas into the cities with the purpose of economic opportunities (i.e. employment/business opportunities), which was not only driven by the huge income gap between rural and urban area, but also pushed by regional income gap (Zhao, 2003). It could be seen as a result of regional unbalanced development. Besides, according to the table below, most of temporary population in China (in 1997) engaged in manufacturing,

construction and business, other than the service sector.

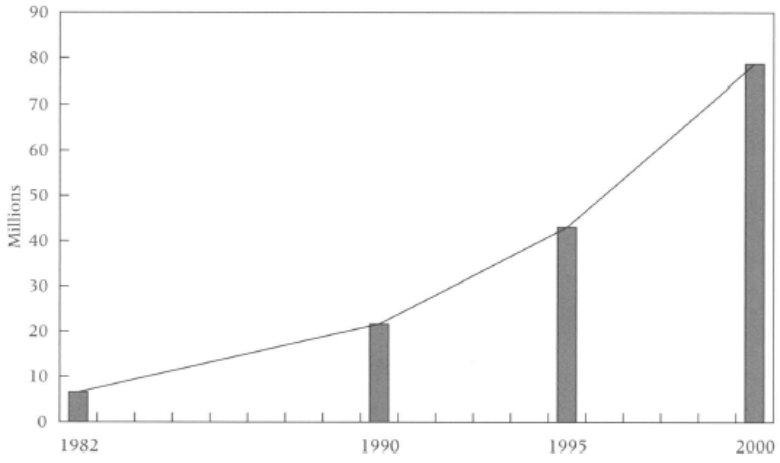
Table: Urban temporary population by type of activities, 1997, %

Types of activity	Total	Male	Female	<1 month	1 month–1 year	>1 year
Manufacturing and construction	56.1	58.1	53.1	18.9	67.2	52.7
Agriculture	3.6	3.6	β.6	1.8	3.2	5.6
Business	13.9	15.1	12.0	10.4	12.8	18.4
Services	7.9	5.4	11.6	4.2	8.9	7.9
On business trips	2.9	3.7	1.8	16.6	0.5	0.3
Study and training	2.0	2.0	2.1	1.7	1.4	3.5
Taking medical care	0.6	0.6	0.6	2.1	0.4	0.2
Domestic services	0.5	0.0	1.2	0.2	0.5	0.7
Joining relatives	2.7	1.8	4.0	2.2	1.4	5.9
Visiting relatives	1.5	1.3	1.8	6.8	0.5	0.6
Sightseeing	4.5	4.7	4.3	28.5	0.2	0.1
Other	3.9	3.8	4.0	6.7	3.1	4.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Administration Bureau of Household Registration, 1997

In 1982, based on the first census since 1978, the inter-county floating population was estimated at around 7 million. By the year 1990, it had reached nearly 22 million. The size doubled from 1990 to 1995[230] (Liang and Ma, 2004). Besides (in 2000), compared with 4% of the permanent migrants, 65% of the floating population was to look for jobs or business, the majority of who were aged 15-44 years, with a low education level (Liang and Ma, 2004, from the 2000 census). In addition, Wu and Zhou (1996) estimated that since 1990, China's annual rural-to-urban migrant labor flow has been between 50 and 60 million population, which accounted for a major part of total migrants.

Figure: Growth of the inter-county floating population in China, 1982-2000



Source: Zai Liang and Zhongdong Ma, China's floating population: new evidence from the 2000 census, population and development review, vol. 30, No.3 (Sep. 2004)

The volume of the floating population counted from the place of origin in 1995 is obtained from the Division of Socio-demographics, National Bureau of Statistics

■ **The trend of floating population is mostly from the West to the South**

[230] Zai Liang and Zhongdong Ma, China's floating population: new evidence from the 2000 census, population and development review, vol. 30, No.3 (Sep. 2004), pp. 470

The numbers of interprovincial migrants increased quite rapidly during the period, for example from 6.3 million in 1987 to 10.7 million in 1995. On the whole, the trend of floating population from the west to the south was quite strong. 81% of the total migrants and 89% of inter-province migrants came from the inland areas; more than two-thirds (69%) of total migrants and three-quarters of inter-province migrants (76%) went to the coastal areas[231]. It was mostly due to the unbalanced regional development (especially since the 1978). As Nee (1989) mentioned, regions with greater access to markets developed faster than other regions. The provinces which received larger amount of investment (esp. foreign investment) became the major destinations of migrants. And the trend accompanied a series of 'open-up' policies (four special economic zones, 14 coastal cities and Hainan Island, the open-up of Shanghai's Pudong district).

In 1990, 29% and 12% of the inter-provincial migrants in Guangdong and Zhejiang Province came from other provinces. The percentage rose to 72% and 68% in the year 2000 (Liang and Ma, 2004). According to the 1990 and 2000 censuses, China's coastal regions attracted the largest number of floating population, especially Guangdong Province, where the size of the floating population tripled between the period from 1990 and 2000. There were as many as 13 million urban guest workers in Guangdong province, which is near Hong Kong, and another four million in the city of Shanghai (Kahn and Smith, 1995). In addition to Guangdong Province and Shanghai, the proportion of the temporary population from the counties of other provinces was as high as 42% in Zhejiang Province. Beijing also had a particularly high proportion of the temporary population, over 72%, from the counties of other provinces (Shen, 2002).

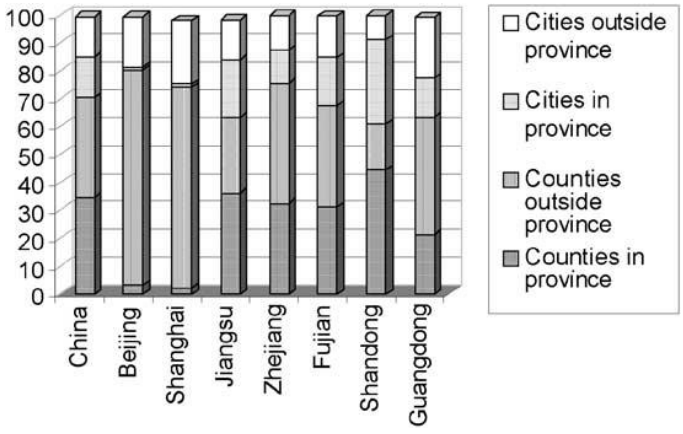


Figure: Distribution of temporary population by origin in top seven regions in 1997, %
Source: Jianfa Shen, A study of the temporary population in Chinese cities, Habitat International, 26 (2002), pp. 372

In 1997, the total amount of temporary population in these major destinations (Beijing, Shanghai, Jiangsu Province, Zhejiang Province, Fujian Province, Shandong Province and Guangdong Province) was 22.29 millions, which accounted for 59.8% of China's total floating population (Shen, 2002). Among them, nearly half of the temporary population was located in Guangdong Province, which can partly be explained by the highly economic development and

[231] China Labor Statistical Yearbook, 1999

more jobs in South China since the 'open door policy' in 1978. As Fan (2005) indicated, the regional economic disparity and migration stock (the most important determinant) are related closely to the inter-provincial migration based on the 1990 and 2000 censuses. Favorable geographical location, good economic foundation, the coastal development strategy of the government and the foreign investment are some other important factors for the development in the coastal region (Fan, 1995; Zhao, 1996; Shen, 1996; Wei, 1998).

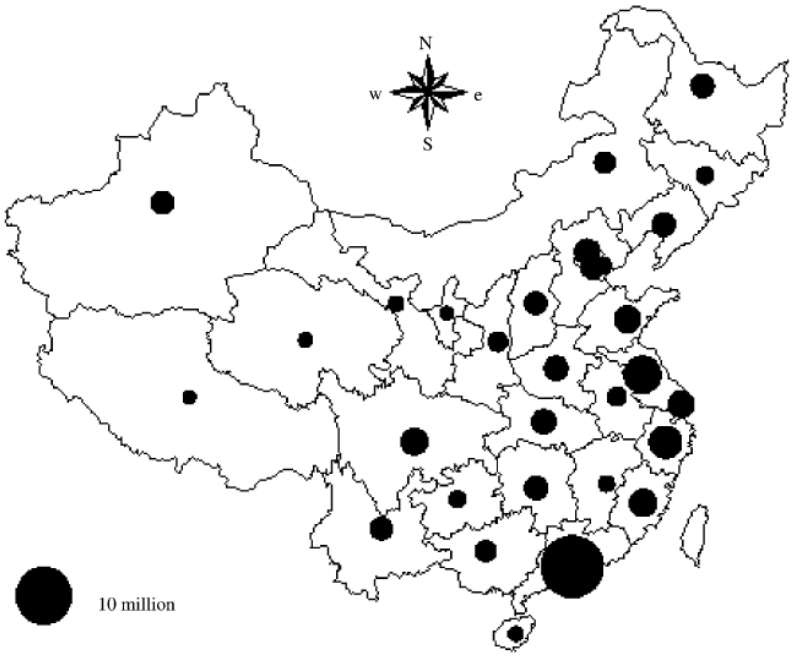


Figure: Distribution of temporary population in China, 1997

Source: Jianfa Shen, A study of the temporary population in Chinese cities, Habitat International, 26 (2002), pp. 371

As shown in the table and figure below (from 1985 to 2000), the floating migration from the central region and the western region to the eastern region increased significantly. The amount and intensity of mobility during 1995 to 2000 was much higher than that from 1985 to 1990.

Table: Inter-provincial migration within and among regions

To	From			
	Eastern	Central	Western	Sum
Proportion of total flows				
1985–1990				
Eastern	24.41	21.03	11.51	56.95
Central	10.67	9.20	6.28	26.15
Western	3.71	4.06	9.12	16.90
Sum	38.79	34.29	26.92	100.00
1995–2000				
Eastern	18.35	41.82	18.24	78.41
Central	3.83	4.00	2.37	10.20
Western	2.36	3.19	5.84	11.38
Sum	24.54	49.01	26.45	100.00

Source: C. Cindy Fan, Interprovincial migration, population redistribution and regional development in China, 1990 and 2000 census comparisons

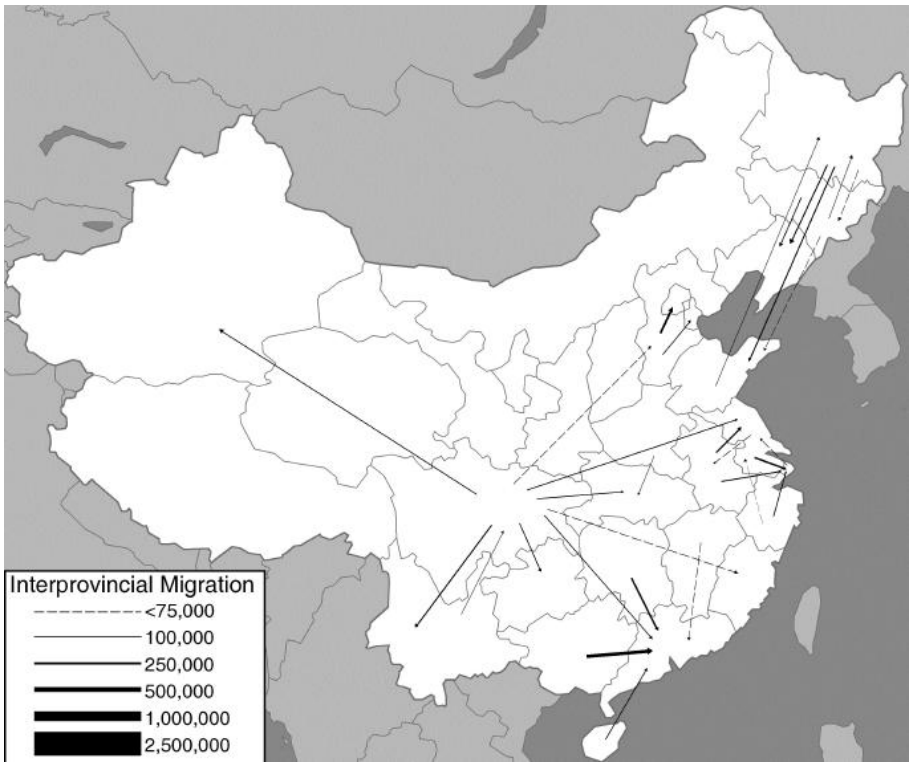


Figure: The 30 largest interprovincial migration flows in China, 1985-1990

Source: C. Cindy Fan, Modeling interprovincial migration in China, 1985-2000, Eurasian geography and economics, 2005, 46, No 3. The data is based on national bureau of statistics.

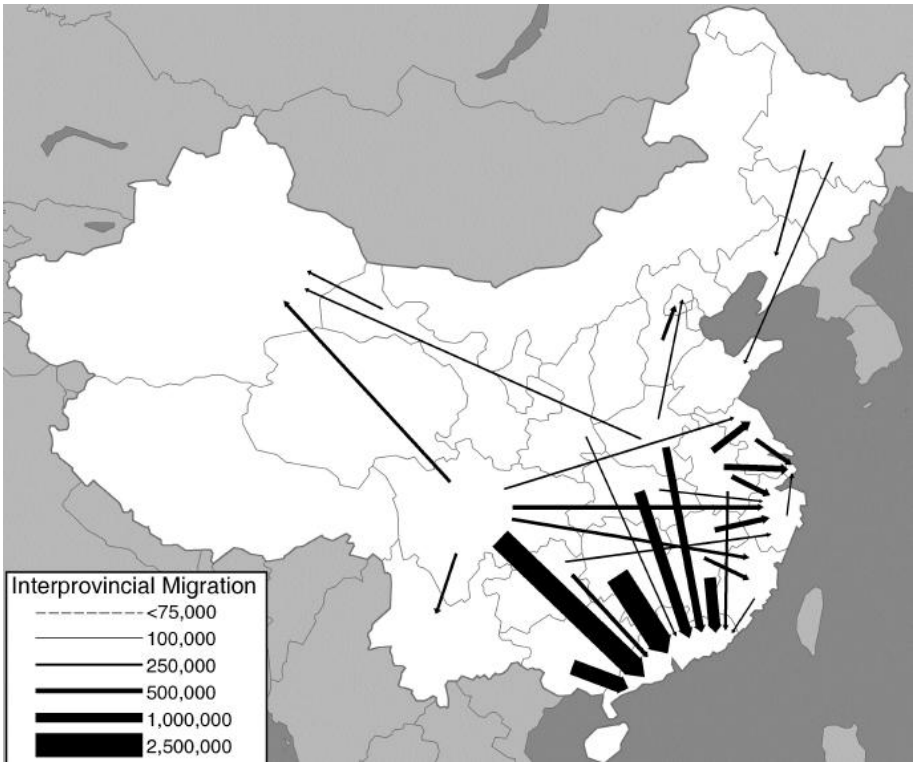


Figure: The 30 largest interprovincial migration flows in China, 1995-2000

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11.3.2 The development of China in the 21st century

Industry and Employment

In the 21st century, the development of the three regions (the central region, the western region, and the north-eastern region) begins to be strongly supported by the central government. As China becoming wealthier, regional policy/planning starts to drive the investment to some less-developed area. The investment and preferential policies of the central government greatly turned from the eastern region to the western region in the 21st century (esp. investment of infrastructure), and the growth of the eastern region gradually slow down (e.g. the increasing price of raw materials, the higher cost of labors etc, and the influence of financial crisis). For example, the financial support by the central and local government increased from 14.91 billion yuan in 2002 to 22.01 billion yuan in 2006 (esp. for the regions outside the eastern area). And in the year 2001, China became a member of WTO officially, which represented that it entered into a new development phase. However, the three regions of China remained in the different development phase.

Table: The economic structure of four regions in China, 2000, 2009

Region	Agriculture (%)		Industry (%)		Service (%)	
	2000	2009	2000	2009	2000	2009
Eastern region	11.5	6.5	49.1	49.4	39.4	44.1
Central region	20.2	13.6	44.6	50.4	35.2	36.0
Western region	22.3	13.7	41.5	47.5	36.2	38.8
North-eastern region	12.9	11.4	51.5	49.9	35.6	38.7

Source: National Bureau of Statistics of China

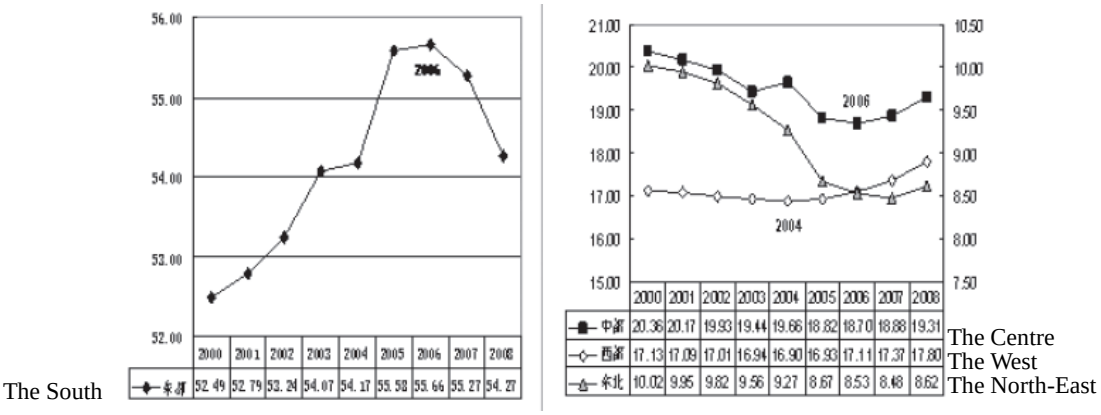
Table: The degree of 'well off (xiaokang)' in four regions of China, 2008

Region	Whole level	Economic development	Living condition
Eastern region	83.5	83.1	90.3
Central region	72.4	57.3	79.3
Western region	66.3	55.5	69.4
North-eastern region	77.6	75.2	78.9
China	74.6	67.9	79.9

Source: National Bureau of Statistics of China

According to the tables below, although the proportion of GDP in the eastern region was still higher than the other regions, its proportion gradually decreased after the year 2006. In addition, the growth rate of GDP in the central and western region increased obviously (esp. in recent years). The trend partly related to the increase of financial support. For example, according to the tables below, the transferring of fixed asset investment on the eastern regions accompanies the growing amount of investment and some indices in the other part of China in the 21st century. Besides, it

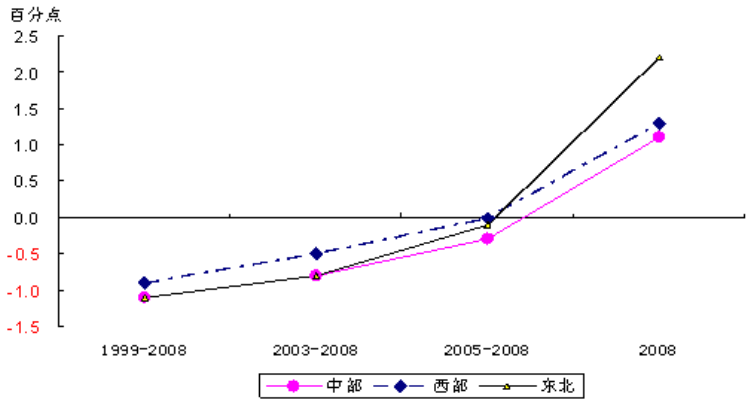
also goes along with the industrial restructuring in the eastern region. However, the foreign investment was still highly concentrated in the eastern area, i.e. 82.5% of the direct foreign investment (2001-2006) remained there, which resulted in the unbalanced development to a certain degree (Wei *et al*., 2007).



The South The Centre The West The North-East

Table: The proportion of GDP in four different regions (the south, the centre, the west, the north-east), 2000-2008

Source: National Bureau of Statistics of China, Provincial Bureau of Statistics of China



*The Centre *The West *The North-East

Figure: The growth rate of GDP in different regions

Sources: National Bureau of Statistics of China, the report of 60th anniversary of P.R.C

Table: Indices of growth rate in four different regions, %

	Eastern Region	Central Region	Western Region	North-eastern Region
Annual growth rate of GDP (1999—2008, %)	12.3	11.2	11.4	11.2
Annual growth rate of GDP (2005—2008, %)	13.3	13.0	13.3	13.2
Annual growth rate of fixed asset investment (1999—2008, %)	17.6	22.5	21.7	23.6

Source: National bureau of Statistics of China

Table: The growth rate of total fixed asset investment, 2001-2009, %

	2001	2005	2009	2001-2009	2006-2009

Eastern Region	11.3	21.9	23.0	20.7	20.1
Central Region	14.2	28.9	35.8	27.5	32.5
Western Region	17.2	28.3	38.1	26.1	29.3
North-eastern Region	14.2	37.6	26.8	27.4	32.8
China	13.0	26.0	30.1	23.7	26.0

Source: National bureau of Statistics of China; Wei *et al*., 2011

Table: Some economic indices (Urban level)

Region	Proportion of economic scale (2009, %)	Average of economic scale (2009, billion yuan)	Economic growth (2004-2009, times)	GDP/per capita (2009, yuan)
Eastern region	54.6	2319.6	2.63	38026.9
North-Eastern region	9.3	988.9	2.18	30699.5
Western region	16.7	691.1	3.56	18410.7
Central region	19.5	867.2	4.14	18271.0
China	100.0	1258.4	2.94	26971.4

Source: Socio-economic statistical reports of cities

As shown in the table below, the growth of GDP in the other region of China (except for the eastern region) is related closely to the asset investment, while the growth of GDP in the eastern region is obviously connected to the field of foreign trade.

Table: Comparison of urban requirement (Urban scale)

Region	The ratio of asset investment to GDP	The ratio of social consumption to GDP	The ratio of net export/import amount to GDP
Eastern region	0.496	0.358	0.00899
North-Eastern region	0.704	0.355	0.00056
Western region	0.750	0.345	0.00099
Central region	0.692	0.360	0.00095
China	0.596	0.356	0.00531

Source: Socio-economic statistical reports of cities

In addition (as shown in the table below), besides some indices which are closely related to the investment (i.e. the mileage of highway), the disparity of living condition (such as the household income) among different regions began to be narrowed after the 21st century. As Kuznets (1955) hypothesized, the relationship between the economic development and the income equality is usually assumed to take an inverted 'U-shaped' pattern.

Table: The indices of four different regions, %

	Eastern Region		Central Region		Western Region		North-eastern Region	
	2005	2009	2005	2009	2005	2009	2005	2009
Land Area	9.5		10.7		71.5		8.2	
Population	36.0	36.8	27.4	27.0	28.0	27.9	8.4	8.3

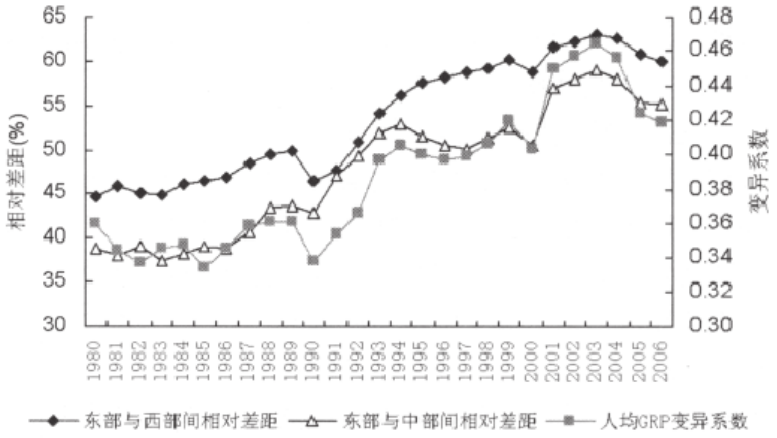
Rate of unemployment in cities (%)	3.0	3.2	3.8	3.9	4.1	4.0	4.7	4.0
GDP	55.6	53.8	18.8	19.3	16.9	18.3	8.7	8.5
GDP/capita (yuan)	23768	40800	10608	19862	9338	18286	15982	28566
Fixed assets investment	52.4	43.7	18.5	22.8	20.3	22.7	8.8	10.8
Mileage of Highway	41.0	36.6	25.5	27.0	25.7	28.6	8.0	7.8
Income of urban household (yuan)	13375	20953	8809	14367	8783	14213	8730	14324
Income of rural household (yuan)	4720	7156	2957	4793	2379	3816	3379	5457

Source: China's City Statistical Yearbook

Table: Evolution of gap among different regions, 2005-2008

	Year	Gap between eastern and western region		Gap between eastern and central region	
		yuan	%	yuan	%
Urban household income	2005	4592	34.3	4566	34.1
	2008	6232	32.5	5978	31.1
Rural household income	2005	2341	49.6	1764	37.4
	2008	3080	46.7	2145	32.5
GRP/capita	2005	14430	60.7	13160	55.4
	2008	21212	57.0	19352	52.0

Source: China's City Statistical Yearbook, 2006-2009; Wei *et al*., 2011



*The disparity between South and West *The disparity between South and Centre*The index of GDP/capita

Figure: The relative gap of GDP (per capita) in four regions of China

Source: National Bureau of Statistics of China, 17 years' regional economy in China after 'open-up', China Statistics Press, 1996; China's Statistical Yearbook

In the context of globalization, the urban agglomeration areas in China become more important than before. The disparity was not only expressed among different regions, but was also reflected by the urban agglomeration areas. With the development of the eastern region, the most important

urban agglomeration areas of China are still the three major agglomeration areas in the eastern part of China (Yangtze delta region, Beijing-Tianjin-Tangshan region and Pearl River delta region), which was formed in the past several decades. According to the table below (in 2009), only 3.6% of their built-up area absorbed 24.9% of fixed asset investment and created 35.7% of industrial added value in China. The position was further strengthened by the construction of some infrastructure, i.e. the high-speed railway system. However, the construction of certain infrastructure also offers new opportunities to some other metropolitan areas.

Table: The Indices of three major agglomeration areas, 2009

	Yangtze Delta Region	**Beijing-Tianjin-Tangshan Region**	**Pearl River Delta Region**	**Proportion of three major agglomeration areas (%)**
Urban population (10 thousand)	8990	7857	2921	15.11
Built-up area (km^2)	110114	182500	54743	3.62
GDP (100 million yuan)	53956	21599	29746	32.18
Fixed asset investment (100 million yuan)	20344	13917	7829	24.89
Industry added value/capita (100 million yuan)	26276	11899	14954	35.66
Rate of employment (%)	33.6	30.8	20.6	--
Rate of green coverage (%)	39.8	39.0	34.5	--

Source: China's urban life and price yearbook, 2009; Jincheng Xiao, Yuan Zhu, China's 10 urban agglomerations, Beijing: Economic Science Press, 2009

Source: Based on 'Mid-to-Long term Railway Network Plan 2020' (2008 Revision)

The migration of labor-force

■ A large scale of migration continue

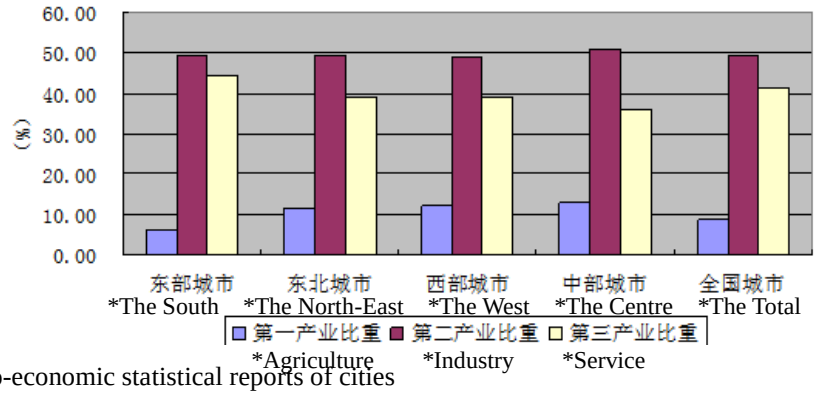
According to the report of National Bureau of Statistics (from 2000 to 2005), the total number of population floating to cities/towns rose by 4.3 million in China; the annual growth rate was 8.3%. From 2005 to 2008 the total number increased by 4.7 million, while the annual growth rate became much higher (10.9%).

Among them, the floating population from rural area still accounted for the majority in the 21st century. In 2008, the proportion was 74%, compared with the proportion of those from the other cities/towns (26%). Besides, the inter-province floating population from rural area is much higher than that within the same province. According to the sample survey of National Bureau of Statistics (2008), 92.6% of the inter-province floating population was from rural area, while 58.4% of that within the same province was from the countryside. And during the period, the rural-to-urban migrants still concerned more about income and potential employment opportunities rather than urban quality of life (Aimin Chen *et al.*, 2002).

In addition, the migration trend from the west to the east continues in the 21st century and the number of floating population grows obviously compared with that in the previous phase. According to the report of National Bureau of Statistics (2008), 67.4% of the floating population

went to cities in the eastern region (more than the data shown in the period of 1995-2000). In contrast, 16.1% of them went to the central region; and the western region absorbed only 16.7% of the floating population. The major original areas of migration are: Henan Province, Anhui Province, Sichuan Province, Hunan Province, Guangxi Province, Chongqing Province and Hubei Province. In 2008, the floating population from the seven provinces accounted for 2/3 of the total. And 1/3 of the inter-provincial migrants were from Henan Province, Anhui Province and Sichuan Province. This trend is closely related to the urban economic structure in different regions. As shown in the figure below, the proportion of service sector in the eastern region is obviously higher than the other parts of China.

Figure: Comparison of urban economic structure (agriculture, industry,service) among different regions in China



Source: Socio-economic statistical reports of cities

On the other hand, the direction of migrants becomes more diversified than during the previous period. A large proportion of the inter-provincial floating population moved to Guangdong Province, Zhejiang Province, Beijing, Shanghai and Jiangsu Province, compared with only three provinces/municipalities in 1990 (includes Guangdong Province, Beijing and Tianjin). In the year 2008, these provinces absorbed 75% of the total. Among the areas, Guangdong Province is still the prominent destination, but not that obvious in comparison with the previous period. It could be due to the rapid development in the other areas of China.

Like the previous phase, looking for employments is still the major objective for migrants, especially for rural floating population. With the rapid regional development, more provinces could provide more employment than before. Besides, they begin to pursue better urban service in the developed provinces, such as education for children, good medical facilities etc. However, the difficulty of settling down in cities is always obvious. Although the reform concerning the 'hukou' system has been carried out in some small and medium-sized cities since the late-1990s (the stable employment and living place as the major conditions), the 'threshold' of some big agglomeration area is still high, such as Shanghai and Beijing. They could not benefit from the same urban service (education for children, social housing, and medical insurance etc) as the ones with local urban 'hukou'. 'Migrating into cities' (esp. the big cities) is far away from 'settling down in cities'.

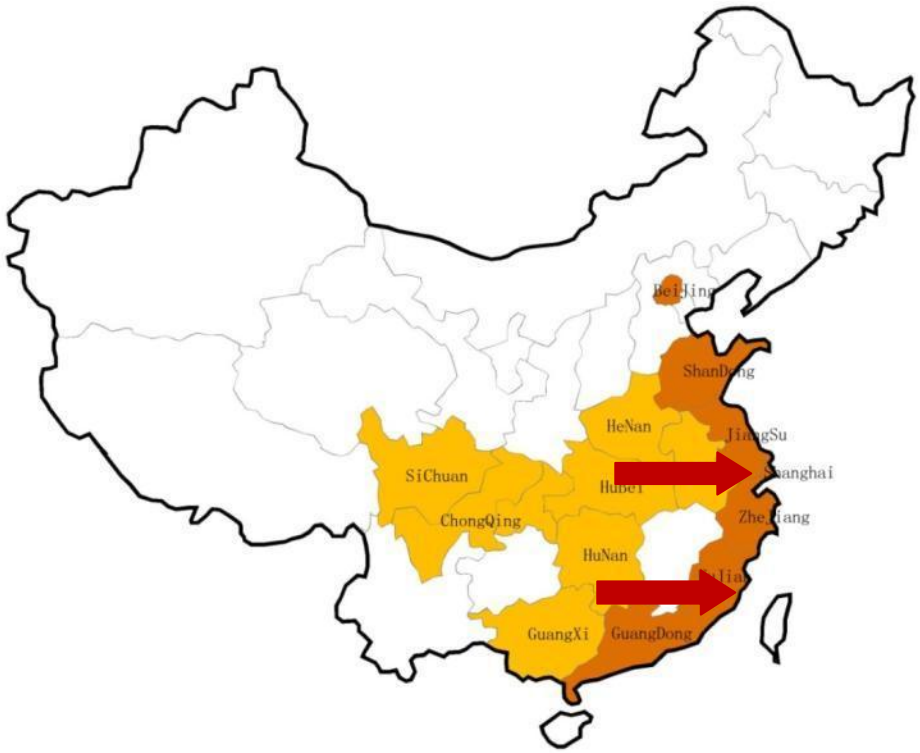


Figure: The trend of floating population, 2008

Table：The major absorbing provinces, 2008 **Units: ten thousand**

Province/ municipality	Total absorbing population	Absorbing population from other province(a)	Absorbing population from own province(b)	a-b
Beijing	420	400	20	380
Shanghai	630	600	30	570
Jiangsu	1450	500	950	-450
Zhejiang	1400	900	500	400
Fujian	670	270	400	-130
Shandong	1170	170	1000	-830
Guangdong	4500	3100	1400	1700

Sources: Report of City Division of Nation Bureau of Statistics in 2008

Table: Comparison of the floating population among the Eastern Region/Central Region/Western Region **Units: ten thousand**

Region	2008	2000	Growing population between 2000 and 2008, %
Eastern Region	5242	2728	92.0
Central Region	267	219	21.9
Western Region	398	407	-2.3

Sources: Report of City Division of Nation Bureau of Statistics in 2008

■ **The major agglomeration as destination: Yangtze River Delta, Pearl River Delta, Grand Beijing**

The agglomeration areas become the major destination for migrants nowadays. In 2008, the major destinations (agglomeration area) for the floating population are Yangtze River Delta, Pearl River Delta, and Grand Beijing, which were formed first in the eastern region. However, the migration distance affects the direction of migration to a certain degree. They attracted the labor force from different provinces, mostly from the surrounding provinces.

For Yangtze River Delta, it mostly absorbed the floating population from Anhui Province, Jiangxi Province, Sichuan Province and its intra-provincial population. As for Pearl River Delta, it attracted the population from Hunan Province, Jiangxi Province, Sichuan Province, Guangxi Province and its own labor force. For Grand Beijing, the migration from Hebei Province to Beijing was obvious, and the other major original areas are Henan Province and Anhui Province.

In addition, with the rapid development of Fujian Province, Shandong Province, Tianjin etc, some new economic areas attract more and more floating population than before. For example, the migrants from Henan Province, Anhui Province and Sichuan Province to Shandong Province increased by 50% during the recent decade, which growth rate is faster than that in Yangtze River Delta and Pearl River Delta.

Besides, the floating population from the urban to rural area and from the eastern region to central/western region emerged in recent years. However, this kind of flow is still quite weak compared with the principal trend, the attractive agglomeration areas are still concentrated in the Eastern region, especially the eastern coastal region.

Table: The comparison of migrants, 2006

Urban agglomeration		**Household population (10 thousand)**	**Resident population (10 thousand)**	**Difference (10 thousand)**
Yangtze Delta		8421.9	9846.1	1424.2
Pearl River Delta		2821.3	4634.1	1812.8
Bo Sea	Beijing-Tianjin	2146.5	2640.0	493.5
	Central-Southern part of Liaoning	2722.9	--	--
	Shan dong peninsula	3990.2	4244.2	254.0
Fujian-Xiamen		2219.6	2427.0	207.4

Source: Provincial Population Statistical Yearbook, 2007

■ **The choice of floating population to cities are diversified**

The destination areas of the floating population become more diversified than before. According to the research of Zai Liang and Zhongdong Ma (2004, based on the data of 2000 census), nearly 86 million migrants chose cities as their destinations (59.3%), 28 million (19.3%)

went to towns and 31 million (21.4%) migrated into rural areas. The trend continues in the 21st century.

Table: Size and distribution of inter-county and intra-county floating population by origin and destination: China, 2000

	Destination			
	City (1,000) (1)	Town (1,000) (2)	Rural (1,000) (3)	Total (1,000) (1)+(2)+(3)
Origin				
Intercounty migrants				
Interprovince	23,118	8,493	10,808	42,419
Intraprovince	23,622	5,624	7,092	36,338
Intracounty migrants from				
City	27,501	1,177	2,020	30,698
Town	7,311	6,829	6,681	20,821
Rural area	4,219	5,547	4,348	14,114
Total	85,771	27,670	30,949	144,390
	Destination			
	City (%)	**Town (%)**	**Rural (%)**	**Total (%)**
Percent by origin				
Intercounty migrants				
Interprovince	27.0	30.7	34.9	29.4
Intraprovince	27.5	20.3	22.9	25.2
Intracounty migrants from				
City	32.1	4.3	6.5	21.3
Town	8.5	24.7	21.6	14.4
Rural area	4.9	20.1	14.1	9.8
Total	100.0	100.0	100.0	100.0
	Destination			
	City (%) (1)	Town (%) (2)	Rural (%) (3)	Total (%) (1)+(2)+(3)
Percent by destination				
Intercounty migrants				
Interprovince	54.5	20.0	25.5	100.0
Intraprovince	65.0	15.5	19.5	100.0
Intracounty migrants from				
City	89.6	3.8	6.6	100.0
Town	35.1	32.8	32.1	100.0
Rural area	29.9	39.3	30.8	100.0

Source: Zai Liang and Zhongdong Ma, China's floating population: new evidence from the 2000 census, population and development review, vol. 30, No.3 (Sep. 2004)

Moreover, although the 'hukou' policy has been reformed in some county-level cities and towns (usually medium-sized and small cities), most floating population still choose the municipalities and prefecture-level cities (usually big cities and mega cities). According to the report of National Bureau of Statistics (2008), 8.2% of the total floating population chose municipality, 18.5% of that chose the capitals of provinces. And 33.4% of the total went to the prefecture-level cities, 19.8% of them selected the county-level cities. The rest flew to towns.

However, in some developed areas, the trend of returning to small cities near hometown emerges. In these regions, more migrants want to settle down in cities, rather than earning money in cities and returning to their rural hometown in the past. It is partly due to the local development, where more employment is created. For example, according to a survey conducted in Jiangsu

Province in 2010, the settlement intention in small cities near hometown is obvious. As a rational individual, migrant has to consider the benefit (i.e. employment opportunity, public service) and shortcomings (i.e. cost of living) of settlement. Based on two investigations made by the survey organization of Jiangsu Province (2012), 64.5% of the rural labor-force in Suqian (one prefecture-level city in North Jiangsu) worked in local towns[232] and 48.3% of rural migrants from Binghai (one county-level city in North Jiangsu) wanted to find jobs in local counties or towns near their hometown. The cited reasons were: 'reducing the expenses', 'proximity to farm land' and 'looking after family members'[233].

On the other hand, during the period, suburbanization becomes more obvious inside the cities of China (especially in big cities) than before. The 'pull' and 'push' factors (i.e. increasing income, the pursuit of living quality, and the construction of infrastructure etc) both improve this kind of process. However, unlike the situation in some western countries, in China, the suburbanization of industrial enterprises emerges before the residential suburbanization and the social differentiation is not significant in suburb areas etc.

Urban system and urbanization in China

■ Urban system

In the 21st century, the most obvious change of urban system in China is: the number of mega-city (>2 million) increased remarkably. However, most of them are still concentrated in the eastern area (esp. the eastern coastal area).

Table: The structure of China's urban system, 2000, 2008

	Mega-city (>2 million)		**Mega-city (1 million- 2 million)**		**Big city (500000-1000000)**		**Medium-sized city (200000-500000)**		**Small city (<200000)**	
	2000	%	2000	%	2000	%	2000	%	2000	%
Eastern Region	5	38.5	12	44.4	20	27.8	97	40.8	131	37.0
Western Region	3	23.1	4	14.8	26	36.1	36	15.1	76	21.5
Central China	1	7.7	7	25.9	15	20.8	78	32.8	104	29.4
North-east Region	4	30.8	4	14.8	11	15.3	27	11.3	43	12.1
Total	**13**	**100.0**	**27**	**100.0**	**72**	**100.0**	**238**	**100.0**	**354**	**100.0**
	2008	%	2008	%	2008	%	2008	%	2008	%
Eastern Region	16	48.5	18	58.1	35	38.0	94	37.2	69	28.0
Western Region	5	15.2	5	16.1	16	17.4	63	24.9	76	30.9
Central Region	7	21.2	3	9.7	27	29.3	74	29.2	57	23.2
North-east Region	4	12.1	5	16.1	14	15.2	22	8.7	44	17.9
Total	**33**	**100.0**	**31**	**100.0**	**92**	**100.0**	**253**	**100.0**	**246**	**100.0**

[232] From the internal network of survey organization of Jiangsu Province, The situation of the rural labor-force in Suqian, 2012

[233] From the internal network of survey organization of Jiangsu Province, The 3 expectations of the rural migrant workers in Binghai, 2012

Source: Urban statistical yearbook of China, China's Statistical Yearbook

On the other hand, more and more urban agglomeration areas with different size have emerged in China, which become the urban cluster with competitiveness in the new era. According to the statistical data in 2003, the urban agglomeration areas in China (the number is about 28) which accounted for 21.98% of China's surface, gathered 44.63% of population, 60.43% of non-agricultural population, 62.29% of fixed asset investment, 76.85% of GDP, 77.72% of industrial output and 80.73% of service output, and provided 67.30% of local financial revenue, 73.09% of import & export volume and 94.16% of foreign investment[234]. However, the major urban agglomeration areas are still the Yangtze River delta, the Pearl River delta and the Beijing-Tianjin-Tangshan area, which appeared in the eastern coastal area of China during the early phase of development after 'open-up' policy in 1978. In 2008, they accounted for 15.11% of population, but produced 23.18% of GDP, 24.89% of fixed asset investment and 35.66% of industrial added value. The development elements (esp. the talents, capital) still continue to flow and concentrate in the advantaged area, i.e. urban agglomeration areas, especially the three major agglomeration areas in the eastern coastal area.

Besides, with the support of government in the new era (e.g. planning of certain agglomeration area, construction of infrastructure, i.e. the high-speed railway), it is followed by some medium-sized and small urban belts and metropolitan area (especially in the central and western region), such as urban belt along the Yangtze River, the Chengdu-Chongqing urban belt, the Changsha-Zhuzhou-Xiangtan urban agglomeration area etc. The trend gradually moves from the eastern coastal area to the central and western area. However, the effect of development is not balanced, due to the industrial basis, the condition of labor-force and facilities, difference of culture and notion etc. And the disparities among the three major agglomeration areas and the other urban agglomeration areas are still quite obvious (e.g. GDP, income, investment, economic density etc). For example, the highest ratio of export-oriented economy and the concentration degree of urban agglomeration are still highly concentrated in the eastern coastal area.

Level	**National Level**	**Provincial Level**
Urban agglomeration	Yangtze river delta area, Pearl river delta area, Beijing-Tianjin-Tangshan area, Chengdu-Chongqing urban belt	Wuban urban agglomeration, Changsha-Zhuzhou-Xiangtan area, Central Shanxi, Wan river urban belt, Western coastal urban belt etc

[234] National Statistical Bureau, Report of urban development in China (2003), Beijing: China Statistics Press, pp. 54-59

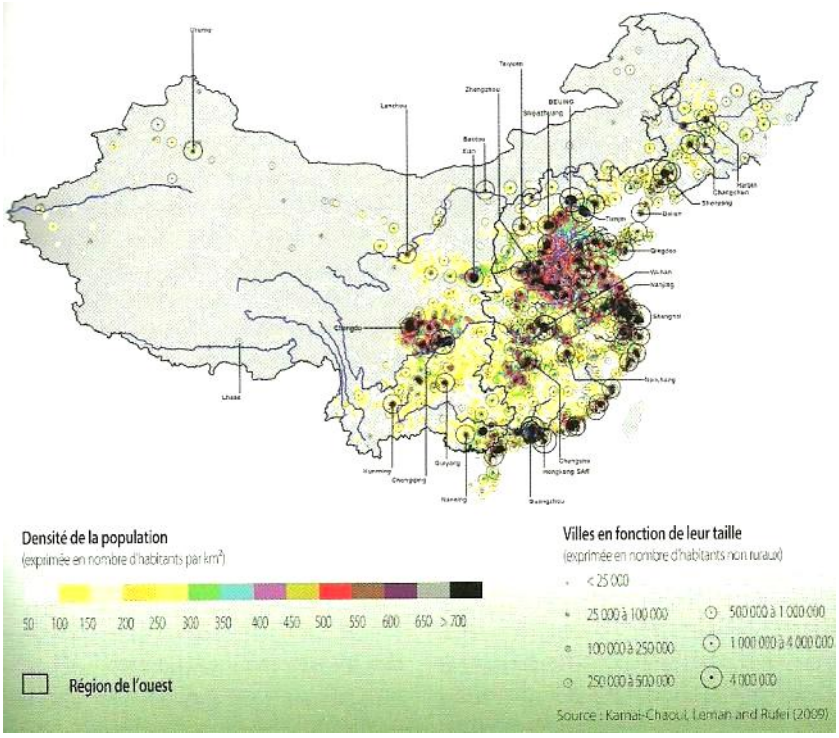


Figure: Population and density of cities in China

Source : Kamal-Chaoui, Leman and Rufei, 2009

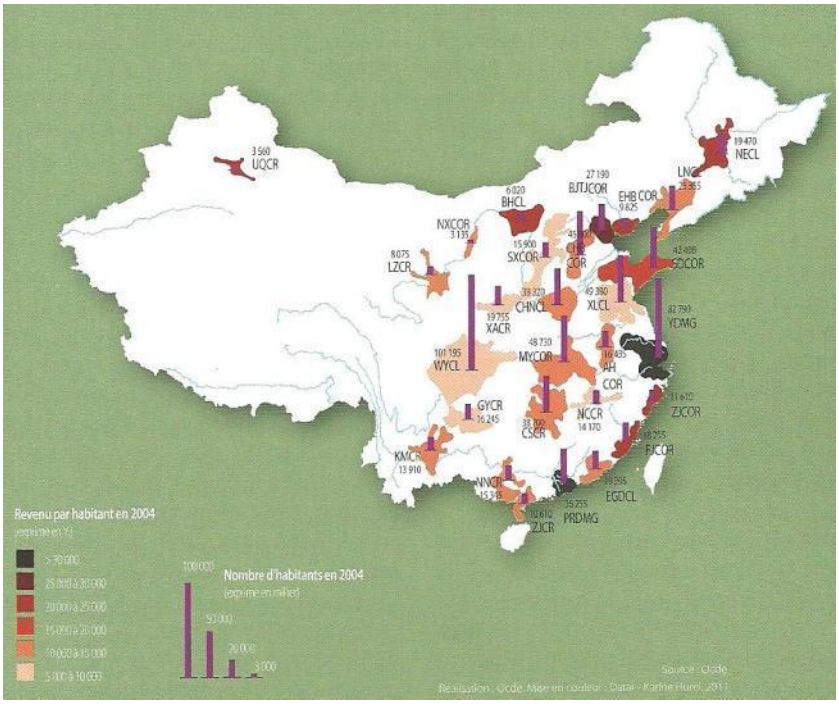


Figure : The 28 regional urban system in China

Source: Ocde

Table: Major economic indices among different urban agglomerations in China

	population (10 thousa	area (1,0000 km^2)	GDP (100million)	GDP per capita (yuan)	Economic density (10000 yuan/km^2	Total Investment in Fixed Assets per capita (yuan)	Total Revenue per capita (yuan)

	nds)				**)**		
Yangtze river delta	7798.89	10.0	46862	48069	4484	21887	5093
Pearl river delta	2868.02	5.5	25426	56581	4639	15263	4202
Wuhan urban agglomeration	3123.09	5.8	4600	14728	880	6829	807
Central china agglomeration	4094.58	5.9	7117	17381	1222	8218	1053
Wanjiang agglomeration	2360.51	6.5	2781	11782	--	6132	745
Taiyuan economy delta	1447.71	7.4	2237	15452	--	7563	1084
Nanchang-Jiu jiang	956.63	2.6	1690	17667	514	9388	984
3+5 area	4049.74	9.7	5645	14903	1234	5143	773
China		96.0	249530	18934		10420	3894

Source: China statistical yearbook 2007, Provincial statistical yearbook, 2007

Table: Some development indices among different urban agglomerations in China

	Ratio of development	**Ratio of concentration**	**Efficiency of input-output**
Yangtze river delta	10.579	1.000	1.000
Pearl river delta	9.924	0.825	1.000
Beijing-Tianjin-Tangshan	5.414	0.485	0.690
Wuhan urban agglomeration	2.614	0.456	0.650
Central china agglomeration	2.626	0.484	0.739
Chengdu-Chongqing	2.809	0.253	0.456
Shandong Peninsula	3.594	0.366	1.000
East Liaoning Peninsula	3.733	0.362	0.782
Nanchang-Jiujiang	1.744	0.161	1.000
3+5 area	2.495	0.467	0.691

Source: Report of China’s urban agglomeration, 2010

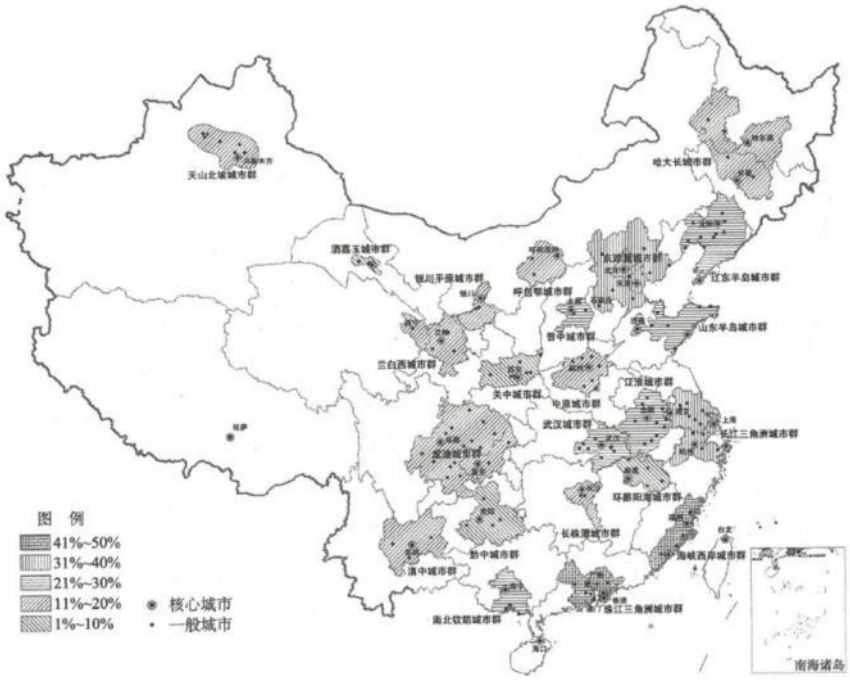


Figure: Ratio of export-oriented economy of China's urban agglomeration
Source: Report of China's urban agglomeration, 2010

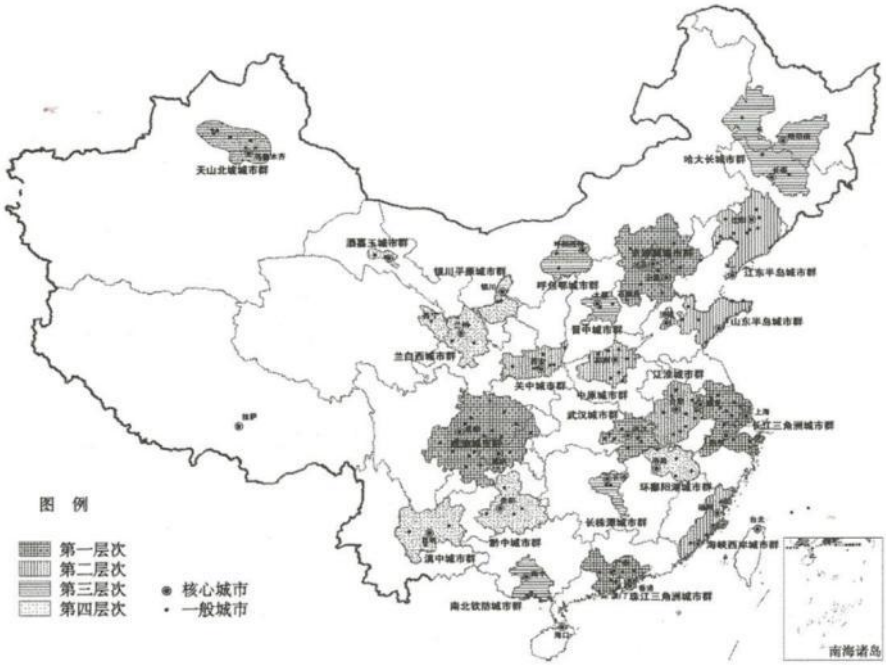


Figure: Centralization ratio of China's urban agglomeration
Source: Report of China's urban agglomeration, 2010

■ Urbanization Level

China has entered into a rapid period of urbanization in the 21st century. Although the unbalance among different regions still exists, the disparity of urbanization is narrowed gradually. However, the structure of urbanization level could still be divided as: the eastern costal area, the central area

and the western area (as shown in the figures below). And generally, according to Chenery's theory, the urbanization level still lagged behind the industrialization level in China (except for the north-eastern region).

Table: The level of urbanization in four different regions, %

Year	Eastern Region	Central Region	Western Region	North-eastern Region	Average
2000	45.34	29.73	28.73	52.14	36.89
2005	52.84	36.53	34.56	54.64	43.40
2008	55.89	40.92	38.32	56.69	46.99

Sources: China's Statistical Yearbook

Table: The growth rate of urbanization in four different regions, %

Period	Eastern Region	Central Region	Western Region	North-eastern Region	Average
1990-2000	1.52	0.93	0.79	0.46	1.07
2000-2005	1.50	1.36	1.17	0.50	1.30
2005-2008	1.02	1.46	1.25	0.68	1.20

Sources: China's Statistical Yearbook

Table: The ratio of urbanization level and industrialization level in four regions, 2005-2009

Year	Eastern Region	Central Region	Western Region	North-eastern Region
2005	1.14	0.91	0.98	1.24
2007	1.17	0.91	0.94	1.22
2009	1.29	0.97	0.99	1.31

Sources: An, 2011

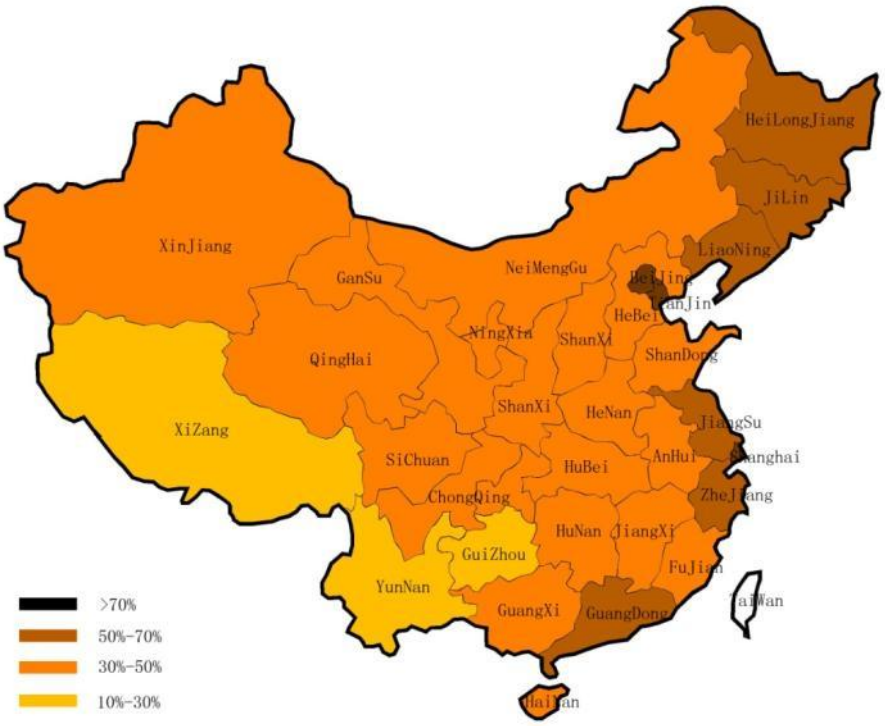


Figure: The level of urbanization among different provinces, 2005

Sources: China's Population Statistical Yearbook

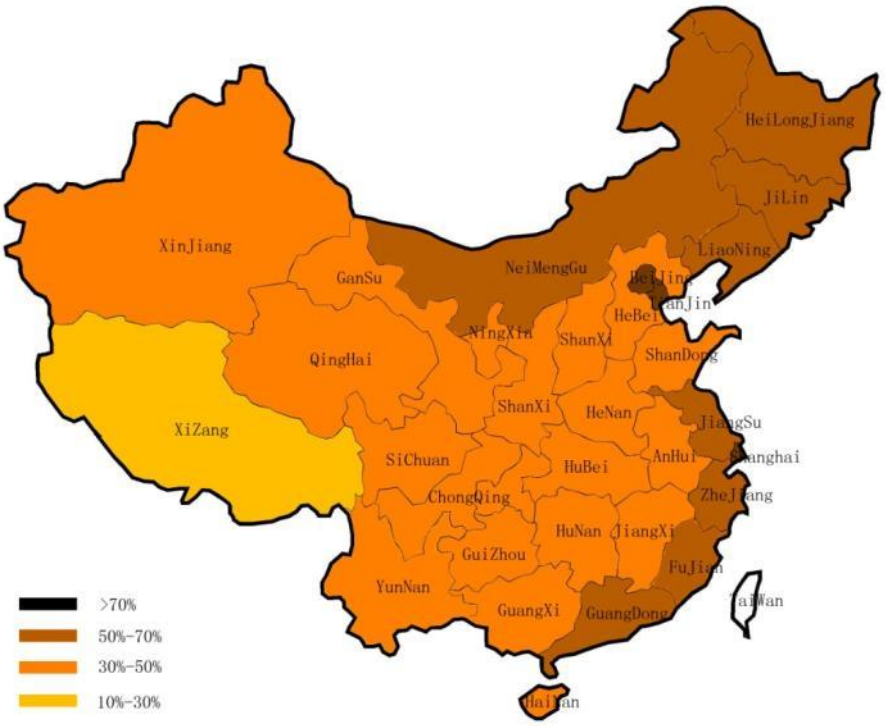


Figure: The level of urbanization among different provinces, 2010

Sources: Census, 2010

In addition, the urbanization levels in certain urban agglomeration area are generally high in China. However, among them, the urbanization levels of three major agglomeration areas are

obviously higher than the other coastal agglomeration areas.

Table: The comparison of urbanization level, 2006

Urban agglomeration		Urban population (10 thousand)	Urbanization level (%)	Provincial urbanization level (%)
China		57706	43.90	--
Yangtze Delta		6194	62.91	Jiangsu: 51.90 Zhejiang: 56.50
Pearl River Delta		3683	79.48	Guangdong: 63.00
Bo Sea	Beijing-Tianjin	2147	80.84	Hebei: 38.44
	Central-Southern part of Liaoning	1494	54.88	Liaoning: 48.85
	Shan dong peninsula	1895	47.51	Shandong: 34.77
Fujian-Xiamen		1253	51.64	Fujian: 48.00

Source: China's Population Statistical Yearbook, 2007; Provincial Population Statistical Yearbook, 2007

Han *et al.* (2007) evaluated the urbanization quality among different regions in China by some indices (economic development, infrastructure, employment, living condition, social development etc). They found that the cities in the eastern region had all the highest level of indices. And in the high-quality urbanized area, the cities usually had a 'cluster' structure.

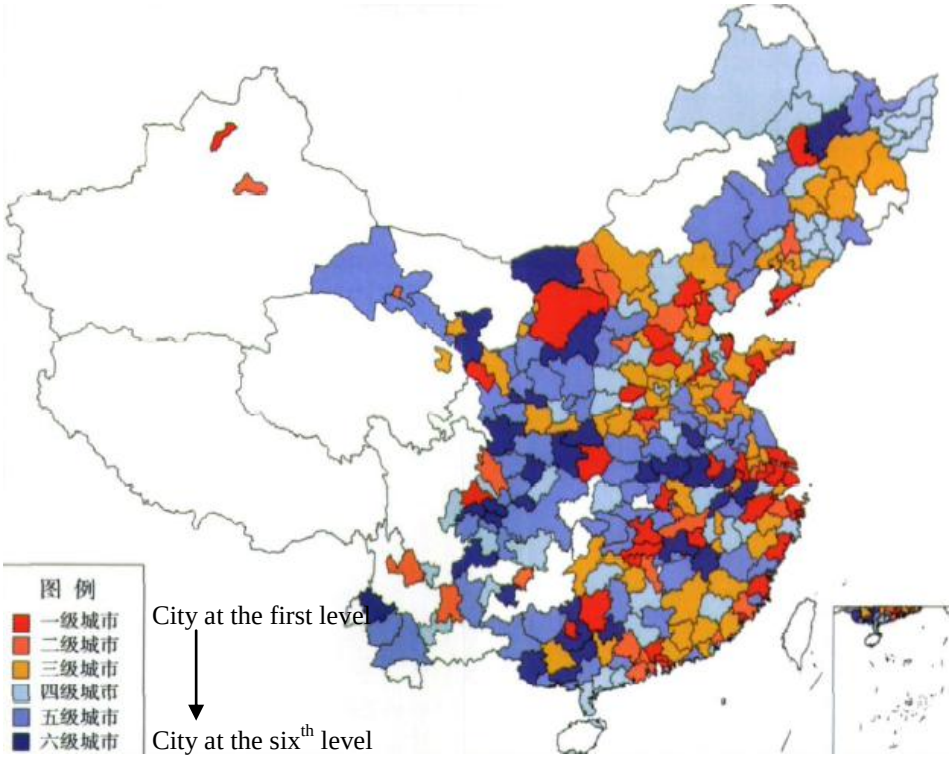


Figure: Distribution of cities at all urbanization quality levels

Source: Zenglin Han *et al.*, Analysis of the characteristics and spatial differences of urbanization quality of cities at prefecture level and above in China, Geographical Research, Vol. 28, No. 6, 2009 (Nov.), pp. 1513

Rural area in China

Since the establishment of P.R.C in 1949, China had followed the 'dual-track' development (the Soviet type) for several decades, which caused the unbalanced development between agriculture and industry (the industrialization was pushed forward somehow under the sacrifice of agriculture and the peasants; Wu, 1997). After the year 1978, the rural economy in China began to develop due to a series of reformations (i.e. the creation of household responsibility system in 1978, the extension of contract of rural land in 1998; the abolishment of rural taxes in 2006). During the process, its industrial structure turned from '84.0: 14.2: 1.8' (in 1978) to '30.2: 54.3: 15.5' (in 2006). The proportion of agricultural employment changed from 92.9% in 1978 to 59.5% in 2006. The productivity of agriculture increased along with the investment on productive elements of agriculture, which resulted in a large scale of rural-to-urban migration. On the other hand, rural industrialization had highly developed since the 1980s in the eastern coastal area (be described as a form of endogenous development), which improved the local development and prevented the massive from flowing into big cities to a certain degree.

However, after the initial period of reform since the year 1978, the rural-urban disparity started to increase steadily from the mid-1980s. As Yang and Cai (2003) argued, a set of urban-biased fiscal and monetary policies were largely responsible for the upswing. The gap continued to be widened, which directly related to the overall inequality. A World Bank research (1997) showed that the urban-rural income gap contributed to a third of the total inequality in 1995 and a half of the increase in inequality since the year 1985. The gap could also be found in the field of consumption and public goods (i.e. education resources, medical facilities, social insurance), which is related to a series of differentiated system (the 'hukou' system, resource allocation system etc). The gap continued in the 21st century. For example in the year 2005, the consumption amount of rural population (57% of total population) only accounted for 26.8% of national resident consumption.

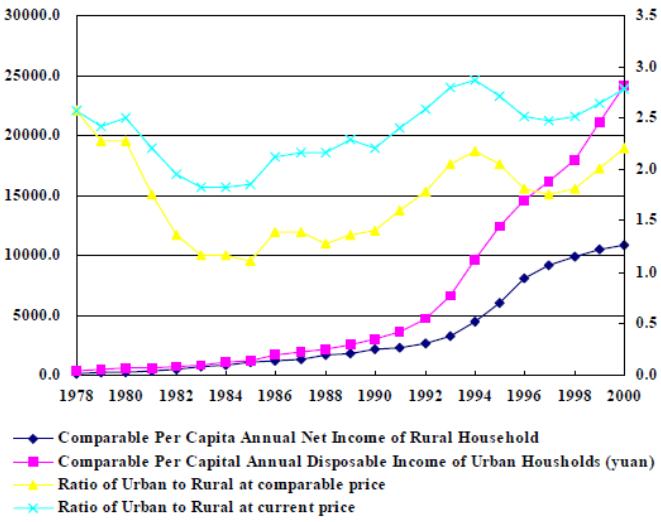


Figure: Rural-urban income disparity in China, 1978-2000

Source: Liu *et al*., 2003

Table: Rural-urban income disparity in China, 1978-2010

Ratio (%)	1978	1985	1990	1995	2000	2006	2010
	2.57	1.88	2.20	2.71	2.79	3.28	3.23

Source: National Bureau of Statistics of China

Along with the development of China, the urban-rural disparity was widened from the eastern region to the central and the western region. According to City Statistical Yearbook of China, the ratio of urban-rural income increased from 3.00 (in 2005) to 3.69 (in 2009) in the central region and from 3.69 (in 2005) to 3.72 (in 2009) in the western region. In general, the urban-rural disparity in the less-developed regions is wider than that in the developed regions.

In the 21st century, the central government of China begins to increase the investment on the rural areas. After 18 years since the 'open-up' policy in the year 1978, the emphasis of the first document of the central government of P.R.C (it is the plan and guidance for the work of government each year) turned to the field of rural area again. During the '11th five year plan (2006-2010)' period, the central government invested 120 billion yuan to the rural areas each year, involving education and medical facilities, basic infrastructure for living and production, etc. The emphasis accompanied a series of plans/policies, such as the 'new rural construction plans' and the 'rural-urban coordination policy' etc. The action is carried out in the whole China rapidly. However, some problems emerged, such as strongly promoting the concentration of rural land for land profit and at the expense of peasants' interests, the excessive and homogenous construction of facilities in rural area, ignoring the importance of nature and culture resources in rural area etc.

For example, the 'new rural construction' in Zhejiang Province, includes: rural remediation project; standardized construction of farm land; training for rural labor; centralization of rural industry; development of town-level economy; construction of rural social insurance system; etc.

Table: The nine first document of the central government of P.R.C. in the 21st century

Name	Year	Content
The first document of central government of P.R.C	2004	Concentrate on the slowly growth of farmers' net income
The first document of central government of P.R.C	2005	Focus on improving the comprehensive capacity of agricultural production
The first document of central government of P.R.C	2006	Focus on the construction of socialist new rural area, involving economic development, facilities, environment, and culture.
The first document of central government of P.R.C	2007	About the development of modern agriculture
The first document of	2008	Focus on the construction of rural infrastructure

central government of P.R.C		
The first document of central government of P.R.C	2009	About the stable development of agriculture and the growth of farmers' income
The first document of central government of P.R.C	2010	Focus on the integrated development between rural and urban area, and the construction of rural basic infrastructure
The first document of central government of P.R.C	2011	About the reform of irrigation facilities
The first document of central government of P.R.C	2012	Focus on the innovation of agricultural technology and the security for the agricultural products

11.4 Brief conclusion

In general, the economic and social development of China is highly influenced by regional policy/planning. And the problems are still obvious.

Firstly, the development elements (i.e. capital, talents, information etc) still continue to flow into the eastern coastal area. After the year 1978, the local basis of development as well as a series of preferential policies pushed the rapid development in the eastern part of China, which caused the unbalanced situation of migration and urban system afterwards. Although the governments have proposed some regional polices/planning since the late 1990s and emphasized the function of urban agglomeration outside the eastern coastal area, the economic growth in these regions relate closely to the investment of government rather than the 'bottom-up' and endogenous development (due to the economic basis, limited infrastructure, quality of labor force etc), and some regional planning proposed by local government focus on fighting for investment and projects with short-term benefit. For example, some manufacturing companies have not found satisfied profit after transferring to the inland area of China, due to limited qualified labor force, the cost of transport and workforce etc. And the aims of regional policies are misinterpreted in some area, i.e. regional planning improved a kind of 'enclosure movement' in pursuit of land economy. On the other hand, two problems are urgent to be solved at the same time nowadays: the economic restructuring in the area of priority development, which has to meet the demand of society at the same time in the new era; the leaping development in the less-developed area (not only the transferring of industrial factories), which should not simply follow the way of traditional development based on local development condition.

Secondly, the urban agglomeration areas in the eastern region are still the major destination for the floating population. The direction of migration and the development of urban agglomeration connect closely to the local development in China nowadays. The economic factor (higher salary, more working opportunities etc) still plays the most important role in the present period, i.e. a large scale of floating population migrating to the eastern region for employment. However,

besides for migrants' settlement problems in cities (with China's characteristics), some policies and planning ignores some other factors (i.e. social demand: quality of life, good environment, equal access to public service, etc), which should be forecasted and considered at the same time no matter which size the city belongs to. Moreover, the homogenous development is quite pervasive, thus, some local characteristics (incl. culture, environment, facilities (i.e. university, hospital), typical industry etc) should be paid attention besides the single focus on economic competitiveness. Moreover, under the background of globalization, the national-level perspective would be replaced by the mega-regional or the international perspective. The function of cities not only played in the network at the local level, but in a wider level, i.e. the world level city, economic node in a wider scope.

In addition, as the ignored area for a long time, rural area has been emphasized by government in recent years. However, the rapid implementation of some policies and planning hinders the deeper research on objective law of development to a certain degree (i.e. different development phases, local development regulation and local characteristics), and the pursuit of short-term economic profit (i.e. land economics, pollution factories) prevents the development of rural area in the future (i.e. ignore the protection of natural and cultural resources). It results in the low efficiency of large-scale investment and the deprivation of local resources and peasants' interest. Thus, considering the decisive and major problems in different phase of development and in different part of China becomes important.

Finally, under the changing background, the function of regional planning has to be reconsidered. However, as the tool of solving the 'unbalanced development' problem when it emerged, regional planning still have certain predictability and seize the decisive and major problems in different areas and phases (the major problems are always changing with the context), in order to lead the investment and intervene in the market (esp. avoid the failure of market and the short-term benefit) nowadays and in the future.

Chapter 12: The Implication for China

In the end of the thesis, we want to discuss about the core of regional planning based on the experience of France. As the report of the World Bank mentioned (1997), each government has five basic tasks: 1. the creation of basis of law; 2. keep the stable environment for policy (i.e. the stability of macro-economy); 3. the investment on basic social service and infrastructure; 4. the protection for the poor; 5. the protection of environment. And the question is: what is the basic task the government should do in regional planning during the rapid urbanization period?

As we know, space is the reflection of society and economy. Besides, some scholars mentioned (i.e. M. Henri Lefebvre) that 'space is also political'. As E.Laclau and C. Mouffe (1981) proposed: economy is the place for political struggle; the regulation of struggle is not decided by simple logics, but by special social hegemonic articulation. During the period of my study, the evolution of regional planning accompanied the change of social & economic background, as well as the adjustment of government's function. On the one hand, the scope of people with 'the right to speak (l'homme de la parole: ceux qui ont droit à la parole)' expanded. The regional planning becomes the product of both the 'top to down' management and the 'down to top' requirement. On the other hand, some implementations were strongly influenced by the market, which causes that the results were sometimes different from the original objectives of planning. It has to be noted that: it is both the development requirement of economy & society its own and the intervention of the government (the strength of economy and politics) influence the change of spatial distribution. And during the process, the function of government gradually evolved from the direct intervention to the indirect regulation.

Since the creation of P.R. China (in 1949), China had carried out the 'planned economy' for about three decades. And after the 'open-up' policy, the market economic system has been gradually created and ameliorated. However, different from the western countries nowadays, the 'government-led' factor is still much stronger than the 'market-led' factor in China. On the other hand, the local government now has more initiatives than before, which influence the urban growth and the process of urbanization to a certain degree. As Wang (1999) argued that, the main driving force of improving and maintaining economic development came from the 'competition impulse' of local government.

Thus, the question of 'what the government should do in the process of rapid urbanization' becomes quite important. And the experiences of development during the '30 glorious years' are meaningful for China to learn from.

12.1 Balanced development is the major objective of regional planning; rapid urbanization is an important period for achieving the goal

Regional planning was born with the aim of balanced development (i.e. for the balanced development between the south and the north in UK), which is also the demand of economy, society and politics. In the rapid period of urbanization, the economic structure changes remarkably and one obvious feature is the large-scale flow of population (urban-to-urban migration, urban-to-rural migration). The migration of labor force also accompanied the flow of some other factors, i.e. capital, information, technology, which could lead to a new round of balanced and unbalanced situation. Thus, it is considered as an important period to carry out a series of regional planning with the objective of 'balanced development'.

The goal 'balanced development' goes through the period of '30 glorious years' in France. However, the attention turned from reducing the monopoly of Paris to more supporting the protection & the development of weak areas (i.e. mountain zone). The meaning of 'balanced development' was adjusted during the same period, from focusing on balanced employment in France to balanced living condition, diversified local characteristics in France (even in Europe and in the world), which attracted and met the changing demand of population. That is to say: the evolution reflects the requirement change of industry and population (specific factor in certain phase). In addition, the government's tool for 'balanced development' evolved: the strong push for industrial distribution (economic arrangement) was gradually replaced by more focus on the weak area (i.e. the mountain zone, the large aggregated housing area (grand ensemble)), the public service & facilities and the environment space (basic infrastructure, public service, culture & nature resources etc). The change was also consistent with the process of urbanization (from focusing on employment to diversified pursuit) and socio-economic development (i.e. from traditional industry to new industry and service sector; from Fordism production type to Neo-Fordism type).

Moreover, the regional planning should be coordinated between the government and the market, between the 'top-down' management and the 'bottom-up' demand. Public sector effects may operate through the labor market adjustment process itself (Charney, 1993). In France, the trend accompanied the decentralization of political power and the increasing consciousness of the public's participation. As shown in the table below, the implementation of 'balanced development' planning accompanied the evolution of local initiatives. The objective (balanced development) of the central government had to face the increasing local requirement. In the period of the '30 glorious years', the function of the central government had been gradually transformed (less direct control on local economic activities). After the period (since the 1980s), some power of management was further decentralized to the local community, i.e. the right of preparation and

approval of local urban planning (PLU), the right of construction permits. However, it caused the disordered development at the local level regardless of the national interests (i.e. the pursuit of the local short-term and selfish interest) to a certain degree. And the central government of France realized the necessity of regional planning with another form of 'balanced development' afterwards, which mainly focused on some influential facilities in France (i.e. high education and research, cultural facilities, information and communications, medical security, passenger and freight transportation, energy, sports facilities and natural protection area) in the 1990s.

On the other hand, the evolution process was also the reflection of coordinating between the market and the government which accompanied the change of thought (from Keynesian to Neo-Liberalism). The function of the government became the supplement for preventing market failure, other than the direct intervention in the growth of market. Thus, the scope of the government's (esp. the central government) intervention in France changed from the simple economic field to containing some other fields (incl. the environment protection, the construction of public facilities and the development of weak area).

Major regional planning	**Year**	**Decentralization of political power**	**Year**
Industrial de-concentration from Paris	From 1955	22 regional program	1956
Service de-concentration from Paris	From 1958		
Special zone of rural action (La zone speciale d'action rurale)	From 1960	Company for regional and rural planning	1960
National Park Regional Park	From 1963 From 1966	Inter-ministerial mission of planning (i.e. Languedoc-Roussillon, Corse)	1960s
Balanced metropolis policy	From 1964	Program of modernization and equipment (PME)	1965
New town policy	From 1965	Master plan of metropolitan area (OREAM)	1967
Rural Planning (PAR)	From 1970	The rural planning at community-level (based on Law of land orientation, LOF)	1967
Medium-sized city policy	From 1972	The contract way between the state and medium-sized, small cities	1970s
Small city policy	From 1975		

In China, after the creation of P.R.C in 1949, the strategy of 'balanced development' emerged in two different phases: 1. the period of 'third frond' construction (from 1964 to 1978, with the major aim of political security, transfer industrial enterprises from the coastal area to the inland area); 2. the period from the late 1990s (about two decades of 'two steps' development after the open-up policy, the disparity between the eastern area and other areas of China became more and more obvious). The later period accompanied the coming of the rapid urbanization process. Similar with the French situation in the early phase of the '30 glorious years', the flow of population in China

continued to crash into big cities in the eastern coastal area for better opportunities (esp. economic objectives like employment). The gathering of population went along with the concentration of some other economic factors (i.e. capital, technology, information etc). Although the overall economy of China was enhanced, the 'Matthew Effect' would result in the further unbalanced situation in different regions. Under the background, the central government began to pay attention on the regions (north-eastern region, the central region, the western region) outside the eastern region, and the rural area since the late 1990s. The 'balanced development' strategy is not only for the political or economic balance in different regions, but is also urgent to solve a series of social problems (i.e. the limited and unbalanced social housing and public welfare for the floating population, esp. for rural labor force). In order to reach the aim of 'balanced development', the central government starts to support the development of 'urban agglomeration area' (it has approved a series of regional planning of big or medium-sized urban agglomeration area) and the massive construction of public facilities (i.e. the high-speed railway, telecommunication). As Charney (1993) mentioned, public investments can both initiate regional growth (jobs and people) and can remove or expand capacity constraints that would otherwise limit growth.

Since the financial reform in 1994 (the adjustment of 'central and local' fiscal distribution), the local government has had more initiatives than before, and the central government has turned to be mainly responsible for defense, diplomacy, transfer payment, strategic development. On the other hand, the input on public service at the local level is generally limited and unbalanced, in comparison with the over-attention on economic development for financial income (i.e. land economics). And the trend continues. Although the 'government-led' factors are prevalent in China due to the phase of development (the early phase of economic development) and local government has more initiatives, the emphasis of the government should include some new contents and the central government should guide the proper direction for the implementation at the local level.

Regional planning is not 'omnipotent'. However, it could help to predict the future and keep the crucial things by a way of spatial distribution in different background (i.e. the process of economy, society and politics).

According to the French experience, although the economic distribution (for balanced economic development) is urgent, especially for the population who look after employments in the initial phase, the attention on public service (i.e. education, medical security, culture, social housing), public facilities (i.e. transportation, telecommunication) and natural & cultural resources (i.e. environment) are paid at the same time, which are the crucial factors for the new round of 'balanced development' in the future (long-run vitality, not only focus on the economic development but on the quality of life). Quality of life becomes a development factor, as it attracts qualified manpower, crucial for high tech and knowledge-based economy. Moreover, some task remains no matter how the context changes. It is the task of the government who should be responsible for and coordinate the distribution of public service, the construction of public facilities and the protection of resources, no matter how the political decentralization develops and

the market influences.

12.2 What the government provides for the floating population during the rapid urbanization?

During the rapid urbanization (esp. in the first phase), the most important things for the migrants are employment opportunities and basic living security (i.e. housing, basic public welfare). It would lead the direction of migrants and other flows (i.e. capital flow, information flow etc). Afterwards, with the development of society and economy, the population has new demand, i.e. better living condition. Under the background, the factors related to the quality of life (i.e. the good environment & culture, the proper public service) become more important than in the first phase. Both economic and quality of life factors (incl. some public sector measures) are significant determinants of in-migration (Porell, 1982).

During the '30 glorious years', France used two major ways to solve the problems of balanced employment. 1. The de-concentration of employment (from industry to service sector) from the developed area (esp. Paris) to the less-developed area and the large-scale construction of new housing area; the support for industrial conversion area; 2. Improving the development of balanced cities, new towns and small & medium-sized cities afterwards, it created the balanced spatial structure in France and in some big urban agglomeration areas (i.e. Paris, Lyon, and Marseilles).

After carrying out the planning, the flow direction of population became more diversified to a certain degree, which turned from crashing into Paris, to other big cities, to other sizes of cities and the rural area afterwards, from migrating into the eastern part of France to diversified directions (i.e. the coastal area, mountainous area). Moreover, it also related to the social and economic development, i.e. the coming of consumption society.

Major regional planning	**Year**	**Direction of migration**	**Year**
Industrial de-concentration from Paris	From 1955	Paris, big cities in the eastern part (i.e. Lyon, Marseille)	the 1950s—the early 1960s
Zone of conversion (zones critiques)	From 1956		
Service de-concentration from Paris	From 1958		
Balanced metropolis policy	From 1964	Paris, big cities in eastern or western part (i.e. Bordeaux, Toulouse)	the 1960s
New town policy	From 1965		
Medium-sized city policy	From 1972	Paris, different sizes of cities and rural areas	since the late 1960s
Small city policy	From 1975		

However, some problems still emerged: the de-concentration of industrial employment caused a new round of unbalance situation (i.e. the separation between the area of production and the centre of innovation and management, the disparity of employment's level among regions etc), the less attention on small and medium-sized enterprises, the less-development of industrial cluster, the social separation in social housing area (grand ensemble), more attention on big cities, less focus on creating closely-related urban agglomeration etc. These results above were caused by both the government and the market. For example, the industrial de-concentration conformed to the law of the market due to the increasing cost etc in Paris and the requirement of the Fordism production, and it caused the spatial separation of the production and the management or R&D sector to a certain degree. In addition, the government strongly supported big enterprises at that time, which further strengthened the result and restrained the formation of economic clusters to a certain extent.

In China, due to the development disparity among different regions, the floating population continues to migrate into the eastern coastal area (esp. since the 1990s). Nowadays, the main objective for migrating is for employments, and mega cities & big cities are still the major destination cities for migrants among different size of cities. However, in comparison with France, the management system of China has two major differences, which increase the difficulty of settling down in cities and increasing the agricultural production: 1. the household registration system (the so-called 'hukou' system; it divided population into rural residents and urban residents), which causes the disparity of public welfare (i.e. medical insurance, endowment insurance, basic education, the right for demanding social housing) between rural and urban areas or migrants with or without urban 'hukou' in cities; 2. the system of land ownership: the peasants only have the use-right of rural land, and the rural land is prohibited to sell or purchase in the land market, which is hard to supply for the high cost of settlement in cities.

Under the background, China faces several problems nowadays: 1. the problems caused by the flow into mega cities & big cities (esp. in the eastern coastal area), i.e. limited social housing and public welfare for non-local residents (difficulty of settling down in cities for migrants, esp. for rural labor force), the over-expansion of cities (the over consumption of land resources), the environmental problems (i.e. water, land, atmosphere); 2. Due to the increasing cost, a number of industrial enterprises (esp. the production sector) have been transferred into the inland area with a relatively low cost (it is also a sort of success for regional planning), but the attractiveness for transferred industrial enterprises is limited (i.e. low-paid, long work duration) compared with jobs in service sector, esp. for the youth. 3. the less attention on the living condition of small cities and medium-sized cities (in pursuit of 'short-term' economic development) etc.

Based on the French experience, the development of urban agglomeration area outside the eastern coastal area could balance the overall development of China to a certain degree, which would lead a more balanced flow of population. However, their development should not simply rely on the transferring of industrial enterprises from the developed area, but encourage creating economic clusters with its own characteristics (incl. the creation or transfer of research and

education institutions, some related tertiary industry). As some scholars mentioned, industrial clustering has clearly more advantages than those due to cost savings and traded interdependencies (Bathelt,2005). And socio-institutional settings, inter-firm communication and interactive learning play a decisive role in explaining regional innovation and growth (Cooke and Morgan, 1998; Lawson, 1999; Gordon and McCann, 2000). Besides, based on the theories of 'Neoclassical Economics', it is the advancement of technology and knowledge that strongly improve the regional growth. For the success of regional cluster policy, the wider dimension (instead of localization economies) and the wider institutional context at the national and supranational (not only the regional level) become important (Bathelt, 2005). Moreover, the government might focus on the support for small and medium-sized enterprises and the knowledge/technology capacity during the same process.

Besides, it is noted that the transfer of the service sector and the education resources is better to relate to the clusters of industry with local features. Although the pursuit of employment is still the major aim for migrants in China, the category of jobs which they look for is gradually changing (i.e. from industry sector to service sector). The creation of employment in service sector should accompany the provision of industrial employment. And the advantaged categories of service sector are created or transferred based on different levels of cities. For example, more research, information institutions and headquarters of enterprises are located in mega or big cities; the general categories (i.e. bank, assurance, general management of enterprises, art) might choose other size of cities besides the mega or big cities. It is also the choice of the market.

Moreover, in the process of rapid urbanization, the attention for creating employments in cities should accompany the emphasis on public welfare (i.e. social housing, medical security, education etc) and living environment (i.e. nature, culture). The demand of population would change from the pursuit of employment and basic facilities in the initial phase to attention on better living condition in the later period. The migration is no longer homogeneous. For example, as a rational individual, rural migrant in China should consider the cost of migrating and living in mega or big cities. If jobs and public welfare could be provided (the disparity among different cities is not that obvious), it is not necessary to concentrate in big cities for enjoying good public resources.

Besides, the direction of migrating would be diversified (i.e. for employment, good weather and environment, culture, education resources, low living cost etc) after the phase of searching for employments. Promoting the living quality and its own characteristics (i.e. public service, environment protection, and culture) could be another way to attract the floating population in the new era, especially for small or medium-sized cities.

12.3 How the big cities keep their vitality in the changing background?

The function of big city evolved with the change of background and the trend of thought. The

mode of ‘big and comprehensive’ development is gradually replaced by the development with ‘polycentric’ structure and typical characteristics.

For example, in France, the development of Paris went through a process of transformation. 1. the disordered expansion, the de-concentration of industry and service from Paris (the de-concentration of employment), the construction of housing in periphery area (i.e. in ZUP) and transport facilities from the 1950s to the early 1960s; 2. a new round of organized expansion in the Paris region (the construction of new towns and new growth poles, i.e. la Defense) and the protection of leisure and green space since the mid-1960s; 3. the organization of development with a ‘polycentric’ structure (different sizes of cities in the Paris region, the integrated development of the Paris basin) since the 1970s. During the same period, the major objective of Paris’ development turned from the de-concentration of employment and the solving the problem of housing in the initial phase, to create new growth poles (new towns and district) and protect natural space in the Paris region since the mid-1960s, and to promote the integrated development in the regional area and strengthen Paris’ typical characteristics (i.e. culture, education) finally since the 1970s.

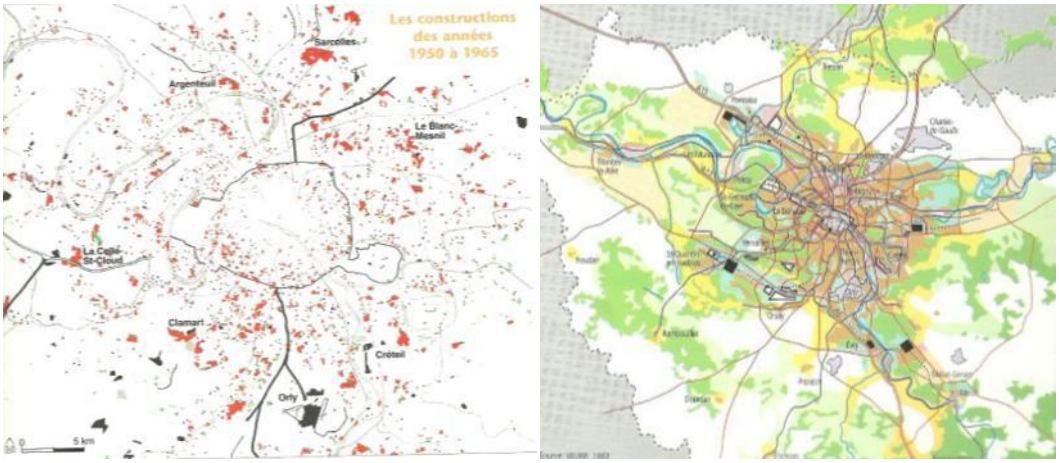


Figure: The construction, 1950 -1965

Source : Atlas de Paris et de la region parisienne, 1967

Figure: The plan of Paris (SDAURP), 1965

Source:Dirige par Therese Saint-Julien, Atlas de France (Volume 14) :Terrioire et Amenagement, GIP RECLUS et La Documentation Fransaise, 1997

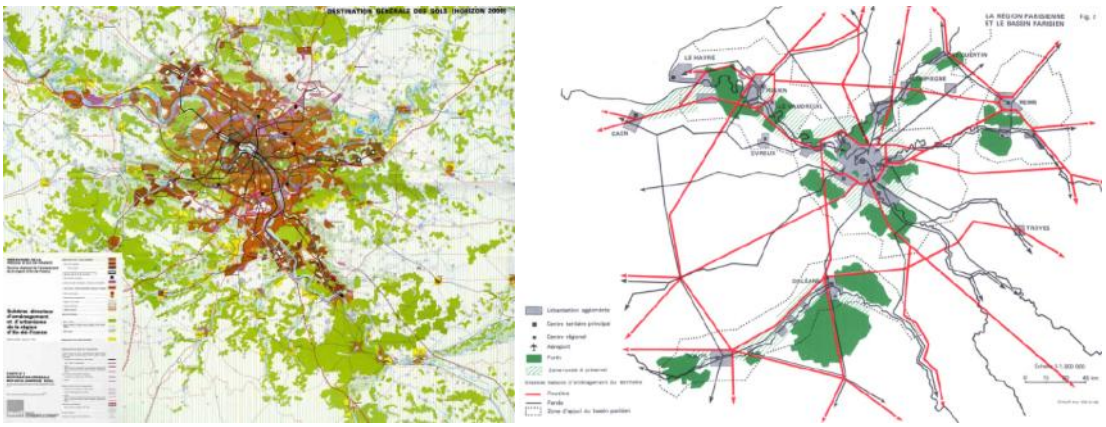


Figure: Director program and urban planning of the Paris region (le schema directeur

d'amenagement et d'urbanisme de la region ile-de-France, SDAURIF)

The process followed the demand in different development phases as well as political appeals, which turned from the industrial restructure, the industrial transfer due to the increasing cost etc in the central city, to the demand of balanced regional development (i.e. newly–emerging industry, research and education institution) and the requirement of improving Paris' competitiveness in Europe (even in the world). However, there are some self-contradictions in the regional planning of Paris, because the background and the trend of thought evolved in the different phases, i.e. the contradiction between the industrial de-concentration outside the Paris region and the industrial expansion in the new towns and the new areas (more organized), the contradiction between the de-concentration of service sector and the gathering of certain resources in the new background (more focus on local characteristics). It reflects the efforts of pursuing the 'polycentric structure' and the competitiveness its own along with the evolution of context to a certain degree. However, the goal of the integrated development in the Paris basin was not successfully achieved finally. It became more difficult to reach an agreement for fragmented local requirement after the decentralization of political power.

On the other hand, in France, some regional big cities developed successfully with typical characteristics. It is the characteristics that create their position in Europe (even in the world), i.e. Toulouse (the cluster of production, research and training on aerospace). As shown in the figures below, the cities with high growth rate all have their typical local features, i.e. the city of university (i.e. Toulouse, Grenoble, and Montpellier), typical industry (i.e. telecommunication and automobile industry in Rennes, aerospace industry in Toulouse), culture or natural resources (i.e. near mountains in the east or in the coastal area in the south) etc. The success related to the support by government during the '30 glorious years' to a certain extent, such as the industrial/service de-concentration action in the cities. Although the service de-concentration action is criticized for undermining the position of Paris, certain action followed the demand of market (i.e. bank, insurance) and connected well with local economic basis, i.e. the transfer of universities and research institution related closely to the local industry with local features and development basis, which resulted in the creation of 'tech-pole'. In addition, compared with the other sizes of cities, the big cities still have the obvious advantages in certain field, i.e. research, service of enterprise, information, telecommunication etc.

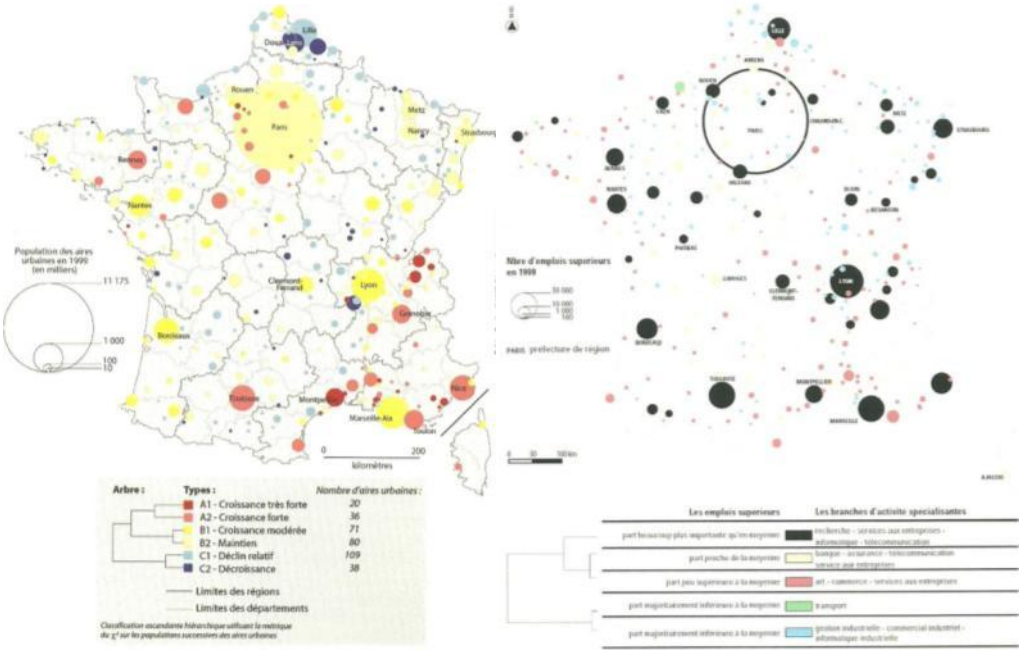


Figure: the evolution of population in urban areas, 1954-1999

Source: Fabien Paulus, UMR Geographie-cites, 2003

Figure: the classification of cities based on the advantaged activities, 1999

Source: FNAU pour la DATAR

In China, the number of big or mega cities increased rapidly in the recent decades, which attracted a considerable number of migrants. Compared with some inland metropolitan areas, those in the eastern area are more attractive due to the provision of more jobs. However, the development is at the expense of some resources (i.e. land, water, and atmosphere). Based on the French experiences, although the big cities are developing rapidly, the controlling for these cities' development should be replaced by the regional 'integrated development'. That is to say, we should change the mode of expansion, other than controlling its development in the 'age of city'. According to the development process of Paris, the transfer of industrial enterprises conformed to the transformation of economic structure: a considerable number of industrial production sector was transferred from the central city to its suburbs or other cities. On the other hand, the control for the leadership of Paris (i.e. the de-concentration of service or management sector) weakened its competitiveness in Europe (even in the world) to a certain degree. However, its function still existed and attracted the flow of economic factors, i.e. the increasing number of global top 500 enterprises' headquarters in the late period of the '30 glorious years'. That is to say that we should abandon the development mode of 'big and complete', other than preventing their typical function and characteristics, which is in contrary to the basic law.

According to a report by CIADT (pour un rayonnement européen des métropoles françaises, 2003), the proposals for improving the development of metropolises emphasized several domains: the economic field (i.e. headquarter of enterprises, congress and exhibitions, logistics activities), the high-education and research field, the cultural and artistic field, the creation of public poles (reinforce public decisions capacity in metropolises) and the accessibilities of metropolises (incl.

the relationship between France and Europe). However, it has to be noted nowadays that: the 'polycentric' mode (i.e. in the urban agglomeration area or the larger scale) is better than the disordered expansion; and strengthening the advantaged sectors with clear characteristics (i.e. fashion industry, education & research resources in Paris, aerospace industry in Toulouse, cultural and artistic activities) is better than the 'big and comprehensive' pattern.

In addition, improving the economic development of big cities should accompany the attention on the social and environmental problems at the same time. In the Paris region, these related problems still exist, i.e. the concentration of social housing (large-scale of construction in periphery area for solving the crash of population) caused the social segregation; the separation of living & working place and the inconvenient transport system restrained the proper 'polycentric' development; the obvious disparity of living condition (i.e. public service, transport, security) emerges among different new towns and districts etc. According to the newly-released master plan of the Paris region (SDRIF, 2012), the major contents are still about solving certain problems above, i.e. the promotion of mobility and transport system, the protection of environment and natural & cultural resources, the urban renovation etc. Besides the influence of the market, the governments of big cities need to go on focusing on certain fields below, in order to create good development conditions: a convenient transport system, protection of natural & cultural resources, and balanced distribution of public service (i.e. education, hospital, social housing etc).

12.4 How the urban agglomeration develops in order to keep the regional balance?

With the construction of facilities (i.e. transport, communication), the cities begin to connect with others more conveniently. The ideal situation is that the cooperation of cities improves the integrated development of the whole urban agglomeration area; the function of each city is well connected and organized with the typical local characteristics.

Take the urban agglomeration area of Paris as an example. During the '30 glorious years', the Paris region underwent several development phases: 1. the transfer of enterprises (esp. industrial enterprises) and the control for its disordered expansion; 2. the organized expansion with the construction of new towns and districts in the Paris region; 3. the attention on the cooperation among cities in the Paris basin. In the Paris basin, the majority of the flow of population was still highly attracted by the Paris region, and the development of the western part and eastern part in the Paris area was unbalanced which was related to the economic layout of the Paris region to a certain degree (i.e. the commercial sector in the west, the industrial sector in the north-east). However, with the amelioration of transport and the de-concentration of service sector (esp. the education resources), some fields developed in the urban agglomeration, i.e. the network of education & research, the integrated development of regional tourism. In France, although the political power has been decentralized, the proposal and discussion about the integrated

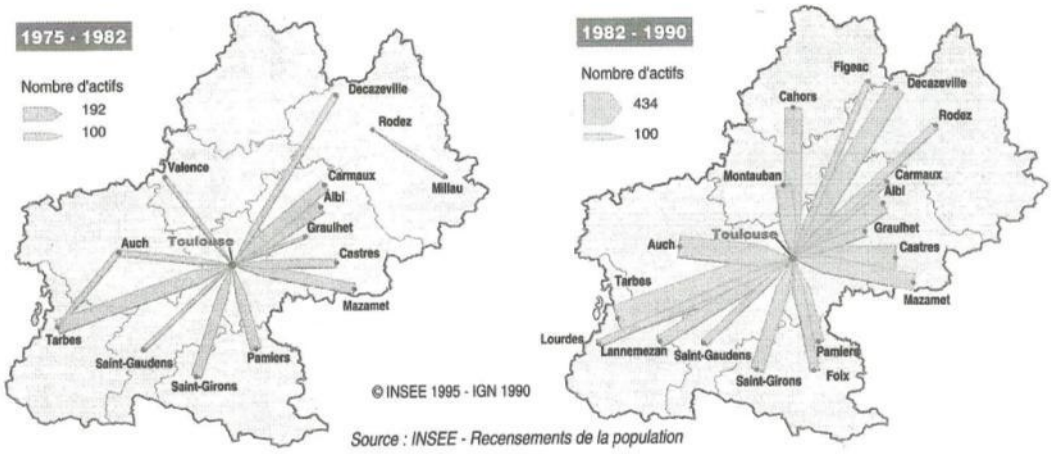
development of the Paris basin continues until nowadays. On the other hand, during the '30 glorious years', for balancing the monopoly position of Paris, the balanced cities were strongly supported (focus on big cities), which attracted the flow of population. The urban agglomeration areas of these balanced metropolises began to be planned in the 1960s, for example, Lyon-St-Etienne-Grenoble, Marseille-Aix, which was almost during the same period with the spatial reorganization in the Paris region.

Moreover, although the new towns were created in the urban agglomeration areas of some balanced cities (i.e. Lyon, Marseille); the emphasis on medium-sized and small cities had not been paid until the 1970s. The time sequence of the government's attention gradually turned from Paris, the balanced metropolises (big cities) to the medium-sized and small cities finally. It is in accordance with the flow direction of population, based on the theory of H.S Geyer and T Kontuly (the six successive stages of 'differential urbanization': three primate city stages, two intermediate city stages, one small city stage). However, the process influenced several results, i.e. the monopoly situation (be strengthened) of some big cities in certain regions (i.e. Midi-Pyrénées, Nord); the less effective cooperation among cities in the Paris basin. Certain cities remained to deprive the development resources (i.e. capital, talents) of other cities, which did not improve the overall development of cities in the same urban agglomeration area or region after the amelioration of facilities (transport, information etc).

Figure: The attraction of cities in France, 1979-1980

Source: INSEE, inventaire communal, 1979-1980, Pumain D, Saint-Julien Th, Atlas des villes de France, 1990

Figure: The net flow of manpower among cities in Midi-Pyrénées



Source : INSEE - Recensements de la population

On the other hand, due to the 'bottom-up' demand, the aim of population's flows changed in different development phases. The population migrated into the big cities (esp. Paris and balanced cities) mainly for employment during the rapid urbanization period (esp. the initial and mid-phase). In the late period of the '30 glorious years', the planning regarding small and medium-sized cities was carried out, yet the objective of creating employment there was generally not successful, which is in consisting with the phase of urbanization (the end of the rapid urbanization process). These cities functioned not mainly as the pole of employment, but attracted population by their typical culture, good living condition (i.e. close to nature, better neighborhood etc) or the service poles for the rural areas etc. Thus, its 'diffusion effect' functioned not simply by creating new employment, but by providing some basic service, creating affiliated education, training, research institutions, and constructing transport facilities etc (i.e. in the region Midi-Pyrenees).

In China, several urban agglomeration areas have been formed from east to west. However, the development degrees (i.e. compact degree, spatial structure stability, input-output efficiency etc) of urban agglomeration areas in the eastern region are generally much higher than those in the central and the western part of China. And some major problems of development emerge: 1. the negative effect of agglomeration (i.e. the damage of environmental resources, traffic jams): the crash of population into mega or big cities for diversified opportunities (i.e. commercial, employment, information etc), not into smaller cities in the same metropolitan area; 2. the pursuit of economic development, ignoring the culture and nature resources, i.e. the over-big planning goals of development for the urban expansion (another way of land 'enclosure') ; 3. the less effective cooperation, i.e. the repeated construction and the homogeneous development of industry among different cities: due to different administrative division, the whole goal of regional development is difficult to meet each local interest requirement; 4. over attention on mega or big cities.

According to the French experiences, the development of urban agglomeration area is necessary for balancing the well-developed area. And the 'polycentric' mode is a better way compared with the mono-centric mode and the disordered expansion, which emphasize the connection among different sizes and levels of cities. Although the difficulty of cooperation increases due to the decentralization of political power, some fields are still important to achieving this way of

development in the regional area, i.e. the construction of convenient facilities (i.e. transport system), the provision of equal basic public service and the protection of natural & culture resources. In addition, based on the development process of the Paris basin, although the development of the core city would deprive some resources of other cities in the urban agglomeration area, the creation of education & research network and the integrated development of some resources (i.e. tourism resources, incl. cities, natural space, culture) could be the other important cooperation fields in the urban agglomeration area, besides for the simple economic connection.

And in the new era, 'local characteristics' (localization) becomes more important than before, which would improve the creation of regional advantages. It is the symbol of cities or urban agglomeration area in the process of globalization, which attracts the flow of population as well as other factors (i.e. capital, information). In the economic field, creating economic cluster with local characteristics (specialization) is an ideal way for regional development, compared with the homogeneous competition, i.e. the Loire-Bretagne metropolitan area (Rennes, Lannion and Brest for TIC; Vannes, Nantes and Angers for the bio-technology; St-Brieux, Rennes and Laval for the food industry). In addition, the functions of cities in urban agglomeration area would be diversified, which become more important than the size of cities (tourism city, university city etc). And the de-concentration of education & research institution (related to the characteristic local industry, or some other typical domains) improves the creation of tech-poles or education & training poles in the new era.

Moreover, in the less-developed urban agglomeration, creation employment is still the major objective for different levels of cities, especially for medium-sized and small cities, which could ease the pressure in mega and big cities. For the developed urban agglomeration, the function of non-economic factors (i.e. environment, culture etc) becomes more obvious, which could be considered as a new kind of attractiveness and become an important factor to connect the whole region, especially for medium-sized and small cities. As shown in the figure below, with the amelioration of transport facilities, the phenomenon of 'living-working' separation increased obviously in France (esp. in the urban agglomeration area of some big/mega cities). Besides for the creation of employment, ameliorating living condition (i.e. natural environment, proper housing and public service) is important for improving the attractiveness of small or medium-sized cities in the urban agglomeration area. These types of cities would attract more population to live, due to better living condition compared with bigger cities.

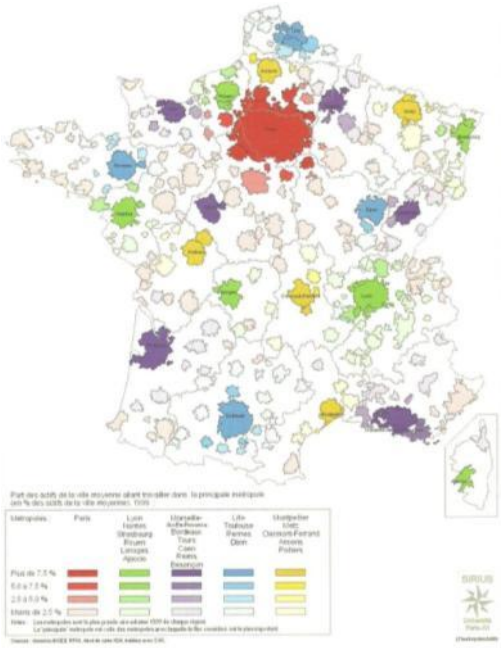


Figure: The proportion of residents in medium-sized cities who work in major metropolis, 1999
Source: donnéés INSEE RP 99, fond de carte IGN avec SAS

12.5 How the rural area develops for obtaining rural-urban balance during the rapid urbanization?

The development objective of rural areas evolves through the different phases, which is from improving the agricultural production and the basic living condition to developing diversified & characteristic industry and promoting the living condition with high quality. At the same time, its function turns from the production area of agriculture and the living place for peasants to the area of diversified industry and the living place for both peasants and urban residents.

In France, the development of rural area went through a proper process during the '30 glorious years': 1. Increase the productivity of agriculture (i.e. the popularization of technology and machinery, the consolidation of rural land), the construction of basic rural housing and facilities; 2. The protection of natural area (national park, PAR), the support for less-developed area (i.e. mountain), the development of diversified industry (agriculture, rural tourism, crafts, food industry etc), the amelioration of rural area's living condition and the construction of facilities for tourism. It accompanied the change of population's demand, from searching for employment to the pursuit of a suitable living style. However, the attention concentrated in the economic development and basic living condition in the 1940s and 1950s, the focus on environment protection and strict land-use plan had not emerged until the 1960s. And in the 1970s, the rural planning began to be prepared at the micro-level (by local community); on the other hand, the central government started to pay more attention on the development of weak area (i.e. mountain area) and the protection of natural space. During the same period, the flow of population changed

from ‘rural-to-urban urbanization’ to ‘counter-urbanization’ (i.e. the amenity migration), which influenced the evolution of regional planning in the rural area. The ‘peri-urban’ area expanded, which was related to the postwar Fordism and Keynesianism, i.e. the mass production and consumption, state investment in infrastructure (e.g. the road network) etc. The trend continues in the new era. As Buckley (2003) argued, proximity to protected natural areas and access to particular high on the list of desired attributes.

Table: Related polices and planning about rural area in France

Name	Year	Major content of related planning
The Plan Monnet	1947-1952	The renovation of agriculture machinery.
The second national plan	1954-1957	Improve the agricultural productivity, organize agriculture market; push the transfer of rural labor force from agriculture sector to industry sector.
Law of agricultural orientation	1960	Establish the equivalence relation between agriculture and other sectors; protect the income of farmers; establish the company for regional and rural planning; adjust the scale of family farm etc.
Policy of special zone of rural action (La Zone Specials d’Action Rurale)	1960	Provide loans to rural facilities, support rural small-sized industry
Supplement law of agricultural orientation	1962	Create the action fund of agriculture structure; provide retirement pensions for farmers; ameliorate the training for the rural youth; establish the production cooperation organization; improve the cooperation with European Communities.
National Park	1963	protect natural space
Regional Park	1966	protect natural space, keep a balance between rural life and leisure
Law of land orientation (Loi d'Orientation Foncière ,LOF)	1967	Land-use plan (Plans d’Occupation des Sols, POS) was established based on the law, which divided space into urban/urbanized area and natural area.
Zone of rural renovation (Zone de Renovation Rurale)	1967	Optimize the infrastructure for eliminating the isolation, maintain and optimize public service and information service, promote workforce training, improve the agricultural modernization, develop the rural industry and service.
Economic zone of montain (Zone d’Economie de Montagne)	1967	Improve equipment in mountain areas, production modernization of agriculture and livestock farming, protect water and forest resources, control the non-productive construction, improve the living condition of mountains.
Rural planning (Plans d’Amenagement Rural, PAR)	1970	Guided by Law of land orientation (LOF), it is a kind of planning at micro-region level for natural community, with the aim of development and regional

		equipment in rural area (socio-economic development, equipment, protection of natural space).
Development program of Massif Central (Programme de développement du massif central)	1975	Planning for the development of Massif central (agriculture dominated and mountain area)

The disparity between urban and rural area has existed for a long time. And some major problems emerged in the rural area of China: 1. the degree of organization and marketization in the field of agriculture is limited; 2. Due to a long period of 'rural-urban' binary development, the disparity of public service (i.e. education, medical security, endowment insurance etc) between rural and urban area is quite obvious; 3. the different development phases in the rural areas among provinces; 4. the disordered expansion of construction land in the pursuit of land economics; 5. the limited attention on the protection of nature and typical culture resources.

China carried out the 'dual tracks' economic structure and paid less attention on the rural area for several decades after 1949. Passing a period of endogenous development since the 1990s, in the 21st century, the central government of China starts to pay great attention on this area. From the year 2004, the 13 years' 1st documents of the central government all involved the rural field. Compared with the French experiences, the content is similar with the related French planning in the 1940s and 1950s, i.e. the attention on agricultural productivity, rural income, the construction of rural infrastructures etc. According to the French experiences, the agricultural productivity and basic rural living condition at the initial phase were mainly promoted by the government (esp. the central government). Although it happened before the action of political decentralization, it is always the task of the government to strengthen the input on the relatively weak sector and area (agriculture, rural area) during this phase. However, the development of rural area is quite comprehensive, which also relates to the amelioration of the overall public welfare (i.e. education, medical security, endowment insurance) and the quality of population (by the way of basic education, professional training etc).

In addition, although the local initiatives developed (i.e. POS, PAR) in the later period of the '30 glorious years', the central government still paid attention on the protection of nature & culture resources and the development of weak areas (i.e. mountain area). And the protection for natural space and the construction of public facilities were always the major tasks at the micro-regional level (i.e. PAR).

On the premise above, the other focuses depend on the different phases of 'bottom-up' development and different location: 1. for the less-developed area, the most urgent task is still the agriculture productivity and basic living condition, which is the basic guarantee for both economy and population; 2. for the well-developed area, due to the increasing demand of urban residents, some industry in the rural area are important, i.e. rural tourism, typical rural craft, and high-quality food industry; and the rural area becomes the leisure and living area for both urban and rural residents, thus the construction of high-quality facilities (i.e. tourism facilities, good

accommodation condition) is necessary. In addition, the measures are carried out based on different location. As shown in the figure below, the urban agglomeration area of big cities, the rural area near natural resources (i.e. mountain area, coastal area) attract the flow of urban residents, which could refer to the practice in the well-developed area.

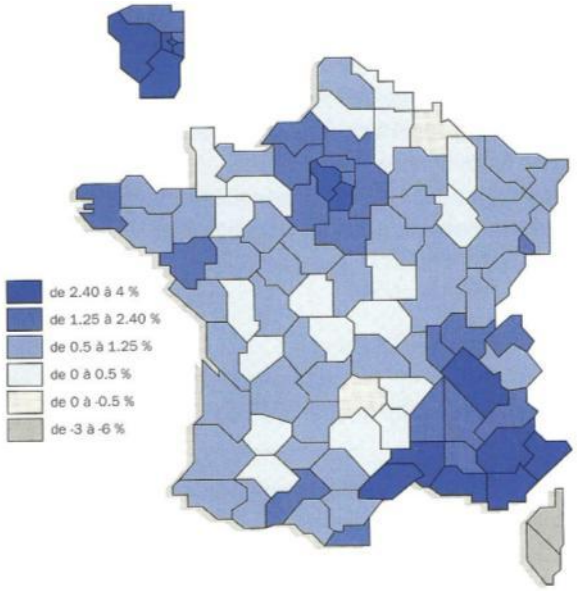


Figure: Migration rate of rural community, 1975-1982

Source: RGP

12.6 How to create the growth pole in the urban or regional area?

Creating employment is always an important objective during the period of urbanization and regional development. In the new era, the importance of strengthening regional competitiveness is emphasized.

The French experiences could be reflected by the comparison between the Paris basin and the Toulouse agglomeration area in different phase of development. Promoted by the demand of Fordism-style production and the action of industrial de-concentration, a considerable number of production sectors were created there, which provided many industrial employments during the period of massive-development. However, the small and medium-sized enterprises were less-considered by government, and few management/innovation parts of enterprises were located in the Paris basin. It hindered the formation of industrial clusters, innovation poles and resulted in a new round of unbalance (the category of employment) to a certain degree in the next phase of development. In comparison, the transfer of school and research institutes and the development of related enterprises with technology and knowledge improved the formation of industrial cluster /innovation poles about aerospace in the Toulouse agglomeration area. It is also influenced by the amelioration of facilities (i.e. transportation) and the new demand for living quality (i.e. weather,

environment). The effect has been quite positive until nowadays.

With the evolution of context (i.e. globalization, post-Fordism production), improving regional development by big enterprises and investment is gradually replaced by cooperation of different sizes of enterprises and technology improvement. And successful examples prove that the structure of cluster and the innovation environment (for technology improvement) is very important in the new era. And besides for the general support by government, enterprise zone and Freeport are considered as the good models for the active and free development of small and medium-sized enterprises (i.e. Hall, 1982). It could be seen as the growth pole in the new era (by François Perroux's theory).

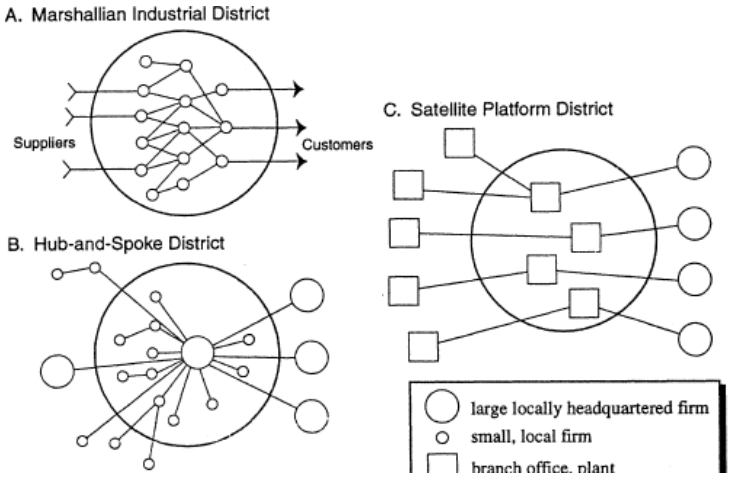


Figure: Firm size, connections, and local versus non-local embeddedness

Source: Markusen, 1996

In China, the creation of high-tech zone and university science park is always supported by government after the 'open-up' policy, especially from the 1990s. Until the year 2012, the number of high-tech zone at the national level has reached 105, which has covered each region of China. However, something has to be paid attention at the same time: innovation, industrial chain, local characteristics, and human/natural environment.

12.7 What is the development result of new towns and congregated housing area?

Besides employment, housing is the other important factor in the process of rapid urbanization, which is also one major task of the government (esp. the public housing).

France experienced the period of strong demand for housing by the growth of local population and the crash of migrants. Take Paris as an example. During the '30 glorious years', the provision of large-scale housing by the government went through two major phases: 1. the construction of housing in ZUP (priority urbanized zone, zones a urbaniser en priorite) since the 1950s, which were mainly located in the periphery part of urbanized area; 2. the construction of housing in new

towns since the late 1960s, which followed the structural expansion of Paris, and the renovation of existing area afterwards.

Influenced by the Athens Charter, both the ZUP and the new towns have separate residential, industrial, and public service areas. However, the models of planning changed during the different development phases. In order to meet the urgent requirements of large-scale migrants, the 'aggregated areas of housing (grand ensemble, with a high proportion of social housing)' were constructed in the ZUP, regardless of living-working balance, the connection of public transport. During the late phase of the '30 glorious years', the requirement of quantitative construction was gradually replaced by the pursuit of quality. In the new towns, it paid attention on the balance of living and working, the connection of public transport (the city centre was created along the axis of public transport), the construction of public facilities, recreation space, commercial & green space and the protection of environment. Take the development of Marne-la-Vallee (one new town in the Paris region) as an example, the new towns are divided into four parts (tertiary pole, the pole of university, tertiary and residence, green zone (urban park and individual & collective housing), Disney land and outlet centre), which are all along the axis of public transport (RER). It is a better way than the construction of ZUP in the initial phase.

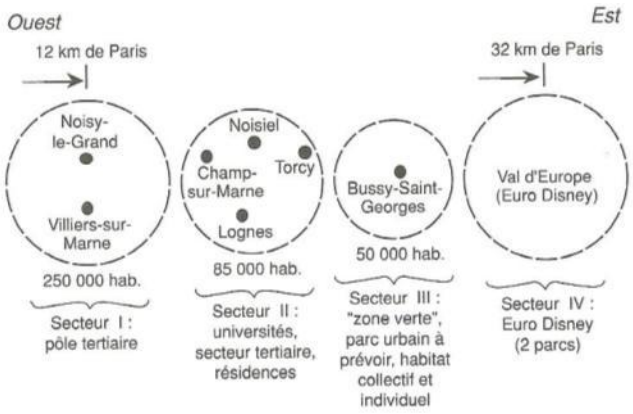


Figure: The development of Marne-la-Vallee

Source: Jean-Pierre Paulet, 2004

After several decades, some problems (esp. the social problems) emerged in the ZUPs: the most obvious phenomenon is that these areas have become the areas of social segregation. Living in the new aggregated housing area was once a 'modern' symbol in the initial period (the facilities of new housing is generally better than those in central city). With the change of population's requirement (i.e. from suburbanization to counter-urbanization or gentrification, esp. for the high or middle class), the proportion of low-income and minority residents increased in those areas (esp. in some suburbs). Compared with the central city and the new towns, some suburbs had more limited public service, the inconvenient transport system, the single function of land (i.e. large residential area), and low-quality of housing. However, although the model of planning was ameliorated in the construction of new towns, the objective of living-working balance was difficult to reach, and these new towns were still hard to attract high-class residents. Besides, the

problems of social housing still existed (i.e. the social segregation). France began to carry out some measures, i.e. further strengthen the connection of public transport, the protection of environment and green space, the urban design, the amelioration of public facilities and service (education, training, medical facilities), and the creation of new employment. However, it still needs to explore some measures to solve these problems above in France.

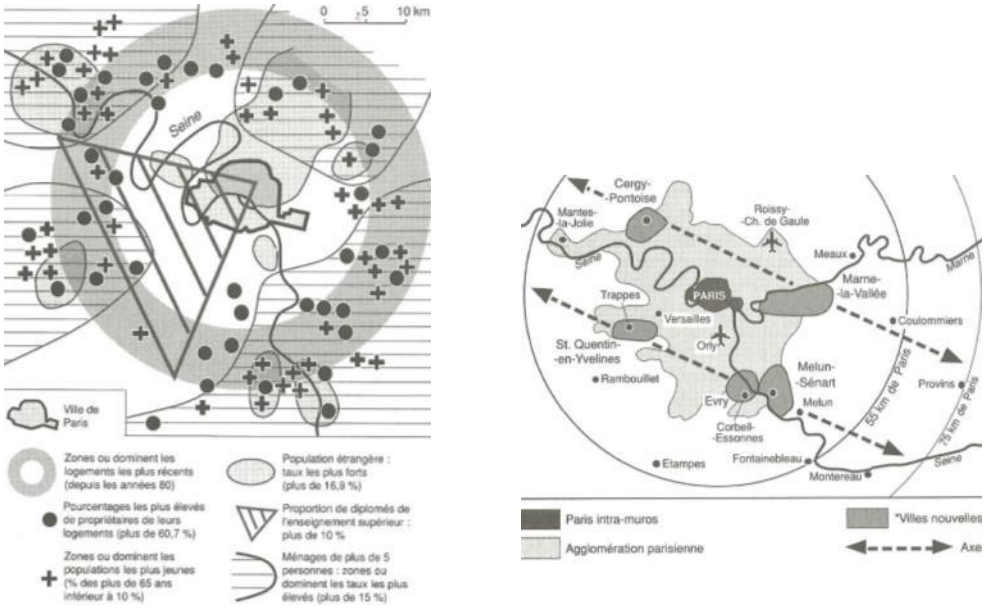


Figure: The Paris agglomeration and new towns

Source: Jean-Pierre Paulet, 2004

In China, after the reformation of housing in 1998, the housing is generally no longer provided by company, but becomes a commodity in the housing market. And the 'affordable housing' and 'low-rent housing' are provided for low-income residents at the same time. However, stimulated by land economics, the local government (after the financial reform in 1994) did not pay much attention on the construction of the social housing, which resulted in the insufficient supply for the increasing demand in the process of rapid urbanization. And the social housing in cities is provided for urban residents with local 'hukou', which increased the settlement difficulty of rural migrants. On the other hand, the price of commodity housing rose rapidly, which increased the ordinary people's difficulty of buying housing (esp. in the big or mega cities). Since the year 2007, the central government began to demand the construction amount of social housing each year, which promoted the construction by the local government. However, similar with the French situation in the initial period, the large-scale construction of affordable housing is mainly located in the marginal area of cities nowadays (especially in big or mega cities) due to the limited urban land in central city and its high economic profit.

The creation of new towns started before the large-scale construction of public housing in China. It is a result of local rapid development, which is also a reflection of local initiatives (urban management, the capitalization of land etc). Promoted strongly by the capital, these new towns did not consider much about the balance between living and working (esp. the construction of public housing is quite limited), but put the economic profit as the first position. They function as the

production space (i.e. economic technology zone, high-tech development zone), residential area, consumption space (cultural-creative industry zone, university city etc) and some areas promoted by mega-event/project (the world expo, Asian Olympic Games etc) in some cities of China.

Based on the experience of France, the provision of housing (esp. the social housing) is quite necessary for the government. And it has to be noted that the model of construction is important: the construction model of aggregated housing area (esp. social housing) should be replaced by multi-function city (or called new towns) or smaller-scale district with 'mix' feature. The later one should consider some major principles: the creation of development pole (i.e. industrial pole, university and research, commercial or recreation centre etc), the connection of public transport (i.e. metro, tramway), the provision of public service (i.e. education, medical service, social housing) and the protection of green space and environment etc. In addition, the large-scale of social housing area should be replaced by mixed, multi-function area and it should be equally provided for the low-income class no matter which 'hukou' they hold. Besides for the measures of urban design, some other urban policies (i.e. the creation of employment (in order to keep a balance between living and working and to improve the diversity of residents), the amelioration of social resources (i.e. the quality and the balanced distribution of education, hospital) should be considered and carried out at the same time.

Chapter 13: General conclusion

13.1 Objective of thesis

The whole thesis focuses on the evolution, the effect of regional planning in France during the '30 glorious years' and its implication for China. The 30 glorious years in France is a rapid development period of economy and society, also a historic phase of rapid urbanization, which is similar with the current situation in China. In addition, in order to solve the unbalanced situation in France (Paris and provinces, the East and the West, the urban and rural area), regional planning carried the objective of 'balanced development' through the 30 years. Like the situation in France, China could also be divided into several regions based on the development phases: the eastern region, the central region and the western region. Among them, the Yangtze River Delta Region, the Pearl Delta Region and Beijing-Tianjin-Tangshan area belong to the most-developed areas in China.

Actually, during and after the 30 years, with the implementation of regional planning, France basically completed the agricultural, industrial modernization and the rapid urbanization during the same period, and became more balanced than before. Therefore, it is useful for Chinese readers (i.e. Chinese government, Chinese planners) to understand the development process of regional planning in France and draw some lessons based on French experiences in the similar period.

In addition, to further understand the evolution and effect of regional planning in France, we take Midi-Pyrenees Region, Paris Region and Paris Basin as examples in order to reflect the evolution and effect of regional planning at the regional level.

13.2 Evolution and effect of regional planning in France

Through the 30 glorious years, France turned into a post-industrial country and consumption-oriented society. Besides, the political power was gradually decentralized in the same period. Along with the changing context, regional planning in France during the '30 glorious years' followed the evolution trend as below:

- From economic demain to more attention on 'living condition', from 'quantity of economy' to 'quality of life'
- From decentralized layout of industrial productivity to service productivity
- From emphasis on 'balance metropolis' in order to balance the influence of Paris to more attention on whole urban system, i.e. 'new town', 'medium-sized and small city'

In general, we find that the content of regional planning changed with the evolution of background (i.e. economy, society, and politics). And the regional planning with obvious, positive

effect all belonged to these which follow and predict the process and the inherent law of development. Therefore, regional planning should catch and foresee the decisive factor and solve the major problems during different phases of development. Some major parts are concluded in the thesis.

■ The effect of industrial and service de-concentration: planning guidance and market damand

The effect of industrial and service de-concentration could be seen as the result of both planning guidance and market demand. In fact, the action created employment and functional nodes outside Paris, which improved the balanced development in France to a certain degree.

However, it remains some shortage, such as the neglect of medium-sized/small companies, the formation of ‘cluster’ and industrial chaine during the process of industrial de-concentration, the reduction of Paris’ influence in Europe/the world after service de-concentration action. Nevertheless, for service de-concentration, the transfer of certain education/research resources closely to local industrial basis (i.e. Toulouse), which improved the creation of production/innovation nodes and upgraded the quality of workfore.

■ The evolution of migration: planning guidance and background change

During the 30 glorious years, regional planning basically led the direction of migration by layout of economic de-concentration and urban system. Unlike crashing into big cities (esp. Paris) in the eastern part of France in the initial phase, the direction of migration had become diversified since the mid-period of 30 glorious years.

In fact, the process followed the changing context. France gradually turned into post-industrial and consumption society. The demand of residents changed from chasing the economic objectives (high income, job opportunity) to diversified aims (economic and non-economic objectives, i.e. the pursuit of high-quality living condition). Besides, it differed among various groups of age and occupation.

■ The position of Paris region and balance metropolis: balance or polarization

During the 30 glorious years, certain urban clusters at the regional level were created in order to balance the influence of the Paris region. However, the effect of regional planning on urban system in France was under debate, due to the changing context. The balanced distribution of resources in one country could not follow the new background (internationalization and localization). the former emphasis of ‘balanced development’ (counter the influence of the Paris region) in one country was challenged by the new demand of ‘strengntening local comptitiveness’ with the changing background.

Therefore, the position of Paris is not only in France, but also in the world. Decentralizing certain service resources seemed unwise in the new context. At the regional level, the integrated development of urban cluster (different sizes of cities) with local characteristics, the cross-region/country become more important, which was ignored during the 30 glorious years.

■ The function of rural area: the demand of both rural and urban population

After the ’30 glorious years’, rural area in France become an attractive and multi-functional area, which was improved by a series of planning in rural area.

In general, planning basically met the demand of both rural and urban residents during different development phases. It turned from emphasis of agriculture modernization and basic facilities/service to attention on multi-industry, suitable facilities/service for both rural and urban residents, that is from basic function to 'high-quality' production and living condition.

13.3 Implication for China

Nowadays, China has entered into the rapid development and rapid urbanization period, similar with the '30 glorious years' in France. In addition, the central government of China also realizes the importance of regional planning in order to solve the current unbalance situation of development. Althogh the context of development and the function of government become different compared with the '30 glorious years' in France, a considerable number of problems are still similar, such as the transfer of enterprises, the migration of population (esp. the rural migrants), the creation of urban cluster and the development in rural areas.

Therefore, we draw some implication for China based on French experiences.

- Reaching ' balance development' is the key objective in the rapid development/urbanization period.
- The government should pay attention and lead the direction of floating population during the period.
- How to promote the integrated and coordinated development of urban clusters?
- How to make big cities keep their vitality and competitiveness in the changing background?
- How to improve the harmonious development between urban and rural areas?
- How to avoid the misunderstanding on the creation of growth pole and the construction of social housing?

In conclusion, the experiences in France during the 30 glorious years is quite useful and inspired for China to learn. The most important function for China is that it could avoid detours and lead proper direction of development in the future.

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Chapter Twelve

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