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Sahat Manondang Manullang

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Université Paris-Est

Le développement de PME dans les hautes terres de Bukit Barisan pour créer un Centre Agricole au moyen d'une solide coopération entre autorités locales, entreprises et fermiers - Une application de l'Intelligence Compétitive pour stimuler la croissance.

*The Development of SMEs in Bukit Barisan High Land Area to Create an Agricultural Center by Using A Solid Cooperation Between Local Governments, Enterprises, and Farmers
An application of Competitive Intelligence for Stimulating the Growth*

Présentée le 09 octobre 2008

A l'IUT de Marne la vallée
Amphithéâtre Albert Einstein

par

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Pour obtenir le grade de Docteur en Science de l'Information et de la Communication

Sous la direction du professeur Henri DOU

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**A notre Seigneur Jésus Christ,
En qui je crois profondément.**

**In our Lord Jesus Christ,
In whom I believe deeply.**

**A ma famille,
Ma mère
Mes frères et sœurs
Mon beau frère
Ainsi que Missy**

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RESUME

La recherche a été conduite sur les hautes terres de Bukit Barisan, qui se composent de huit régences, situées dans la partie nord de la Province de Sumatra-Nord, en Indonésie. On constate que cette zone est sous la double contrainte d'un indice de pauvreté élevé et d'un taux de chômage élevé. Le principal secteur d'activité de la région est l'agriculture, qui procure plus de 50 % de la main d'œuvre. Le principal défi de cette région est de sortir d'une productivité très basse. Cette situation est due au manque de pratiques de gestion et de capacités à introduire des outils, ainsi qu'au manque de connaissances en termes de savoir-faire. De plus, le manque d'information et de coordination entre les acteurs de l'économie, c'est-à-dire les agriculteurs eux-mêmes, les autorités locales, les entreprises et les universités dans ces régions, a laissé s'enfuir la valeur ajoutée et entraîné des fluctuations importantes du marché des matières premières, en termes de prix et de qualité.

En conséquence, une nouvelle coopération doit avoir lieu entre tous les acteurs de l'économie dans ces régions. L'information jouant un rôle essentiel dans le développement des régions, elle doit être diffusée d'une manière appropriée. Un tel centre d'information, appelé « Centre d'Intelligence Compétitive (IC) » doit être créé dans chaque région de la zone de Bukit Barisan. Le centre d'IC assurera l'élaboration des programmes de développement appropriés, applicables à chaque région, afin de permettre la croissance souhaitable dans les régions et dans le pays tout entier. Chaque programme défini par le centre de CI aura pour but de tirer parti du potentiel de chaque région, de surmonter ses problèmes et de relever ses défis.

Dans cette thèse, les hautes terres de Bukit Barisan, qui se composent de 8 régions, sont caractérisées comme une zone homogène dans sa topographie, son climat, son type de sol, ses conditions sociales, ses potentiels et ses problèmes. Le type de développement proposé pour la région consiste dans la création de petites et moyennes entreprises, ancrées dans la région pour y mettre en place la chaîne de valeur, en y associant les fournisseurs et les producteurs, à savoir les fermiers et les entreprises. Cette chaîne de valeur peut seulement être réalisée par une collaboration pleine et entière entre tous les acteurs économiques.

D'après les résultats de l'enquête menée, il est proposé d'intensifier les deux matières premières qui se présentent sous les meilleurs auspices, à savoir le café et le maïs. Le maïs est perçu comme un produit d'exportation dont la demande croît régulièrement, tandis que le café est un produit d'exportation permanent, pour lequel l'approvisionnement décroissant de la part du Vietnam apporte davantage d'opportunités à l'Indonésie. Pour donner une vision aux investisseurs, les études de faisabilité de la plantation et de la production de ces deux produits sont présentées dans la dernière partie de la thèse.

ABSTRACT

The research has been conducted in Bukit Barisan High Land zone consists of eight regencies located in the northern part of North Sumatra province, Indonesia. It is found that the zone is entrapped in a high poverty rate and a high unemployment level. The regions main employment sector is agriculture, where more than 50 percent of the total workforce engages in the sector. The main challenging of the regions is a very low productivity. This is due to lack of management practices and capacities in term of tools inputs, and knowledge now-how. Moreover, the lack of information and coordination between the actors of the economy i.e. farmers-local governments-enterprises-and universities in the regions has dragged away the value added products and inherited in high fluctuation of the commodities in term of prices and qualities.

Accordingly a new cooperation needs to be made between all the actors of the economy in the regions. As information has a vital role in the development of the regions, this sector hence ought to be diffused in an appropriate way. This information center then called as a Competitive Intelligence (CI) Center, which is importantly formed in each region in Bukit Barisan High Land zone. The CI center will ensure the formation of the sound development programs to be applied in the regions in order to achieve a desirable growth within the regions and within the country as a whole. The program of CI center is emphasized on enhancing the potentials of each region and overcome its problems and challenging.

In this thesis, Bukit Barisan High Land which consists of 8 regions is categorized as one zone regarding similarity in its topography, climate, type of soil, social condition of the society, its potentials and problems. The development of the region then suggested by the creation of the Small and Medium Enterprises close to the region to ensure the achievement of value chain between suppliers and producers in this case Farmers and enterprises. This value chain can only be achieved by a solid collaboration by all economic actors.

Based on the findings, it is suggested that the most prospective commodities need to be intensified are coffee and corn. Corn is perceived as one of a prospective export regarding a continuous increase demand for the commodity globally, whereas coffee is a permanent export commodity where the decreasing supply by Vietnam has contributed to more opportunity to Indonesia. In order to provide some vision to investors, the feasibility studies of the plantation and production of two commodities will be presented at the last part of the thesis.

Introduction

The development of industry is one of the most important components for the economic development of Indonesia. The modest economic growth in Indonesia for the last decade is due to stagnation in its industry especially in the manufacturing sector. Accordingly, the innovation of the industry sector will be a primordial factor for the increase in GDP of the nation, by having an increase in the value added of the products hand in hand with an improvement in its workforce allocation and finally improve the competitiveness of the nation. Before the economic crisis in 1997, the industry sector had contributed 25 percent to the total of GDP of the country (The Department of Industry 2005).

Based on the employment sector, agriculture holds the main role with a composition of almost 50 percent of the total manpower in Indonesia engages in the sector. Meanwhile the distribution of agricultural sector to the GDP is only 15 per cent in 2007. This tendency shows that the productivity of the agricultural sector is very low, and the resources allocation has not yet distributed equally. Accordingly, the revision and intensification of the agricultural sector and the resource allocation of the country need to be taken into account. Moreover, the new phenomenon of the global food crisis will have a big impact on the social economic condition in the country. This impact can be both negative and positive one. It will be all depend on the awareness and a strong commitment of the government of Indonesia. As the country is a net importer of the staple food, to be remained on the same condition of its agricultural productivity will dragged the country to a widen poverty which will lead to economic and political chaos. On the contrary, improving the capacity and the productivity of the sector will bring a new opportunity to the country hence the desirable growth will be reach in the middle term.

Based on the result of the study made in this thesis, it is suggested that the development of the industry has to be started based on the competencies of each

region. In this case, the screen needs to be made in the regional base in order to be able to allocate the resources in an optimum way and finally reach a sound development and desirable growth.

Concerning the limited time and capacities, the study only focuses on the development of some regions i.e. the Bukit Barisan High Land areas which consist of 8 regions in the southern part of North Sumatra province. Nevertheless, it is expected that the rest of the regions in the country will be developed based on the system and programme proposed in this thesis. The results and the recommendation made in this study are expected to be useful for the actors in the economy i.e. the local government especially the Reagent as a higher decision maker in the region, Legislatives of the regions who hold the decisive role in related to laws and some other important decision made to support the development, Enterprises as motors for the development program, and the farmers as one of the main actors of the development theme.

The main alarming feature of the social economy of Bukit Barisan high land area is the high rate of poverty and unemployment. These two problems has dragged the regions into a globalization backward, where the industry sector is facing deep stagnation with an average growth of around 3 percent per year for the last decade. It is found that in the regions, as it is in Indonesia as a whole, the agricultural sector is still the main allocation of the workforce of the region. Meanwhile, the industry seemed to be very limited in the regions, as until present the industrial zones are mainly concentrated in Medan city- the capital city of the North Sumatra. Besides this concentration contributes some problems in the city, where the city has become too crowded and too zig zag and unmanaged-lead to limited productivity-this condition has also a stumble block of the development of the regions. On the other words, the value chain of production can not be achieved where the suppliers and producers are disconnected by distance worsen by the present condition of the infrastructure in the region. As a result the productivity in the regions is generally very low.

In the Bukit Barisan high land zone, the agribusiness sector is conducted individually or by family basis. The absent of management or organizational to support this sector has led to a poverty entrapment among the population. In this case there is no mutual orientation between the government-industry-and farmers to support the development of this sector. The lack of coordination and information among the actors of the economy commonly leads to a high fluctuation of the quantity of the production resulted in a high fluctuation of the commodities' price. The instability of price and production has minimized the productivity of agricultural sectors in the regions. For example, in July and August 2005, the price of oranges in Simalungun and other regions in the areas of Bukit Barisan High Land was around IDR 1500/kg, whereas the cost of production of oranges per kg was IDR 2000. Meaning that at that time the farmers of oranges were collapsed. This condition was due to a production boom of oranges in several areas such as Bali, Kalimantan, and Sulawesi. The redundant in the supply of oranges was not balanced by the increasing demand of the commodity. This picture has shown a very limited value added of the agricultural products, where perishable products are not transferred into other forms. This example is only one of hundreds cases in agricultural sector in Indonesia, similar problems are commonly found in other commodities. If the condition is remained, the country will be absolutely entrapped into deep poverty. Accordingly, there is an urgent need to apply a new approach to provide appropriate information at the right moment to avoid such a problem.

Based on the researches conducted in the 8 regions of Bukit Barisan high land, the revitalization of the agricultural sector, including tree plantations, plantation of staple food and horticultural products is a vital factor to maximize the productivity. The revitalization can not be made by the farmers them selve, the collaboration among all actors is necessarily needed i.e. the intervention of the local government in facilitating the tools and services to the farmers. Moreover, the local government holds a vital role in stimulating the development of small and medium enterprices (SMEs) to absorb and transform the agricultural products into value added agricultural base products.

The development of the agricultural sector in Bukit Barisan high land areas is focused on two commodities i.e Coffee and Corn. The choice of corn intensification is due to an increasing demand globally for the commodity of corn as its function has been transform to etanol or bio-diesel to fulfil the alternative substitute commodity concerning a rocketing price of fuel. Meanwhile, Coffee is considered as one of prospective export commodities of which a global demand remains high. The additional opportunity has taken from the decreasing supply from Vietnam, as one of the biggest coffee producer in the world. This tendency is might be due to a constant increase of the manufacturing sector in Vietnam. Moreover, the two commodities- coffee and corn are ideal with the climate condition and the photography of the land as well as the soil type in the regions. Moreover, corn and coffee have been part of the agricultural culture among the societies in the regions.

The feasibility studies of the industry of the two commodities in the frame of SMEs development will be presented at the last chapter of the thesis. These feasibility studies are aimed to stimulate the intention of some investors to realize the development theme in the region. The SMEs will be the main partners of the farmers to increase the productivity.

In order to realize the development programs in the regions, it is emphyised the important of the establishment of information system. The domain mentioned is Competitive Intelligence (CI) unit as an information and formation center. The CI unit is needed to be formed in every region in facilitating the right development themes in the regions.

The creation of the Competitive Intelligence center in the regions has become a primordial need in accelerating the desirable growth. A pilot program applied in Simalungun regency is necessary to be a pioneer among the regions, with an expectation that other regions within the Bukit Barisan High Land will be motivated to apply to same program in order to create a new collaboration between regions, universities or research, enterprises, and farmers.

CHAPTER I GENERAL PRESENTATION

Abstract

The chapter will mainly describe the shift in the global era, where the globalisation demands the nations to be more competitive in order to be able to play in what so called a shrinking global market. In the first part of the chapter, the condition of Indonesia; its economics and social condition will be described. The second part will be focused on the strategic themes need to be applied based on the road map of development projects. In the last part of the chapter, it is emphasised on the importance of the function and role of the local government to arrange and scheduled its development process by using the right methods.

1.1. Background – Indonesia Today

Indonesia is endowed with a vast natural and human resources which is counted for the fourth most populous country in the world. In 2007, the country is categorized as one of the biggest producer of natural resources such as coconut, rattan, palm oil, etc. The beauty of the country is spread out through more than 17,000 islands, enriched by its natural beauty, among others Bali, Lombok , Flores, Toba Like, meaning that Indonesia ought to be one of the tourism destination in the world.

However, Indonesia is still the county that has biggest challenging and one of the most corrupted country in the world, until present there are many problem that are facing by the country, for example a deepen poverty rate, unemployment and inflation are considerably high, lack of capital and poor infrastructure, lack of technology, lack of information , lack of government transparency . In addition to these problems, the country is prone to natural disasters that dragged the economy even worse.

From the independent day in Augusts 17, 1945 until 1998 Indonesia adopted a centralized system where the decision process and its control concentrated in the hands of the central government in Jakarta. Strategic development was designed by the central government Indonesia, hence did not answer the real problems in the regions

and districts. The situation indicates that there was a need for another decision making approach as a complement to the system that has been applied previously.

Local autonomy, following by the implementation of law No. 22, 1999 effectively applied since Januari 2001. With this system, local governments have gained greater opportunities to provide broader coverage in their strategic development, and a better public services provision in the regions. In this case, regions are given boarder authority to have a sound development based on their needs and capacities. Regarding that law, the central government has lost some power in dictating regional government policies. By other means a possibility of local governments are able to create and develop their region by themselves. Accordingly they can make strategic plan based on their competitive advantages in order to be able to create added value products to accelerate development in order to realize the well fare of the population.

Agriculture is a major employment sector in Indonesia, where around 45 per cent of the Indonesian workeforce involves in the sector, and two thirds of the archipelago's population is rural dwellers highly depending on off-farm resources. Nevertheless, agriculture sector generates only around 15 per cent for GDP (Gross Domestic Product) in 2007.

In general, the most challenging that is commonly found in the Indonesian agriculture sectors is lack of access to credit by farmers, todote, there is no a stabil micro credit that is applied which can sustain the small farmers .

Farmers without access to credits are usually entrapped with non-banking institution with a very high interest charge at 50 – 100 per cent. This is due to a low legal system which is not cover the limit of the interest in such institution. Moreover, agribusiness also facing a daunting challenging as access to credit might be available but the interet is considerably high at around 20 per cent. Compared with neighboring countries in Asia such as in China and India, the agriculture sectors are sustained by a low bank interest rate of 3 per cent and 6 per cent respectively.

1.2 Micro Credit in Indonesia¹

In the late 1990s, the government had realized micro credit system which locally known as Kredit Usaha Tani (KUT). KUT was one of the government aids to the farmers in respond to the financial crisis problems that hit the country, especially the deep negative impact to the sector of agriculture. Between 1999 and 2000, the government by BRI (one of the state bank) has released around IDR 5, 8 trillion or roughly around USD 580 million.

Nevertheless, problems had been exploded in the early stage of the system. Farmers' microcredit system was finally collapsed as the credit institutions found their petty cash empty without any pay back.

Based on the field analysis, the key features of the failure of the system were as followings;

1. There were indications and some scandals in term of the credit distribution, some evidences were found that funds were received not only by farmers but other parties.
2. Most of the funds were distributed in urban areas, where as the concept of the micro credit was helping the farmers by facilitating small loans for entrepreneurial activities and self employment projects to the poor as a way to eliminate the poverty, and the poor are mostly located in the rural areas.
3. In some extends, the concepts were swept away and creating a corruption facilities by some government officials. Farmers have to pay some fee, and the amounts received were cut off in a certain percentage.
4. When the microcredit was booming, the demand for agro inputs such as fertilizers were increased, nevertheless this high demand was not anticipated and counterfeit production materials such as fake fertilizers, pesticides and seeds distributed in the markets led to harvest failure in some regions. The condition

¹ Manulang New, Les Condition Economiques Actuelles Indonesiennes et Leur Relation avec l »Intelligence Competitive pour un Development Regional, Thesis, 2007

had brought the farmers into debt entrapment and contributed to microcredit discontinuity and a failure of the concept.

5. On the other hand, some farmers which had succeed in their projects and supposed to be able to pay back the debts took advantage on the situation and claimed to be those who were trapped in the harvest failure.

In all, the mentality of the people, whether the government officials, farmers and other actors in the systems were not reliable at all, all parties seems to have corrupted and rotten attitude. In this case the rule of the law has to be applied strictly, and strong control systems need to be created.

In November 2004, the government of Indonesia finally decided to cancel all the debt regarding KUT issues. The initiative was made in order to release the farmer from their debt and enabling them to start over. In addition to debt cancellation, in November 2007, the government also issued the new type of micro credit of what so-called Kredit Usaha Rakyat (KUR) with some state and private banking institution hold a role as distributors, among others; BRI, BNI, Bank Mandiri, Bukopin. The concept has the same objective as it was KUT, i.e. providing a small loan to the farmers. Since the first realization of the program in the 5th of November 2007 to the end of February, the fund released has reached amounts of IDR 1,782 trillion (USD 180 million)².

However, without any change in the distribution systems and its control, the concept will fail again in the near future. It is suggested that the government has to anticipate the potential criminals of the concept; hence a sound of law protection will be applied. The credits have to reach final destination with out any bureaucratic layers. In fact, the distribution systems can be simplified. Indonesian government need to learn the similar concept which has been applied by the Indian government, where the systems and its progress are monitored closely and assistances are provided by facilitators to the farmers in dealings with the bank and with government officials.

² Pemerintah Hapus Tunggalan Kredit Usaha Tani, ANTARA news, <http://www.antara.co.id/arc/2008/3/3>

In this case, the government willingness, especially the initiative of the present Indonesian President, SBY has shown a good commitment to build the nation. The development however can not be realized by one person only; it has to be a real action by all actors in the economy; from the government officials, facilitators, and farmers. Without any good attitude and strong liability of all parties, any concept of the development will enrich big fat corruptors and reach a final end, collapse. In this case, the products of appropriate law concerning criminals i.e. missed use of the systems by the facilitators or the government officials, suppliers of counterfeit production materials or agro inputs, and unreliable consumers.

In addition, taking a lesson from the failing system of the KUT, a mortgage system is importantly applied in the system. Some 'naughty' farmers perceived that the government is a kind of Sinter Clause who gives presents, and of course a present is a present. But, in most of the rural areas in Indonesia, the certification system of lands or houses is not common; accordingly this problem is urgently being solved in the first place.

1.3. Globalization

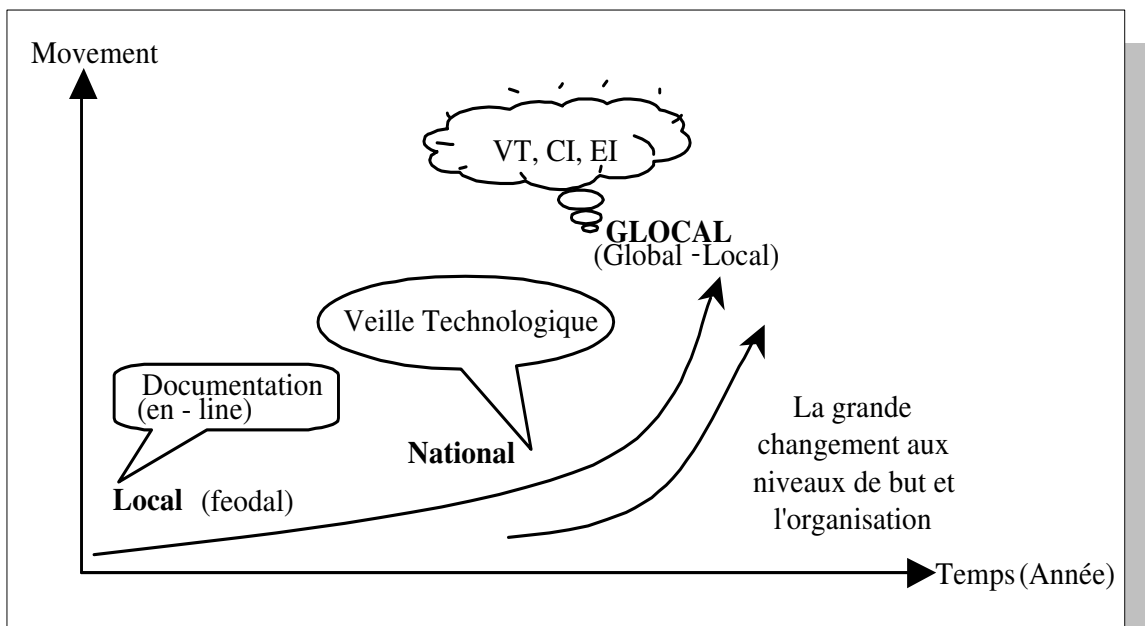
Today, the impact of the globalization on the development of the economy becomes larger and larger. Most of the countries want to share part of the world economic development. If during two hundred years, only 20 countries in the world share all the natural resources to ensure their own development, to day it is not case any more and there are 200 countries which are using the globalization to increase their share and to participate to the global development. The western and develop countries belived that the globalization will be for them a unique opportunity to export their principles of life and economic rules, but this is not the case. The development of the globalization is not going that way and it constitutes if it is not controlled a real threat for their development.

If we refer to the Davos's summit³, Harvard university president Lawrence Summers decribed as one of the most important moment of history; **Asia's new economic might**. "what is happening in India and China, the integration of the fourth – fifths of the world whwre people are poor with the one – fifth of the world where the people are rich, has the potential to be one of three most important economic events in the last millennium, alongside the renaissance and the industrial revolution".

1.4. Knowledge Era

During the last 20 years the world society has been changing (evolution) from the local to international society or world without borders (Dou, 1997). It can be explained by the following figure (Figure 1).

Figure1.1 Evolution of the Movement of Competition



Source, DOU 1997

The figure1 shows that competition becomes wider from to time to time. At the beginning the competition era was still local and then with widening more and more it became total. Consequently, the strategy of the businesses must be adapted and

³ Extract from the Strait Times Singapore , Januari 27 th 2006 " From Davos Switzerland"

considered the changing or the movements of Global and Local around the sector of the activities of the businesses which it represents.

This time can be mention or known as knowledge⁴ (information) era. This phenomena can be seeing on availability of internet around the world which it serve information to all people, there are many website available, there is satellite photo that can get information without approved by owner, and marketing by internet.

In the knowledge era, information is still open for some one who needs. It is depend on their skills and techniques available. Who are the faster to get information and make it in to knowledge (intelligence), they will be the winner of the competition. This era has been predicted by Druker long time ago. Druker (1993:42) cited that the traditional factors of production – natural resources, labor, and capital, are not sufficient enough, they are become secondary, there is knowledge which is the priority tool. Regarding that reality competitive intelligence will be the best alternative way to help people, government and organisation to win the competition, whether in local or global level.

According to Henri Dou (2002), Competitive Intelligence is a systematically program to threat, analyze and disseminate of information upon the activities of the competitor, the technologies and the general tendencies of the company's activities, in view of decision making to achieve the best strategic goal of company. Competitive intelligence is competitive technical intelligence with strong components in the fields of technologies, research and development.

Competitive intelligence is the alternative approach in research in relationship to find the best answer for the research question or the best solution on the problems have been faced. It is a logical construction to help the researchers or research groups regarding the planning, implementation, and dissemination of research.

⁴ Knowledge is fact, information, understanding and skill that a person has acquired thought experience or education (Oxford Advanced Learner's Dictionary. New International Student Edition. Oxford University Press, 1995).

1.5. Indonesia Needs to be Competitive.

Indonesia is far behind the neighboring countries such as Singapore, Malaysia, and South Korea (countries which are comparable to Indonesia three decades ago) in terms of its information technology and the development of research centers and educational institutions. Being able to catch up with these countries, Indonesia needs to improve its information technology, access and take advantage of internal and external information.

However, accessing and controlling information is not enough for development, therefore skills in terms of revealing, collecting, analyzing information to become knowledge or intelligence are needed. Based on conventional ways, it will take a long time for Indonesia to reach its development. Accordingly, the country needs an approach that can accelerate processing information to be knowledge. One of the best approaches is using Intelligence Competitive (economic) approach to help government, enterprises, organizations, and all the actors in the economy.

1.5.1. Developing Competitive Intelligence Research

Besides these reasons, choosing Indonesia and especially Bukit Barisan High Land Area as location of research will bring many benefits whether for the researcher, the government, the enterprises, the farmer etc. For this research, time, money, and energy can be saved. For government, enterprises, and other stakeholders the result of the research can become an input for decision making and reference to the development program.

1.6. History of Indonesia.

Indonesia is an archipelago with more or less 17,504 big and small islands spread along Sumatera, Java, Kalimantan/Borneo, Nusa Tenggara, Sulawesi, Maluku and Papua. The Indonesian territory is divided into 33 provinces with 234,639,997 inhabitants in 2007. Based on exclusive economic zone, Indonesia covers a territorial area of 800 million hectares, the biggest part of it, about 76% of the area is territorial waters and the rest of it is land terrestrial. About 120.2 million hectares of the territorial land is in

form of jungle and the rest of the land with coverage of 70.8 million hectares (37%) terrestrially utilized for various farm cultivations such as paddy- field, rain-fed ,agriculture, estate; and non-farm cultivation such as mining industry, plantation, bush, and savanna.

Indonesia is a tropical country. A tropical place is a place that is usually hot and humid. Because it is tropical, Indonesia is very green. There are many dark green trees and plants there.

Indonesia declared its independence on August 17th 1945. The Dutch began to colonize Indonesia in the early 17th century by Portugal and Netherlands. The country was occupied by Japan from 1942 to 1945. Indonesia declared its independence after Japan's surrender, but it required four years of intermittent negotiations, recurring hostilities, and UN mediation before the Netherlands agreed to relinquish its colony. Indonesia is the world's largest archipelagic state. Current issues include: alleviating widespread poverty, preventing terrorism, continuing the transition to popularly-elected government after four decades of authoritarianism, implementing reform of the banking sector, addressing charges of cronyism and corruption, and holding the military and police accountability for human rights violations. Indonesia has been dealing with armed separatist movements in Aceh and in Papua (CIA The World Fact Book, 2006)⁵.

1.7. The Social Economy of Indonesia

Recently the number of Indonesia population is 234,693,997 people. Based on the age structure of population can be showed that the age group of 0-14 years is a number of 28.7 per cent (male 34,309,176 and female 33,148,341, 15-64 years is a number of 65,6 per cent (male 77,132,708 and female 76,731,481), and 65 years and over is a number of 5.7% (male 5,956,471 and female 7,415,820). The median age of population is 26.9 years which consists of: male: 26,4 years and female: 27,4 years. The average of growth rate of population is 1.213 (CIA Fact Book, 2007; BPS, 2005).

⁵ <http://www.cia.gov/cia/publications/factbook/geos/id.html> 28/07/2007

Total labour force in October 2006 reached 108,2 million people, that increased as number of 1,3 million people from Augusts 2005(106,9 million people) and increased as number of 3,7 million people from agustus 2004(104,5 million people) The labour force who is working is 94,7 million in october2006. Labour forces by occupation are as follow: agriculture 45%, industry 16%, services 39%

The number of poor population is influenced by internal and external factors. Internal factors such local ware, and social conflict and external factors are such oil price and world economy. It is increase since 2003, and those reach about 46.5 millions or 19,8 % of total population. The total number of poor people is to increase at the time in which are national or international problem. In since 1997 to 1999 there is depression economy and in since 2004 there are boom of price oil. In addition, In late December 2004, the Indian Ocean tsunami took 131,000 lives with another 37,000 missing, left some 174,900 displaced persons, and caused an estimated \$4.5 billion in damages and losses (Department of Foreign Affairs of the Republic of Indonesia, 2006⁶; CIA-Factbook, 2006)⁷.

Table 1.1. The Number of Poor People in Indonesia, 1996-2006

Year	Total Population	Percent
1996	22.2	11.3
1999	48.0	23.4
2000	40.0	20.0
2002	36.0	18.0
2003	35.6	17.4
2004	36.5	16.7
2005	46.5	19,8
2006	39,3	16.8

Source : Result of analysis from varieties source of BPS, 2006⁸

⁶ Department of Foreign Affairs of the Republic of Indonesia. Fact and Progress on rehabilitation and Reconstruction for Aceh and Nias, January, 2006. <http://www.e-aceh-nias.org>

⁷ Indonesia. <http://www.cia.gov/cia/publications/factbook/geos/id.html>.

⁸ BPS is abbreviation of Badan Pusat Statistik, Republik Indonesia (Statistics Indonesia of The Republic of Indonesia). <http://www.bps.go.id>

Apparently problems of eliminating oil subsidy have negative impact to workers. It is showed by increasing of unemployment rate from 9.06% in 2002 to be 11.50% in 2005 (BPS Indonesia, 2005). It is because of many enterprises are not profitable that forced them to eliminate their workers. Some enterprises were closed in the end of 2005.

Table1.2. Unemployment Rate in Indonesia, 2002-2006

Years	Percent	Number of People
2002	9.06	9.1
2003	9.05	10.0
2004	9.86	10.3
2005	11.5	12.2
2006	12,5	13,5

Source: Result of analysis from varieties source, 2006.

Based on its fact can be counted the unemployment rate in October 2005 is 12, 2 million (11, 5 percent). It is higher than unemployment rate in February 2005 (10.26%) and August 2004 (9.86%) - Table 1. 2

In relation the equality, the number of the poorest and richest is moderate. It is looked on Household income or consumption by percentage share, which are lowest 10% is 3.6% and highest 10% is 28.5%, and Distribution of family income is lame (Gini index is 34.3)

Gross Domestic Product (GDP) of Indonesia has real growth rate is 5.3% wit GDP - per capita (purchasing power parity) is \$3,700 per year. Based on composition by sector GDP are contributed by agriculture 15.1%, industry 44.5% and services 40.4%

Indonesian economy has growth is about 5% and have Inflation rate (consumer prices) is 9.3%.

The agriculture products in Indonesia consist of: rice, cassava (tapioca), peanuts, rubber, cocoa, coffee, palm oil, copra, poultry, beef, pork, eggs. While the industry products that are: petroleum and natural gas, textiles, apparel, footwear, mining, cement, chemical fertilizers, plywood, rubber, food, tourism. Industrial production growth rate is 2.1% in 2005.

Indonesia, a vast polyglot nation, has struggled to overcome the Asian financial crisis, and still grapples with high unemployment, a fragile banking sector, endemic corruption, inadequate infrastructure, a poor investment climate, and unequal resource distribution among regions. Indonesia became a net oil importer in 2004 because of declining production and lack of new exploration investment. The cost of subsidizing domestic fuel placed increasing strain on the budget in 2005, and combined with indecisive monetary policy, contributed to a run on the currency in August, prompting the government to enact a 126% average fuel price hike in October. The resulting inflation and interest rate hikes will dampen growth prospects in 2006. Keys to future growth remain internal reform, building up the confidence of international and domestic investors, and strong global economic growth.

Indonesia is the world's second-largest exporter of natural gas, though it has recently become a net importer of crude oil (Table 1.3). As a net importer of crude oil, the government Indonesia need money as current account balance as much as \$3.899 billion (CIA, 2006)⁹. Despite being the only Asian member of [OPEC](#), Indonesia's fuel production has declined significantly over the years, owing to aging oil fields and lack of investment in new equipment. As a result, despite being an exporter of crude oil, Indonesia is now a net importer of oil and had previously subsidized fuel prices to keep prices low, costing [US\\$](#) 7 billion in 2004 [\[2\]](#). The current president has mandated a significant reduction of government subsidy of fuel prices in several stages [\[3\]](#). In order to alleviate economic hardships, the government has offered one-time subsidies to qualified citizens (Wikipedia Indonesia, 2006).

⁹ CIA - The World Factbook -- Indonesia Page 1-16

Table1.3. The Composition of Oil and Gas in Indonesia, 2006

Product	Production Million bbl/day	Consumption Million bbl/day	Export Million bbl/day	Import Million bbl/day	Proved Reserves
Oil	1.094	1.155	556,200	606,200	4 .6 billion
Gas	77.6	55.3	39.7	0.0	2.549 trillions

Source : BPS, Departement Pertambangan and Energy Indonesia, 2006

Total export Indonesia in 2005 is : \$83.64 billion f.o.b., while total import of Indonesia less than it, i.e. counted \$62.02 billion f.o.b. Indonesia's major trading partners are [Japan](#), the [United States](#) and the surrounding nations of [Singapore](#), [Malaysia](#) and [Australia](#) (Table 1.4).

Table1.4. Indonesia Export and Import Partner, 2005

Country	Export	Import
Japan	22.3%	13.1%,
US	12.3%	7%,
Singapore	8.4%,	13.1%,
Malaysia	4.2%	
Australia		4.8%,
China	6.4%,	8.8%,
South Korea	6.8%,	4.2%
Saudi Arabia		4.2%,

Source: CIA world Fact Book, 2006¹⁰

Recently the government of Indonesia still have reserves of foreign exchange and gold is about \$33.58 billion. Although they have debt- external is about \$140.6 billion (Financial Department of RI, 2006¹¹; CIA, 2006).

Indonesian currency is Indonesian rupiah (IDR). Exchange rates of IDR per USD for the last five years is quite stabil¹² and in 2007 is about Rp 9300 per US dollar. Indonesia's

¹⁰ CIA - The World Factbook -- Field Listing - GDP - composition by sector, page 1-14

¹¹ Financial Departement (Departemen Keuangan)of Indonesia

¹² Indonesian rupiahs per US dollar - 9,739.35 (2005), 8,938.9 (2004), 8,577.1 (2003), 9,311.2 (2002), 10,260.8 (2001)

economy suffered greatly in the late 1990s, partly due to the [financial crisis](#) that struck most of South East Asia at that time. It has slowly recovered since 2003.

A long period 2001 – 2005, there are two trends that are interesting to understand. First, people are working in agricultural sector have tendency increasing from 2001 to 2005. It because of there is not yet enough employments in other sector so many labour force must be working in agriculture sector and there many enterprises are closed because of national economy problem. Second, People are working in manufacturing industry have tendency is decrease in the same period. It because of there are not yet enough investment to new employments there many enterprises are closed because of national economy problem.

Table1.5. Employment Sector, 2003- 2006

	Main Industry	2003	2004	2005	2006
1.	Agriculture, Forestry, Hunting and Fishery	40 633 627	43 042 104	40 608 019	41 814 197
2.	Mining and Quarrying	631 802	732 768	1 034 716	808 842
3.	Manufacturing Industry	12 109 997	11 495 887	11 070 498	11 652 406
4.	Electricity, Gas, and Water	178 279	151 831	228 297	186 801
5.	Construction	4 273 914	4 054 741	4 540 102	4 417 087
6.	Wholesale Trade, Retail Trade, Restaurants and Hotels	17 795 030	17 249 484	19 119 156	18 896 902
7.	Transportation, Storage, and Communications	4 672 584	4 939 665	5 480 527	5 552 525
8.	Financing, Insurance, Real Estate and Business Services	99 1745	1 306 551	1 125 056	1 042 786
9.	Community, Social, and Personal Services	10 360 188	9837 760	10 515 665	10 576 572
10.	Others	-	-	-	-
	Total	91 647 166	92 810 791	93 722 036	94 948 118

*) Others (Mining and quarrying, and electricity, gas and water)

Source: National Labour Force Survey 2003,2004,2005 and 2006

Table 1.6 Percentage Distribution of Gross Domestic Product at Current Market Prices by Sector 2001 - 2004

Industrial Origin	2002	2003[*]	2004^{**}
Agriculture, Livestock, Forestry and Fishery	16.04	15.93	15.38
a. Farm Food Crops	8.25	8.01	7.42
b. Non-food Crops	2.36	2.39	2.49
c. Livestock and Products	2.22	2.18	2.13
d. Forestry	1.01	0.99	0.94
e. Fishery	2.20	2.36	2.40
Mining and Quarrying	8.64	8.29	8.55
a. Crude Petroleum and Natural Gas	5.00	4.63	5.24
b. Non-Oil and Gas Mining	2.75	2.72	2.37
c. Quarrying	0.89	0.93	0.94
Manufacturing Industry	29.72	28.84	28.34
<i>a. Oil and Gas Manufacturing</i>	<i>3.74</i>	<i>3.84</i>	<i>3.78</i>
Petroleum Refinery	2.33	2.49	2.51
Liquefied Natural Gas (LNG)	1.41	1.35	1.27
<i>b. Non Oil-Gas Manufacturing</i>	<i>25.98</i>	<i>24.99</i>	<i>24.56</i>
Food, Beverages and Tobacco	7.83	7.49	6.90
Textile, Leather Products, and Footwear	3.75	3.69	3.38
Wood Products and Other Wood Products	1.59	1.51	1.36
Paper and Printing	1.27	1.30	1.30
Fertilizers, Chemicals and Rubber Products	3.96	4.12	4.15
Cements and Non Metallic Products	1.02	1.05	1.04
Iron and Basic Steel	0.75	0.65	0.71
Transport Equipment, Machinery and Apparatus	5.64	4.99	5.52
Other Manufacturing Products	0.18	0.19	0.20
Electricity, Gas and Water Supply	0.83	0.95	0.99
a. Electricity	0.58	0.68	0.68
b. Gas	0.11	0.11	0.13
c. Water Supply	0.14	0.16	0.18
Construction	5.45	5.50	5.84
Trade, Hotel and Restaurant	16.89	16.55	16.19

a. Wholesale and Retail Trade	13.18	12.89	12.65
b. Hotel	0.56	0.55	0.56
c. Restaurant	3.15	3.07	2.98
Transport and Communication	5.26	5.77	6.09
<i>a. Transport</i>	<i>3.55</i>	<i>3.87</i>	<i>3.81</i>
Railway Transport	0.05	0.06	0.05
Road Transport	1.75	1.92	1.87
Sea Transport	0.52	0.58	0.53
Inland Water Transport	0.14	0.14	0.14
Air Transport	0.31	0.36	0.41
Services Allied to Transport	0.78	0.81	0.81
<i>b. Communication</i>	<i>1.71</i>	<i>1.90</i>	<i>2.28</i>
Financial, Ownership and Business Services	8.29	8.51	8.44
a. Bank	3.67	3.64	3.41
b. Non Bank Financial Institutions	0.68	0.70	0.73
c. Services Allied to Financial	0.05	0.05	0.05
d. Building Rental	2.57	2.76	2.85
e. Business Services	1.32	1.36	1.40
Services	8.89	9.68	10.18
<i>a. General Government</i>	<i>4.47</i>	<i>4.97</i>	<i>5.26</i>
Government Administration and Defence	2.82	3.09	3.27
Other Government Services	1.65	1.88	1.99
<i>b. Private</i>	<i>4.42</i>	<i>4.71</i>	<i>4.92</i>
Social and Community Services	1.34	1.54	1.73
Amusement and Recreation Services	0.33	0.33	0.33
Personal and Household Services	2.75	2.84	2.86
Gross Domestic Product	100.00	100.00	100.00
Gross Domestic Product Non-Oil Gas	91.27	91.53	90.98

^{*)} Preliminary Figures

^{**)} Very Preliminary Figures

In period 2001 – 2004, can be showed that gross domestic product in agriculture sector relatively constant while in manufacture industry and mining and quarrying have trend decreasing. On a contrary, in others sector such as information, service, financial etc have relatively increasing (Table 1.6). Comparing to other countries, usually in developing countries, agriculture sector must be increase until about 15 percent of GDP while the service sector must be increased until 60 percent (Table 1.7).

However, the economical structure of Indonesia is not yet equilibrium among agriculture, industry and service sector. Failing in industry or service sector caused unemployment and many of them are obliged to turn to agriculture sector.

Table1.7. GDP by Sector and Labour Force by Occupation in Some Countries, 2006

Country	GDP Composition by Sector			Labor force - by occupation		
	Agriculture	Industry	Service	Agriculture	Industry	Service
Indonesia	15.1%	28.3%	56.6%	45%	16%	39%
Malaysia	7.2%	33.3%	59.5%	14.5%	36%	49.5%
Thailand	9.3%	45.1%	45.6%	49%	14%	37%
South Korea	3.8%	41.4%	54.8%	8%	19%	73%
Japan	1.3%	25.3%	73.5%	4.6%	27.8%	67.7%

Source: Statistic Central Bureau of Indonesia, 2006 and the World Fact Book, 2006¹³

1.8. General Road Map of Development

The problem in creating employment and business opportunity are mainly related to lack of access to employment and factor of production. The lack of access to employment is influenced by the level of education and health; while lack of access to factor of production includes of access to working capital, market, and asset ownership. Therefore, the land management and policy will be one of the items outlined in the poverty alleviation.

Access to market and services to the poor can be improved through improving infrastructure. The important consideration on this issue is how to ensure that the provision of the road and other infrastructure will be actually have fit to the poor by reducing the cost of the accessibility to basic needs. On the other side, effort to increase the income of poor people will mostly relate to the improving of farmer incomes through micro and small scale agribusiness.

In many cases, the poor are not able to participate effectively in the decision making process. The consultation of projects arrangement that has impact upon their lives is a good example on this. Lack of access to decision making process can be translated directly into lack of power. The condition become worst because the poor are often do not have suitable skills and organizational capacity, which make it more difficult to take advantage of potential economic and political opportunities. Therefore, community empowerment should be focused on a demand-decision community development. The community; including the poor, women, and margined community can be made coherent demands and contribute to the reform process.

The community should have link to the service providers to get a high quality and more access to basic services; such as education, health-care, and potable water facilities. It is also realized that the reduction of corruption will mainly hand in hand with the poverty reduction. Accordingly, the increasing in transparency and accountability are put on a strong consideration, as well as improving governance and stimulating citizen; human capital, education, and social protection.

In the field of human capital and capacity building, the provision of health and education services should be improved. Poor health and educational condition will lead to lower productivity. Effort to improve health and education condition required to a better management and accountability in delivering different kind of services. The increase of budget for health and education sector should be utilized not only expanding the program, but also to improve the management, efficiency, and quality of the service delivery. It is the fact that until the present only a very small percentage of the poor family to have access to a good basic medical services. Therefore, delivery system of health services should be improved and expanded.

In the field of education, under decentralization, the responsibility to provide basic education services has been transferred to the district level. This required the need to have quality standard of education delivery services, school managerial capabilities, and accountability of service providers.

In the formulation of social protection, the fact shows that the poor families are vulnerable to various social and economical shocks, such as increase in prices of goods, illness, and crop failures. These vulnerability need to be well addressed. Lifting up the poor people above the poverty line should overcome the vulnerability of the poor.

1.8.1. The Role of the Local Government

As mentioned earlier, act on regional Autonomy move the system from a centralistic government administration to a more balance distribution of power and function between central and local government. The new law has officially been implemented starting Jan 1st 2001 and provide wide range authority to the district and municipal governments. Among others; full authority in planning and implementation as well as on local revenues and spending.

The laws also imply that local government will play a grater role directly and indirectly on poverty reduction program, which include;

1. The poverty and regulation formulation
2. The provision of public services
3. The provision of facilitation and support all institution involve in the poverty reduction programs.

Dealing with a poverty reduction in rural areas, local government needs to apply the following principles;

1. Optimizing the utilization of natural resources under the environmental consideration and sustainable development principle;
2. Improving the community productivity through human resources development program and agriculture product diversification;
3. Developing the agribusiness sector through a working collaboration between production line and marketing line under an equitable and open-competitive market mechanism and social expectation;
4. Developing agribusiness system towards agro-politan pattern on a global competition, by utilizing applied and advanced technologies;

5. Empowering communities especially peasants and fisherman through the provision of village facilities. The peasants and the fishermen communities are involve in the development process. From the planning stage through the utilization of the development result;
6. Improving the development implementation at village areas based on the decentralization principle and local regulations;
7. Implementing rural development transparently by developing and maintaining integration among development activities across sectors and local areas, collaboration amongst all members of the society, self competence, business activities, and self reliance spirit in involvement community in the decision making process.

Conclusion

The world has entered the knowledge era which led the nation to reach its development and participate in the globalization era as one of the players. Nevertheless, Indonesia is left behind as its competitiveness is not credible enough within the severe competition.

The current economic condition in Indonesia can not able to fulfil the preamble of the nation constitution states where the major objective of the nation is to improve social welfare of the people. Accordingly, the development approach need to be reviewed, and the right step need to be applied.

At present, the country faces the problem of unemployment which reach a high level especially after 1997 financial crisis match. The problem in creating employment and business opportunity are mainly related to lack of access to employment and factor of production. The lack of access to employment is influenced by the level of education and health, while lack of access to factor of production includes of accesss to working capital, market, and asset ownership. Accordingly, it is primordial to create a condussive environment to improve factor of production and employment. This lack of access has pushed the employers moved around to agricultural sector, as this is the only sector can able to absorb the workforced.

The development of Indonesia is not founded on the central basic anymore, as the act on the regional autonomy move the system from a centralistic government administration to a more balance distribution of power and function between central and local government. This new act provides wide range authority to the district and municipal governments such as planning and implementation related development program to achieve its own growth.

In order to reach the objectives set by the regions, regional screening need to be made as its region has its own opportunities and its own competitive advantages.

The next chapter will mainly focus on the development of Bukit Barisan High Land, perceived as one zone regarding its pothography, climate, social and economic condition, and its similarity in potentials and competitiveness. The development approach made based on Competitive Intelligence application, melted down by the SWOT analysis in order to create visible projects and finally reach a desirable growth.

CHAPTER II THE DEVELOPMENT OF BUKIT BARISAN HIGH LAND

Abstract

The chapter is divided into three parts; the first part will present the profile of North Sumatra province; its geography, social economic conditions, and the main challenging of the province. The second part will focus on the needs to extend the industrial zones in other possible areas, i.e. Bukit Barisan High Land areas. Finally in the third part of the chapter the appropriate approach - i.e the Competitive Intelligence approach will be explained in detail in order to achieve the objectives set in the regions.

2.1 The Profil of North Sumatera ¹⁴

2.1.1 Geography

The North Sumatra Province consists of coastal area, low to high land areas and mountains, is lay between East longitude 98°-100° and North longitude 1°-4° with the territorial of 71,680 km square or 3.72 % of the total area of Indonesia. The area is surrounded by 162 islands, of which 156 spreaded over western coast and 6 on the eastern coast. This province is bordered by the special territory of Aceh on the North, West Sumatra and Riau provinces on the South, Indian Ocean on the West and Strait of Malacca on the East.

2.1.2. Administration

North Sumatra province divided into 21 Regency and 7 Municipality ; Asahan Regency , Batubara Regency, Binjai Municipality, Central Tapanuli Regency, Dairi Regency, Deli Serdang Regency, Humbang Hasundutan Regency, Karo Regency, Labuhan Batu Regency, Langkat Regency, Mandailing Natal Regency, Medan Municipality, Nias Regency, North Padang Lawas Regency, North Tapanuli Regency, Padang Lawas Regency, Padang Sidempuan Municipality , Pakpak Bharat Regency, Pematang Siantar Municipality, Samosir Regency, Serdang Bedagai Regency, Sibolga Municipality,

¹⁴ The profil of North Sumatra, available at <http://www.bkpmsumut.go.id/economic.php>

Simalungan Regency, South Tapanuli Regency, South Nias Regency, Tanjung Balai Municipality, Tebing Tinggi Municipality, Toba Samosir Regency.

Figure 2.1 Map Of North Sumatera



2.1.3 The Social Economy of North Sumatera

The current number of population of North Sumatera province is slightly more than 12 million with the density of 165 persons per km² and growth rate of 1.2 % per year. Out of this population, the number of workforce is 5.5 million persons with major work status of employee and labour. This work force absorbed by the sectors of agriculture and

plantation for 55.23 percent, trade for 17.65 percent, service for 14.07 percent, and industry for 5.72 percent.

In 2005, the GRDP (Gross Regional Domestic Product) of this province amounted as much as Rp. 136,903.27 billion. The biggest contribution accounted by agriculture sector, contributed for 31.06 percent, followed by manufacturing for 26.65 percent, trade/restaurant and hotel for 19,51 percent, and other services 6.50 percent.

North Sumatra is well known by its plantation (consists of Rubber, Cacao, Tea, Palm trees, Coffe, Cassava, Cloves, Coconuts, Cinnamo trees, Nikotiana or Tobacco trees) which is the primordial economic resources of the province. These sectors mainly operated by the state-owned companies and Private ones. The plantation areas are spread out in Deli Serdang, Langkat, Simalungun, Asahan, Labuhan Batu, and South Tapanuli.

Out of the population of 12, 123, 360; around 5 million live in the city or around 42 percent, and the rest of 58 percent live in the villages and rural areas highly depend on the off-farming basis.

Table 2.1. The Composition Population, Regency Based

Regency/city	Area		Total
	City	Village	
(1)	(2)	(3)	(4)
Regency			
1. N i a s	20 434	412 916	433 350
2. Mandailing Natal	51 037	328 008	379 045
3. Tapanuli Selatan	9 239	600 683	609 922
4. Tapanuli Tengah	37 386	241 086	278 472
5. Tapanuli Utara	24 999	230 401	255 400
6. Toba Samosir	23 487	144 100	167 587
7. Labuhan Batu	185 759	748 107	933 866
8. A s a h a n	270 530	739 326	1 009 856

9. Simalungun	195 938	623 037	818 975
10. D a i r i	35 191	223 967	259 158
11 .K a r o	77 321	234 979	312 300
12. Deli Serdang	827 052	696 829	1523 881
13. L a n g k a t	203 781	751 567	955 348
14. Nias Selatan	13 331	269 384	282 715
15. Humbang Hasundutan	14 929	137 590	152 519
16. Pakpak Bharat	4 652	29 608	34 260
17. Samosir	16 800	103 073	119 873
18. Serdang Bedagai	316 449	266 622	583 071
City			
71. Sibolga	87 260	-	87 260
72. Tanjung Balai	132 582	16 656	149 238
73. Pematang Siantar	227 551	-	227 551
74. Tebing Tinggi	134 382	-	134 382
75. M e d a n	2 076 676	-	2 010 676
76. B i n j a i	217 052	15 184	232 236
77. P.Sidempuan	104 732	67 687	172 419
City 2006	5 308 549	6 880 811	12 189 360
2005	5 142 550	6 747 849	11 890 399
2004	5 064 016	6 783 059	11 847 075
2003	5 053 057	6 669 491	11 722 548
2002	4 962 328	6 551 645	11 513 973

Source BPS - SP2000, P4B

Based on the data from the bureau statistics, in 2006 the number of poor people in the north Sumatra is around 1,803,100 or 14.66 percent and continuously increased and reached almost 20 millions people or around 15,66 percent of the total population in 2007. According to social indicators and macro economic indicators issued by the central bureau statistics of North Sumatra, BPS, the highest poverty rate is found in Nias Selatan Regency, counted for 37,66 percent of its total population. Other region

which is considered as high poverty rate are Nias Regency, accounted for around 33 per cent, Central Tapanuli 31 per cent, and Samosir Regency for around 30 per cent of its total population.

In general, the poor population is spread out in all the area of North Sumatra, and the poorest of the poor is found in the remote areas within the farmers with less or around 0.5 Ha per family. Out of 1,3 farmers in the area, around 50 per cent owns less than 0.5 Ha.

One of the biggest problems that the province face until present is the high level of unemployment rate. The unemployment rate reach almost 15 percent in 2006 or around 850,000 people. This number is continuously increasing, in 2004 the employment rate was around 11 percent or 550,000 people. This phenomenon led by the high number of bankruptcy amongs the company in the areas. The rocket price of petrol in March 2005 and in October 2005 is one of the generate problems to the unemployment rates in North Sumatra. Moreover, the percentage is worsen by the increased number of workforced entering the market each year, while the the growth is only around 3 percent in 2006. In the agricultural sectors, the growth even decontracted by 3,22 per cent, and the construction sectors decontracted by more than 2 percent.

In general, the employment sector is mostly absorbed and dominated by the small size enterprise or around 99,8% and only 0,2 percent is categorized as large ones. As mentioned early, the number of manpower in the area is 5,276,000 (table 7) in which 34 percent is categorised as owner, 20 per cent self employed, working for the family business (this category normally in the agricultural sectors) 23 percent.

Tabel 2.2. Employment by Sectors in 2006

No.	Sector	People	Percent
1.	Agriculture ,forestry ,and, Fishery	2,722,416	51,60
2.	Trade, Hotels and Restaurants	906,416	17,18
3.	Services	568,753	10,78
4.	Industry	425,773	8,07
5.	Transport , and Communication	331,333	6,28
6.	Construction	216,844	4,11
7.	Bank and services financial	52,760	1,00
8.	Pertambangan dan galian	32,711	0,62
9.	Electric, Gas and Water	13,190	0,25
10.	Others	5,804	0,11
	TOTAL	5,276,000	100,00

Source : Analyzing data and BPS- Survey National Economic , 2006

2.2. Medan City

Medan is the capital city of the North Sumatra province, and the center for business and economy as well as the governmental center. As the business center, the city is totally crowded especially during the working hours, where around 2,5 million workers who live outside the city entering and crowded the town. This factor makes the city become an industrial zones rather than an ideal city to domicile in where the level of pollution is really high.

Tabel 2.3. The Population of Medan City 2001 - 2006

Year	People	Population Growth (%)	Area (km ²)	Density person/km ²
2001	1,926,052	1.17	265.10	7,267
2002	1,963,068	1.94	265.10	7,408
2003	1,993,060	1.51	265.10	7,520
2004	2,006,060	0.63	265,10	7,567
2005	2,036,018	1.50	265.10	7,681
2006	2,076,676	1.99	265.10	7,833

2.3. Industrial Zones

Medan industrial zone is the area where the companies are centered. In the areas, the industries is concentrated on facilities and services as well as facilitating the lands and office buildings and warehouses to the companies around Medan areas. This industrial zone has a surface of 514 ha located 10 km from downtown. In the area there are around 60 companies. In addition to Medan Industrial zone, there are 2 other industrial areas; Medan star Industrial Estates located in Tanjung Morawa and Seruai Industrial Estate around 30 km from the city center.

a. Medan Industry Area

- Location: Belawan, North Sumatera Province.
- Service Provided: Industrial Land For Sell And Standard Factory Building For Lease.
- Plan Area : 514 Ha
- Developed Area : 103 Ha
- Distance to Medan : 10 Km
- Distance to Binjai : 22 Km
- Distance to. Morawa : 30 Km
- Distance to Main Road : 0.8 Km From Balmera Toll Road
- Distance to Harbor : Belawan, 15 Km
- Distance to Airport : Polonia, 14 Km
- Water Supply : 300 Litre Per Second
- Waste Water : 450 M3 Per Day
- Electricity : PLN¹⁵, 120 MVA
- Telecommunication : Telkom, 350 Lines
- Number of companies : 60 Companies

b. Lamhotma Pulahan Seruai Industrial Estate

- Location : Tanjung Morawa, Medan, North Sumatera Province
- Service Provided : Industrial Land For Sell
- Plan Area : 650 Ha
- Developed Area : 50 Ha
- Distance to Medan : 25 Km
- Distance to Harbor : Belawan, 3 Km
- Distance to Airport : Polonia, 18 Km
- Distance to Urban Center (Tanjung Morawa) : 5 Km
- Distance to Toll Road (Medan-Belawan)

¹⁵ PLN refers to Power State-Owned Company

- Electricity : PLN
- Number of Companies : 8 Companies.

c. Medan Star Industrial estate

- Location : Medan, North Sumatera Province,
- Service Provided : Industrial Land For Sell/Lease and Standard Factory Building For Sell/Lease
- Plan Area : 77,5 Ha
- Developed Area : 27,5 Ha
- Distance to Medan : 19 Km
- Distance to Harbor Belawan : 30 Km
- Distance to Airport Polonia : 19 Km,
- Distance to Urban Center (Tanjung Morawa) : 4 Km
- Distance to High Way (Medan-Belawan) : 30 km
- Electricity Facilitator : PLN
- Capacity of Electricity : 20 MVA
- Source of Water : Deep well
- Capacity of Water : 500 IV,3
- Gas : PGN¹⁶
- Capacity of Gas : Depends on Demand
- Waste Water : 5.000 M3 Each Day
- Telecommunications : Telkom, Lines: Depends on Demand,

Source : *investment Indonesia company, 2007*

Based on the data above, it is clear that Medan City is too crowded and sandwich city, where the city is functioned as the center for government administration, center for education, center for services and center for zone industrials and center for habitants or residency. Increasing the capacity of the industry in the areas it is important to revisualize its facilities. Accordingly, new vision needs to be made and some actions need to be implemented. Medan city has to be considered as residency center as well as the government administration center and educational one. Needless to say that an industrial zone needs to be separated and relocated to another available area, in this writing itr is proposed that the ideal area will be Pematang Siantar, simalungun Regency located in the high land Bukit Barisan, this zone then namely Siantar Simalungun Industrial Zone.

¹⁶ Gas Stated-Owned Company

2.4. Bukit Barisan High Land Area

Based on its altitude, North Sumatra can be divided into 3 areas as following;

1. Low Land Area : with an altitude of 0-500 mdpl
2. Medium Area : with an altitude of 500-750 mdpl
3. High Land Area: with an altitude of >750 mdpl

In general, the high land area is spread out within the center of the province, in this area Bukit Barisan (Mountains) lay around. The area is one of the centers of the population, or the habitant's areas.

Administratively, the area is divided into 8 regencies (table 2.4), Karo Regencies (2,127.25 km²) Dairi Regency (1,916.25 km²), Simalungun Regency (4.386, 60 km²), Toba Samosir Regency (2.021,80 km²), Tapanuli Utara Regency (3.800,31 km²), Humbang Hasundutan Regency (2.326,66 km²), Samosir Regency (1.419,05 km²) and Pakpak Bharat Regency (1.218,30 km²). In total, the area of Bukit Barisan high land is covered around 26,8 per cent of the North Sumatra province.

These 8 regencies are categorized as one area i.e Bukit Barisan High Land area based on its similarity of Agrobiophisic and social economy. All the areas are located in the high land areas and connected directly with low to medium areas in terms of the agribusiness sectors.

Tabel 2.4. Bukit Barisan High Land Areas

Regency	Areas		Total
	City	Sub-districts	
1. Tapanuli Utara	24 999	230 401	255 400
2. Toba Samosir	23 487	144 100	167 587
3. Simalungun	195 938	623 037	818 975
4. D a i r i	35 191	223 967	259 158

5. Karo	77 321	234 979	312 300
6. Humbang Hasundutan	14 929	137 590	152 519
7. Pakpak Bharat	4 652	29 608	34 260
8. Samosir	16 800	103 073	119 873

The Population of Bukit Barisan High Land in general live in the villages working in the agricultural sectors and services related to agri business, while the population reside in the cities working in the services sektors such as banking sectors, hotels, trading and government officials.

2.5. Limitation of the Problems

As mentioned above, the biggest employer sectors which absorb the manpower in the North Sumatra is the agricultural sector. Accordingly, this writing will be focused on the development of the agricultural in the areas. Talking about development of agricultural in the frame of competitive intelligence, it can not be separated from agricultural as commodity, farmers as enterprises, and possibilities to plant alternative commodities. And link to create small and middle enterprises based of agricultural product. It is based on assume that development of agriculture sector (plantation and industry) is depend on farmers who are the main actor so that it is important to strengthening the farmers as enterprises.

In Bukit Barisan High Land area, generally in North Sumatera Provinces, farmers and agricultural can not be separated with poverty and unemployeement. In general, the common problems led to poverty generally found as followings;

- Limited area or land holdings
- Low productivity
- Limited access to facilities such as machine tools
- Limited contact and access to the government services
- Lack of organized marketing channels

- Lack of financial assets and access to credit
- Limited Diversification of Economic Activities
- Limited Investment
- Lack of attention and development of SMEs
- Lack of contribution of industry sector
- Lack of Information system

2.6. New Approaches for the Development Process

In related to the development of SMEs, it is necessary to describe the different of each region and the scene of the people. Centralization program or the application of a unique and one system is one of the biggest mistakes and obstacle to its development process. Classic approach in the regional development is not the right answer or the right way to bridge the objectives, so it is necessary to have a new approach that is applicable based on the needs of the regions to enhanced its capacity and overcome its weaknesses, hence competitive advantages can be created in the regions. This approach is known as Competitive Intelligence.

2.7. The Aims and Objectives of the Study

The Objectives of the Study

Based on problem above there are three objectives that will be reached in this research are as followings:

1. To know the possibility applying intelligence competitive in relation to find the way out the problems are facing the regions
2. To apply intelligence method in relation to the solution of the problems facing by the farmers (as enterprises), especially in production, marketing and industry to have a value added.
3. To apply intelligence method in order to find alternative commodity that will be possible to be planted.

The Aims of the Study

This study is aimed to help the various parties consists of:

Government

The result of this research can become a reference for executives in decision-making, especially in establishing a strategic plan for farmers, SMEs and information systems. Good governance will be realized when an information system is established.

Farmers

Farmers and their associations can learn from these findings and improve their knowledge in developing their business and organization. By making good decisions, the government can help farmers find innovation for agricultural products or the best commodity or industry alternative.

Enterprises

Service to enterprises will be good because there is no collusion, nepotism, or corruption regarding tender projects of government and private. Enterprises will also find the best regulations. Besides, collaboration among enterprises will be possible to create unit intelligence for SMES.

Legislative

At least there are references for legislative decision-making. In relation to controlling executives, establishing an information system will be very helpful. Besides, that system will help them find any information related to their job.

Scientists

This result at least will enrich knowledge about competitive intelligence, especially applying IC, to solve local problems. Besides, this finding will enrich the mythology of knowledge, especially utilizing a multi-approach in research.

2.8. Methodology of Competitive Intelligence

Approach Method

This research will conduct by using intelligence competitive approach. Approach competitive Intelligence is an approach which given priority to solve problems that are facing the government, people, enterprises, etc. By this approached will be resulted the knowledge is very important for decision maker.

CI approach is different with other approach in many things. For example: information regarding the subject without limited by place, time and quantity. Based on the kind of approach, this approach is more descriptive and exploration research than inductive research or explanatory research.

Based on of the kind of research, CI research is a more as social research than technical research. Regarding this research, using internet, intranet and extranet is more useful compare than other ways. in relation with mining and collecting information (data).

Based on goal of research, CI research is more an action and future research. Research action means to try to find solution of a problem. Action research is a natural way of acting and researching at the same time. With the exception of well-practised tasks there is a natural rhythm to the way most of us behave. We do something. We check if it worked as expected. If it didn't, we analyse what happened and what we might do differently. If necessary we repeat the process (act -> review -> act -> review) (Dick, 2002).¹⁷

Future research is a research that is oriented to set up strategic plan or a research is designed to know about possibilities will do something in the future. This research must consider the feasibility and possibility base on information. People can create the future they most desire with assign the probability of attaining it (Janoff and Weisborb, 2005):

¹⁷) Dick, Bob 2002 , Action Learning and Action Research, A Paper Prepared for the Seminar "Doing Good Action Research" held at Southern. Cross University, Monday February 18, 2002. A available at www.scu.edu.au/schools/gcm/ar/arp/aandr.html.

By applying CI approach, the researcher will be easier and faster to find the information which they need and also be easy and be fast to organize, to analyze, to understanding, to disseminate, and to evaluate regarding the subject or project (Kahaner, 1996). For example, CRRM Paul-Cesanne Univesity Aix Marseille III, has been established a set tools to support CI regarding to (Manullang et all., 2003)

- Detecting the local needs and formulating their need in technology term
- Developing of technology system is rapid to accesses patent, which become a fundamental element pivot.
- The mapping¹⁸ of competency and of facilitates technology local for carries out coherent development choices
- The evaluation of the possible projects, with simple system, amongst other things by using SWOT Analysis
- The socialization of projects in order to reach a consensus.

The concept used in all these approaches of competitiveness highlight requires it to exceed its competitor passing usage a new information and to widen horizontal companies on a basis world (Massari and Dou, 2000)¹⁹.

Intelligence competitive approach also different with other approaches because of it is a circle process that is never stop. The process of intelligence its self has 5 steps, namely, (i) information gathering, (ii) information management, (iii) information analysis, (iv) information understanding, and (v) and the creation of high valuable information product (Dou and Manullang, 2004).

The research method used is the competitive intelligence (economics intelligence) method frame work. The frame work of competitive intelligence is relatively simple because it quasi identical to the cycle of intelligence. Start from a strategic question,

¹⁸ Concept Maps take an enormous amount of information and consolidate it into a concise, readable graphic. By working with concept maps, a group of people can rapidly explore the relative importance (or other factors) of different ideas and use this shared vision as the basis for further action.

<http://www.conceptsystems.com/ConceptMapping/ConceptMapping.cfm>

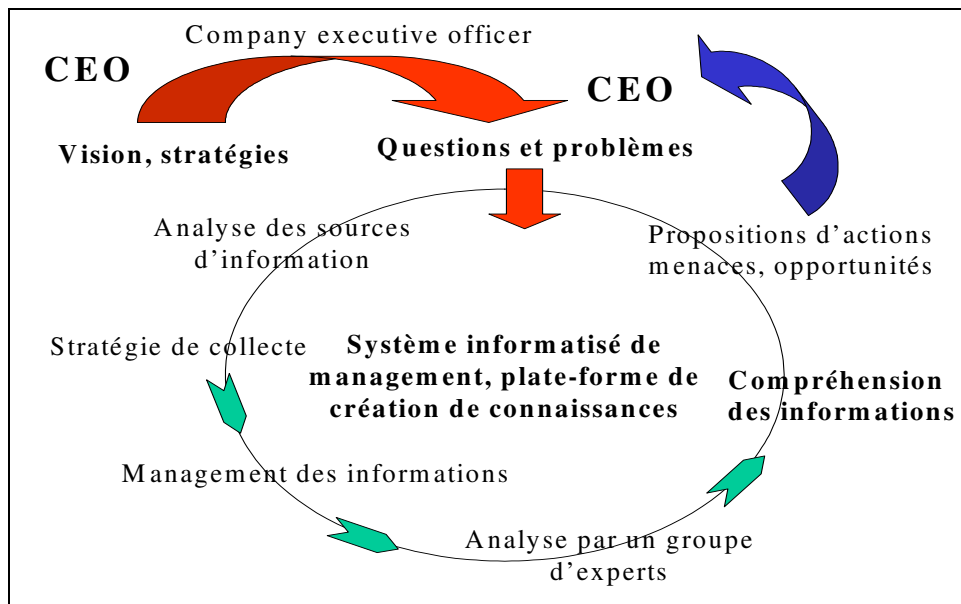
¹⁹ Massari and Dou, International Journal of Information Science for Decision Making. Number 4. 2000. p 1-52.

then formulating a precise problem, and analyzing data/information (formal/informal) to answer question. Then a strategy to collect the necessary information will be developed. This will be followed by a management of the information collected, and at the end by the understanding the whereabouts of this information (generally make through expert groups). The output of the system will be generally made for decision makers on the form of threats and opportunities (Dou 2002; Dou and Manulang, 2002).

Furthermore the process of intelligence competitive research can be explained as follow (Figure 2.2):

1. Questions and Problems
2. Analysis of Source Information
3. Strategy of Collecting of information
4. Information management
5. Analysis of Experts Group
6. Intelligence of Information
7. Proposition of action treat, opportunities

Figure 2.2. The Process of intelligence Competitive Research



Source: Dou, 2005

The peculiarity of intelligence approach that is the research must hold base on the frame of competitiveness. It means that researcher must establish network among experts, research centres, enterprises, government etc who have concern with the subject of research.

2.8.1. Logical Constructin of Research

In frame of CI we always think about what will become a vision. Based on the problems formulated above, the vision is formed in order to define some objectives.

Regarding the problem of how to raise the yield of agricultural products, we must think also the problem of farmers and its organization. In other word, how can strengthening the farmers and their organization or their enterprises. Without an organisation the clove farmers is difficult to raise their productivity and create new business that can give more beneficiaries. In CI approach, we must also think about a commodity to become alternative. It means that there is not commodity that is endless. Because of that we always think the other commodity that can be a supplementary, complementary or substitute, find the right alternative commodities to be developed.

Organizing the farmer to become SMEs is fundamental for developing the agriculture and increasing the welfare of the farmers by applying technology, creating innovation and creating industry.

Source of Information

The information collected in this research can be divided in three kinds of information, as following:

Formal information is written information that is made in form of reviews, scientific papers, patents, reports and journals.

Tacit information is the information that can be searched by field experiences, field observation, some interviews with farmers and key informants. The field

observation consists of processing of production, and marketing of cloves and its products.

Human network, information about this project is based on advice from expert in all levels (local, national and international), comment of research institution (local, national, and international), comment of government and legislative (local and national), and needs and hopes of local people and international people.

The global data and information of technique industry, marketing, data base etc. will be taken from Internet and other information sources. The technical data related to industry and oil will be gathered from interview, observation and experiment.

To answer such an objective, especially the information available in the data base, we will select an information source which will enable the user to get a good view of the technological activities. The data base that will be selected is the esp@net (European Patent Office). This database is free on internet and which covers most of the invention and application science in the world. To facilitate the choice of relevant patent, and to save time, it is possible to build up with the software the patent family. The system will check all patents belonging to the same family. To fulfill this analysis rapidly and obtain all necessary information to make a “value-map” of the firms’ activities, we use a software Mateo-Patent which enables very fast queries and patent extraction from the esp@net to be performed (Dou, 2004).

2.8.2. Tools For Searching and Analysis Information

Tools can be divided in tree groups, that is

1. Tools for searching information only
2. Tools for analysing information only
3. Tools for searching information and analysing information.

The main infrastructure of EI for researching of information is network internet. By availability of internet the intranet and extranet network can be established.

Collaborative Work Space is a good way to discuss about our subject with people who are concern, for axample Majetic Village and Weblog CRRM.

The information is colleted by any tools and Mateo-Patent will be analyzed based on the type of information.

Matheo Patent

Mateo Paten, Mateo Pharma, and Mateo Analyzer are tools for searching and analysis of information.

Benchmarking

Benchmarking is a strategic and analytic process of continuously measuring an organization's product, service, and practice against a recognized leader in the studied area (Department of the Navy, 1996). In this research, benchmarking is focused on competitive benchmarking. Competitive benchmarking is a direct competitor to competitor comparison of product, service, process or method (Kraft, 2004).

SWOT Analysis

SWOT analysis is pointed to analyze the strategic factor for strategic plan of cloves oil industry in Minahasa and information system of competitive intelligence. SWOT and strategic planning stepwise:

- SWOT prerequisites (can be done as preliminary part of the SWOT):
 1. Definition of overall objectives or mission of the project
 2. Assessment of internal resources
 3. Analysis of the relevant parts of the external environment of the project
 4. Training for beneficiaries on using this method for results.
- Analyse opportunities.
- Analyse threats.

- identify and screen O & T.
- Analyse strengths and weaknesses.
- Choice of strategy or strategies.
- Formulate short, medium and long-term goals.

Benefit Cost Ratio

All scenarios use the B/C ratio and other economics tools to analyze the data and information regarding to the visibility study.

Feasibility Study

This analysis is pointed to know whether a project is feasible not to be developed.

Scenario/Tactical Method

This analysis has objective to describe the scenario and possibilities to establish a project.

Conclusion

The capital city of the North Sumatra province is clearly too crowded where the city is functioned as the center for government administration, center for education, center for services and center for zone industrials and center for habitants or residency. In order to increasing the capacity of the industry in the areas it is important to review its facilities. Accordingly, new vision needs to be made and some actions need to be implemented. Medan city has to be considered as residency center as well as the government administration and educational center. Needless to say that a new industrial zone needs to be extended relocated to another available area. In this writing it is proposed that the ideal area will be in Pematang Siantar, Simalungun Regency located in the high land Bukit Barisan, this zone then namely Siantar Simalungun Industrial Zone.

The biggest employer sectors which absorb the manpower in the North Sumatra is the agricultural sector. Accordingly, the development of the agricultural in the areas is

primordial. In order to reach the development of agricultural in the frame of competitive intelligence, it can not be separated from agricultural as commodity, farmers as enterprises, and possibilities to plant alternative commodities, and link to create small and middle enterprises based of agricultural product to increase its value added. It is based on the assumption that development of agriculture sector (plantation and industry) depends on farmers who are the main actor so that it is important to strengthening the farmers as partner to the enterprises.

In related to the development of SMEs, it is necessary to describe the different of each region and the sceme of the people. Centralization program or the application of a unique and one system is one of the biggest mistakes and obstacle to its development process. Classic approach in the regional development is not the right answer or the right way to bridge the objectives, so it is necessary to have a new approach that is applicable based on the needs of the regions to enhanced its capacity and overcome its weaknesses, hence competitive advantages can be created in the regions. This approach is known as Competitive Intelligence. The next chapter will be focused on the concept of the Competitive Intelligence.

CHAPTER III COMPETITIVE INTELLIGENCE

Abstract

The chapter is mainly focused on the Competitive Intelligence, its concept, definition, methodology, and the cycle of Intelligence. The second part of the chapter will present some example of countries around the world in which Competitive Intelligence has been one of the strategic themes of its development. The last part finally will be concentrated on the role of Competitive Intelligence for the regional development of Indonesia and its outcome to stimulate the desirable growth

3.1. The Concept of Competitive Intelligence

The globalization and information era have been accelerating the changes in all aspect of human live whether in technology, social, politic, law, education, culture and economic. It has been boosted the changing of the world. Regarding this situation the intelligence competitive (CI) will be more important for the nation, government and firms to use intelligence in their activities.

Talking about globalization information is also talking about globalization of research and development (R & D). It is showed by the increasing of golablization in R&D which is noticeable in patens. In the last 10 years, large companies have increased R&D effort outside their home countries.

CI is the purposeful and coordinated monitoring of your competitors, whenever and whoever they may be, within a specific marketplace. Your competitors are those firms that you consider in business, and with whom you compete for marketplace. CI also has to do with determining what your rival is planning to do before they do it. As you might expect, this will involve many methods at the tactical collection level, but it will also require integration in to your existing information infrastructure, analysis and distribution

of the information, and finally, the calculation of business decisions on the grounds of the information and its analysis (Johnson, 2002).

The process that people use to turn information into intelligence and enter the age of intelligence is called competitive intelligence. Adapted from techniques used by political and military intelligence agencies during the Cold War era, competitive intelligence is a simple four-step process that ultimately can make or break companies of any size, in any business.

There are many definition of CI. These definitions are depending on the field and background of the author who formulate it, as the following:

Le professeur Deddijer, enfin, offre la définition la plus large: l'intelligence est à la fois l'information elle-même, son traitement, et l'organisation qui s'en occupe. L'intelligence s'obtient, s'évalue et s'utilise dans des conditions qui sont soit secrètes, soit compétitives ou coopératives. Elle répond aux besoins de gestion de tous les systèmes sociaux et s'intéresse à potentielles des opposants, qu'ils soient internes ou externes (Philippe Baumard, 1998). Conceptions Françaises et Anglo-Saxonnes des Affrontements Economique, Le renseignement à la Française. Economica, Paris, p 443-480.

Professor Deddijer, finally, offers the broadest definition: the intelligence is at the same time information itself, its treatment, and the organization which is occupied information. The intelligence is obtained, is evaluated and is used under conditions which are either secret, or competitive or co-operative. It meets the needs for management of all the social systems and is interested in potential opponents, who they are internal or external (Philippe Baumard,1998 :445). Conceptions Françaises et Anglo-Saxonnes des Affrontements Economique, Le renseignement à la Française, Editor Piere Lacoste. Economica, Paris, p 443-480²⁰.

²⁰ Philippe Baumard, Conceptions Françaises et Anglo-Saxonnes des Affrontements Economique, *Le renseignement à la Française*, Editor Piere Lacoste, Economica, Paris, p 443-480

Economic intelligence or competitive intelligence can be defined as the whole of the actions of information research, treatment and diffusion, and protection of information useful from the various actors economic (Rouach, 2005)²¹.

Competitive Intelligence is a systematic program for gathering and analyzing information about your competitors' activities and general business trends to further your own company's goals (Kahaner, 1996)²².

CI is analysis of information, upon the competitors which are involved within the process of decision making in company (Leonard Fuld).

CI is knowledge and forecasting of surrounding world in view to assist the decision of CEO (Jan Herling, 1999).

CI is defined as actionable information, which requires the ability to filter and synthesize relevant knowledge (Persidis, 1998). And finally, ci is how to do something, how to make decision.

CI is related to surviving, the firms must set up the system that can help the developing and can optimize the additional value of the firm (Rouach and Santi, 2001).

CI enables senior managers in companies of all sizes to make informed decisions about everything from marketing, R&D, and investing tactics to long-term business strategies.

CI or business intelligence is the activity of monitoring the environment external to the firm for information that is relevant for decision making process of the company. Information is as certain good decision making which will increase the competitiveness of company (Benyamin and Gilat, 1999).

CI is knowledge about the current competitive position, historical performance, strengths and weaknesses, and specific future intentions (Kirk Tyson, 1998)

²¹ Daniel Rouach, *La Veille Technologique et l'Intelligence Economique*, Presses Universitaire de Frances, Paris, 2005, 126p

²² Larry Kahaner, *Competitive Intelligence, How To Gather, Analyze, and Use Information To Move Your Busines to The Top*, A Touchston Book, Simon & Schuster, New York, 300p, 1997.

CI is valued-added product resulting from the collection, evaluation, analysis, integration and interpretation of all information which pertains to one or more aspects of an executive's needs, and which is immediately or potentially significant to decision making. Intelligence is necessary to reduce uncertainty and risk in decision making (Bensoussan and Fleiser, 2001).

CI is a systematic program of collecting, managing and processing information about the activities, with view to the decision-making process and the realization of strategic goals (Dou and Massari, 2001).

CI is a tool for institutions, industries, universities, etc. to prepare the strategic information which is necessary to facilitate the international in order to influence the power, and economy of the country (Juilet, 2003).

CI is an art for collecting, processing, and storing of data so it is available for all people in all level of firm to help the firm finding the best shape in the future and to protect the firm on treating of competitors (Rouach and Santi, 2001).

CI is a systematic and ethical program for gathering, analyzing, and managing external information that can affect your company's plans, decisions, and operations. Putting in another way, CI is the process of enhancing marketplace competitiveness through a greater -- yet unequivocally ethical -- understanding of a firm's competitors and the competitive environment. Specifically, it is the legal collection and analysis of information regarding the capabilities, vulnerabilities, and intentions of business competitors, conducted by using information databases and other "open sources" and through ethical inquiry (SCIP, 2003). CI must be done legally and respect the ethics code; it consists of a knowledge transfer from surrounding to organization in order to decide the regulations of the firm.

Competitive intelligence is a choosing, collecting, interpretation, and distributing of information that have been taken from societies that urgent and strategic (Competitive Intelligence Handbook, 2002). CI is knowledge and prediction of the world which

surround the company, pointed to help the CEO (company executive officer) in their decision making (Herring, 1999).

Henri Dou (2002), Competitive Intelligence is a systematic program to treat, analyze and disseminate information upon the activities of competitors, technologies and the general tendencies of the company's activities, in view of decision making to achieve the best strategic goal of company. Competitive technical intelligence is a system competitive intelligence with strong components in the field's technologies and research and development (R&D).

Competitive or business intelligence comes in many shapes and flavors. Think of a business function and place them in front of the world intelligence and you have described a facet of competitive intelligence. For example, marketing intelligence, sales intelligence, distribution intelligence, manufacturing intelligence, human resource intelligence,, are but a few. Technology of technological intelligence is given significant emphasis in many organizations because it historically has been linked to research and development (R&D), research trends, scientific breakthroughs and innovation. In other words, technology oriented competitive intelligence encompasses how a competitor does things, e.g. develops new products or services, manages processes, responds to scientific advancements that impact its industry, and interacts with its customers and suppliers (Mason, 2005).

Effective CI is a continuous process involving the legal and ethical collection of information, analysis that does not avoid unwelcome conclusions, and controlled dissemination of actionable intelligence to decision makers. Competitive intelligence is a crucial part of the emerging knowledge economy. By analyzing rivals' moves, CI allows companies to anticipate market developments rather than merely react to them (The Society of Competitive Intelligence Professionals, 2004)

Intelligence is result of CI process. It is created by that process. Another term for intelligence is knowledge.

However, CI will have to imply to the company, organization or government in at least three factors are following: (i) the action in view to increase the intelligence (knowledge) of the company, (ii) the cycles of planning, collecting, analyzing (managing), understanding (dissemination) of information can be established in company, and (iii) available the strategic information and useful for company meanly as serendipity (iv). to know and choose which one the information are needed, and to give signal for CEO) (Dou, 2002).

3.2. The Role of CI

Competitive Intelligence Handbook (2002) cited that there are four general objectives of CI. They are:

- a. Detecting competitive threats.
- b. Eliminating or lessening surprises.
- c. Enhancing competitive advantage by lessening reaction time.
- d. Finding new opportunities.

CI is not a function, it is a process. Therefore it should appear in all aspects of your business as one seamless, continuous activity not relegated to one area, division, or unit. CI as a process, will always create an actionable intelligence to be a challenge of the unit intelligence or the consultant (firms of government) (Dou, 2000).

The main job of CI is to support intelligence (knowledge) for management regarding the decision making, and set up the competitive intelligence system to help the company, in many different issues.

In European Community, there are two units of CI, i.e. (i) REVIL program (Technology Watch from the European community), and (ii) the “action d’intelligence économique régionalé” (action of local economic intelligence), which has been developed in France under framework of the Ministry of Industry. Based on the experiences of REVIL

program, in their three meetings, they formulated a set of rules as a good practice. It can be summarized in ten rules as following:

- Be sure of the will and conviction of the owner of company.
- Analyze the level of information practice into the company.
- Analyze the mechanism of dissemination of the information into the company.
- Define and formalize your information needs.
- Make noticeable by the employees the cost and the value of the information.
- Diversify your information sources.
- Begin to use first the formal information sources.
- Organize and collect the informal information.
- Protect you information
- Use, if necessary, information professional.

According to Kahaner (1997), the formalized competitive Intelligence program can help the company to:

- Anticipate changes in marketplace.
- Anticipation actions of competitor.
- Discover new or potential competitors.
- Learn from the successes and failures of others.
- Increase the range and quality of acquisition targets.
- Learn about new technologies, products, and processes that affect your business.
- Learn about political, legislative, or regulatory changes that can affect your business.
- Enter new business.
- Look at your own business practices with in open mind.
- Help implement the latest management tools.

CI is needed by companies or government. Competitive Intelligence is an absolute imperative because of events and changes that occurred in the 1980s and show no sign abating. For example:

- The pace of business is increasing rapidly.
- Overload information.

- Increasing global competition from new competitors.
- Existing competition is becoming more aggressive.
- Political changes affect us quickly and forcefully.
- Rapid technological change.

In 1999, in Harvard Business Review article, John Rockart of MIT's Sloan School of Management identified four ways that managers get their information. They are: (i) the buying product technique, (ii) the null approach, (iii) the key indicator system, and (iv) the total study process. It is amazing that most managers still use these four methods in their decision making process. Old paradigms die hard. Moreover, companies need a formal system for moving information and intelligence around their firms. Only when both are available can a company become successful.

1. Manager must view intelligence as a process that moves throughout their organization, touching every facet of everything their company does.
2. Ideally CI is best thought of as a process that is used to make decisions from the largest strategies decision to the smallest tactical move. It is a process that permeates your entire company (Kahaner, 1997).

Information

Information is factual. It is numbers, statistics, scattered bits of data about people and companies and what they have been doing that seems to be interesting. Information is often to be telling you something but in reality it is not. You can not make good decision based on information no matter how accurate or comprehensive the information is (Kahaner, 1997). Information is a fact, told, heard or discovered about something. The company that knows how to turn information into intelligence will succeed, and the company will not fail.

Dracker (1998) defined the information as data are built and it is relevant to the objectives of firms.

Information pieces that have been filtered, distilled, and analyzed will be intelligence and it is needed by managers to make decisions.

L'information est une matière stratégique, elle a donc un coût, souvent élevé et elle est indispensable (Dou, 1995).

Based on the sources of information, information can be divided into two groups, i.e. (i) primary information and, (ii) secondary information. Primary information is information that has been taken from survey to respondents and informants in the field, or from experiment (laboratories or field). Secondary information is information that has been taken from books, journal, internet, etc.

Kahaner (1996) said that intuitively people knew soft information and hard information. Soft information consists of rumors, opinions, anecdotes, op-ed pieces, and customer feedback. Hard information consists of facts, statistics, raw data, financial information, and news. However, soft information should be part of every competitive intelligence analysis report.

Dou and Manullang (2004) classified the information in two types :

1. The formal information or written information is rather close from documentations and is made of reviews, scientific papers, patents, reports and all written documents.
2. The informal information or human information is linked to network and more generally human networks.

A brief category of information could be useful for competitive intelligence and competitive technical intelligence (Dou and Manullang, 2004):

1. Scientific information coming from laboratories which in their presentations provide access to know how and their scientific production.
2. Database which is freely available such as some patent data bases, or databases general interest (for instance AIDS from medline), or Pascal where the reference is available to command the full text document to INIST (Institute National of Scientific and technical Information, CNRS France).

3. Publicity of firms of any types, with or without interactivity, access to product catalogs, etc.
4. Regional information generally links to tourism, economic, social activities, etc.
5. Maps, guide, and itineraries.
6. E-Commerce, mainly for books and software, but this field is expanding very rapidly.
7. Hidden internet, such as Google, ALtavista, Yahoo,
8. Pdf (Adobe).
9. Forum.
10. Vitae of many persons.
11. Virtual exhibitions, visits, tours.
12. Mind.

Generally, the structure of information can be different based on the criteria of the information is shown in the table 3.1.

Table 3.1 Structure of Information Based on the Type and Source of Information

Structure of Information	Nature	Source	Support
Information of text type (40%)	Formal Sources Information blanches	Publication scientific Colleagues Brevets Literature technique Information societies Norms Thesis Rapport external	Paper Electronic (database, internet) Plastic (microfilm, microfiche) Laser (CD-ROM, CD-AUDIO)
Experts (10%)	Informal and non formal Sources Information are Grises and noir	Proceeding of enterprise Internet information	Paper Electronic (database internet)
Information Floue	Informal Information	Personal resources of original divers	Oral Electronic

(40%)	Sources Information are Grese and noir		(internet)
Foire and Salon (10%)	Informal and formal Sources Information are Blanches and grises	Publicities Brochures Recueil of information Oral à valider	Paper Oral Electronic (internet)

Source: Bruno Mannima, Centre de recherche retrospective de Marseille (CRRM), 1995 (in Revelli 2000)

The information that can be searched by internet, like:

1. Electronic Mail.
2. Research Information

Name	Address	Specialization
Google	http://www.google.com	
Yahoo	http://search.yahoo.com	
Lycos	http://search.lycos.com	
Altavista	http://www.altavista.com	
AOL	http://search.aol.com	
Clusty	http://clusty.com	
Gigablast	http://gigablast.com	
MSN	http://search.msn.com	
Teoma	http://s.teoma.com	
Wiosenut	http://wisenut.com	
Voilà		

3. Intranet (réseau internet).

Related to the decision making, Dou, Henry (1998) cited that there are three kinds of information needed for decision makers (Figure 2.1.1).

1. Strategic Information.

Information in strategic matter will not relate to a company directly (except great multinationals). They will be even broader than the preceding ones and will give indications main tendencies of globalization. They will relate to the very great sets,

the countries (for example to know for a country given the depositors in patents in certain classes. One can regard the passage of the day before to the competitive intelligence as an overall integration of information useful for the decision and their insertion in the system of decision of the companies, of the local communities. This approach will lead the organizations which will use it to be either at the plan interns local, regional or national but at the international level.

2. Tactic Information

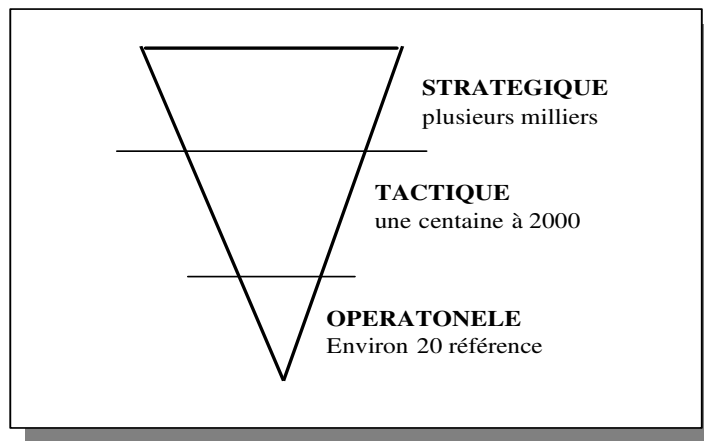
Tactical information often relates to a larger volume of data with less precise contours. It must be the subject of a statistical analysis by associating experts. In fact, it will make it possible to locate what is or which must be undertaken compared to the total whole of knowledge, of the scientific productions of the moment, the laboratories and the companies. One will provide by this skew of the indicators on the forces and the weaknesses present. This one will may find it beneficial for those which must manage projects, to develop them, to set up new directions of research and development. In short, the information resulting from the analysis of technical or scientific information will be included in the technological strategy of development of the company.

The Information system of competitive intelligence (ISCI), from where results tactical information, must allow working out part of the indicators of the forces and weaknesses present. The ISCI integrates any type of information that evoked previously but so technico-economic, economic and legislative.

3. Operational Information

The operational information and of ground is very targeted information, specifies, of low volume, and it directly relates to those which, on the level of research and the production, must advance a precise work: synthesis of a new product, choice of a particular electronic component, knowledge of the properties of certain eutectics knowledge of a standard, etc operational information undergoes very few treatments and in fact is relatively rough. The users of this information are mainly the operational ones with knowing technicians, engineers, enquiring etc.

Figure 3.1 Information Adapted to the Request



Source: H DOU, 1998

The information can be treated and explored in the field, informant or institution, that becomes subject of research:

- *Contacting Government Agencies* can yield valuable data for the CIP, but may often require excessive lead time.
- *Searching Online Databases* is a faster method of finding competitive information, although it is more expensive. With increasing sophistication and affordability of information technology, this technique is expected to become less expensive. Database search does not provide information that has not been released to the public or that has not yet been collected.
- *From Companies and Investment Community Resources* Some types of data that are not widely available from databases can be procured by contacting the corporation itself or from investment community sources.
- *Surveys and Interviews* Surveys can yield plenty of data about competitors and products, while interviews can provide more in-depth perspectives from a limited sample.
- *Drive-by and On-site Observations* of the competitor's [full or empty] parking spaces, new construction-in-progress, customer service at retail outlets, volume and pattern of [suppliers' or customers'] trucks, etc. can yield useful CI information about the state of the competitor's business.

- *Competitive Benchmarking* is used for comparing the organization's operations against those of the competitor's.
- *Defensive Competitive Intelligence* involves monitoring and analyzing one's own business activities as the competitors and outsiders see them.
- *Reverse Engineering* of competitor's products and services may yield important CI information about their quality and costs (Malhorta, 1999).

3.3 Methodology of CI

Recently there are some tools of CI usually used by the consultant, researcher and decision maker in their project. The competitor profiles analysis and SWOT analysis is used by user more frequently than other analysis (Table 3.2).

Table 3.2. CI Tools Usage

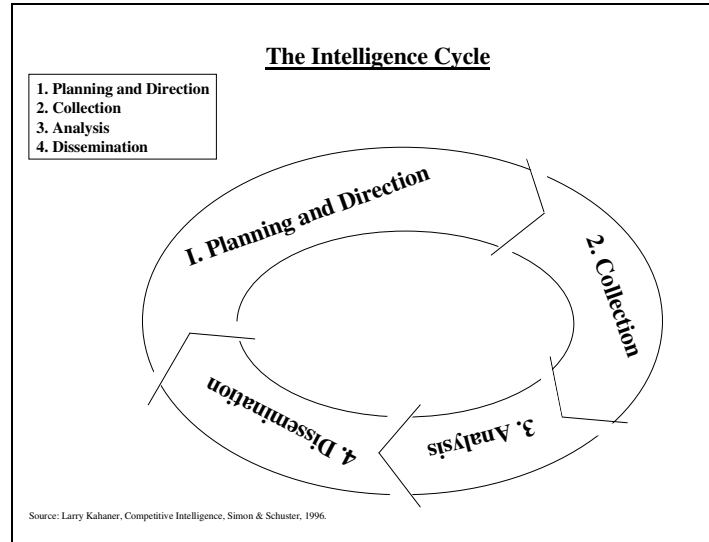
No	Tool Usage	Percent (%)	Percent (%)
1	Scenario Development	53.8%	31.4%
2	War Gaming	27.5%	19.2%
3	Win/loss Analysis	40.4%	21.9%
4	SWOT Analysis	55.2%	63.1%
5	Conjoint Analysis	25.5%	15.8%
6	Financial Analysis	72.1%	45.5%
7	Competitor Profiles	88.9%	52.4%
8	Simulation/modeling	25.0%	15.4%

Source: Source: Survey of SCIP membership conducted by The Pine Ridge Group, Inc. and the T.W. Powell Company, 1998

3.4. The Intelligence Cycle

According to Kahanner (1996) CI is a process that has been created and has four steps in the circle formation (Figure3.2)

Figure 3.2. The Intelligence Cycle



Source: Kahaner, 1997.

Planning and Direction

This is the step when management gets involved and decides what intelligence it requires. This is also the part of the circle in which the CI practitioner decides which course he should take in fulfilling his task. This stage can also be thought of as the other end of the intelligence cycle, because one of the specificifications of intelligence is a deliverance to the decision maker, his subsequent actions – based on that intelligence – will spur further intelligence needs. The company’s situation undoubtedly changes based on those actions.

Planning and direction require three approaches:

1. A clear understanding of the user’s needs, including his time constraints. According to Robert Margulies, then manager of competitive assessment, the assessment is to cover three elements: (i) the overall business environment, (ii) the customer’s needs, (iii) the competitor’s activities. Critical Success Factor (CSF) is defined as a task that had to be completed for a company to succeed (D Donald Daniel).

Although CSFs remain an important focal point for manager, its worth to modern CI because it provides a method - an interrogation about necessary issues – to determine a manager’s intelligence needs.

2. Establishing a collection and analysis plan. Depending upon the time available and the intelligence items requested, to set up a plan outlining what information should be collected.
3. Keeping the user informed. Once you have plan of attach, you need to go back to your customer. Make certain that the intelligence you are planning will fit his needs. Let him know what you think is possible and what may not be possible. Let him know the time frame and resources necessary to do the job.

Collection

This phase involves the actual gathering of raw information from which intelligence will be produced. The vast majority collection materials are public domain, meaning there are available to anyone who knows where to look. Sources include periodical, annual report, books, broadcast, speeches, databases, and so on. Creative collection can usually find almost anything they need legally and ethically. Collection also involves processing information so that it can be transmitted and stored electronically if desired. Once in electronic form it can be manipulated into a form that allows it to be analyzed.

Data collection involves obtaining the raw information that will be turned into usable intelligence. There are many types of information, but now let us divide it in two categories: secondary and primary. Based upon the CI needs, relevant data can be gathered from the organization's own sales force, customers, industrial periodicals, competitor's promotional materials, own marketing research staff, analysis of competitor's products, competitor's annual reports, trade shows and distributors. Specific CIP techniques include querying government resources and online databases, selective surveys of consumers and distributors about competitor's products, on-site observations of competitor's plant or headquarters, "shadowing" the markets, conducting defensive CI, competitive benchmarking, and reverse engineering of competitor's products and services.

Raw data is evaluated and analyzed for accuracy and reliability. Every attempt is made to eliminate false confirmations and disinformation, and to check for omissions and anomalies. Omission, which is the seeming lack of cause for a business decision, raises a question to be answered by a plausible response (McGonagle & Vella, 1990). Evaluation and analysis of raw data are critical steps of the CI. Data that lacks accuracy and reliability may be marginally correct data, concoction of very good data, bad data, or even disinformation. All data is produced or released for some certain purpose. Evaluation of CI data is done as the facts are collected and unreliable or irrelevant data is eliminated.

Analysis

This is generally considered be to the most difficult part of intelligence cycle. Analysis requires great skill and guts because it requires some analyses in order to weigh information, appropriate patters, and come up with different scenarios based on what he has learned. Even though analysis is based on logic and hard information, analysis must fill the blanks and provide some possible outcomes. Whereas surveys may provide enormous data about products and competitors, interviews would be preferred for getting a more in-depth perspective from a limited sample. Therefore, human judgment is an essential element of the decision regarding which CI techniques to deploy in a specific situation.

The resulting CI information is integrated into the company's internal planning and operations for developing alternative competitive scenarios, structuring attack plans and evaluating potential competitive moves.

Dissemination

This is the last step (and the first too) in the cycle, and involves distributing the intelligence product to those who requested it. It is the time when the analyst will suggest possible courses of action based on his work. He must be able to articulate his

recommendations and defend them with logical arguments. The resulting intelligence will also be distributed to others in the company who can use it.

Competitive intelligence or competitive technical intelligence or also economic intelligence is not related directly to operation of information. If the competitor analysis remainder and sensitive area, monitoring of company position in different sectors, and also trend of abstract company position, they do not direct measure and it is a problem. The owner of the company must understand that they must expand money to produce, but expand money to try to understand the future of company is more important.

According to Dou and Zhouyingh (2002), the circle of competitive intelligence is permanent for using of decision maker so they can find the best vision and use analysis that could be integrated with process of decision making (Manullang and Dou 2002).

CI as permanent process is always the result of intelligence (knowledge) in one hand and companies is always need intelligence. Intelligence is the food for companies. If the distribution of intelligence is not enough to support of companies needs, the metabolism of companies will be disturbed and then the company will fall in sickness (bankrupt). Finally the company will be closed (Powel, 2002).

3.5. Competitive Intelligence in Some Countries

Japan

We are wonder why it is that the Japanese used to out spend in R&D their products are first-rate and technologically superior. They produce one-third of the world's cars, steel, and ships and two-third of the world's computer chips. We also wonder how a country with few natural resources produces nearly 18 percent of the world's Gross Domestic Product and how it could have doubled its economy between 1973 and 1989. It is because of the information in Japan is a commodity with an intrinsic worth. The

Japanese, gathering information is a noble calling. It is a worthwhile activity and one that pays dividends (Kahaner, 1996)²³.

Information collection is an ongoing part of the Japanese business culture and complements the idea of *kaizen*, which means constant and continuous improvement. Japanese business horizons are long, very long, as long as a century from now. Every piece of information that is sucked up by the great Japanese information vacuum cleaner becomes part of someone's long-term strategic plan (Kahaner, 1996). These are evidence that Japanese has been applied typical competitive intelligence since a long time a go.

After the World War II, the role of government is very important. It can be looked to supporting of the Ministry of Finance and what was become the Ministry of International Trade and Industry (MITI). Through these bureaucracies Japan established their information system. Beside government there is a *keiretsu* that is a group of individual companies united by the exchange and sharing among them of personal, money, goods, and of course information. (Kahaner,1996).

At the heart of each *keiretsu* is trading company or *sogo shosha*. These trading companies are responsible for coordinating and guiding the group through all areas of commerce. Ironically, when MacArthur and his occupation force dismantled the Japanese military many of its intelligence experts were placed in *sogo shosha*. Competitive intelligence comes naturally to these trading companies.

Japan is the first industrialized country to have made information principal lever of its development. The Japanese are leaders of the competitive intelligence (economic intelligence). Their device of economic intelligence, which is founded a partnership (State-enterprise-citizen).

²³ Larry Kahaner, Competitive Intelligence, How to Gather, Analyze, and Use information to Move Your Business to the Top. Touchstone, New York.

In Japan, the creation and the marketing of a product respect the following stages²⁴:

Phase 1: Technological and commercial survey.

Phase 2: Appropriation of the technology of undertaken country concerned.

Phase 3: Improvement of the product by the creative Japanese woman.

Phase 4: Creation of new produces.

Phase 5: Marketing towards the world markets.

This search towards the knowledge of outside, is a prelude to with the creation of a innovating product, is to be put in parallel with the bottom grade of fundamental research at Japan at the profit of the search for improvement of the process. The Japanese point out that low theoretic products developed by their companies are in Occident.

It is paradoxical to note the character scientifically little innovating and creative of the technological Japanese until the beginning of the years 1980. Since 1980/1985, the Japanese on the matter seem to have made up for their lost time. Surroundings 50% of the Japanese investments of R & D are made apart from Japan. It is quite obvious that the repatriation of know-how is made systematically towards Japan.

1. Organization. The technological survey and the search organized for information throughout the world constitute the solid bases of the Japanese economic strategy and rest on a triptych (state –enterprise - citizen) where one finds the narrow overlap of the organizations of state near the companies and passion role which the citizen with his place of work maintains.
2. Partnership State-enterprise. Whereas the States in the world become aware gradually economic intelligence, Japanese one created and developed this organization since forty year old meadows with the manner of a giant cobweb.

²⁴ Daniel Rouach. La Veille Technologique et L'intelligence Economique. Presses Universitaires de France, 126 p, 1996

3. Partnership citizen-company. The Japanese by culture and in a natural way, has a marked taste of information, and the organization of the company supports these state of mind on keep silent the professional standards of living.
4. Japanese methods. It are traditional and especially effective; let us quote some:
5. Systematic Export of the publication and the bank of give
6. Follow-up of the patent. They deposit more 30000 patents per annum.
7. Follow-up of the exposures and living rooms and participation in many conference and seminars.
8. Mission industrial. They are prepared carefully.
9. Examination of the competing products.
10. Use of trainees in very many countries.
11. Use of many researchers or professors expatriates.

The cult of business intelligence exists. Intelligence professionals form a caste and the Japanese are probably the High Priests of the business intelligence community. It has been estimated that Japanese firms spend over 1,5 % of their sales revenue on the world-wide collection and processing of intelligence. They keep a close watch on patents (the Japanese buy four times more patents than they sell, but at the same time register each year more than 30.000 patents compared with less than 2.000 in France), they visit exhibitions and fairs, participate in numerous conferences and seminars, acquire publications and databases, undertake industrial missions, make use of trainees in a large number of countries as well as a multitude of expatriate researchers and teachers and study rival products. Their know-how in the systematic collection of information remains a major competitive asset for Japanese firms (Daniel Rouach, 2002)²⁵.

USA

Competitive Intelligence in USA has been there since the Central Intelligence Agency (CIA) established by President Harry S. Truman in 1947 with the signing of the [National](#)

²⁵ Dr Daniel Rouach, Professor and Patrice Santi, Research Associateat. The Added Value of Competitive Intelligence Five types of intelligence attitudes. Article to be published in 2000 in the European Management Journal. ESCP-EAP.

[Security Act](#). The act also created a Director of Central Intelligence (DCI) to serve as head of the United States intelligence community; act as the principal adviser to the President for intelligence matters related to the national security; and serve as head of the Central Intelligence Agency²⁶. Three of four the responsibilities of CIA are Collecting intelligence through human sources and by other appropriate means, except that he shall have no police, subpoena, or law enforcement powers or internal security functions;

- Correlating and evaluating intelligence related to the national security and providing appropriate dissemination of such intelligence;
- Providing overall direction for and coordination of the collection of national intelligence outside the United States through human sources by elements of the Intelligence Community authorized to undertake such collection and, in coordination with other departments, agencies, or elements of the United States Government which are authorized to undertake such collection, ensuring that the most effective use is made of resources and that appropriate account is taken of the risks to the United States and those involved in such collection; and

The spirit of the Americans supports the diffusion of information. It is a true culture medium. Everyone says all.

1. Characteristic. The American economy has a true arsenal in the field of the economic intelligence. Its characteristic is of is dispersed, contrary has Germany and in Japan, and to function only seldom at the national level, because the liberal ultra economists refuse to integrate in their reasoning the national dimension of the economic activity. The device of management aims above all American competition, the partial leadership that the United States exerts on the world economy distorting the perception of the external threat.

2. Tested structures. Principal sources economic and commercial are Congress (Senate and Room of representative and organizations which are attached to them), the

²⁶ <http://www.cia.gov/cia/information/info.html>

government (executive power), independent federal agencies (in the field banking and financial, scientific and technical), the trade association, the press, the private market of information (together of the bank of data), the think tank (organizations of reflection on topics give joining together enquiring and representatives of the administrative world and private sector), international organizations installed in Etats8unis (UNO, the World Bank) and finally the radio and televisions (CNN). In practice, the business intelligence can take very varied forms.

3. The consultation of bank of data is one as of the most current actions. The data banks strip hundreds of thousands of American or foreign publications. Many information brockers carry out for their customers of research to measure, on the basis of these data.

The patents are another source of interesting information. In this field, the producers of data bases as well as the host centers are concerned with provide the users who wish it a detailed analysis of the patents deposited, as well in the United States daN the rest of the world. Another form of economic intelligence is the lobbying which constitutes one of the bases of the American democracy. It is a right related to the sacro-holy freedom of expression. It is a recognized profession (approximately 30 000 lobbyists) are recorded in Washington). The multiple American cabinets of lobbying profit, it should be underlined, as well at national firms with foreign companies. Asset and evolution, the current system is pressed on several assets: Self capacitance of the great American groups to manage their world networks of information. Market of professionals is specialized in business intelligence and lobbying such as ten federal agencies which produce technical and commercial data processing.

However, the industrial failures undergone for several years by the American companies have become very important to be denied. Following the loss of competitiveness of the American economy, the device of American economic intelligence tends to move.

From now on, the safety of the United States is not based only any more on military device but depends, also, of an economic policy of safety which consists in reinforcing competitive American industrial fabric and to bring competing answers to the aggression carried out by the certain powers. The current debate relating to development of doctrines known as of economic safety for the defense of industry and American employment attests of a major evolution towards a collective management (public-private) of the national interest.

In an article, the newspaper *La Monde* indicates that the American president reinforced the mercenary attitude engaged by his predecessors and creates very influential economic national Council to mobilize the whole of the administration; FBI and the CIA at the head, and to develop the economic information. Two missions out of three of the CIA from now on are devoted to economic files.

Beside the government, there are many independent institution have been active in competitive intelligence, for example, the Society Competitive Intelligence Professional (SCIP) that has the branch in many countries in the world. It has role as consultant CI and training CI²⁷.

France

The question of the competitiveness of the economy French gave place to intense debates and very many reports/ratios since the end of the Nineties. With this question, to which is attached that of employment, the unanimous answer, in France as in the developed countries, place the innovation in the middle of the strategies of development.

It is this challenge which France with all the more must take up of strength and reactivity that them strategies of the economic agents, in particular of the large firms, are more and more total on a world market expanding where the many new ones appeared

²⁷ Available at <http://www.scip.org>

candidates who, by their weight, redefine the economic equilibrium which prevailed since the second world war.

1. The essential role of the public actors.

There remains essential the field of defense. Two ministers have the supervision of the public activities of information: the ministry for the Interior (general information and direction of the monitoring of the territory, DST) and that of Defense (Directorate-General of external safety, DGSE). This obsession of defense and safety is found in the field of the French economic intelligence. DST and DSPD one sensitized the companies with the need for an effective monitoring of their product, on all after the enormous development of data processing. The French right, of its coast, is interested in certain activities of information by skew of the CNIL (Data-processing Commission National and Freedoms) which protected the private life and personal freedom while codifying and by supervising the creation of computer files.

2. Private, increasingly active sectors.

Many great industrial groups set up devices of economic intelligence. Elf was among the first to develop this activity in its chemical subsidiary company Atochem. It was followed by Renault, France-Télecom, EDF, L'Oréal, French Ciments, Thomson-CSF, Liquid air, Lafarge-Coppée, Rhône-Poulenc, Saint-Gobain, Crédit Lyonnais, BNP, banking Compagnie. But this discipline is not reserved any more for the large companies. For SME also to anticipate, to make the good choice, becomes a permanent concern. The leaders and the scientific engineers responsible for the innovation and the patent rights more and more often use the techniques of the city.

3. A weakened position.

Apart from the principal announced sources of information: State, areas, department, French communities abroad, great industrial groups, banks, insurances, it is necessary to quote on the one hand, the Chambers of Commerce and Industry which thanks to their economic observatories, play a capital role, and on the other hand, the private market of the information which is presented by several thousands of computerized data

banks, usable by experts in consultation. Yew is necessary to specify that, in this field, the French position is weakened by the pressure more in stronger, exerted by large the American waiters, which have a monopoly in fact in the distribution of the American data bases.

4. Establishing competitive intelligence.

The awakening that one could regard the economic intelligence as a trade, appeared recently among the professionals who sought to organize themselves. The specialists wanted a structure to exchange their ideas and to promote the image of the economic intelligence.

Trade associations were born. The society off Competitive Professional Intelligence, SCIP France, was created in 1992. Of its dimension, faculty starts to be interested in this field: formation of third cycle one indeed created recently in Paris, marl-the-Valley, Grenoble and Sophia-Antipolis.

Convinced that the centralization of information is an element of the counterpart, the Balladur government had created by decree, April 4, 1995, a national Committee for competitiveness and economic safety, placed under the authority of Matignon. The purpose of this structure, which constitutes a first in France, is to offer to the companies the advantages of a centralized system and national of harvest of information.

Conceived like one of the pillars of the industrial policy engaged by the Government as of the CIADT²⁸ of December 13, 2002, the policy of the poles of competitiveness aims at to increase, in the short and medium term, the **competitiveness of French industry**. The setting in network of the companies, public research and the higher education is essential to the mobilization of our potential of innovation. Poles of competitiveness exploit the relations of proximity to weave these networks and to form the true ones “ecosystems of the growth”.

²⁸ CIADT is abbreviation of Comite Interministériel D'aménagement et de Développement du Territoire

The identification of the poles of competitiveness makes it possible **to concentrate the means of the State and national agencies** on the co-operative projects most carrying for the growth and for employment, in a context of reinforced international competition where the competitiveness of French industry rests basically on the **innovation**. Contests of local authorities will be able to also support this strategy which allows an effect of important drive for the local development.

This strategy was stopped at the time of the interdepartmental committee of installation of development of territory (CIADT) of September 14, 2004: **a call to projects** was launched by a circular of the Prime Minister on November 25, 2004. The call to projects was enclosed on February 28, 2005.

The implementation and the follow-up of this call to project were entrusted by the CIADT to a group of interdepartmental work (**GTI**)²⁹ joining together the ministries in charge of installation with territory, of industry, research, agriculture, defense and employment, the ANVAR, the Case of the deposits and the DATAR, and which animation is jointly assured by the DATAR and the ministry for the economy, finances and industry (direction general of the companies). CIADT July 12, 2005³⁰

Other Countries

Competitive analysis has a long tradition in Germany and it has made a fine contribution to the CI literature. CI education and research, however, have not reached its full potential in Germany as of yet. Corporate CI training, while very active in the 1990s, has decreased in recent years. While the Society of Competitive Intelligence Professionals (SCIP) is the dominant professional association in Germany, membership has fallen to a stable level in recent years. Nonetheless, Germany continues to have the second largest SCIP membership in Europe. Contrasting the high numbers of secondary research providers, there are twelve CI consultancies in Germany today. Several

²⁹ GTI is abbreviation of groupe de travail interministériel.

³⁰ **Les Poles De Competitivite : Cap Sur L'innovation Et Sur La Performance**

Des Territoires. Premier Ministre. Ministère de L'intérieur et de L'aménagement du Territoire ; Ministère Délégué À L'aménagement du Territoire. Comité Interministériel D'aménagement et de Développement du Territoire. Matignon – 12 Juillet 2005. Dossier De Presse

leading indicators suggest that CI in Germany is gaining momentum (Rainer Michaeli, 2004)³¹.

Most large corporations in Japan are endeavouring to win out over stringent competition in order to secure dominance of their company's products in a globalized market. In recent years, Japanese products like digital cameras, personal computers and copy machines have indeed retained their superiority in a global market. However, comparison with the competitive awareness or competitive intelligence activities of European and U.S. companies reveals that most Japanese companies have quite a different awareness structure and are undertaking different activities. However, differences in the competitive intelligence activities in which North American and Japanese business are engaged have resulted in differing activity content (Yoshio Sugawara, 2004)³².

Among former USSR countries, Lithuania can be regarded as relatively advanced in introducing the concept of competitive intelligence to the business community. Demand for CI products and services are also promoted through publications, seminars, presentations, etc. However, many Lithuanian companies are still unaware of the CI concept and its benefits, which explain modest demand for CI at the moment. The concept has a promising future in the country, but to make it a widespread business practice more active efforts on the supply side are required (Jolanta Stankeviciute, Petras Oržekauskas and Robertas Juceviciu, 2004)³³.

New Zealand does not have an extensive history of competitive intelligence. The earliest published reference to 'competitive intelligence' in New Zealand was in 1991. There was a flurry of activity in the form of conferences, articles and academic studies on the subject especially between 1995 and 1998. Thereafter, the area appears to have

³¹ Rainer Michaeli. Competitive Intelligence in Germany. Journal of Competitive Intelligence and Management. Volume 2, Number 4, Winter 2004. SCIP. [p. 1-6](#)

³² Dr. Yoshio Sugawara. The Current State of Competitive Intelligence Activities and Competitive Awareness in Japanese Businesses. Journal of Competitive Intelligence and Management. Volume 2, Number 4, Winter 2004. SCIP. [p. 7-31](#)

³³ Jolanta Stankeviciute, Petras Oržekauskas and Robertas Jucevicius. Competitive Intelligence in Lithuania. Journal of Competitive Intelligence and Management. Volume 2, Number 4, Winter 2004. SCIP. p. 32-41

been going through a period of stagnation. The findings of two key academic studies in 1997 and 1998 confirmed the infant stage of the subject and its use in New Zealand. The 2003 pilot study responses were limited but indicated a fairly negative view of the current state of competitive intelligence in NZ (D. Brent Hawkins, 2004)³⁴.

While globalization is shrinking the barriers of distance, environmental differences in the two business arenas exist in the form of competition pressure, national and corporate culture, government and legal policies, and market alliances. Although the discipline may have originated as a formal and structured function in the U.S. back in the 1980s, it would appear that organizations in Australia have been slower to accept the value and benefits of a formalized approach to information gathering and analysis. Australian competitive intelligence a function of the 'quick fix' mentality that encourages 'bolting CI on' to existing functional structures. Australia also lacks a competitive intelligence training ground. There are few MBA graduates working in the field, few business schools teaching the practice, only two consultancy firms dedicated to competitive intelligence in existence and the SCIPAust membership is small (Babette Bensoussan and Edward Densham, 2004)³⁵.

The historical development of Russian CI is traced back to the military and government intelligence tradition left behind by the Soviet legacy. This is followed by a discussion of modern trends that are replacing the Soviet legacy with a professional, advanced, high-tech and ethical CI community. Next, an analysis of the structure of Russian CI is presented with special emphasis on structural organization, services specialization, branch distribution and territorial distribution. Several robust models of the CI market in Russia are developed with a focus on: (i) salient financial and operational characteristics of various service clusters of the CI market in Russia, and (ii) categorization of Russian industries based on their level of transparency and their level of CI development. The various methods of CI that are used today in Russia are then

³⁴ D. Brent Hawkins. Competitive Intelligence in New Zealand. *Journal of Competitive Intelligence and Management*. Volume 2, Number 4, Winter 2004. SCIP . 42-52

³⁵ Babette Bensoussan and Edward Densham. Australian CI Practices: A Comparison with the U.S. *Journal of Competitive Intelligence and Management*. Volume 2, Number 3, Fall 2004. SCIP. [p. 1-9](#).

explored including data collection, interviewing and information analysis (Alexander A. Ignatov, 2004)³⁶.

CI, in its various forms, will have an increasing presence in Spanish companies, especially the largest ones. We consider that the growth in CI will be significant, for two main reasons. First, the number of innovation programs developed by companies will increase, which is directly related to CI. Secondly, there will be an increase in the general consensus regarding the value of knowledge management, of which CI is often considered to be an important component. It is more likely, however, that the diffusion of CI practice will take place gradually, starting with the largest and more technologically dependent companies (Joaquín Tena Millán and Alessandro Comai, 2004)³⁷.

The intelligence industry is then described as it is seen in 2004. The last one and a half decades have shown a fantastic upswing in the interest and focus on intelligence in Sweden. The great need for intelligence from large international companies, from state owned companies, from municipal organizations, from small start up companies and from non-profit organizations has led to the emergence of intelligence consulting companies, intelligence training companies as well as content providers in the form of business research companies and companies that sell off-the-shelf information. This has led to a very competitive industry situation. After the 2000 economic downturn that affected Sweden heavily, this nation has witnessed a sharp decline in intelligence functions, intelligence professionals and intelligence projects. As the dark clouds now, at last, seem to disappear, it is with great hope and great expectations that one looks forward to see the rebirth of the Swedish intelligence community (Hans Hedin, 2004)³⁸.

Canadian involvement in competitive intelligence has steadily increased over the past 10 years. Today, research output, course delivery, SCIP involvement, company practice

³⁶ Alexander A. Ignatov. Competitive Intelligence in Russia. Journal of Competitive Intelligence and Management. Volume 2, Number 3, Fall 2004. SCIP. p. 26-44.

³⁷ Joaquín Tena Millán and Alessandro Comai. Competitive Intelligence in Spain: a Situational Appraisal. Journal of Competitive Intelligence and Management. Volume 2, Number 3, Fall 2004. SCIP. p. 45-55

³⁸ Hans Hedin. Evolution of Competitive Intelligence in Sweden. Journal of Competitive Intelligence and Management. Volume 2, Number 3, Fall 2004. SCP. p. 56-75

and government involvement are growing. Canadians are taking significant leadership roles in competitive intelligence and are exporting this expertise around the world. However, these activities suffer from lack of coordination. Further, intelligence is still at its early stage and so there exists a need to increase the awareness of intelligence throughout the country (Jonathan Calof and François Brouard, 2004)³⁹.

In Finland the business intelligence is a holistic function incorporating people, processes, technology, and information. Overall, the Finnish business community considers business intelligence as a critical function that will, in the future, play a major role in the day-to-day operations and long-term strategic management of their organizations. Many Finnish companies, however, already view business intelligence as a crucial element for competitive business operation (Irmeli Hirvensalo, 2004)⁴⁰.

Competitive intelligence emerged in Israel in the early 1990s. It was accepted by the intelligence-oriented business community but its application is directed, primarily, to short-term, tactical, sales and marketing issues. Data, derived from a survey conducted in 2003, indicates that it is more prevalent amongst larger, internationally oriented, companies. Despite a seemingly attentive business leadership, CI's application and future depend to a large extent on Israel's economic recovery, relief from short-term pressures on corporate survival, and by a global acceptance of CI's academic validity adopted by Israel's universities (Michael Belkine, 2004)⁴¹.

Various areas of competitive intelligence in South Africa are explored including the evolution of CI in South Africa, the current status of CI in South African companies, current status of CI consulting, current status of education and training, some unique facets of CI in South Africa, challenges facing the CI capabilities of South African companies, and remarks on the future of CI in South Africa. In addition, an extensive

³⁹ Jonathan Calof and François Brouard. Competitive Intelligence in Canada. *Journal of Competitive Intelligence and Management*. Volume 2, Number 2, Summer 2004. SCIP. [p. 1-21](#)

⁴⁰ Irmeli Hirvensalo. Competitive Intelligence in Finland. *Journal of Competitive Intelligence and Management*. Volume 2, Number 2, Summer 2004. SCIP. [p. 22-37](#)

⁴¹ Michael Belkine. Competitive Intelligence in Israel. *Journal of Competitive Intelligence and Management*. Volume 2, Number 2, Summer 2004. SCIP. [p. 38-52](#)

bibliography of the contribution of the South African CI community to the professional literature is presented as an appendix (Wilma Viviers and Marié-Luce Miller, 2004)⁴².

Competitive Intelligence in the United Kingdom is steadily growing, yet the extent to which the country's practitioners either understand or appreciate the full extent to which CI can improve their strategic decision making and business performance is debatable. By the uninitiated, CI in the UK is, at best, mistaken for market research, and at worst, referred to as spying. CI is not only present in the UK but it is a vibrant, creative, exciting, and growing community (Sheila Wright, Ahmad Badr, Arthur Weiss and David Pickton , 2004)⁴³.

3.6. Competitive Intelligence in Indonesia

In Indonesia there is special institution that has duty providing intelligence for government namely BIN⁴⁴ (The National Intelligence Agency). Intelligent is provided is more for information regarding the national security.

The vision of BIN is to maintain the national integrity, to straighten the Unity State Republic of Indonesia, protecting the Five Principles and Constitution 1945 from various threats both for coming from in country and also abroad, in the framework to release the national goal (Human Righth Watch, 2005)⁴⁵.

Recently the duties of The National Intelligence Agency is not only providing intelligence for national security but also providing intelligence against individuals suspected of corruption (Hansen, 2000⁴⁶). However this institution does not yet the duties regarding the intelligence economy.

⁴² Wilma Viviers and Marié-Luce Miller. The Evolution of Competitive Intelligence in South Africa: Early 1980s - 2003. *Journal of Competitive Intelligence and Management*. Volume 2, Number 2, Summer 2004. SCIP. p. 53-67

⁴³ Sheila Wright, Ahmad Badr, Arthur Weiss and David Pickton. Competitive Intelligence through UK Eyes. *Journal of Competitive Intelligence and Management*. Volume 2, Number 2, Summer 2004. SCIP. p. 68-87

⁴⁴ BIN abbreviation of Badan Inteligen Nasional, previously is The National Intelligence Commando Agency (BAKIN = Badan Komando Inteligen Naional)

⁴⁵ Rancangan Undang-Undang tentang Intellijen: Suatu Ancaman Nasional? Laporan Human Rights Watch, Juli 2005.

⁴⁶ <http://www.converge.org.nz/pma/wpintel.htm>ne's Intelligence Review
December 1, 2000 By: John B Hasem.

Drubbing Indonesia government in international tribunal in Den hag regarding conflict Indonesia and Malaysia about Sipadan and Ligitan island is fact that law, politic and economic intelligence in Indonesia not yet exit.

The failure of government Indonesia to recovery the economy by banking liquidation is the fact that BI does not yet implementing a CI. Although since 2001 CI has been introduced in BI by some one, and it is also approved by a deputy of BI but until now it is not running.

The similar problem is found in ITB (Institute Teknologi Bandung). Ivan has proposed to create centre research of CI (CVIC⁴⁷) since 2002 but it is not agreed by senate majorities of IPB because most of them not yet understand CI.

Indonesian Competitive Intelligence Institute (ICII) is established in 2006 by Mr Henri Dou and Sri Manullang, is socializing the program CI in Indonesia. It is hoped that in September 2006 will begin to implement the programs.

CI in Minahasa and North Sulawesi

In North Celebes, intelligence competitive has been introduced by Henri Dou since 2001. He visited to UNIMA⁴⁸, Governor of North Celebes, KAPET⁴⁹, UNSRAT⁵⁰, Minahasa Regent and Mayor of Bitung and Manado to introduce that program.

In North Sulawesi, actually the is an institution that have duty to promote investment in that region, namely KAPET. In the planning this institutions looks like implementation CI but in realization is far from expectation.

⁴⁷ Centre Vielle Intelligence Competitive.

⁴⁸ UNIMA is abbreviation of Universitas Negeri Manado (Manado State University).

⁴⁹ KAPET is abbreviation of Kawasan Pembangunan Ekonomi Terpadu (Integrated Economic Development Zone) is the board that plans the economic plan especially in Manado, Minahasa and Bitung Regions.

⁵⁰ UNSRAT is abbreviation of Universitas Sam Ratulangi (Sam Ratulangi University).

In 2002, Tuerah (2002) has been proposed to establish research centre of competitive intelligence in UNIMA and DEA in Competitive Intelligence Program. But this program until now is not yet implemented unless DEA program. It is because of that research CI program not yet received by senator of university. Beside that the position of this centre is antagonist with Research University.

DEA in CI program in UNIMA is program collaboration between University Paul Cesanne, Aix Marseille III and UNIMA, previous supporting from the Governor of North Celebes. This program is still on going even if still many challenges.

However, the graduation of DEA Intelligence Competitive whether alumni of UNIMA or CRRM Aix Marseille III have been implementing CI their duties even if it is still limited in their organisation or biro. The main obstacle so that the CI program can not yet running well is that is not unit intelligence or team intelligence in this region. Beside that lack of human skill and facilities to support unit intelligence is limited.

Regarding the supporting of information technology, the kind of line telephone and the band width of main server (service internet) are still to be challenges. The cable networking is single (means that telephone and internet can not used in the same time) and the server available is small, between 50 and 900 kb per second and. The ADSL technology⁵¹ such as SPPEEDY⁵² is not yet available in Manado.

Lack of commitment and vision of the university and government to develop internet service provider is also a problem. It is showed in the unavailability of ISP or website in universities and office government. There are five university research centers, eight BAPPEDA in north Celebes none of them have website. It is very interesting because UNSRAT and UNIMA are the biggest universities and must be a pioneer in information technology but they do not have a website.

⁵¹ The ADSL technology is available in Jakarta and Surabaya (Java Island).

⁵² SPEEDY is Internet Service high speed from PT. TELKOM, based technologic access the Asymmetric Digital Subscriber Line (ADSL), it is possible to communicate video, voice and data in the same time, by access medium network of line telephone

There are many experts in this region, but we do not know how many, how qualification, where they are, etc. List (database) of the experts whether according to name or expertise in this area because there is no one who has initiative to do that. It means that the experts in this region are not yet maximized to participate in their expertise and regional development.

Although every year there are 2000 the research report are made, only 1% of that numbers is published in the journal. None of that journal is published in electronic journal because there is no an electronic journal or home page to expose the research information and other important information in this region.

Although the local ISP have been on existence for three years but the number of websites created is still minimum and most of the websites are not yet operated professionally. Websites are created only to show that they have a website without operating them for the strategic goal, especially for developing region and welfare of people in term of intelligence competitive or intelligence economic.

3.7. Competitive Intelligence for Regional Planning

The Regional IE Program

Dou (2005) stated that the regional or national economic intelligence program can be abridged in 5 point: (i) good governance, (ii) strategic theme of development, (iii) development and research centre, (iv) system of information, (v) allocation of resources and its control.

1. Good governance

It is necessary to allow a region to develop a good governance among the all actors of development: state and its representative, region (executive president elected), communication of community, etc.

The main problem in developing countries is democratization. In Indonesia it is not a problem because Indonesian is the first developing country which has done generally election to choose the president and the representative, began in local level until the national level. In North Sumatera to elect the governor, regent or major directly is the first time. The government and representative who were elected democratically, would give a possibility to create a good governance.

2. Strategic theme of development,

It is necessary to know the evidence of weakness and strength in the region regarding to releasing a consensus on strategic theme of development.

To create a strategic theme is necessary to start from knowing the tacit information (inheritance, the talents, the everyday life etc.) and to analyze that information (SWOT) to find knowledge. Its knowledge is information including the vision of what they wish to become should emerge (Dou and Manullang, 2004). It is to be a vision when people make a consensus to decide it.

Commonly the regions in developing country are weak and not manageable. Because of that the government and the legislative are difficult to set up a consensus of strategic theme for development. We can find the strategic plan but the plan is not supported with enough information and also is not a result of good consensus.

3. Development and research centre

It is necessary to create the network (internet service providers) of enterprises (and the research and development centers) to work together on strategic themes (by example of competitive poles).

The existence of networking will bring some advantages, such as to help grouping the people based on expertise, job, work place and organization, and also organize the intelligence groups. The network will give a chance to people who are concerned to work and to discuss on the strategic theme according to their competitive expertise.

4. System of information.

It is necessary to establish the system information in the region. It is important to allow people working in their groups or clusters. It is begun in clustered or grouped enterprises, institutions, experts and their associated. It is also necessary to establish the association in each pole to be a group of economic intelligence.

5. The allocation resources and its control.

It must allow to realise the allocation of the resources for strategic projects, and to establish a control system for it. The economic intelligence process must be realized by itself permanently.

It is important that allocating the resources for strategic project must be attained equality, fidelity and transparency. Beside that control of all projects must be designed so that all people, organization or associated, can access or participate in that systems. IE must be realized permanently. It means that IE must be operated continuously.

Furthermore, Dou (2005) stated that the activities of the five points of IE above can be described as follows:

Forming the government elected by people which has a responsibility to prepare the national strategy or regional concepts, method and tools of IE. To create a platform for cooperative work that gives an opportunity to exchange and develop the constructive actions.

Moreover, it is essential learn to reflect in term of comparing (benchmarking) and SWOT analysis for national or regional plan to compare the region with other regions. The aspect of international comparison must be a reference to the vision.

The obligation to realize the strategic themes must match with the regional development. In terms that strategic theme is not congruent to regional plan, and it

emerges negative effect among the regions, it must be made a matching of improving the program.

Started from the strategic theme (for example regional project, pole the competitive intelligence), it must set up the groups (cluster), the enterprises related to each pole, and set up a methodology to work together, basic knowledge of product and/or service to develop, where to sell, for who, and how.

1. To allow the clusters to develop, each cluster must be associated which an information system: Indonesian information and state information, technology information (brevets), scientific and economic information. In the same time the group of independent experts must constitute to each cluster, in order to answer all the questions from decisions and evaluation of information in term of SWOT analysis.
2. The group of IE is necessary to participate on the allocation of resources (repartition) and give advice to politicians. The resources can be distributed to the state or region by them.
3. They must also commit to support the regional and central government for certain project (regarding the international claim: European Community, World Bank, Asian Development Bank, etc). The group of IE must also take a role to verify utilizing funds given in posterior.

In relation to formation the economic intelligence program, according to Dou (2005) there are tree new elements: (i) sensibility, (ii) approfondissement⁵³, and (iii) expert. The sensibility is very important in new politic era.

The formation is not only one phase. It must be continued to propose in the projects of IE, in the selected regions, to realize the projects in a coaching (accompanying), function of choosing the axes strategies. The coaching phase takes six months to one year.

⁵³Approdissment (from France language) means to know something (problem) deeply and completely. It is difficult to translate this word in English.

In all phases of formation, we will take the elements from different courses and teach from the case. We will also make an international comparison.

3.8. The Outcome of Applying IE

Good governance

Good governance has 8 major characteristics; they are participatory, consensus oriented, accountable, transparent, responsive, effective and efficient, equitable and inclusive and follow the rule of law. It assures that corruption is minimized, the views of minorities are taken into account and that the voices of the most vulnerable in society are heard in decision-making. It is also responsive to the present and future needs of society.

Participation

Participation by both men and women is a key cornerstone of good governance. Participation could be either direct or through legitimate intermediate institutions or representatives. It is important to point out that representative democracy does not necessarily mean that the concerns of the most vulnerable in society would be taken into consideration in decision making. Participation needs to be informed and organized. This means freedom of association and expression on the one hand and an organized civil society on the other hand.

Rule of law

Good governance requires fair legal frameworks that are enforced impartially. It also requires full protection of human rights, particularly those of minorities. Impartial enforcement of laws requires an independent judiciary and an impartial and incorruptible police force.

Transparency

Transparency means that decisions taken and their enforcement are done in a manner that follows rules and regulations. It also means that information is freely available and directly accessible to those who will be affected by such decisions and their enforcement. It also means that enough information is provided and that it is provided in easily understandable forms and media.

Responsiveness

Good governance requires that institutions and processes try to serve all stakeholders within a reasonable timeframe.

Figure 3.3. Characteristics of Good Governance



Consensus Oriented

There are several actors and as many view points in a given society. Good governance requires mediation of the different interests in society to reach a broad consensus in society on what is in the best interest of the whole community and how this can be achieved. It also requires a broad and long-term perspective on what is needed for sustainable human development and how to achieve the goals of such development.

This can only result from an understanding of the historical, cultural and social contexts of a given society or community (UN ESCAP, 2000)⁵⁴.

Equity and inclusiveness

A society's well being depends on ensuring that all its members feel that they have a stake in it and do not feel excluded from the mainstream of society. This requires all groups, but particularly the most vulnerable, have opportunities to improve or maintain their well being.

Effectiveness and efficiency

Good governance means that processes and institutions produce results that meet the needs of society while making the best use of resources at their disposal. The concept of efficiency in the context of good governance also covers the sustainable use of natural resources and the protection of the environment.

Accountability

Accountability is a key requirement of good governance. Not only governmental institutions but also the private sector and civil society organizations must be accountable to the public and to their institutional stakeholders. Who is accountable to varies depending on whether decisions or actions taken are internal or external to an organization or institution. In general an organization or an institution is accountable to those who will be affected by its decisions or actions. Accountability cannot be enforced without transparency and the rule of law.

Evidently in the field of regional government (for example North Celebes and Minahasa) there is not strategic plan that is based on the knowledge and it is also not a resulted of consensus of all stakeholder. Consequently this strategic plan is not really competent and not really matching with needs of people. It is because of participation of state holders is lack. The lack of participation is caused by no networking and system for

⁵⁴ UN ESCAP, United Nation – Economy and Society for Asia Pacific (www.unescap.org)

stakeholder to state. Besides that the governor and regent were chosen by the legislative under the pressure of money politic.

Finally the legislative and executive set up the strategic plan according to their politic will. They did not allocate the project according to the needs but according to their needs. They have been practicing collusion, corruption and nepotism in making decisions and controlling projects.

Theoretically, attitude and quality of executives and legislatives will change following the time, education level of people and changing system. The changing system will accelerate the attitude of executive, legislative and stake holder and communities.

By establishing IE, in operating the regional government, the executive will make a decision ethically (based on knowledge) because of the using inputs from many sources (intelligence poles, institutions, etc.). While the legislative will be power full to criticize and to control the programs or projects of government tightly.

Civil Society

Andrea Kavanaugh^a, John M. Carroll^b, Mary Beth Rosson^b, Debbie D. Reese^c, Than T. Zina (2004) state that in order to play a constructive role in creating a more civil society, community networks should explicitly pursue strategies that encourage community activism. One way to do this, given the strong role of association membership in activism, is for internet service providers (ISP) to offer bundled standard Internet applications at low cost to non-profit community groups (e.g. email for leadership, online discussion for members, web space).⁵⁵

Furthermore Schuler (1996) emphasised that attending internet for interactive communication in community can help to increase volunteerism, participation in

⁵⁵ Andrea Kavanaugh^a, John M. Carroll^b, Mary Beth Rosson^b, Debbie D. Reese^c, Than T. Zina (2004). Participating in civil society: the case of networked communities. *Interacting with Computers* 17 (2005) 9–33. Elsevier. www.sciencedirect.com. Available online 28 November 2004

activities, and involvement in issues of interest. Interactive services such as these might facilitate the formation, energizing, and maintenance of active subgroups in a community who has the responsibility of raising, discussing, and resolving local issues.

Civil society is Non-profit, organised groups, clubs and associations in society that operate independently from government and the state⁵⁶. This is the collective name for all kinds of organizations and associations that are not part of government but that represent professions, interest groups or sections of society⁵⁷. Civil society can be organised at the local, national and international level.

Universities, non-governmental organisations, environmental movements, indigenous peoples' associations, organised local communities and trade unions will have a role to find the strategic programs. It is possible because they have workplace and networking to discuss the information in terms of the programs or problems faced by region. They will discuss them by IE approach. After that they give advice to improve the programs or projects. The societies do not only give advice but also control the performance of the government and legislatures regarding to the planning and implementation of programs.

Welfare

The conflicts of interest among regions or districts or village will be eliminated or avoided because the resources have been allocated fairly and ethically in strategic programs. Besides that the poor or marginal people will always find special interest in strategic programs.

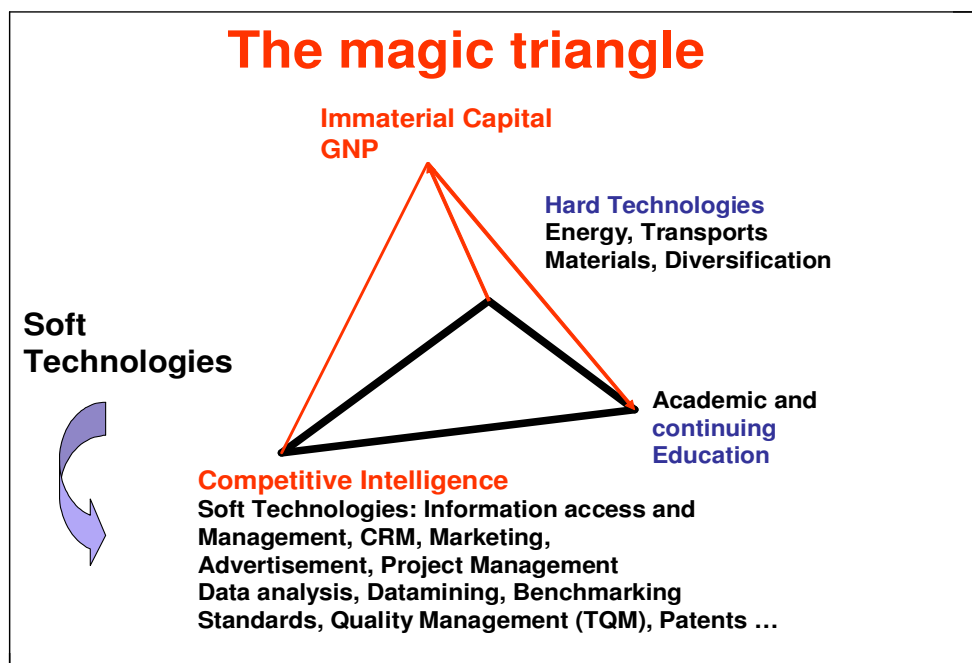
The strategic programs are easier accepted, implemented, controlled and evaluated by executives, legislatures and stakeholders. The programs decided are really competitive so it will bring additional value for the region. The strategic programs will always be evaluated and improved because it is a result of intelligence competitive (IE) process. How can it to bring the value added can be explained by the magic triangle (Picture 3).

⁵⁶ Available at www.forestsmonitor.org/reports/highstakes/glossary.htm

⁵⁷ Available at europa.eu.int/abc/eurojargon/index_en.htm

Investment in IE increased the skill of people. The skill will emerge a new innovation to explore natural resources and its product will raise GNP. Raising GNP will give possibility to invest in soft technology and to improve education and training. The up to date soft technology will be able to make the program competitive. The program competitive will make us to the winner in economic competition

Figure 3.4. The Magic Triangle for Regional Development.



Source: Dou et al, 2005⁵⁸

⁵⁸Henri Dou , Jean Marie Dou Jr, Sri Dayamanty Manullang. The Magic Triangle – How To Develop And Apply Competitive Intelligence In Developing Countries. 4e TIC & Territoire : quels développements ?île Rousse 2005. tournée sur les systèmes d’information élaborée. [tp://isdsm.univ-tln.fr](http://isdsm.univ-tln.fr)

Conclusion and Recommendation

Globalisation has opened opportunities to all countries to be participated in the rule of the game of what it is a shrinking global market. These opportunities come along with threats as the severe competitions are the part of the game. This scheme crates more power to the consumers, where they become more demanding as their bargain power are proliferated. Consequently, the companies need to be more creative in increasing their value added on its products or services to stay competitive in the market.

In order to stay competitive in the market, the companies from now and ever need to adopt a system that is facilitating the companies with the comprehensive and reliable information that is ready to use in a time manner.

Competitive Intelligence by its nature is not a function, but a process, where the information analyzed and disseminated is intended to help the decision makers in the decision process, accordingly the right decision will be made in the right time.

In all, Competitive Intelligence is the answer to the opportunities and challenging brought by the Globalization, as the security of the nations is not mainly depends on the military power anymore, but also depends on its economic might.

CAPTER IV
MANAGEMENT AGRICULTURAL BUKIT BARISAN HIGH LAND AREA
STUDY ON THE DEVELOPMENT OF COFFEE FARMING AS ENTERPRISES TO
INCREASE SMEs BASED AGRICULTURE

An Application

Abstract

The first part of the chapter will be described the economic condition of Bukit Barisan High Land Area, include the relation of agricultural and poverty, and the second part will be described the alternative method which can be applied at the regional level as well as investment opportunities in the region and the value added to be increased. Finally the conclusion will be made at the end of the chapter.

4.1 The Reason of Choosing the Area

- Bukit Barisan High land Area is a unique zone, where it is located geographically in one area with a similar characteristic physically in term of climate and altitude with a similar natural resources with a focus on a similar sector of agriculture. The area is divided into 8 autonomous regions administratively with a Regent as a highest decision maker in each region.
- The regions face similar challenging i.e agriculture and poverty, where the highest poverty rate is found in the areas.
- There is a high possibility to create the zone become a new industrial zone regarding its natural and human resources in order to facilitate the development of the regions.
- The regions possess a high potential as an investment direction especially in the agribusiness related to coffee and rice.

4.2 Methodology of Research

The research is made based on the data collection, direct observation during 5 years living in the region as one of the government official. Some discussion has been

conducted with some experts, consist of intelligence economic research approach, intelligence economic research process, logical construct of research and tools of intelligence competitive.

4.3 The Objectives of Study

- To know the possibility applying intelligence competitive in relation to find the way out the problems are facing by the region.
- To apply intelligence method in relation to the solution of the problems that has been dealing by farmers (as enterprises), especially in production, marketing and industry
- To apply intelligence method in order to find alternative commodity that will be possible to be planted.
- Creating the organization or other facilities to attract the investments in Bukit Barisan High Land Area.

The Aims of Study

Government

The result or this research can be became reference for executives as decision makers, especially establishing strategic plan for farmers, and will be participate to the creation of good governments.

Farmers

Farmers and it associations can learn from this findings and it will improve their knowledge in relation to developing their business and their organisation. By taking good decision by the governments that can help the farmers to find the innovation for alternative commodity.

Enterprises

The service to enterprise will improve, because there will be less collusion, nepotism and corruption regarding to tender projects of government and private. The enterprise also will find the best regulation. Beside that collaboration among the enterprise will possible to create unit intelligence for SMES.

Legislative

At least there are references for legislative regarding decision making. In relation with the Job description to controlling the executives. The out put of the information will help the collaboration with the executives to discuss and develop projects.

4.4. The Theme of Development

Oil, gas, will not last for ever, but green resources regenerate can be the best of Indonesian development. Regarding the development of agricultural in the frame of competitive intelligence, it can not be separated from agricultural as commodity, farmers as enterprises, and possibilities to plant alternative commodities. And link to create small and middle enterprises based of agricultural product. It is based on assumption that the development of agriculture (plant and industry) depends on farmers who are an actor so that it is important to strengthening the farmers as enterprises.

In globalization and free market era, information is very important. Those who are fast to get information and make it in to knowledge (intelligence), they will win the competition. Regarding that reality competitive intelligence is to be the best alternative way to help people, government and institutions to win the competition, whether in local or global level.

Competitive intelligence is the alternative approach in research in relationship to find the best answer for the research question or the best solution on the problems have been faced. This is a logical construction to help the researchers or research groups regarding the planning, implementation, and dissemination of research.

Today, the governments, enterprises and experts are already aware that competitive intelligence is very important to help people winning the competition in economics, politics, etc. According to Henri Dou (2002), Competitive Intelligence is a systematical program to threat, analyze and disseminate of information upon the activities of the competitor, the technologies and the general tendencies of the company's activities, in

view of decision making to achieve the best strategic goal of company. Competitive intelligence is competitive technical intelligence with strong components in the fields of technologies, research and development.

The competitive Intelligence is infact the art to ask a good question. Some general questions in CI are as followings;

Where are we today?

Where do we want to go?

How will we go there?

4.5. The Profile of Bukit Barisan High Land - Where We Are Now

Layers of mountains cross through the center of the area of North Sumatra province, this mountain layers is called Mountains of Bukit Barisan. In the peak high land of the mountains the population is concentrated.

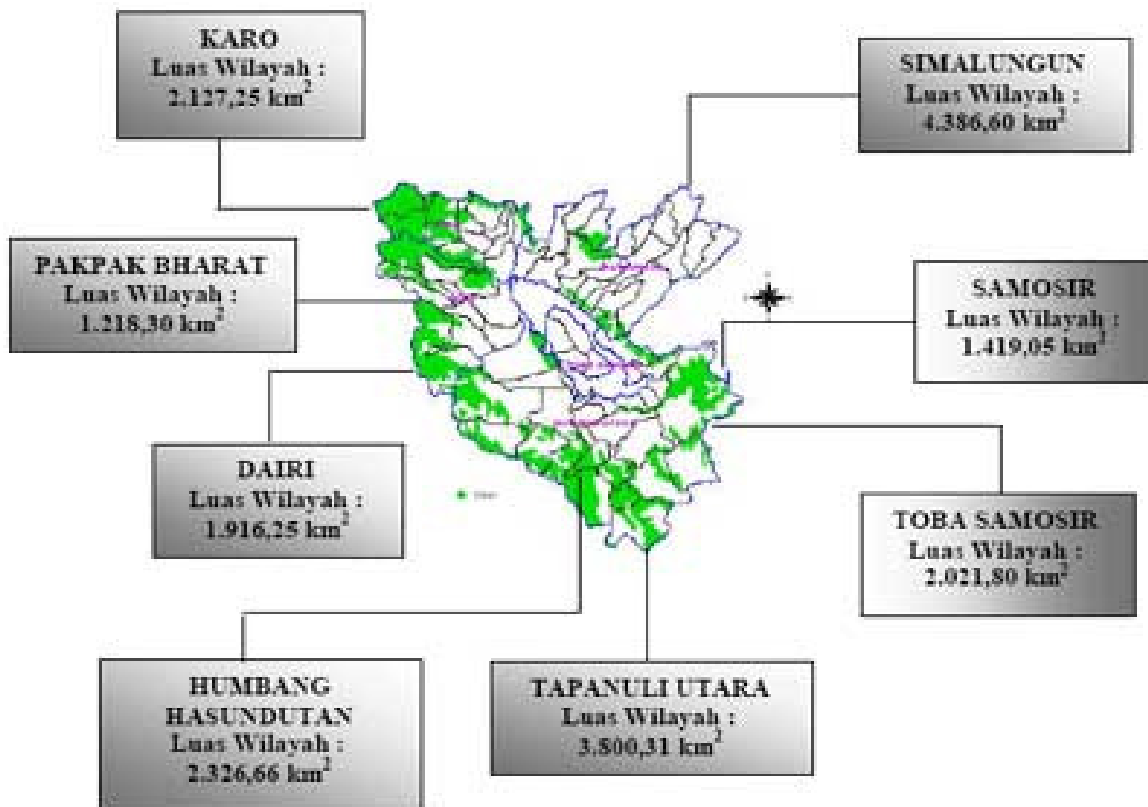
The area of Bukit Barisan high land is categorized as one zone based on its agrofisic and socio-economics. The high land is unseparable from the medium and low land one as its inter-connection to the agribusiness in these areas. In this areas it is found many types of soils on which can be optimalsed the plantation of horticultura and other secondary crops. Each type of soils has its own characteristic and can be cultivated through an optimal production if it is planted the right types of crops at the right season with a right agro-inputs. Bukit Barisan high land t present is a centre of agriculture producer, its main cultivation among others are; vegetables, seasonal fruits, coffe, and others stapple food such as mize, sweet potatos, etc.

4.5.1. Administrative

Bukit Barisan high land administratively is divided into 8 Rgencies; Karo Regency with a surface of 2,127.25 km², Dairi Regency 1,916.25 km², Simalungun Regency 4,386.60 km², Toba Samosir Regency 2,021.80 km², Tapanuli Utara Regency 3,800.31 km²,

Humbang Hasundutan Regency 2.326,66 km², Samosir Regency 1,419.05 km², and Pakpak Bharat Regency consists of 1.218,30 km². The total surface of the area is 19,217.22 km² or around 28,80 per cent of the total surface of the North Sumatra province. In the middle of the high land, a beautiful lake lays down with a surface of 126,000 Ha, which is called Lake Toba. It is one of a tourism destination and a center of water management in the province.

Figure 4.1. Map of Bukit Barisan High Land Area



4.5.2. Topography and Land Used

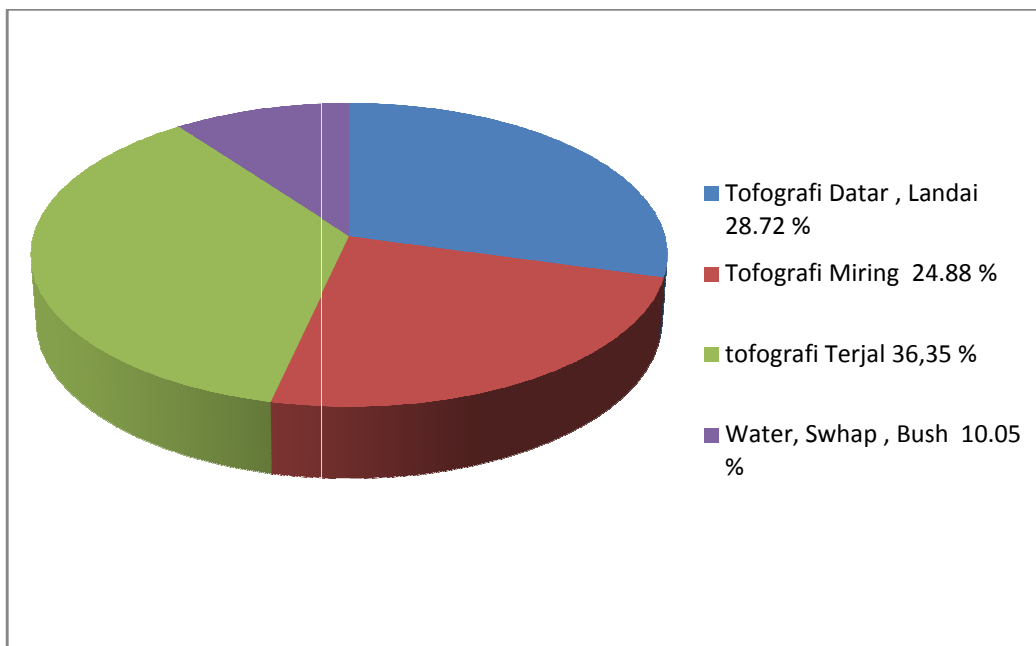
Bukit Barisan High Land Area is located at an altitude of 400 – 1600 m dpl. The soil type in the area is dominated by Litosol/Podsolik/Regosol reach up to 50 % of the total soil. In general, these type of soil is ideal for the development of the agricultural commodity, even though in some areas it is found a marginal for agriculture sectors but with a

recent technology of land cultivation this area too has a possibility to be a productive one to support the agricultural sectors.

Topography Bukit Barisan high land is as followings;

- Topography flat 544,231 ha (**28.72 %**), this surface is ideal for agriculture cultivation, especially for staple food and horticultural.
- Topography stiff 478,124 Ha (**24,88%**) ha, in this surface, limited and selected commodity can be developed, among others possible choice is tree plantation such as coffee, rubber and palm oil.
- Topography slope 698,564 (**36,35 %**) ha, functioning as forest and limited plantation with a system alley cropping with a conservative characteristic with the kind of plant to sustain erosion.
- The rest 10,05 % is swamp and water or around 193,151 ha.

Figure 4.2. Bukit Barisan High Land Based of its Topography



Sources, BPS North Sumatera 2006

Meanwhile, the land used is grouped as residency areas/perkampungan and industry, rice fields, dry land, bush, forest, water and swamp. Based on the data analysed from

the central bureau statistics/ BPS, the land composition in the 8 regencies of Bukit Barisan high land is as followings;

Land Use

Tapanuli Utara regency

- Settlement	:	9,539 Ha (2.51 %)
- Rice Field	:	22,653 Ha (5.96 %)
- Farming	:	179,792 Ha (47,31%)
- Plantation	:	20,616 Ha (5.42%)
- Forest	:	140,991 Ha (37,1 %)
- Bush , Swamp, and Water:		44,463 Ha (11,7 %)

Toba samosir regency

- Settlement	:	5,358 Ha (2.65 %)
- Rice Field	:	21,488 Ha (10,63%)
- Farming	:	85,542 Ha (42,31%)
- Plantation	:	3, 156 Ha (1.56 %)
- Forest	:	58,313 Ha (28,98 %)
- Bush, Swamp , water	:	28,042 Ha (13.87 %)

Simalungun regency

- Settlement	:	12,090 Ha (2,75 %)
- Rice Field	:	53, 430 Ha (12,18 %)
- Farming	:	74,832 Ha (17,06 %)
- Plantation	:	116,109 Ha (26,47 %)
- Local Plantation	:	46,953 Ha (10,70 %)
- Forest	:	99,995 Ha (22,79 %)
- Bush , Swamp , Water	:	34,513 Ha (7,87 %)

Land Used Efficiency: 87%

Sources: BPS North Sumatera Province, BPS Simalungun Regency, Analizing Data

Dairi Regency

- Settlement : 4,120 Ha (2.15 %)
- Rice Field : 10,845 Ha (5,71 %)
- Farming : 62,732 Ha (32,73 %)
- Local Plantation : 6461 Ha (3,37 %)
- Forest : 93626 Ha (48, 85 %)
- Bush, Swamp, Water : 13,799 Ha (7,19 %)

Karo Regency

- Settlement : 4,251 Ha (2.00 %)
- Rice Field : 12,328 Ha (5,80 %)
- Farming : 90,025 Ha (42,32 %)
- Local Plantation : 6524 Ha (3.06 %)
- Forest : 76,814 Ha (36.11 %)
- Bush : 4254 Ha (2.00 %)
- Swamp and Water : 18,549 Ha (8,71%)

*Note, Land used efficiency 91 %

Humbang Hasundutan regency

- Settlement : 5,746 Ha (2,47 %)
- Rice Field : 14,953 Ha (5.94 %)
- Farming : 91,967 Ha (39,63 %)
- Local Plantation : 6755 Ha (2,91 %)
- Forest : 91,085 Ha (39.25 %)
- Bush , Swamp, Water : 22,742 Ha (9,80 %)

Pakpak Barat regency

- Settlement : 3,082 Ha (2,53 %)
- Rice Field : 4,296 Ha (3,52 %)
- Farming : 50,230 Ha (41,23 %)
- Local Plantation : 2,341 Ha (1,92 %)

- Forest : 48,366 Ha (39.70 %)
- Bush, Swamp , Water : 13,532 Ha (11,1 %)

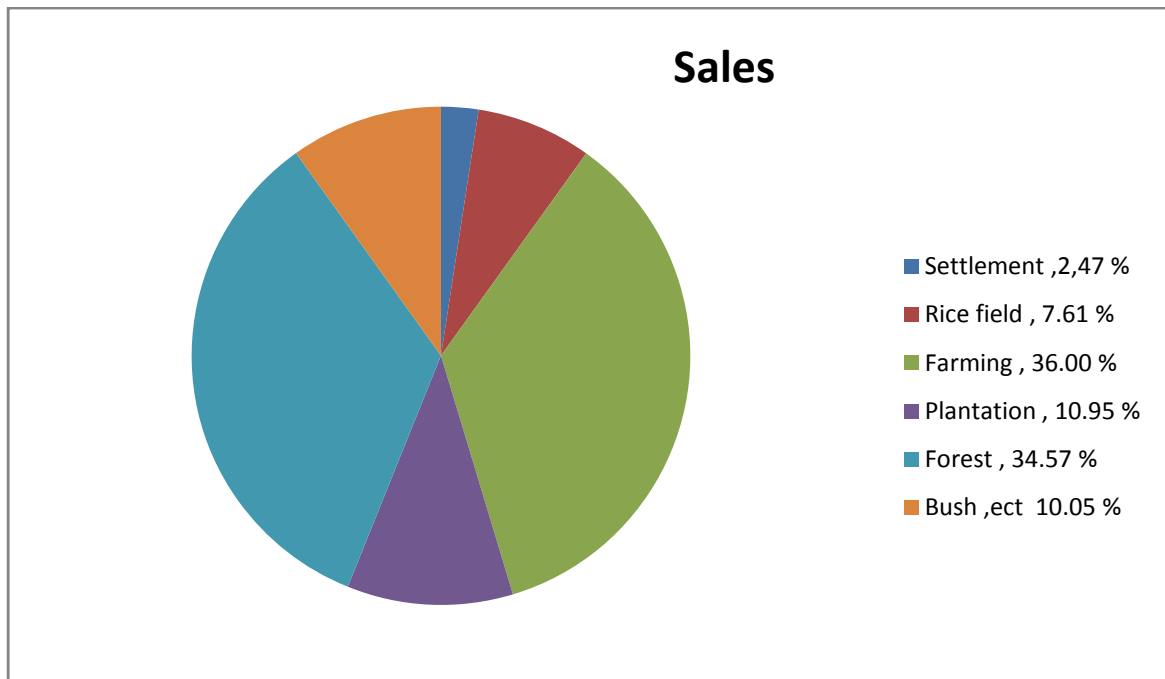
Samosir regency

- Settlement : 3,363 Ha (2.37 %)
- Rice Field : 6,323 Ha (4,46%)
- Farming : 56,861 Ha (40,07 %)
- Plantation : 2,515 Ha (1.8%)
- Forest : 55,286 Ha (38,96 %)
- Bush,Swamp , Water : 17,511 Ha (12.34 %)

Tabel 4.1. Land Used in Bukit Barisan High Land Area

Regency	Settlement (Ha)	Rice Field (Ha)	Farming (Ha)	Plantation (Ha)	Forest (Ha)	Bush , Swamp , water ect .(Ha)
Tapanuli Utara	9,539	22,653	179,792	20,616	140,991	44,463
Toba Samosir	5,358	21,488	85,542	3156	58,313	28,042
Simalungun Regency	12,090	53,430	74,832	162,062	99,995	34,513
Dairi Regency	4,120	10,845	62,732	6,461	93,626	13,799
Karo Regency	4,251	12,328	90,025	6,524	76,814	18,549
Humbang Hasundutan	5,746	14,953	91,967	6,755	91,085	22,742
Pakpak Barat	3,082	4,296	50,230	2,341	48,366	13,532
Samosir Regency	3,363	6,323	56,861	2,515	55,286	17,511
JUMLAH	47,549 (2.47 %)	146,316 (7.61 %)	691,981 (36.00 %)	210,430 (10.95 %)	664,476 (34.57 %)	193,151 (10,05 %)

Figure 4.3. The Composition of Land Used In Bukit Barisan High Land



Land used management in the area of Bukit Barisan High land in general can be divided in two categories; dry and wet areas. These type of land are cultivated based on its potential in terms of human and capital resources and know-how or tactic facilities. The use of this land is grouped into irrigated and rainy settlement rice field and dry land cultivation for plantation, horticultural, stuple foods, and other secondary crops.

Land Used Efectivity

Land efectivity in Bukit Barisan High Land area is influenced by some criterion, first of all there are many field abandoned by the owner. Secondly, some fields are considered belongs to certains ethnics hence unable to be converted to the cultivation areas (locally known ulayat). Other criterion, some areas are left uncultivated as it is categorised as bush to the needs of the local population such as sources for fuel wood. In another case it is belonged to the agriculture department usually used as projects which is uncontinouosed by lack of the facilities such as infrastructures.

The structure of land used in Bukit Barisan High Land based on the data from the department of agriculture 2005⁵⁹ dominated by dry areas comprise of 1,822,369 Ha, or 94,83 percent of the total area in the zone. The rest of the areas 177,119 Ha or 9.71 percent is abandoned, hence there is possibility to operate and optimize the used of this area or extend the cultivation. Meanwhile, 87,57 percent arable areas is still categorised as low productivity area, accordingly the optimal production can be realised by increasing its inputs and technology application.

The availability of the bushes and protected forest in Bukit Barisan High Land area contributes some possibilities to optimize the used of these areas to increase the economic growth in the region by developing the right agriculture commodities such as cultivation of Gum Benzoin which is grown by the nature in the forest for years. This kind of forest commodity can be exploited to be one of the type of plantation by developing agroforestry that is already available with commercial commodity as well as its function as protected forest to sustain the erosion.

In order to develop a pro poor growth, the optimal land used need to be applied. The government of Indonesia recently urge for the extensive rice cultivation, nevertheless this policy can not be applied to all region in Indonesia regarding the different type of soils and land condition. In the Bukit Barisan zone, for example, the extensive growth of rice is not fit to the condition of the area, and it will be a marginal to the economy. On the contrary, it is suggested that the extensive growth of the horticultural, development of plantation need to be considered highly.

Climate (Barisan Mountain Range of Sumatra)

The rainfall in the area of Bukit Barisan high land is varied between one region to another. In average the rainfall is around 115.17-261.33 mm/yr with 8.92-15.83 rainy days in a month. The peak rainy season is from September to January, February to May is considered as mixed months of rainy season and June to August is dry season. Temperature is varied from 14-31°C from January to June, 22-30°C from July to

⁵⁹ Dinas pertanian propinsi Sumatra Utara 2005

December. The humidity is very high with 90 % of rate all the year around. The rainfall in the North Sumatra province for the last five years is continuously decreased, this phenomenon, according to JICA (2002) is related to the global warming.

4.6. Social Economy

4.6.1. Population

In 2007, the total population in Bukit Barisan zone is 2,120,072 people. In general the population can be divided into 2 groups, the first group is those who live in the city, counted for around 18,55 % or 393.317 people engage in some activities such as industry, trade, services and as government officials. Second group is those who live in the villages and remote areas counted for around 81.45% or 1,726,755 people highly depend on the agriculture sector.

Tabel 4.2. Population of Bukit Barisan Zone, Regional Based

Regencies/Municipalities	Region		Jumlah
	City	Villages	
(1)	(2)	(3)	(4)
1. Tapanuli Utara	24, 999	230,401	255,400
2. Toba Samosir	23, 487	144,100	167,587
3. Simalungun	195, 938	623,037	818,975
4. D a i r i	35 ,191	223,967	259,158
5. K a r o	77, 321	234,979	312,300
6. Humbang Hasundutan	14, 929	137,590	152,519
7. Pakpak Barat	4, 652	29,608	34,260
8. Samosir	16, 800	103,073	119,873
TOTAL	393 ,317	1, 726, 755	2, 120, 072

Sources : BPS Dataran Tinggi Bukit Barisan, 2007

4.6.2. Workforce

There is a difficulty to classify the workforce sector in Bukit Barisan High Land since most of the activities are around agricultural sector which involve all the family members including children and elderly, and there is no limit of age for a retirement classification. As mentioned above, the availability of the jobs are seasoning, the percentage of the unemployment rate, thus, seasoning as well. Nevertheless, based on the statistical data, analyzing from any sources mentioned that the total work force (15 years old above) is around 1,409,970 people, in which 980,571 people are employed, or around 69.4 % of the total active workforce. Meanwhile, around 24.27 % of the population is category of non- active, this including children and elderly, and the rest of 6.19 % (87,237) people is unemployed.

Tabel 4.3 Workforced 15 – 60 years Old

Regency	➤ 15 years	Non active	Unemployed (%)
Tapanuli Utara	153,898	34,681	5,137
Toba Samosir	106,763	30,024	8,207
Simalungun	556,233	170,542	49,608
Dairi	169,217	27,114	4,533
Karo	224,230	38,057	13,028
Humbang Hasundutan	95,634	18,131	2,363
Pakpak Barat	20,039	3,035	1,429
Samosir	83,956	20,578	2,932
TOTAL	1,409,970	342,162 (24,27)	87,237 (6.19)

The total population of the North Sumatra province living under the poverty line is around 15 %⁶⁰. After Nias Regency, Samosir Regency is one of the poorest regions in Indonesia. In 2007, 31 % of the total population of Samosir regency is under the poverty line or 35,961 people are living with less 1 USD per day. Samosir is the poorest

⁶⁰ Bureau Statistic North Sumatra (BPS), 2004

regions in Bukit Barisan High Land, the second is Humbahas Regency with 19 % (28,976) people is the category. As a general description, the total of poor people in Bukit Barisan High land is 330,731 people (15,6 %)

4.6.3. Agriculture

Introduction

In globalization and free market era, information is very important. Those who are fast to get information and make it into knowledge (intelligence), they will win the competition. Regarding that reality competitive intelligence is to be the best alternative way to help people, government and institutions to win the competition, whether in local or global level.

Competitive intelligence is the alternative approach in research in relationship to find the best answer for the research question or the best solution on the problems have been faced. This is a logical construction to help the researchers or research groups regarding the planning, implementation, and dissemination of research.

In Indonesia, applying intelligence is still limited in military affairs. It is under responsibility of BIN (Badan Intelijen Negara) that has a task to collect the intelligence information whether in Indonesia or foreign countries regarding the national stability. Integrating the military intelligence with economy intelligence and other intelligence is still far from expectation (Taryanto et al, 2003).

To day, government, enterprise and experts are already aware that competitive intelligence is very important to help people winning the competition in economics, politics, etc. According to Henri Dou (2002), Competitive Intelligence is a systematical program to threat, analyze and disseminate of information upon the activities of the competitor, the technologies and the general tendencies of the company's activities, in view of decision making to achieve the best strategic goal of company. Competitive

intelligence is competitive technical intelligence with strong components in the fields of technologies, research and development.

In relation to this case, Agricultural has strategic value for Indonesian economic. It is possible because Indonesia is the biggest exporter of some plant tree such as palm oil, coffee, rubber, cacao, etc.

Agribusiness involves many activities, from the production process of the agriculture, related services to transfer the raw agriproduct. In this case agribusiness in not involve only agriculture itself but industry related to all the agriculture products. As agribusiness is a system relates one process to another, accordingly the production activities as well as marketing activities by the enterprises can not be separated from one another. Accordingly, there is a need to synchronise the activities within the actors; farmers and companies to construct a competent agribusiness.

Moreover, Agrobusiness has multi function in the society, it influence the level of the economy directly. This sector has a decisive role to to the GRDP (regional revenue), as this sector absorbs most of the workforce in the region. Hence, the development of this sector is directly related to the increased of the welfare of the population.

4.7. Agricultural and Poverty

Bukit Barisan High Land is categorised as one of the poorest region in the North Sumatra province in term of the economics and illiterate rates. This is an ironis condition as the region has some potential for the prosperity of the people. The poverty rate in the 8 r agencies is varie. According to the category by the World Bank, the population is ranged to be the poor one is those who has less than USD 2 per day. Meaning that, around 60 to 70 percent of the Indonesia population is categorised as poor, and in the Bukit Barisan zone it reaches to 80 Percent of the total population. Nevertheless, the category used for the poverty rate in this writing will be based on the UMR (minimum salary regional), as UMR is meant to be a category to be able to sustain a daily living.

The UMR in the North Sumatra province is IDR 800,000/month, and the population is categorised as the poor is those under IDR 800,000 revenues/month.

There are some factors contributing the poverty to the regions:

Limited Access to Land

Most of the population in the regions involved in the agriculture sectors, or basic employer sector in the region is the agriculture. Based on the direct survey in the areas, more than 50 percent of the farmers have only less than 0.5 Ha. Based on the rough calculation, the area with only 0.5 Ha can yield the followings;

- **Rice** with maximum productivity of 5 ton / ha, 0.5 ha will yield only 2.5 ton per 0.5 ha. Selling price IDR 2000/kg contributed to IDR 5,000,000. In general production cost is around 30 %, hence the net revenue is only around IDR 3,500,000/ 6 bulan = **IDR 586,000/ month**
- **Mize** ; with a productivity around 3ton / ha, will yield 1.5 ton per 0.5 ha. Selling price of IDR 2000/kg will generate income for IDR 3,000,000. Total production cost is around 30 %, hence the total revenue is 2,100,000/4 month = **IDR 525,000/ month**
- **Coffee** ; with a productivity around 1ton / ha, will yield 0.5 ton per 0.5 ha. Selling price of IDR 10,000/kg will generate income for IDR 5,000,000. Total production cost is around 30 %, hence the total net revenue is 3,500,000/12 month = **IDR 290,000/ month**
- **Potato**; with a produktivity around 13ton / ha, will yield 6.5 ton per 0.5 ha. Selling price of IDR 2000/kg will generate income for IDR 13,000,000. Total production cost is around 50 %, hence the total revenue is 6,500,000/3 bulan = **IDR 2,166,000/ month.**

This amount is far above the UMR, but this kind of commodity has a high harvest failure and high production cost, and can only be cultivated in certain areas with a special soil condition, hence is less affordable by the farmers

Low Productivity

Other than rice, in general, the agricultural productivity is very low in the areas. The comparison between the maximum productivity and the actual productivity is in the table below;

Tabel 4.4. Agro Productivity in the Bukit Barisan High Land

Agro Product	Produktiviti (kg/ha)	Maximum –Productivity (kg/ha)
Corn	3,390	7,000
Koffe	600	2,500
Potato	13,000	22,000
Chili	5,000	20,000

Limited Access to Facilities, such as Machine Tools

The other big problem found is lack of the facilities such as machine. Most of the farmers use traditional tools whether it manual or crude implements used in land preparation by hand and animal thrasher. There is a very limited access to this kind of facilities. In a very basic need as it is an absolute need, at minimum farmers ought to have access to tractors in facilitating their productivity. The amount of tractors in each region is calculated as follows;

Simalungun	:	17 units
Karo	:	15 units
Dairi	:	19 units
Pakpak barat	:	9 units
Tapanuli Utara	:	17 units
Tobasa	:	14 units
Samosir	:	11 units
Humbahas	:	8 units

Besides tractors, some other machine tools are primordial to the agriculture process, such as after harvest tools for drying facility, coffee mills facilities, etc.

Limited Contact with the Access to the Government Services

The familiarity of villager communities with government services and programs is extremely restricted. Contacts with extension staff, or officials, beyond very local level, seldom take place. Local government resources for carrying out activities in the field are few and this contributes to the farmer lack of familiarity with officialdom. In some cases, particularly among farmers, respondents showed some knowledge of existing extension services, but access remains difficult.

In all the regional and sub-district level, there are agricultural department that is part of the organizational structure functioning as agricultural extension services consists of one or two specialist agent. Nevertheless, this service somehow is not functioned.

Lack of organized Marketing Channels

Even in those villages where access to centers of commercial activity is relatively easy, it is cited that contacts between village-level production and more extensive marketing channels seem to be at the initiative of the producer alone. There appear to be little penetration to village level by the marketing network in the region. While organized collection of produce is developing in a few areas, it is still relatively in its infancy.

Lack of Financial Assets

In general terms, the most important constraint is the lack of financial resources. This is expressed in various terms among farmers .The communities refer to their lack of assets which would enable them to take up new or improved activities, either in agriculture, and small scale trading. As a consequence, the situation is worsen by low earning and difficulty in meeting day-to-day expenses for themselves and their households, and hence the development in all regions as a whole and specially in the village level is primary constraint.

Limited Acces to Credit

Contact of farmers in the communities with formal banking institutions is almost non-existent. There are no-guaranties in agricultural business or inexistence of mortgage system is the most reason. The 'guaratee' system mentioned here is the level of the pay back the principal plus the interest. The banking institutions have no trust on the agribusiness prospects proposed by the farmers. This non-trusted projects is based on two aspects; firstly, agriculture is prone to fail in harvest due to natural forces such as natural disaster such as flood and drought, changing in climate, and other pest problems. Secondly, marketing factors which inherist a high fluctuation in the price of agriculture commodities. It is generally found that in the planting season the price of some commodities is doubled of the price when it is harvesting, thus lead to deeper poverty within the farmers, and one of the condition of non-trusted for the banking institutions.

Moreover, the other stumble factor is the high interest in the financial sector in Indonesia. The rate of interest is around the level of 18-20 %, in the state banks or private ones. As a comparison to other neighboring countries, the rate of interest for agribusiness porposes is around 2 to 6 %, for example in China is 2%, Malaysia 6%, and in France is 2 % from its credit agricole.

Meanwhile, as farmers has no access to banking systems, it is generally found that the only available access is to non banking institution which is operated directly by some persons and organizations or cooperations. Nevertheless, this kind of 'available' financial resources charge a very high interest, varie from 30 to 60%. This condition has led the farmers to a deep debt entrapment, widen the poverty in results.

Limited Diversification of Economic Activities

Beyond extensive agriculture, there is limited diversifications of enterprise in the regions. The cultivation of smallholdings of food and cash crops provides most

households with their only sources of their livelihood. While some expansion and diversification is taking place in the type of cash crops grown in a few locations, most communities seem to have had little exposure to new alternatives.

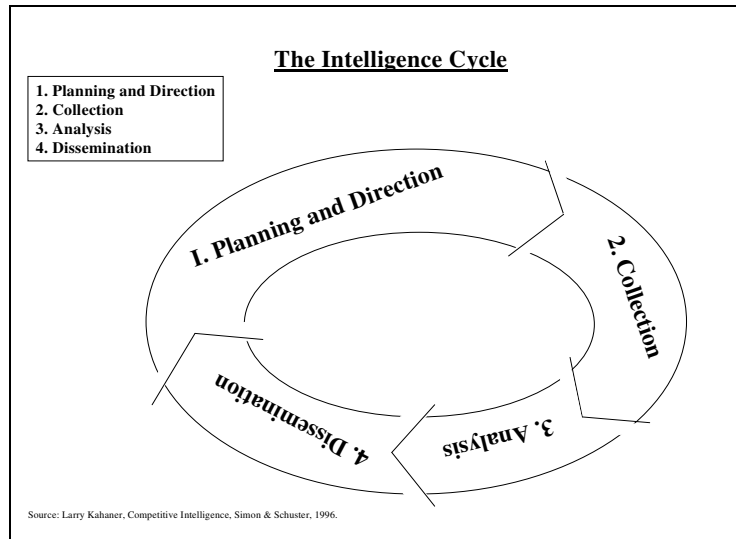
Limited Investment

With almost no access to credit, with limited surpluses for reinvestment and with little awareness of alternatives, the investment in production is very low. In agriculture, inputs for the improvement of productivity, such as fertilizers, pesticides or improve varieties, are rare, as is awareness of the possibilities for their use. The activities for more organized agro-business sector are beginning in a slow move and small scale in some relatively big cities, but yet have little impact at practices at village level.

4.8. Management of Agriculture in Bukit Barisan High Land

The management of the agricultural sectors in Bukit Barisan high land areas will be made based on the Intelligence Cycle in the figure below. According to Kahanner (1997) CI is a process that has been created in which has four steps in the circle formation (Figure 4.4)

Figure 4.4. The Intelligence Cycle



Source: Kahaner, 1997.

Planning and Direction

This is the step when management gets involved and decides what intelligence it requires. This is also the part of the circle in which the CI practitioner decides which course he should take in fulfilling his task. This stage can also be thought of as the other end of the intelligence cycle, because one of the specific intelligence is delivered to the decision maker, his subsequent actions – based on that intelligence – will spur further intelligence needs. The company’s situation undoubtedly changes based on those actions.

Planning and direction requires the following approaches:

1. A clear understanding of the user’s needs, including the time constraints. According to Robert Margulies, then manager of competitive assessment, the assessment was to cover three elements: (i) the overall business environment, (ii) the customer’s needs, (iii) the competitor’s activities.
2. Critical Success Factor (CSF) were defined as those tasks that had to be completed for a company to succeed (D Donald Daniel).

3. Although CSFs remain an important focal point for manager, its worth to modern CI is monumental because it gives us a method - interrogation about vital issues – to determine a manager's intelligence needs.
4. Establishing collection and analysed plans. Depending upon the time available and the intelligence items requested to set up a plan outlining what information should be collected.
5. Keeping the user informed. Once the plan has been attached, it is necessary to go back to the customer. Make certain that the intelligence that has been planned provides the need which is fit on. Let the costumers know what the basic thinks which are possible and what may not be possible. Make available the time frame and resources necessary to do the job.
6. The Planning with relationship of Management Agricultural in Bukit Barisan High Land Area will be applied with some targets, based on present condition, the ideal condition and the challenging how to make it happen.

Some program is made based on time frames:

In the Short Term

- Increasing land evectivity
- Increasing plant productivity
- Increasing plant area
- Increasing government services

In the Middle Term

- Search Alternative Plant
- Maximalizing the government services
- Increasing collaboration with private enterprises
- Increasing collaboration with the saintis
- Increasing the society income and regional bruto

In the Long Term

- Developing the access of agricultural input with government subsidy and credit agricole
- Developing the industry based of agricultural resources
- Developing the Industry area in Bukit Barisan High Land Area
- Bukit Barisan High Land area will be agro-politan pattern on a global competition

Collection

This phase involves the actual gathering of raw information from which intelligence will be produced. The vast majority collection materials are public domain, meaning there are available to anyone who knows where to look. Sources include periodical, annual report, books, broadcast, speeches, databases, and so on. Creative collection can usually find almost anything they need legally and ethically. Collection also involves processing information so that it can be transmitted and stored electronically if desired. Once in electronic form it can be manipulated into a form that allows it to be analyzed.

Collection involves obtaining the raw information that will be turned into usable intelligence. There are many types of information, but now let us divide it in two categories: secondary and primary. Based upon the CI needs, relevant data can be gathered from the organization's own sales force, customers, industrial periodicals, competitor's promotional materials, own marketing research staff, analysis of competitor's products, competitor's annual reports, trade shows and distributors. Specific CIP techniques include querying government resources and online databases, selective surveys of consumers and distributors about competitor's products, on-site observations of competitor's plant or headquarters, "shadowing" the markets, conducting defensive CI, competitive benchmarking, and reverse engineering of competitor's products and services.

Raw data is evaluated and analyzed for accuracy and reliability. Every attempt is made to eliminate false confirmations and disinformation, and to check for omissions and

anomalies. Omission, which is the seeming lack of cause for a business decision, raises a question to be answered by a plausible response (McGonagle & Vella, 1990). Evaluation and analysis of raw data are critical steps of the CI. Data that lacks accuracy and reliability may be marginally correct data, concoction of very good data, bad data, or even disinformation. All data is produced or released for some certain purpose. Evaluation of CI data is done as the facts are collected and unreliable or irrelevant data is eliminated.

The concept mapping is meant to the collection of data and information regarding the type of commodities that is ideal to be developed in the Bukit Barisan zones as well as the application of the visibility studies in the regions. The commodities will be selected based on its prospects in terms of its seed bed and its marketing.

The following is some analysis of agriculture commodities:

Hetero Garden Plantation

- Palm Oil

This type of plantation is ideal in a location with an altitude between 200-600 m dpl. This commodity is a principal in Indonesian plantation with a high prospect as the international need for palm oil is continuously increasing nowadays. The ideal area to develop this commodity is in Simalungun and Tobasa Regency.

- Rubber

Rubber can be cultivated in many types of soils and altitude of photography. This commodity too is an international one. All the soils in the Bukit Barisan zones are ideal for the development of rubber tree plantation.

- Gum Benzoin/Kemenyan

Gum Benzoin is a specialised of the North Tapanuli regency. This type of tree is highly important, as its function to sustain the erosion with its strong roots as well as one of the resources for aromateraphy products. Moreover, gum benzoin has a high economic value of its wood. It is ideal to develop this product in the forest especially in the clifted areas. The prospective areas for this tree plation will be in Tobasa, Humbang Hasundutan, and North Tapanuli Regency.

- Coffee and Cacao

As international commodities, coffee and cacao plantations have good prospects. These types of trees can be cultivated in all the regions of Bukit Barisan, especially in Dairi, Pakpak Barat, North Tapanuli, and Tobasa Regencies. Cacao

Staple Foods

- Rice

Rice is a principal staple food among Indonesian population, so does for the population in the Bukit Barisan zones, thus this commodity has the priority of the governments and farmers. It is cultivated in all the regions with two categories of the cultivation; irrigated and non-irrigated one.

Irrigated field is one of the fundamental resources to the farmers, meanwhile the non irrigated one is one the way on its development, but somehow it is considered not efficient enough as the its yield or output is very low.

- Mize or Corn

Mize is one of the commodities international, besides its function as one of the staple food, it is widely used in other industry such as main food for the livestocks and the resource for etanol. It is grown in all the region in Bukit Barisan, and the cultivation can be developed with an optimal inputs.

- Soybean

It is essential for the food row products and considered to have a high prospect in the market regarding the important need of the population for this commodity. Until present, Indonesia is a net importer of the soybean, hence the extensive soybean growth is essential for the economy in the region.

- Sweet Potato

Sweet Potatos is widely cultivated in most of the regions, mainly used as raw material for flours.

Horticultural

- Potatos

Potatoes is one of the staple foods in Europe and other Western Countries, on the other hand, in Indonesia potatoes is categorized as vegetables and grouped in horticultural family. It is ideal to be grown in the areas with an altitude of > 800 m dpl. The potential development of potatoes will mainly be in Karo and Simalungun regencies. This commodity has a high prospect as an export commodity especially to Singapore and other neighboring countries. This prospect is hand in hand with an increase in fast food franchises in Indonesia hence it is effective to supply the consumption in some big cities in Indonesia.

- Chili.

Chili is a primary need among the population in Indonesia, as most of the population consumes chilies daily. Beside the basic need of the households, chili is widely used in the food industry such as instant noodles. Chili can be grown in all the region of Bukit Barisan. Nevertheless, as chili is a perishable product, it is not efficient to export this commodity in raw type. There is a need to transform the product into added value one such as mild chili or chili sauce. However, the development of this process is not discussed in this paper.

- Oranges

In general, orange is consumed as fresh fruits and beverage industry. It can be cultivated in the areas with an altitude of > 800 m dpl. The prospective areas for the cultivation of this product will be in Karo, Simalungun, and Dairy regencies. Oranges from Bukit Barisan zones are destined to fill the domestic market in Sumatra and Java. In some scales, the commodity is also exported to some neighboring countries such as Japan and Singapore.

- Bananas

Banana is a tertiary product in the regions. It is usually used for local consumption only.

- Ginger

Ginger is mainly used for the pharmacy inputs, counted for more than 80 % of the commodity. Accordingly, the market for ginger is very limited, and the right information of the demand from the pharmacy is necessarily important to avoid

over supply in the market. The area of Bukit Barisan is ideal for the cultivation of this commodity.

- **Cauli Flower/Kubis**

Cauli flower is a type of vegetable that can be grown in the high land with an altitude of > 900 m dpl. Besides filling the domestic market, Cauli flower is one of the export commodities to Singapore, Malaysia and Japan. The cultivation of this commodity can be concentrated in Karo, Simalungun, and Dairi regencies.

- **Peanut**

Peanut is one of the raw material for snacks and other light food. The condition of the soil in North Tapanuli, Samosir, and Tobasa is ideal to cultivate this type of commodity.

Analysis

This is generally considered to be the most difficult part of intelligence cycle. Analysis requires great skill and guts because it requires the analysis of weighing information, look for patterns, and come up with different scenarios based on what he has learned. Even though analysis is based on logic and hard information, analysis must sometimes “fill in the blanks” and make educated guesses about possible outcomes.

Whereas surveys may provide enormous data about products and competitors, interviews would be preferred for getting a more in-depth perspective from a limited sample. Therefore, human judgment is an essential element of the decision regarding which CI techniques to deploy in a specific situation.

The resulting CI information is integrated into the company's internal planning and operations for developing alternative competitive scenarios, structuring attack plans and evaluating potential competitive moves.

Dissemination

This is the last step (and the first too) of the cycle, and involves distributing the intelligence product to those who requested it. It is the time when the analyst will

suggest possible courses of action based on his work. He must be able to articulate his recommendations and defend them with logical arguments. The resulting intelligence will also be distributed to others in the company who can use it.

Competitive intelligence or competitive technical intelligence or also economic intelligence is not related directly to operation of information. If the competitor analysis remainder and sensitive area, monitoring of company position in different sectors, and also trend of abstract company position, they do not direct measure and it is a problem. The owner of the company must understand that they must expand money to produce, but expand money to tray to understand the future of company is more important.

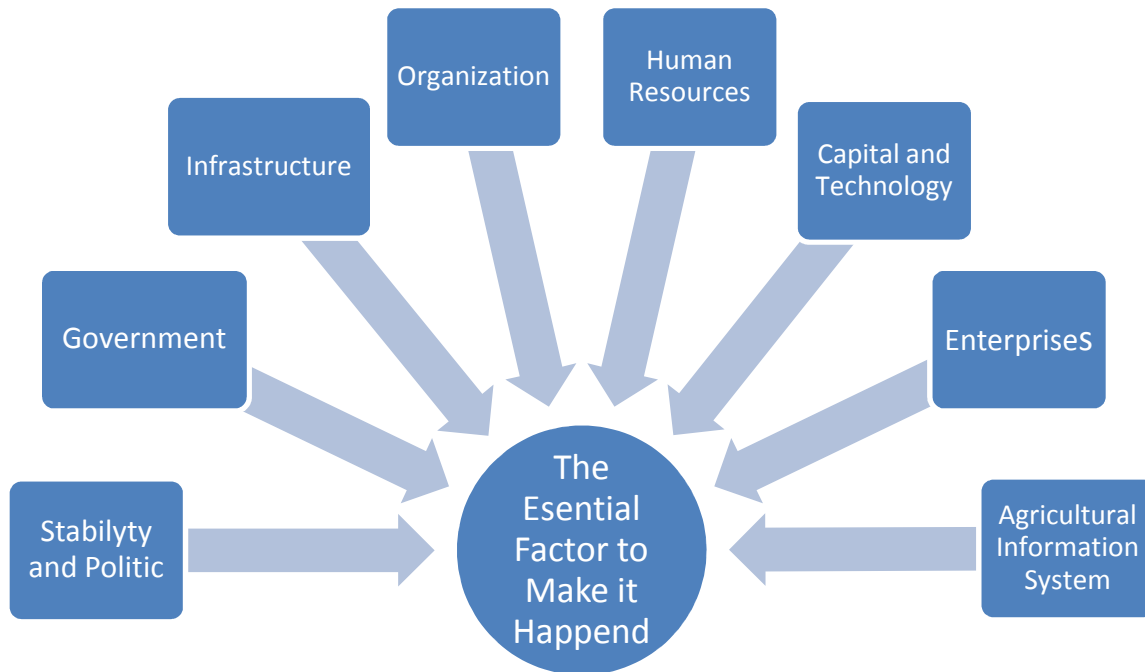
According to Dou and Zhouyingh (2002), the circle of competitive intelligence is permanent for using of decision maker so they can find the best vision and use analysis that could be integrated with process of decision making (Manullang and Dou 2002).

CI as permanent process is always the result of intelligence (knowledge) in one hand and companies is always need intelligence. Intelligence is the food for companies. If the distribution of intelligence is not enough to support of companies needs, the metabolism of companies will be disturbed and then the company will fall in sickness (bankrupt). Finally the company will be closed (Powel, 2002).

4.9 The Esential Factor

In order to realize and create Bukit Barisan zone as an agropolitan areas, it is essential to provide some essential supportive factors as well as a compatible systems in the agriculture management which is related to one another. These supportive factors, among others are politicalal stability and security, government services, infrastructure, human resources, organization, capital and technology, and agricultural information system. Therefore, how to make it happen is an important challenging to be answered.

Figure 4.5. The Esstial Factors



4.8.1. Stability in Politics and Security

Political stability and security has its biggest challenging in the era of reformation in the end of 1990s. Some radical group under the umbrella of reformation conducted some terrors in some regions in Indonesia such as Bali bomblast, Merriot attact, and other riots masked the Indonesian portrait from 1997 to 2005. Accordingly, the present government has put the priority to increase the political stability and the security in the nation. The result is worthwhile, as the stability in some extend has been achieved.

Bukit Barisan high land is one of the 'safe' areas in the time of stability crisis of Indonesian politic and security. The regions have a tract-record as one of the best area in term of security sector.

4.8.2. Government Services

The policy of decentralization is outlined in Law No.22,1 999 concerning 'local government', and Law No.25,1999 concerning 'the fiscal balance between the central government and the regions'. Both these laws are based on five principles; (i) democracy, (ii) community participations and empowerment, (iii) equity and justice, (iv) recognition of the potential and the diversity within region, and (v) the need to strengthen local legislatures. These five principles were the fundamental view for Indonesia to reform its government al system, which the main objectives to eradicate of the corruption, collusion, and nepotism (known as KKN) within the government bureaucracy.

It is necessary to allow a region to develop a good governance among all actors of development, state and its representative, region, communication of community , etc.The main problem in developing countrie is democratization.In Indonesia it is not a problem because Indonesia is the firs developing country which has done a general election to choose the president and the revrepresentative from the local level until the national level. In Bukit Barisan High Land, last year we elected the Regent (Bupati) in Tobasa Regency, Simalungun Regency, Samosir Regency, and will be electeting in other regency in this year.For the first time in North Sumatera Province will be electing the governor in April 2008. The government and representative who were elected democratically, would give a possibility to create a good governance.

Strong Commitment of the Local Government of all regency in Bukit Barisan High Land area, need to apply the following principals

- Optimizing the utilization of natural resources under the environmental consideration and sustainable development principle;
- Improving the community productivity through human resources development program and agriculture product diversification;
- Developing the agribusiness sector through a working collaboration between production line and marketing line under an equitable and open-competitive market mechanism and social expectation;

- Developing agribusiness system towards agro-politan pattern on a global competition, by utilizing applied and advanced technologies;
- Empowering communities especially peasants through the provision of village facilities. The peasants communities are involve in the development process. From the planning stage through the utilization of the development result;
- Improving the development implementation at village areas based on the decentralization principle and local regulations;
- Implementing rural development transparently by developing and maintaining integration among development activities across sectors and local areas, collaboration amongst all members of the society, self competence, business activities, and self reliance spirit in involvement community in the decision making process.

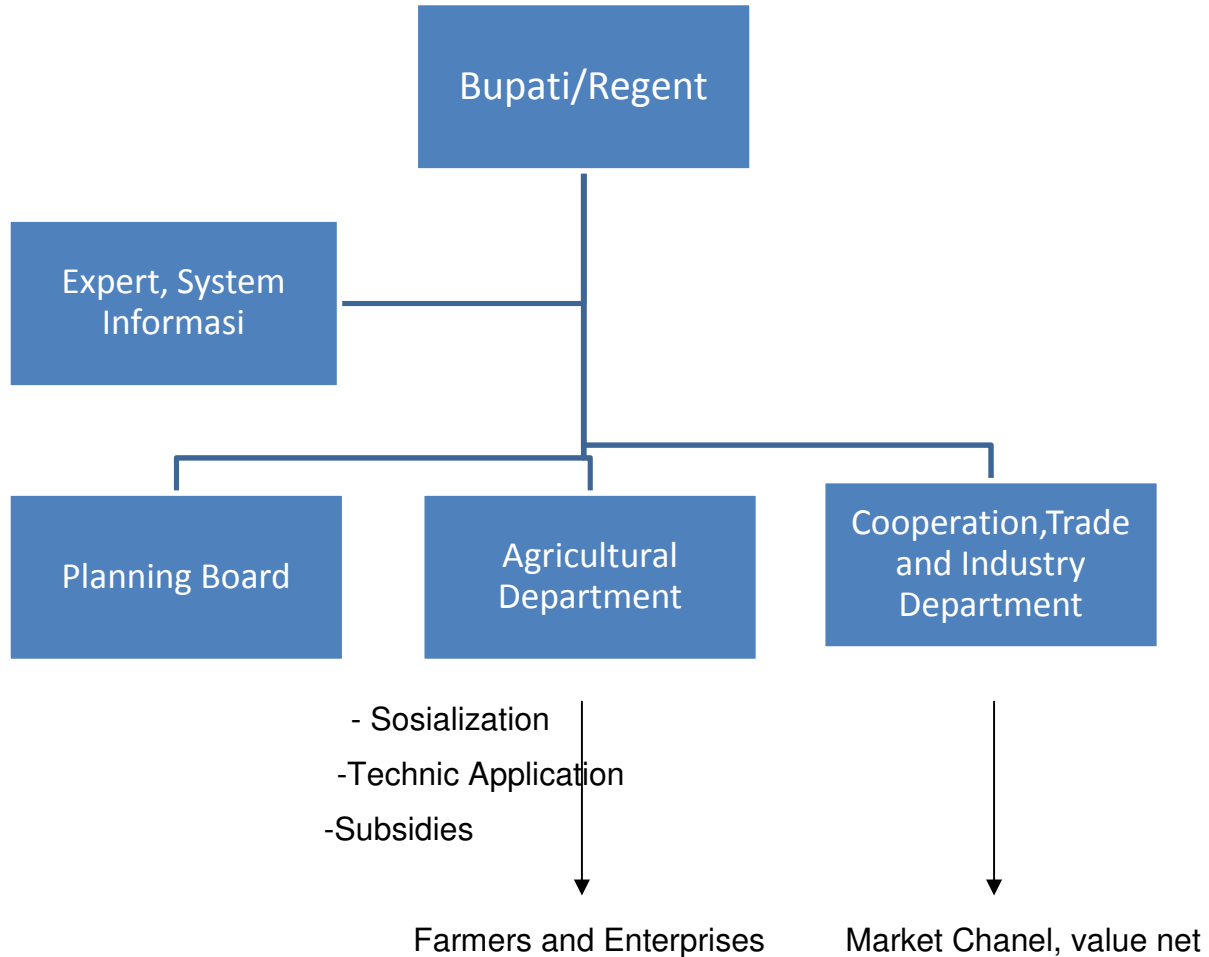
4.8.2.1. The Government of Regency Services

The working programs of the governments in regional basis are as followings;

- Bupati or Regent functioning as a top decision maker and a birocrat leader
- Bappeda or Planning Board functioning as planning, collection, analisis and dissemination of the information.
- Dinas Pertanian or Agricole Department functioning in sosialisasi and tehcnic application
- Trade Departemen and Cooperation and SMEs Departemen hold the function of marketing chanel and value net opportunity
- Expert and System Information, to create the plans and provide the actual information to decision maker
- Farmers and enterprises as the main actors

This program can be further explained in the following graph

Figure 4.6. The Organization Structure for the Development



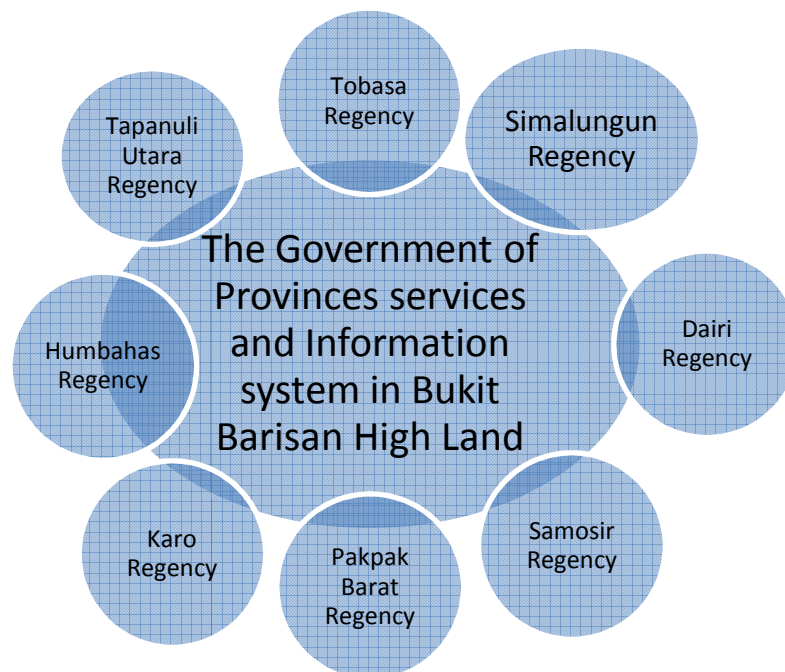
4.8.2.2. The Government of Province Services

The autonomus areas of Bukit Barisan provide some opportunities and challengings at the same time. All the regions have its own authority in designing their region to achieve its own development. Nevertheless, there is a basic need of the regions to the province regarding the management network in order to design a mutual synergy within the regions in order to bring the right direction of the regional development.

The role of the province to create the mutual synergy especially in the following function;

1. To avoid over production
2. The distribution of the central government subsidy in effective and efficient way
3. To provide the land used synergy for the sound environmental development
4. To give access and to facilitate the license for new enterprices involve within the regional development
5. At the end, the provinces is needed in the synergy application of the Information system inti the whole 8 regencies in Bukit Barisan high land (Figure 4.6)

Figure 4.7. The Function of North Sumatra Province in facilitating Bukit Barisan Development Programs



4.9.3 Infrastructure

Opening Case

Rural Infrastructure and Agricole System

Panamparan villages is one of the rural area in Habinsaran distric, Tobasa Regency located 40 km from the capital city of Tobasa Balige and around 20 km from the central village of the sub-district. The total population of the village is 2000 people, 99% is highly depending on the agricultural sector. All of the farmers in this village are living in a very modest lifestyle with a daily basis challenging of basic needs. The most problem

that the villagers face is the problem of infrastructure notably roads and streets. The village can only be reached by foot or by horses. As a result, the agriculture sector in this village can not be developed and the farmers are trapped in a deep poverty. Because of the road condition, farmers have lack of access to agro inputs such as fertilizer, where the market price of fertilizer in the village is almost double than in other villages. Moreover, there is no access to machine tools, notably absent of tractors inherit the very low productivity. In addition, the farmers face a big challenging in the marketing system or the production allocation, as in general the agriculture productt is perishable one such as fruits and vegetable which are spoilt before they can reach the market. And finally, there is no access or to the government services.

The case of Panapparan is a representative of the cases in all rural areas in Bukit Barisan zones. All the rural areas are facing the same problems that have led the economy in a deep daunting challenging. Accordingly, the improvement of the infrastructure sector is vital for the development of agribusiness in order to achieve regional development of the areas.

4.9.4. Human Resources

Based on the quantity, human resources in Bukit Barisan high land area posses an incredible number of human resources capital, counted for 1,409,970 people within the category working aged between 15 – 60 years old. The calculation of the workeforced based on educational level is shown on the table below;

Tabel 4.6. Workforced Based on Educational Level

Education	Total	%
Illeterate – no education	24,251	1.72
Primary	509,986	36.17
Junior High	339,982	23.90
Senior High	477,979	33.90
University	60,769	4.31
Total	1,409,970	100

Sources : BPS North Sumatera Provinces

The table above shows that the total workforce with an access to formal education through university level is around 60,769 people or covers only around 4.31% of the total workforce. This group of workforce is mainly work in the government sectors functioning as government officials and teachers.

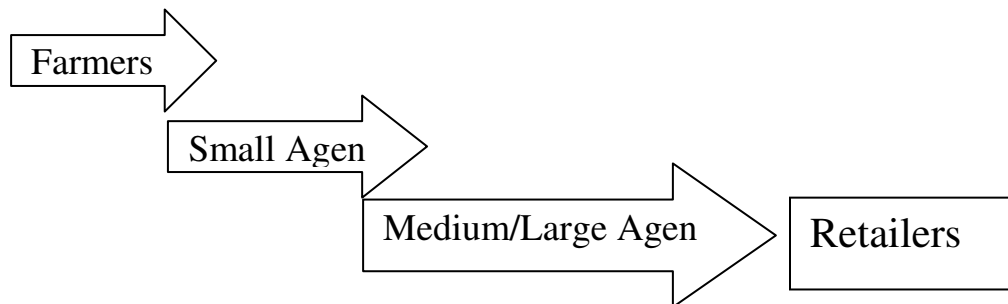
In general, human resources involve in the agricultural sectors reached a formal education between primary to high school level. In order to improve the quality of human resources engaged in the sector of agriculture, it is necessary to provide non-formal education or vocational trainings which a continuous application as one part of the program of the regional government.

4.9.5 Organization

In the year of 80s farmers organization was widely implemented what is called 'KELOMPOK TANI' (Farmers Group). The application of this program groups is not effective enough in most of the regions by that time. However, the concept is a good equipment to increase the productivity of the farmers, notably in the realization of the government services to create a frame of efficiency of time, work, socialization, machine used, and the distribution of the government subsidy such as seed, fertilizer, and credit.

In order to reduce the layers of the marketing and providing access to credit (figure 4.7), the other old system which was created in the 70s is called KUD or village Cooperation. This system too, was not functioning effectively in that era. However the concept is still one of the best systems to absorb and functioned as the agriculture products terminal in the villages. KUD will short out the layers of marketing channel (figure 4.8) which cut-off the benefits of the farmers. This function will facilitate the direct distribution from farmers to village cooperation, hence distributed directly to the retailers.

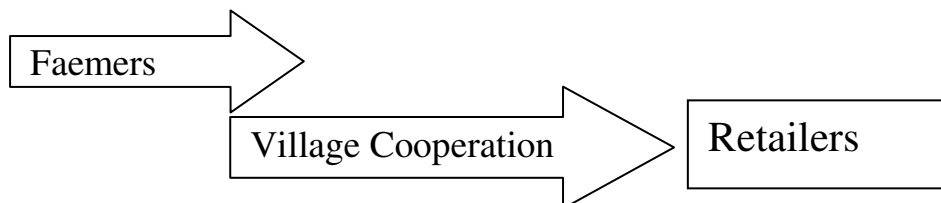
Figure 4.8. The Layers of Marketing Channel



- No facilitating access to credit
- No facilitating agricultural input
- No organizing tractor facility
- No facilitating after harvesting process

The ideal marketing channel system should be;

Figure 4.8. The Ideal Marketing Channel System



- Facilitating access to credit
- Facilitating agricultural input
- Organizing tractor facility
- As Terminal for Agribusiness facilitating after harvesting process

4.9.6 Capital and Technology

Bukit Barisan High Land Area is abounded with natural resources and human resources (labor) but lack of capital and technology. In the late 1990s, the government had realized micro credit system which locally known as Kredit Usaha Tani (KUT). KUT was one of the government aids to the farmers in respond to the financial crisis problems that hit the country, especially the deep negative impact to the sector of agriculture.

Between 1999 and 2000, the government by BRI (one of the state bank) has released around IDR 5, 8 trillion or roughly around USD 580 million.

Nevertheless, problems had been exploded in the early stage of the system. Farmers' microcredit system was finally collapsed as the credit institutions found their petty cash empty without any pay back.

Based on the field analysis, the key features of the failure of the system were as followings;

1. There were indications and some scandals in term of the credit distribution, some evidences were found that funds were received not only by farmers but other parties.
2. Most of the funds were distributed in urban areas, where as the concept of the micro credit was helping the farmers by facilitating small loans for entrepreneurial activities and self employment projects to the poor as a way to eliminate the poverty, and the poor are mostly located in the rural areas.
3. In some extends, the concepts were swept away and creating a corruption facilities by some government officials. Farmers have to pay some fee, and the amounts received were cut off in a certain percentage.
4. When the microcredit was booming, the demand for agro inputs such as fertilizers were increased, nevertheless this high demand was not anticipated and counterfeit production materials such as fake fertilizers, pesticides and seeds distributed in the markets led to harvest failure in some regions. The condition had brought the farmers into debt entrapment and contributed to microcredit discontinuity and a failure of the concept.
5. On the other hand, some farmers which had succeed in their projects and supposed to be able to pay back the debts took advantage on the situation and claimed to be those who were trapped in the harvest failure.

In all, the mentality of the people, whether the government officials, farmers and other actors in the systems were not reliable at all, all parties seems to have corrupted and

rotten attitude. In this case the rule of the law has to be applied strictly, and strong control systems need to be created.

In November 2004, the government of Indonesia finally decided to cancel all the debt regarding KUT issues. The initiative was made in order to release the farmer from their debt and enabling them to start over. In addition to debt cancellation, in November 2007, the government also issued the new type of micro credit of what so-called Kredit Usaha Rakyat (KUR) with some state and private banking institution hold a role as distributors, among others; BRI, BNI, Bank Mandiri, Bukopin. The concept has the same objective as it was KUT, i.e. providing a small loan to the farmers. Since the first realization of the program in the 5th of November 2007 to the end of February, the fund released has reached amounts of IDR 1,782 trillion (USD 180 million)⁶¹.

However, with out any change in the distribution systems and its control, the concept will fail again in the near future. It is suggested that the government has to anticipate the potential criminals of the concept; hence a sound of law protection will be applied. The credits have to reach final destination with out any bureaucratic layers. In fact, the distribution systems can be simplified. Indonesian government need to learn the similar concept which has been applied by the Indian government, where the systems and its progress are monitored closely and assistances are provided by facilitators to the farmers in dealings with the bank and with government official.

In this case, the government willingness, especially the initiative of the present Indonesian President, SBY has shown a good commitment to build the nation. The development however can not be realized by one person only; it has to be a real action by all actors in the economy; from the government officials, facilitators, and farmers. Without any good attitude and strong liability of all parties, any concept of the development will enrich big fat corruptors and reach a final end, collapse. In this case, the products of appropriate law concerning criminals i.e. missed use of the systems by the facilitators or the government officials, suppliers of counterfeit production materials or agro inputs, and unreliable consumers.

⁶¹ Pemerintah Hapus Tunggakan Kredit Usaha Tani, ANTARA news, <http://www.antara.co.id/arc/2008/3/3>

In addition, taking a lesson from the failing system of the KUT, a mortgage system is importantly applied in the system. Some 'naughty' farmers perceived that the government is a kind of Sinter Clause who gives presents, and of course a present is a present. But, in most of the rural areas in Indonesia, the certification system of lands or houses is not common; accordingly this problem is urgently being solved in the first place.

On the other hand, the banking institutions are not capable enough to help Indonesia farmers based on lack of trust or prospects on the agribusiness proposed by the farmers. As mentioned before, the farmers can not be able to provide any mortgage as credit guarantees. The only assets that farmers have is land holdings, nevertheless the certification of land in the regions of Bukit Barisan is almost not exist, especially in the villages areas, where the certified land only counted for 10%, the rest 90% is not-certified⁶². In order to solve the problem of access to credit by farmers, it is necessary to solve this problem on the first place. In addition, after this problem is solved, the application of farmers credit by the government will be realized in the future.

In all, the application of modern agricultural technology is a vital point to increase the productivity and realization of agriculture development in the regions. As mentioned before, the used of machine tools such as tractor and other facilities as well as agro inputs such as fertilizers and good bed seeds are basic needs.

4.9.7 Enterprises

Enterprises hold an important role in the agriculture development. Enterprises mentioned here are companies that producing related agriculture products, such as PT Good Year as a final destination of rubber product. In simalungun regency for example, this company has contributed growth to the economy as the cluster has been created through mutual benefits as the company operates its own rubber plantation and create jobs locally as well as absorbing the rubber products from the local farmers.

⁶² Badan Pertanahan Negara (Central Land Bureau, Analised Data)

The existence of other enterprises which are able to optimize the allocation of natural and human resources is expected in the regions to support the development of agriculture in the region. In addition, the involvement of the farmers as employees and business partners or suppliers is highly important to increase the economy or life standards of the population.

4.9.1.1. Agricultural and Information System

There is a clear relationship between information, agriculture, and development. Information is together with inputs, market prices, infrastructure, credit, and development, and technology from the essential ingredients for agricultural development. In this case, progress in agriculture development is based on information and information transfer.

Basically, there are two types of information required to support agricultural development; one is the information required by the government bodies as a policy maker, and the other one is the information that theoretically required by farmers and the agricultural businessman. So far, the government body is the one who mainly responsible for on generating both types of information. From this point, it is identified two types of agricultural information system. In-house agricultural information system for government body used and public agricultural information system for farmers or rural used.

Ministry of agriculture has developed a computer based in house agricultural information system for providing the necessary information for the development of agriculture. It consist of administration Information System and Agricultural Statistic information System (Departemen Pertanian 1997) – Present data is is not available- Administration Information system covers personnel management information system, accounting management information system, logistic management system, special investigation information system and project monitoring information system, It is intended for used in daily operations of ministry of agriculture. The second information system used is agricultural Statistic formation system that covers Food and Horticulture, Plantation, Livestock, fisheries, agribusiness, and agricultural research. It is intended for

use by staff in the high level management and other concerned parties. Each application program in the information system is still a stand alone program, so the online data communication is unavailable.

Unlike in house agricultural information system, public agricultural information system is still using old fashion of communication technologies. Despite the proliferation of new communication technologies, rural communication in Indonesia is still unable to avail themselves on the hardware due to the lack of infrastructure, training, access, and funding. Until present, the extension services still to be an important mechanism for disseminating agricultural information in rural areas. Therefore, it is considered to be parts of agricultural information system.

The framework of agricultural extension services consist of one or two extension specialist in each district home-based at the District Office of Ministry of Agriculture. At every sub-district there is an extension office, in which there is some agricultural extension agents – for each village within the sub-district. The voluntary ‘kontak tani’ organization (contact farmers Organization) consist of several farms leaders that deputized by the agricultural extension agent as local extension assistants for a given group of farmers. The extension services are mainly carried out by training and visit approach. Agricultural extension agent follows a fix program of field visits. In addition, they have a frequent one day training to ensure that they could provide the relevant and up to date information. A demonstration plot is made up in extension service area, and some are farmers fields. A lot of printed materials on appropriate technology are prepared by the Ministry of agriculture to support the extension services.

Another agricultural sound information system is the food corps information system that is operated also by the Ministry of agriculture. Basically, this is a market information system that provide market price of various food crops on daily basis. The systems involved daily market surveys, data deliveries by carriers, telephone communication and so on. And finally the information system goes to the end – users through radio broadcasting medium.

Conclusion

Oil and Gas will not last for ever, but green resources regeneration can be the best of Indonesian development. Bukit Barisan High Land area, located in 8 regency in North Sumatera provinces are abounded with vast natural and human recources but lack of capital and agricultural management. The Zone is the agricultural center in North Sumatera province. The improvement of the manegement of agriculture in this zone will bring the regions to be advanced as the realization of the zone as agribusiness center will create a desirable growth. In order to make it happen, it is necessary to develop the essential factors such as improvement in the government services, infrastructure, enhancing the quality of human resources, improvement of know-how and technology transfer as well as the creation of the information system center which is called Competitive Intelligence Unit. The essential factors to achieve the objectives setin the region is by a good cooperation between the government in the province and the local government in the regions. This collaboration function is further explained in the next chapter.

CHAPTER V

THE DEVELOPMENT OF COMPETITIVE INTELLIGENCE AND STRATEGIC PROGRAMS IN SIMALUNGUN REGENCY

Abstract

The chapter will be focused on the creation of Competitive Intelligence Unit in the regency of Simalungun. This CI unit will be a pilot project among the regions in the Bukit Barisan High Land, with an expectation that other regions in the zone will implement the same program in order to achieve its desirable growth.

5.1. The Government of Simalungun Regency

The government of Simalungun Regency, Based in Pematang Siantar city and will be moved to Pematang Raya City in the middle of 2008. The Government bureaucracy is led by a Regent as a higher decision maker in the region. Since the autonomy booming in Indonesia, the system has been changed to a wider authority in the regions. In Simalungun region the autonomy is officially applied in 2002, where the region gains greater opportunities in deciding its own development theme and some adjusted rules related to the sound of development.

Moreover, the election system in the country has been switched to a direct election, meaning that the people choose directly their own candidate in the government. It is applied in all the governmental layers; central government and the regional ones. In Simalungun region, the system is put into practice at the first time in 2005, where a direct election has been conducted in the region to choose the Regent. In the past, the regent is mainly chosen and elected by the legislative or DPRD. The new system is an application of the principle of the democracy, in this case it is important to support the creation of good government

However, the real application of the total authority has not been yet functioned, where the local governments still applied the old system in its function, the only difference is the local government is monitored by the local legislative where as the Judicative and Security systems are still controlled by the central government.

5.2. Non- Government Organization

Based on the law no 29 of UUD 1945 ², regarding the creation of organisation and the right to form a group has many implementations in the country. Among others are every one has a right to form a political party, to form an organisation whether with an umbrella of religion, ethnical based or regional based. This function has its own challenging, it is perceived that the implication of this law has some negative impacts in the society. Non-government organisations in Indonesia are formed based on 2 categories; an organisation with a national scale where the head quarter is based in the capital and its affiliations are spread through the regional bases from the provinces to the sub-districts in the country. The second form is an organisation formed with regional bases mainly under the umbrella of religions or ethnical groups.

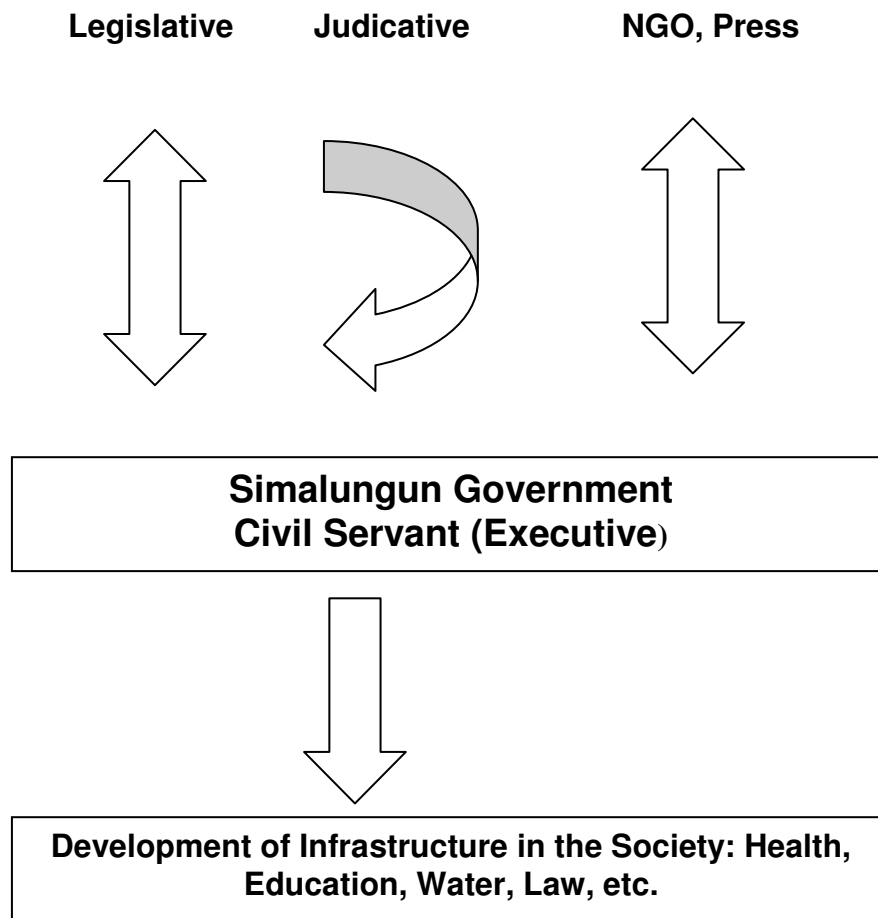
In fact, the aim of the law no 29 is emphasised on the function of democracy, nevertheless this function has been widely abused and articulated in different ways and has distributed some problems in term of economics and the level of security in the country.

In Simalungun regency, some form of non-government organizations have some influences indirectly in the government function in dealing of its daily function. These organisations among others are PP, IPK, HIMAPSI, etc. These organizations are locally known as LSM (Lembaga Swadaya Masyarakat).

Press

Press has a decisive role in the development of the regions, besides the resource of information, press is also functioned as a controller for the government body, whether is executive, legislative, or Judicative.

Figure 5.1. The Link Between Simalungun Government, Pers and NGO



5.3. DEVELOPING THE INFORMATION SYSTEM OF CI

Introduction

We are living in the period of fabulous progress in communication and information technologies. The Internet, the Web and the Intranets offer new means of communication and open new horizons for the division of information in the companies. But, we also live in strong competition contexts which have been amplified by the universities and reorganizations, (Hadikusuma 2001).

This is common place to tell that today, we are moving from the Information Society to the network society. Different papers and analysis shown on a country based as well as on a business one, that we are entering in to the network era. In order to be able to succeed and to survive in that environmental is needed newest knowledge. Only the government, enterprises and other institution who have newest knowledge which will be win in competition. Its knowledge will give early warning so that they can make the alternative program regarding their strategic plan.

One of the ways of is applying competitive intelligence in their organisation, institution and company. Applying CI require an information system because CI will run optimally if available an information system.

Regarding the establishment of the information system of competitive intelligence will be begin with studying about possibility to establish the information system of CI in Simalungun Regency, North Sumateraby using SWOT analysis. The result of that analysis will become a base to propose the strategic plan for developing the information system of CI.

5.4. Establishing The Centre of Competitive Intelligence

Introduction

Based on SWOT analysis can be concluded that In Simalungun Regencies it is possible to create the center of competitive intelligence. This Centre of Competitive Intelligence for the beginning will be started as a small unit, joined with one of Department in Simalungun Government and in future to become a Department.

Objectives

The Centre of Competitive Intelligence is dedicated to support and prepare the following:

1. To establish Local Database, especially the information regarding to the development of local region, is accessible by all people from all sectors, including integrated libraries management.
2. To service public by internet. Busines Public Especially the natural resources data, such as tax, population, investment etc..
3. To establish collaboration works space. Prepare integrated internet networking as a place to discuss programs and problems regarding to planning, organizing, disseminating, implementing and controlling the programs.
4. To establish the intelligence poles in local area where each intelligence pole can work together in an internet network.
5. To service of Head Government and Regional Legislative, as decision maker such us clean information, civil servant quality, traveling of study and study case, project application, project planning, corruption, link of government, ect.

Out Comes

1. Good strategic plan. The good strategic plan in Simalungun has realized only if the information to support decision maker is available whether quality or quantity.

2. Available intelligence to solve Agriculture problem or to support the development of agricultural sectors.
3. Development of industries based on agriculture sector.
4. The available alternative commodities
5. Availability alternative program to help SMEs.
6. Availability alternative program to help SMEs.

Finally for a long term the Good governance and the citizen is a net value . The good governance has realized only if the all stakeholder, government, resident, enterprise, NGO, experts, and universities can be participate in decisions maker, implementing program, monitoring and evaluating program. And the good citizen has realized only if get better service.

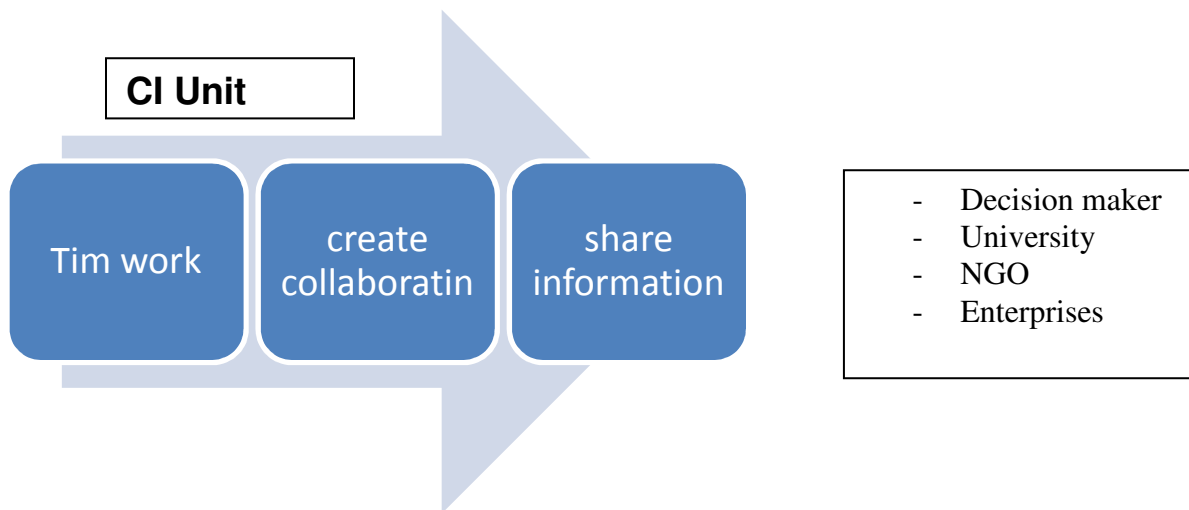
Duties

The Center of Competitive Intelligence will be created as a part of department Program and Planning in Simalungun Regencies has duties such as:

1. Tim work with the civil servant with good quality, fluent computer basic and English language. Must be made a good team work with the expert from university and another institution and organization. Beside that it is needed a number of money to support this operation.
2. The enterprises need information for continuing and developing their business (Powell, 2002). Therefore the competitive intelligence unit has some duties to diffuse information to support the enterprises.
3. As facilitator for researches according to agenda of government and other institution. This research agenda will be done by teamwork that have certain expertise so that its result is more accurate than if only be done by a person. The research including report and monitoring.
4. To services certain information to decision maker. In this moment, CI centre will help to prepare knowledge regarding the decision maker and to help them in policy and action research.

5. To provide some services to universities and institution such as: supporting collaborative work place, Source of information, share of information and help them to create data bases to help in implementation research in each field, more especially in the scientific and technical information retrieval, this directs towards the world competition (H DOU 1993).

Figure 5.2. The Duties of Competitive Intelligence Unit

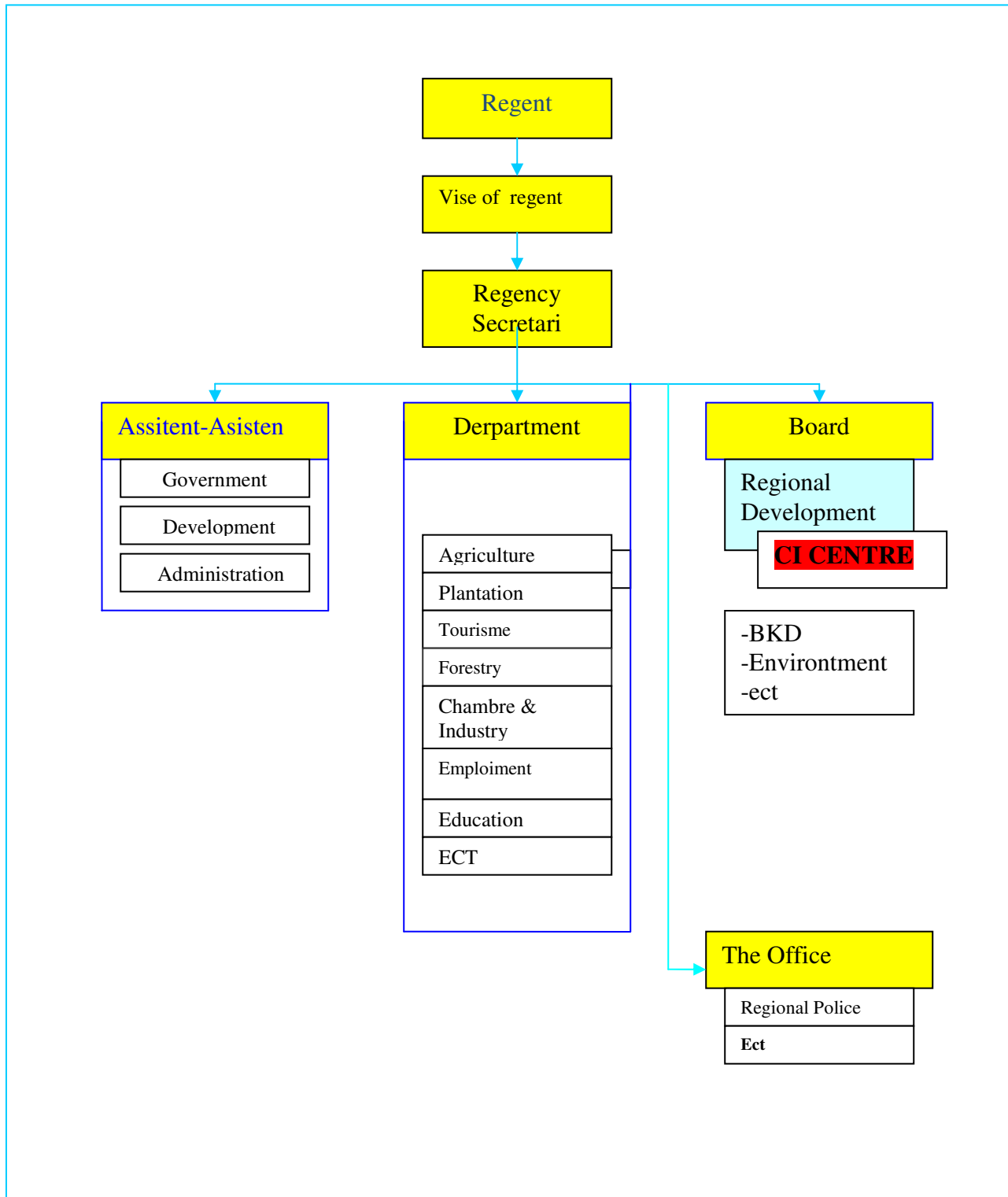


The competitive Intelligence unit in Simalungun Regencies is not able to work by its own, hence some supports are needed from the Government, include the decision to create the unit as a part of Department Program and Planning. Moreover, the support from political parties is importantly needed.

Target

With a good collaboration, the centre of Competitive Intelligence can help the Government , institute , enterprises , facing the challenges of globalisation in order to bring the Government of simalungun Regencies from local to Glocal.

Figure 5.3. The Position of CI Unit in the Organizational Structure of the Simalungun Regency



5.5. Budget For Establishing CI Unit

Establishing CI Centre Office/ Operational

Table 5.1. Cost Calculation for Establishing CI Centre

N	Description	Total Unit	Price/Unit (IDR 000)	Total (IDR 000)
1	Hardware			
	Computer	5	7,000	35,000
	Printer	2	2,500	5,000
	Scanner	1	3,000	3,000
	Server	1	30,000	30,000
	Router	1	3,000	3,000
	Modem	1	1,000	1,000
2	Software			
	Rent ISP	1	5,000	5,000
	Rent Program (Mateo Paten)	1	5,000	5,000
	CD Room	1	5,000	5,000
3	Expert			
	Local	2	5,000	10,000
	International	1	100,000	100,000
4	Maintenance Cost + Electricity	1		10,000
5	Contingency			25,200
	Total General			260,200

Other than the total estimated budget above, some other allocation are also needed to be considered, such as Seminars and Talk show to socialize the domain in the region.

In order to realize the program, the strong commitment and a firm vision of the government of Simalungun, Universities and Enterprises are primordial. At the first stage a formation of a small group will be necessarily important to be a facilitator and pioneer of the collaboration with some expert in term of information and technology.

Conclusion

The creation of the Competitive Intelligence center in the regions has become a primordial need in accelerating the desirable growth. A pilot program applied in Simalungun regency is necessary to be a pioneer among the regions, with an expectation that other regions within the Bukit Barisan High Land will be motivated to apply to same program in order to create a new collaboration between regions, universities or research, enterprises, and farmers.

The strong commitment of all parties; local government-government in the province, universities and all other actors is needed in order to realize the program of the Competitive Intelligence.

CHAPTER VI

THE SMALL AND MEDIUM ENTERPRISES (SMEs)

Abstract

This chapter will mainly describe the small and medium enterprises in Indonesia, its criteria, its problems, and its benchmarking. It is suggested that the development of SMEs is vital for the development of Indonesia industries as these sectors are the main employers to absorb Indonesian workforce in the sector of industries. Some benchmarking will be made to revitalize Indonesian SMEs.

6.1. Introduction

SMEs and other categorized small companies in Indonesia are facing big challenging and commonly found themselves in stagnant condition. The government efforts to developing SMEs are look like fail. Failing program to development SMEs is caused by there is not really commitment of government to implement the basic law of SMEs and Cooperation and the operational programs is more similar in all region in Indonesia. Its Consequently the strategic and operational program that had been designed by government can not be running well.

This topic has some objectives to provide the basic information regarding SMEs and to create the production of coffee and corn by SMEs in Bukit Barisan Zone by taking some lesson and learned from SMEs in Japan and some experience of other SMEs in Indonesia. In order to realise this objective, i.e the added value products of coffee and corns by the creation of SMEs, it is necessary to use the CI approach.

Information is collected by using internet. The information is collected and will be analysis by descriptive method and benchmarking method.

6.2. Definition of SMEs

It is better if we begin to describe the definition of SMEs. Knowing some definition will be easier to understand and to help SMEs. Not all the definition can be revealed in this moment, but at least there are some that come from developed countries and others from under and developing countries.

SMEs have many major groups and sub groups of businesses. There are nearly 1100 sub groups of businesses in major groups of:- Agriculture, Forestry, Fishing, Hunting, Mining, Construction, Manufacturing, Wholesale Trade, Retail Trade, Transportation, Information, Finance & Insurance, Real Estate, Rental, Leasing, Professional, Scientific & Technical Services, Management of Companies & Enterprises, Administrative Support, Waste Management & Remediation Services, Educational services, Health Care & Social services, Arts, Entertainment & Recreation, Accommodation, Food Services and Other Services. For detail, see www.sba.gov/size.

Small and medium sized enterprises are defined by the European Commission as independent enterprises that have fewer than 250 employees and an annual turnover not exceeding E40/£25 million or a balance-sheet total not exceeding E27/£17 million (extract from the 96/280/EC, Commission Recommendation of April 3, 1996)⁶³.

In the USA, Small Business⁶⁴ could be defined either by max number of employees, which varies from 100 to 1500, or maximum turnover per year, this varies from \$0.75 to \$30 million, or the amount of financial assets, this goes up to \$ 150 million, depending upon the type of business.

In Japan⁶⁵, definition of SMEs is based on two criteria: capital size (total asset) and number of employee of industry. SMEs could be defined as the industry that has number of employees, which varies from 50 to 300, or the industry has capital, which

⁶³ www.smallbusinesseurope.org for Europe, www.esba-europe.org, etc

⁶⁴ <http://www.sba.gov>

⁶⁵ <http://www.sme.ne.jp>

varies from 10 to 100 million yen, depending upon the type of industry (Small and Medium Enterprise Agency, 2006)⁶⁶

In Germany⁶⁷, SME's normally means organizations with an annual turnover of up to DM 100 million and/or with a maximum number of 500 employees.

The Australian Bureau of Statistics⁶⁸ defines small businesses in the following way: In this publication small business refers to management units with less than 20 employees in all industries except manufacturing where they have less than 100 employees, and agriculture where they have an estimated value of agricultural operations of between \$22 500 and \$400 000⁶⁹.

Definition of SMEs in Turkey is different from each to other. It is depend on the organization that has declared⁷⁰. Small Enterprise is enterprise that employs a maximum of 100 workers and maximum total asset is US \$ 25,000 and Medium Enterprise is enterprise that employs a maximum of 250 workers with a total asset of maximum US\$ 125.000 (UE-CE, 2006)⁷¹.

In Pakistan, the definition of SMEs is mainly based on the number of employees employed with the company and the value of the credits being used for the production used with the company. So that SMEs are enterprises have employers that have fewer than 40 employees and an annual turnover not exceeding Rs 40 million⁷².

⁶⁶ http://www.chusho.meti.go.jp/sme_english/outline/02/01.html

⁶⁷ <http://www.ifm-bonn.org>

⁶⁸ http://www.yeronga.tafe.qld.gov.au/tools/glossary/glossary_s.shtml#small_business, 02-02-06.

⁶⁹ ABS cat.no.1321.0, Small business in Australia, 1997, p.211

⁷⁰ [Undersecretariat of Foreigntrade](#)⁷⁰ defines SME's as (that qualify for the state aids): Businesses that employ a maximum of 200 workers, the net value of machinery and equipment, plants, vehicles, tools and appliances, furniture and fixed inventory excluding the land and buildings recorded in their legal books and documents is at most 2,000,000 USD

⁷¹ <http://www.unece.org/indust/sme/tr-study.htm>.

⁷² <http://www.smeda.org.pk>

According to UU 5/1995⁷³, criterions of small enterprise are: (a) have net equity maximum Rp 200,000,000. excluding land and building; or (b) have annual revenue maximum Rp 1,000,000,000; (c) owned by Indonesian citizen; (d) it is independent, it is not branch enterprise that owned or controlled whether direct or indirect by medium or large enterprise; (e) it is has forming business personal that have legal law or not including cooperation. The nominal in point A and B will be changed according to development of economy and it will be arranged by government regulation.

Furthermore, Medium enterprise is the enterprise that has net equity excluding the land and buildings recorded in their legal books documents is between Rp 200 millions and Rp 10 milliards or it has income is between Rp 1 milliard and 50 milliards

Furthermore the ministry SMEs and Cooperation Indonesia⁷⁴, stated that Small enterprise is the enterprise has income value per year excluding the land and buildings recorded in their legal books and documents is between rupiahs 10 – 20 milliards (UU No. 9/1995, tentang Usaha Kecil).

According to BPS (2006)⁷⁵, there are two term are used to define Small Enterprise. First, the Small scale enterprise (industry) is the enterprise that has 1-4 employees. Second, the micro scale enterprise is the enterprise that has 5-19 employees.

The Definition of SME's differs somewhat within the countries subject to their economic structure and policies. SME's, in most parts of the world, means organizations have employee with up to 100 or 300 employees. While the capital of SMEs is very diversity among the countries with up to 150 millions US.

Lesson from the definition of SMEs above, we can learn that definition of SMEs whether Small Enterprise or Meddle, must be also different among the regions. It depends on

⁷³ Undang Undang Republik Indonesia Nomor 9 Tahun 1995 tentang Usaha Kecil, tanggal 26 Desember 1995.

⁷⁴ <http://www.dekop.go.id>

⁷⁵ http://www.bps.go.id/sector/comser/#concepts_1

economic progression and local policies. So that definition SMEs in one region ought to be different with other regions in Indonesia.

6.3. SMES in Indonesia

Based on the laws that have been produced by government, development of SMEs in Indonesia can be divided in four periods, i.e. (i) period 1945-1959, (ii) period 1959-1966, and period 1967-1992, (iv) period 1992- now.

Period 1945-1959: Since Indonesian independent day, August, 17 1945, The government has given attention to develop SMEs. That program was pushing the local SMEs to become Large Enterprises. But that program was not be success because only one of them to become a big enterprise (Pardede Text).

Period 1960-1966: The government made the land reform program to force the SMEs with to appoint UU No 60, 1961 about UUPA (fundamental laws of agrarian). This laws could not be implemented because of most people refuse it.

Period 1967 – 1991: The government made a new paradigms and new vision to help the SMEs. They believed that by strengthening farmers (as small enterprises), the economic or the well fare of people will be increased. Regarding of that the government introduced the law number 5, 1967 about the principle of cooperation. But in reality it was not given the good result for developing the SMEs.

Period 1992- now: The government made a new policy to develop SMEs by improvement the laws. It is needed to improve the law for cooperation and it is also needed to create the law for SMEs. Because of that the government of Indonesia after approved by legislative introduced the law number 25, 1992 about the cooperation on Indonesia and the law number 5, 1997 about small and medium enterprises (SMEs). Beside those basic laws, there are also many regulation that were produced by government to support SMEs . Addition, in this period the SMEs has been received more interest by government.

The law Number 25, 1992 about the cooperation in Indonesia stated that the government have duties: (1) to create and to develop the good condition and climate to support the growing and socializing of cooperation, (2) to give supervision, facilities and protection to cooperation⁷⁶.

In relation to building and supporting for cooperation, the governments have duties as follows:

- (a) to guide the business of cooperation is must be suitable with economic interest of its members;
- (b) to force, to develop and to help applying education, training, extension, and research of cooperation;
- (c) to give facility for to strengthen capital of cooperation and to develop the financial institution of cooperation;
- (d) to help the development of net-business of cooperation and collaboration that is benefit to each other extra cooperation;
- (e) to give consultative aid to solve the problem that is faced by cooperation with still describe the law and principles of cooperation (article 62).

In order to give protection to cooperation, government can:

- (a) to define the sector of economic activity that only may be done by cooperation.
- (b) to define the sector of economic activity in a region that has been worked by cooperation is not worked by other enterprise.

The requirement and the protocol of implementation according to verse 1 will be regulated furthermore through government regulation (article 63).

Building cooperation is done by giving attention according to situation and political will of national economy, and equality of work opportunity and business opportunity (article 64).

⁷⁶ UU Nomor 25 tahun 1992 tentang perkoperasian pasal 60

In relation to develop SMEs, actually government and large enterprise and also expert society have responsibility to developing SMEs. According to UU No 1995, article 14 stated that government, enterprise and society must support the building and the developing of small enterprise in sectors: (a) production and management, (b) marketing, (c) human resources, and (d) technology (pasal 14 UU No 5/1995).

Although there are laws and regulations that arranged those SMEs but until now there are not significantly progresses of SMEs. The laws and regulation are not obeyed by the people who have responsibility for that. Most of them are more prefer to develop only for their selves.

In the period of 1999 to 2003, it can be showed that the number of small, medium and large enterprises increased for year to year. For example the small enterprise increased from 37.8 million units in 1999 to be 42.3 million units in 2003. The medium enterprise increased from 52,214 units in 1999 to be 61,986 units in 2003. The large enterprise increased from 1,885 unit in 1999 to be 2,283 units in 2003 (Figure 4.3.1). The average of growth rate of the SMEs and LEs are less than 0.05 percent. It means that the enterprises of Indonesia relatively are not increase significantly. It because of the Indonesian economic is not yet really recovery after economical depression in 1997-1998.

Figure 6.1. The Development of Enterprises in Indonesia 1999–2003

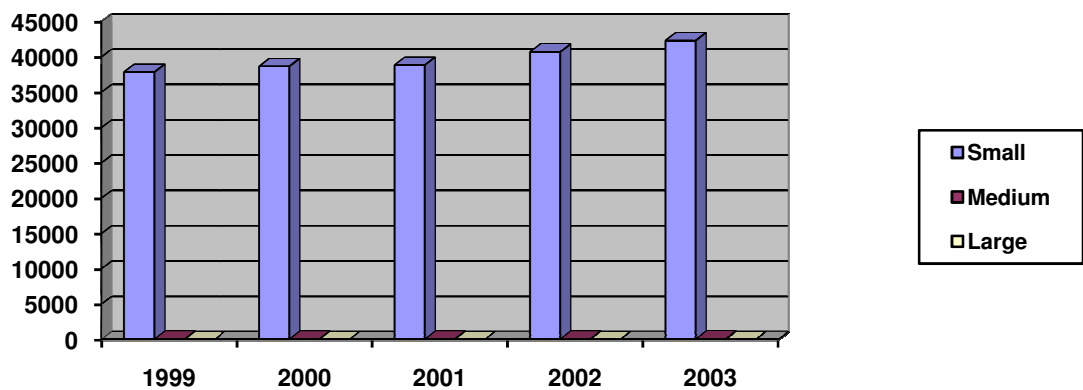


Table 6.1. The Number of Enterprises in Indonesia, period 1999-2003

Year	Enterprise Scale				Total
	Small	Medium	S to M	Large	
1999	37859509	52214	37911723	1885	37913608
2000	38669355	54632	38723987	1973	38725960
2001	38853741	51227	38904968	1806	38906774
2002	40705676	58992	40764668	2074	40766742
2003	42326519	61986	42388505	2243	42390749

Source: Statistic of Small and Medium Enterprises, 2004

Figure 6.2. The Number of Workforce Engage in Small Enterprises, 1999-2003

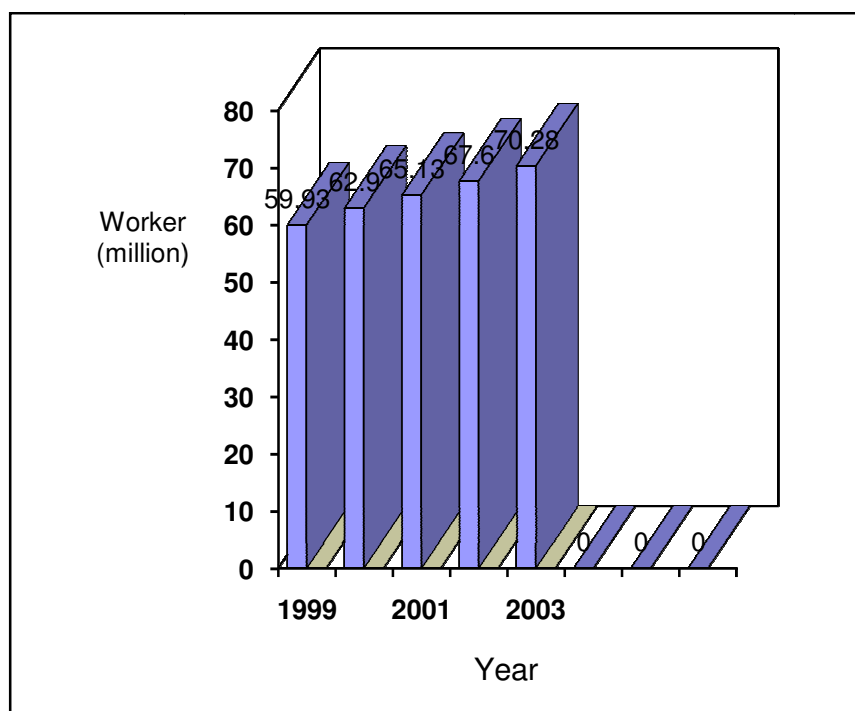


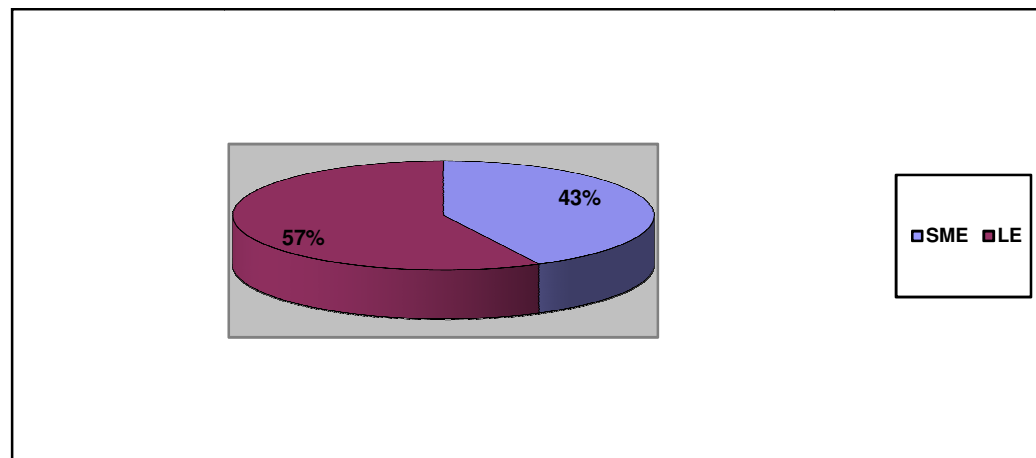
Table 6.2. Total Employment Engage in Enterprises, 1999-2003

Year	Enterprise scale (Person)				Total
	Small	Medium	SM	Large	
1999	59939760	7230084	67169844	366478	67536322
2000	62856765	7550674	70407439	382438	70789877
2001	65134223	7529856	73664079	382218	73046297
2002	67603174	8040576	75643750	407897	76051647
2003	70282178	8754615	79036793	438198	79474991

Source: *Statistic of Small and Medium Enterprises, 2004*⁷⁷

Based on that table above can be showed that in 2003, the number of people working in small enterprise is 70.3 million people or a number 88.4 percent from employment total. 79.0 million (99.5 percent) people work in SMEs sector. It is means that SMEs sector is very important for economy in Indonesia. Because of that supporting the government Indonesia to build the SMEs are need.

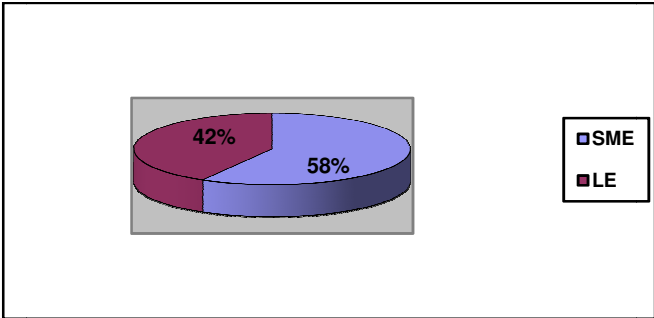
Figure 6.3. Total Investment of SMEs and Large Enterprises in 2003 Based on Exchange Rate in 1993



According to BPS (2003), the value total of investment in SMEs are Rp 41,136,640 million or 42.54% and large enterprises are Rp 55,730,577 million or 47.46% although the number of SME is about 95 percent of total enterprises in Indonesia. It shows that average capital of the SMEs is smallest.

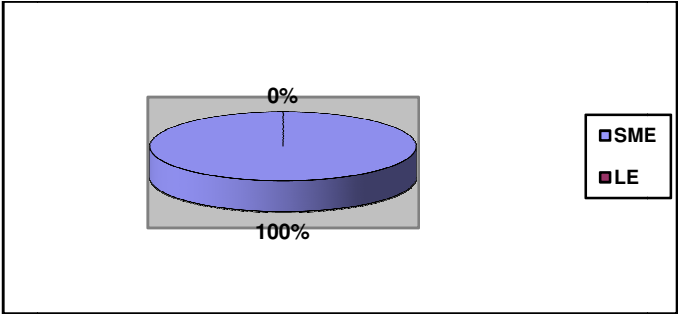
⁷⁷Available at <http://www.depkop.go.id>

Figure 6.4. Value of Gross Domestic Product of SMEs and LEs, 2003



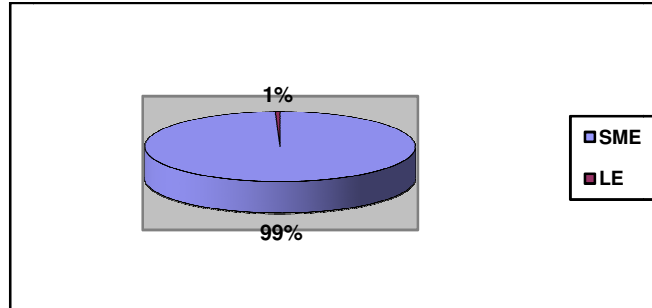
According to BPS (2003), the value of gross domestic product of SMEs are IDR 259,101,248 million or 58.30% and large enterprises are IDR 185,352,226 million or 41.70%. It shows that SMEs has the biggest role on gross domestic product.

Figure 6.5. Total unit SMEs and Large Enterprise in Indonesia, 2003



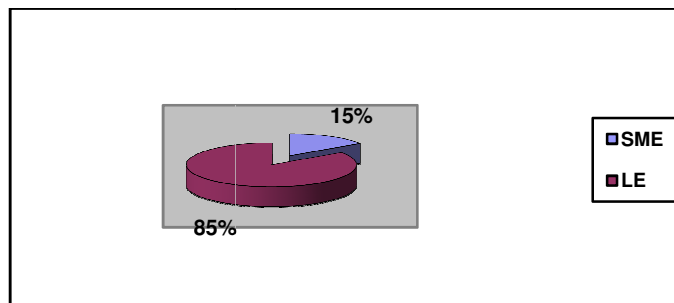
According to BPS (2003), the unit number of SMEs are 42,388,005 units or 99,995% while the large enterprises are only 2,243 unit or 0.005% (picture 3). It shows that there are not any significantly efforts from the government to help SMEs, so all of SMEs is still small enterprise (SMEs) or in other word all of SMEs is stagnant.

Figure 6.6 The Portion of employment in SMEs and Large Enterprises, 2003



According to BPS (2003), the number of people who works in SMEs are 7564350 persons or 99,45% while people works in large enterprises is only 382218 persons or 0,55% (picture 3). It is because of the most of SMEs working in sector agriculture with small scale enterprise (farmer scale) while in other sector such as industry and service are limited mostly only for people have more capital and skill.

Figure 6.7. Total export of SMEs and Les without oil and gas, in 2003



According to BPS (2003), the value total of export of SMEs is Rp 55,394,449 million or 15.43% and large enterprise is Rp 75,859,312 million or 84.57%. Based on that reality, it can be concluded that SMEs in Indonesia does not have capability to product and to export goods. It is because of the leak of capital, skill, and management.

6.3.1. The Problem of SMEs in Indonesia

Regarding the accessibility of SMEs on finance and others facilities are prepared by government, can be showed as follows⁷⁸:

1. Lack of capital. Most of SMEs have limited capital and have not access to the capital that is prepared by government to help them. The financial supporting of government for SMEs is very limited while the number of SMES is 43.22 million SMEs. In addition, the credit of bank, especially SMEs scale credit is used more for consumptive activities than productive activities.
2. SMEs have contributed in PDB Rp. 1135.8 trillion in for 2003 year, while the financial that is prepared for SMEs only about 1.2 trillions. It shows that the availability of budget to support the SMEs is not yet enough.
3. There are many people to be hunters for government facilities to support SMEs. It's consequently, the financial supporting only are received by the certain SMEs that have affiliation with hunters. However the project hunter had become the obstacle of development SMEs.
4. Other problem is there are leaders of SMEs who are abuse the SMEs only for themselves.

To solve that problem the ministry of SMEs and Cooperation releasing a tight criteria for the SMEs that will receive the government facility. All the cooperation or SMEs which propose for that facility must be have a recommendation from local government, i.e. department cooperation and SMEs in each province or district.

Actually all the BUMN has responsibility to building the small enterprise by giving 10 percents from total net income for small enterprises. But in realization not all those BUMN release it for SMEs (including cooperation). In North Sulawesi is only 66 percent from budged that is given by BUMN⁷⁹. The problem is the government can not control them in relation to distribute their financial aid. Beside that, the small enterprise that is

⁷⁸ <http://www.depkop.go.id>, Wednesday, 26 October 2005

⁷⁹ Komisi B minta Gubernur Tegur BUMN yang nakal <http://hariankomentar.com> , mars 17, 2006

chosen as receiving aid sometime it is not based on the performance of small enterprise but depend on emotion relation or bargaining between the leaders of small enterprise and people who has responsible in procurement. The BUMN is not really helping the small enterprise. It is apparent to planning of the BUMN which is not yet exists. Consequently almost all aid of BUMN is to be worthless.

According to Choirul Djahhari (2006)⁸⁰, until now each department and institution has been distributing their aids to SMEs by themselves. Consequently there are SMES that receive more financial aids from certain department while the others SMEs are not yet receive any financial aids.

The efforts of government product two laws and some regulation regarding SMEs not yet give result significantly. It is caused by there is not the law enforcement and there is not vision and mission of people who have responsibility for it. Beside that there is not sanction for people who made a fault.

In the future, the government of Indonesia (department SMEs and Cooperation) will prepare the concept of establishing special financial institution to handle the finance for development cooperation and small and medium enterprise at all level and department. This institution will take a role to distribute the financial aids for SMEs equally through one stop service management.

The other problem is group formation of SMEs. There are many SMEs are formed because of ordering of government of other institution. Consequently, there are many of SMEs are only exist in when these groups will receive financial aids and after that they become stagnant or collapsed.

The other problem is processing the formation of farmer group. There is not a clear requirement for some one to become members. Usually the members of group come

⁸⁰ Kemenkop siapkan lembaga kelola dana Monday, February 13, 2006

from closed relative, friends or neighbour of certain people who have mandate to form the farmer group. Beside that formation of that farmer group is really instant. The reason to form the farmer group is not for create business but it is caused by there is a projects in that area.

Base on above description we can find many problem in relation with the development of SMEs in Indonesia. That findings can be summarized as follow as:

1. There are not the strategic plans to establish and to strengthen the small and medium enterprise. Although there are the laws that regulated but there are not the commitment of government to implement those regulations. Its consequences, i.e.
 - a. establishment of the small enterprise is not based on a strategic plan, but only based on demanding of government,
 - b. There are many small enterprises but it is only fews of them to be medium or large enterprises
 - c. Lack of government budget to support SMEs.
2. There are not law enforcement for law on SMES and other regulation regarding to developing SMEs. The laws are not yet respected by government and people.
3. There are not integrated plan among the sector of development, and level of government. Each department make plan only for their sector.
4. Regarding the formation of business group, most of group business is formed based on needs of government, not based on needs and conditions of the farmers of members.
5. Lack of trust on the cooperation. Those SMEs are used by committee to enrich themselves.
6. There is not a unit intelligence that has responsibility to support the SMEs knowledge in relation to developing the SMEs.

Based on some problem above will be formulated the programs that can solve those problems i.e. developing coffee and corn SMEs in Bukit Barisan zone within the frame of CI.

6.4. Benchmarking Japan and Indonesia SMEs

In all countries of the world, companies start as proprietorships, become small business units and then grow to medium size units or SMEs, all in the same category. 99.7% of all enterprises in the world are SMEs and balance 0.30%, are Large.

In Japan, there is the outline of Small and Medium Enterprise Basic Law. It is consist of : (i) the previous small and medium enterprise basic law, and (ii) the new small and medium enterprise basic law. Each basic law contain policy concept, policy system, strengthening of management base, providing necessary safety net, finance and taxation, and consideration of enterprise scale. It is the guidance for developing SMEs in Japan. The brief explication can be looked on the table below;

Table 6.3. Outline of the Small and Medium Enterprise Basic Law in Japan

No	The <u>New</u> Small and Medium Enterprise Basic Law
I	Policy Concept
	Developing and growing a wide range of independent SMEs for greater economic vitality
	Expectation of SMEs: <ul style="list-style-type: none"> - Creation of New Business - Promotion of Market Competition - Increase of Attractive Job Opportunities - Vitalization of Regional Economy
II	Policy System
1	Supporting Self-help Efforts for Business Innovation and Start-ups (Support for Ambitious Enterprises)
	<ul style="list-style-type: none"> -Promoting Business Innovation (Support for Technology, Equipment, Intangible Management Resources, etc.) -Promoting Start-ups (Information Services, Training, Programs, Facilitating Fund Supply, etc.) -Promotion of Venture (R&D, Supportive Human Resources, Fund Raising through Stocks, Bonds, etc.)
2	Strengthening of Management Base (Enhancement of Management Resources)
	<ul style="list-style-type: none"> - Ensuring Managerial Resources Equipment

	Technology (SBIR, Collaboration among Ind., Univ. and Gov., etc.) Human Resources, Information Establishing Core Support Centre, etc. - Facilitating Collaboration and Joint Operation - Vitalization of Industrial and Commercial Agglomeration - Labour Related Policies - Rationalization of Transaction - Ensuring Opportunities for Procurement of Receiving Orders from Government etc
3	Facilitating Apt Responses by Enterprise for Abrupt Environmental Change (Providing Necessary Safety Net)
	- Stabilizing Business Management and Facilitating Change of Business, etc. - Provision of Mutual Relief System, and Legal System of Bankruptcy
4	Finance and Taxation (Common Measures)
	- Facilitating Fund Supply - Enhancement of its Capital in Enterprise, and Optimizing Tax Burden - Establishing Various Ways to Supply Fund including Direct Financing

Source: Small and Medium Enterprise Agency, 2006⁸¹

From the table above basic law for SMEs in Japan has been changed. It because of there is new regulation in international and regional trade. Beside that they understand that competitive advantages are not only influence by technology, capital, skill and management but also information. The most important of them is information. Information is to be a central of success of enterprises. Those tendencies can be seen as follows:

1. The policy rectify the gap between LE and SMEs in terms with productivity in previous has been changed by developing and growing a wide range of SMEs independent for greater economic vitality.
2. The policy upgrade the SMES in term to improved productivity in previous has been changed by the supporting self-help efforts for business innovation and start-ups (support for ambitious enterprises).

⁸¹ http://www.chusho.meti.go.jp/sme_english/outline/02/01.html

3. The policy improve the trade condition in previous has been changed by strengthening of base management. They understand that improving trading condition is not really to help SMEs, it is only temporary. The important thing is to strengthen the base management in order to enhance the resources management.
4. The capital of SMEs is raised to become 3 to 5 times from the SMEs capital previous. It is purposed to raise the competitiveness of SMEs. However the capital is important for enterprises in order to improve the technology, skill, and to create innovation. Beside that is important to raise efficiency.
5. The new one policy is providing the necessary safety net. It program facilitate the apt responses by enterprise for abrupt environmental change. It is approved because they understand that possibility of enterprises is bankrupt is bigger than before.

Beside the basic law, there are regulations as formulation of basic law to realise the strategic plans. There are as an institution and as a guidance that is possible to promote SMEs.

6.4.1. Securing of Management Resources

In order to contribute to the securing of business resources needed to reinforce the business infrastructure of SMEs, such as improvement of business methods and development of technologies, the State shall take appropriate measures.

- a. SME / Venture Business Support Centers.
- b. Prefectural SME Support Centers.
- c. Regional SME Support Centers.
- d. Registered Smaller Enterprise Consultant.
- e. Training program for human resource development provided by the

Organization for Small and Medium Enterprises and Regional Innovation, JAPAN (SMRJ), etc.

- a. Response of SMEs to the IT revolution
- b. Holding of IT seminars, training, and forums / Advice and consultation concerning IT.

SMRJ and the Prefectural SME Supporting Centers dispatch experts on IT introduction such as IT coordinators and SME management consultants to SMEs that are promoting IT-based systematization.

- a. Support for IT system introduction.
- b. Improvement of common basic software, etc. The State shall support the development and introduction of network systems in which SMEs that are engaged in retail, wholesale and manufacturing businesses collaborate.
- c. Provision of information for IT promotion. In order to promote IT-based systematization in SMEs, the State shall provide information of measures on SME policy through the "e-SME Agency and Network," etc.
- d. Facilitation of the expansion of overseas business and support for international exchange.
- e. Education and dissemination of knowledge on energy and environmental issues. SMRJ, in collaboration with the Prefectural SME Support Centres, holds seminars for SMEs to promote knowledge and education concerning energy conservation.

6.4.2. Promotion of Exchange, Tie-Ups and Cooperatives

- a. Undertaking New Tie-Ups. In order to build new markets, and enhance products/services by developing a mutually complementary relationship.
- b. Promotion of establishment of tie-up relationships among SMEs, establishment and managerial assistance of cooperatives ("Law on the Cooperative Association of Small and Medium Enterprise", "Law Concerning the Organization of Small and Medium Enterprise Organizations", and "Shopping District Promotion Association Law")
- c. Association system under "the Law on the Cooperative Association of Small and Medium Enterprise".
- d. Association system under "the Law Concerning the Organization of Small and Medium Enterprise Organizations".
- e. Association system under "the Shopping District Promotion Association Law".
- f. Loans for upgrading projects (Japan Small and Medium Enterprise Corporation).

6.5. Revitalization of Small and Medium Commerce

- a. Measures for vitalization of shopping districts.
- b. Measures for improving physical distribution efficiency under “the Law concerning the Promotion of Efficient Distribution Systems in Small and Medium Enterprises”.
- c. Measures for vitalization / enhancement of SME wholesale trade.

Measures for Labour

- a. Improvement of employment management for SMEs, etc. In order to ensure a workforce for SMEs and create good employment opportunities through their entry into new business fields, the State supports SMEs that endeavours to improve the work environment and employment management including employee benefits and welfare, which are considered to lag behind that of large enterprises, through low-interest loans and subsidies for project costs.
- b. Measures for SME pensions. In order to facilitate the transfer to a new pension system after establishing a new law related to pensions for companies, the State provides pamphlets to giving important information, and researches the conditions of SME pensions through questionnaires.

Improving Fairness of Transactions

In order to protect the profits of subcontracted companies and ensure fair trade between parent companies and subcontracted companies, the law regulates unfair trade such as delay in payment of subcontracting charges by parent companies.

Promotion of Subcontracting SMEs

The State drafts general guidelines for promoting subcontracting SMEs that are useful for both subcontracting SMEs and parent companies. The National Association for Subcontracting Enterprises Promotion fixes up subcontracted trade and handles complaints and disputes.

Expansion of the Opportunities to Receive Orders from the State, etc.

In order to expand opportunities to receive orders from the government and other public agencies, the State annually determines “The direction of contracts of the government and other public agencies with SMEs” through the Cabinet, and based on this, implements various measures such as providing information concerning orders from the government and other public agencies.

Activation of industrial Agglomeration

- a. Measures for activation of SME agglomeration through “the Law on Temporary Measures concerning the Activation of Specific Small and Medium Enterprises”.
- b. Measures for promotion of local industries. In order to promote local industries, the State shall subsidize the projects of SMEs and associations that belong to local industries such as development of new products, expansion of markets, and human resource development.

Activation of Commercial Agglomeration

Measures the vitalization of city centres under the Law on Improvement and Vitalization of City Centres. The State shall support Town Management Organizations (TMO), organizations to promote activation of small and medium retail commerce approved by each municipal government under the basic plan drafted by the government, from the aspects of both hardware and software, by subsidizing project costs for improving fundamental commercial facilities and measures for vacant stores, and dispatching and fostering town managers.

Beside that, In Japan, there is an institution that has service to the SMEs. It is called Procurement Centre Representative (PCR). PCR has been established the SMEs directory that always updated. By this directory, people will easier to find any supporting in relation to help their enterprise in one hand and government has guidance to make the subcontracting among small and large enterprise in other hand.

Procurement Centre Representative increase the small business share of Federal procurement awards by initiating small business set-asides, reserving procurements for competition among small business firms; providing small business sources to Federal buying activities; and counselling small firms. In addition, PCR's advocate for the breakout of items for full and open competition to affect savings to the Federal Government.

Commercial Marketing Representative (CMR) - CMRs are in area offices, conduct compliance reviews of prime contractors, counsel small businesses on how to obtain subcontracts, conduct matchmaking activities to facilitate subcontracting to small business, and provide orientation and training on the Subcontracting Assistance Program for both large and small businesses.

Conclusion and Recommendation

The development of small and Medium Enterprises in Indonesia faces some challenges this is due to lack of transparency and government services. Based on the fact that the employment sectors in industries is mostly absorbed by the Small and Medium Enterprises, therefore the revitalisation of the SMEs is very vital to the development of Industry in Indonesia.

CHAPTER VII

THE STUDY OF THE DEVELOPMENT OF COFFEE AND CORN AS ENTERPRISED COMMODITIES IN BUKIT BARISAN HIGH LAND

The chapter is concentrated on the feasibility studies of some projects in order to develop the Small and Medium Enterprises (SMEs) in the region of Bukit Barisan High Land. The commodities developed in the study will be focused only on Coffee and Corn as the two commodities are perceived as having the most important role in the economy of the regions.

7.1. The Study of Coffee

Introduction

The Coffee plantation has an important value to Indonesian Economic, because Indonesia is one of the biggest producers of coffee in the world and also one of the biggest consumer in the world. Indonesia is producer coffee number four in the world after Brazilia, Coulombia and Vietnam.

General View of the Coffee Commodity

Coffee is grouped into Rubiaceae family with 100 species, however, only two of the species are traded in general, Arabica and Robusta types. These two types of coffees have a great variation from one another, Robusta type has a lower quality compared to Arabica one. The differences between the two type of coffe is further explained as following;

	Arabica	Robusta
Date species described	1753	1895
Chromosomes (2n)	44	22
Time from flower to ripe cherry	9 months	10-11 months
Ripe cherries	fall	stay
Yield (kg beans/ha)	1500-3000	2300-4000

Root system	deep	shallow
Optimum temperature (yearly average)	15-24° C	24-30° C
Optimal rainfall	1500-2000 mm	2000-3000 mm
Growth optimum	1000-2000 m	0-700 m
Hemileia vastatrix	susceptible	resistant
Koleroga	susceptible	tolerant
Nematodes	susceptible	resistant
Tracheomycosis	resistant	susceptible
Coffee berry disease s	usceptible	resistant
Caffeine content of beans	0.8-1.4%	1.7-4.0%
Shape of bean	flat	oval
Typical brew characteristics	Acidity	bitterness, full
Body	average 1.2%	average 2.0%

Source: www.ico.org, accessed on 23 November, 2006

7.2. Planting Area and Cultivation

Bed seeds preparation is the important step for the cultivation, three necessary criterias to be considered in choosing coffee seeds:

- Productivity
- Quality (the aroma and taste are very influential especially of the Arabica type)
- Resistance against pests or diseases

Arabica Coffee

The cultivation process follows the generative way (seed spreading) while the vegetative method is only used for research purposes. This sort of coffee planting should be taken into account in some following points:

- Planting area with heights of 700–1700 m above sea level
- Temperature of 16^o-20^o C
- Dry climate (3 consecutive months in a year)
- Sensitive against HV disease especially if planted in areas with heights less than

500m above sea level.

Robusta Coffee

The cultivation is performed in a vegetative way through grafting, budding and cutting. In order to achieve the best result, prior to planting, seeds which has the original from other sources should be firstly let to adapt itself to the new environment. Points to consider in this step of coffee planting are:

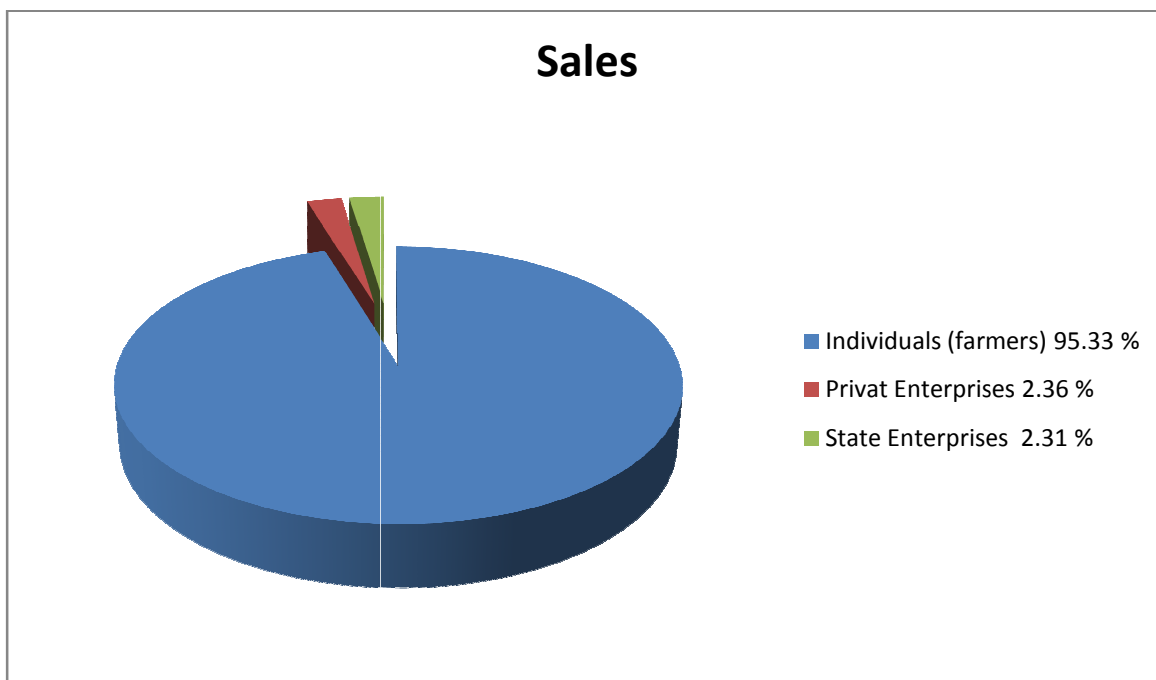
- Planting area with heights of 400–700 m above sea level
- Temperature of 21^o–24^o C (with 3–4 consecutive months of dry climate and 3–4 times rainfalls)

7.3. The Development of Indonesian Coffee Commodity

In general, the commodity of Indonesian coffee has shown improvements in terms of the production step as well as planting area. Total Area plantation of Indonesia in 2007 is 1,252,490 Ha, manage by individuals with a total area of 95.33 include 2,2 million Farmers Family (Dirjen Bina Produksi Perkebunan) followed by private Interprises 29,595 Ha (2.36 %) and the State Enterprices 29,050 Ha (2.31 %)⁸²

⁸² Coffee International Organisation 2007

Figure 7.1. The Coffee Production in Indonesia, Based on Sectors



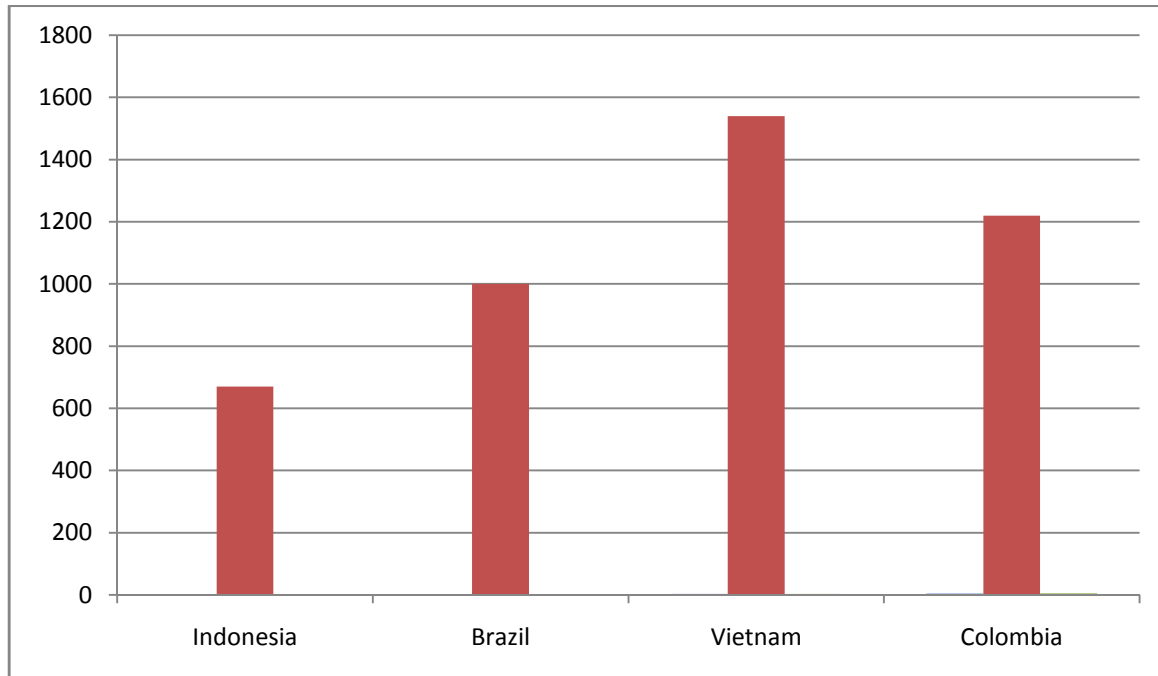
7.3.1. Production and Productivity

The world coffee production in 2007 is around 102,833,300 million ton, where as Indonesian coffe production is 617,000 ton or around 6 % of the world production. Based on the coffee cultivation areas, Indonesia is ranked the second giggest coffee plantation, nevertheless based on the total production, the country is far behind Vietnam which reach a total production of 900,000. Needless to say that, Indonesia has the lowest productivity rate amongs the fourth biggest coffee producer in the world.

The productivity level of Vietnam is 1540 kg/ha, Colombia 1220 kg/ha, Brazil 1000 kg/ha, and Indonesia only reach almost half of the productivity level of Vietnam with 670 kg/ha⁸³.

⁸³ AEKI, 2007

Figure 7.2 The productivity of Coffee by Country



The low productivity in Indonesia is influenced by some factors such as;

- Coffee plantation is dominated by individuals at 95.33 % of total plantation in Indonesia.
- Lack of management practices, such as incorrect planting distance, absent of seed bed preparation, and lack of integrated pest management
- Lack of fund and access to credit
- Lack of standard through out value chain
- Lack of community participation group
- Lack of capacity (facilities, skills, and knowledge)
- Lack of capacity and involvement of local government.
- The application of Heterogen Garden system

7.4. Coffee as One Indonesian Export Commodities

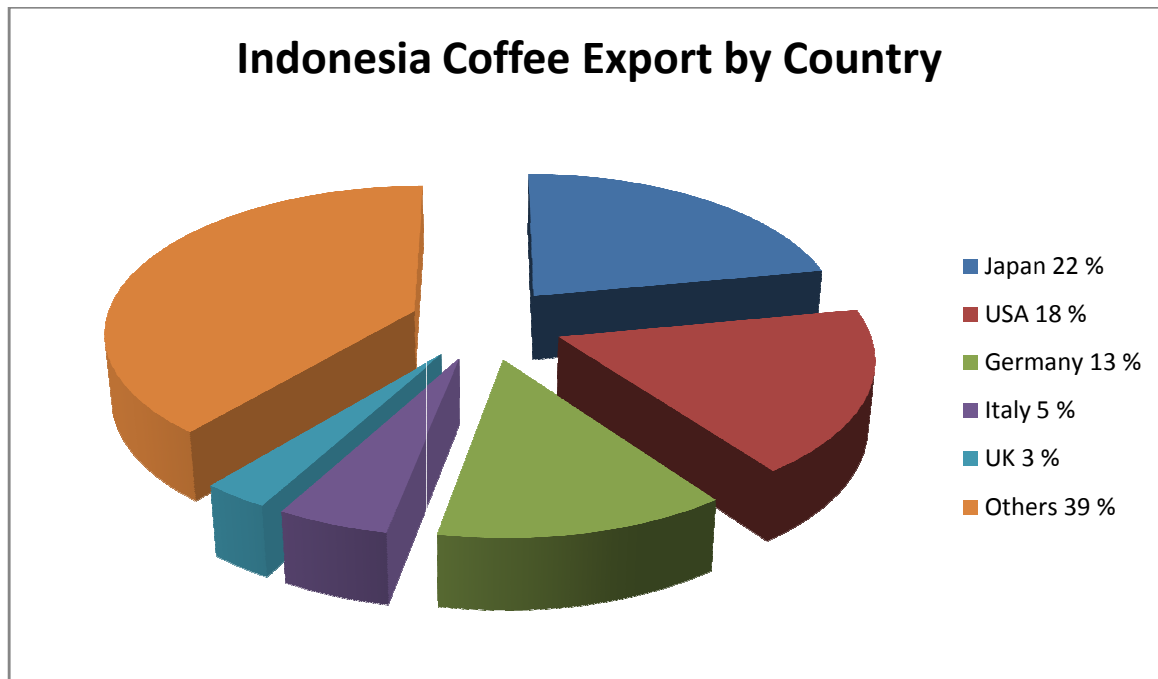
Tabel 7.1. The Development of the Production Volume and the Export Value of Indonesian Coffee

	Volume (.000 Ton)	Value in USD Million	Contribution to the Total Export on Agriculture Commodity (%)
1994	267.3	696.7	24.72
1995	226.2	595.6	20.62
1996	362.8	588.8	20.21
1997	307.9	503.3	16.07
1998	355.7	578.9	15.85
1999	350.5	458.7	15.81
2000	337.3	311.7	11.51
2001	248.8	182.5	7.48
2005	344.1	445.8	14.90
2006	445.8	503.3	16.07

Sources: BPS 2002; IOC,2007 Analizing Data

During The periode of 1999 – 2006, the commodity export of Indonesian coffee was distributed to; 22 % was exported to Japan, 18 % Was exported to USA, 13 % to Germany, 5 % to Italy and 3 % to UK, and the rest of 39 % was exported to other countries.

Figure 7.3. Export Destination of Indonesian Coffee



7.4. Coffee Plantation by Enterprises In Indonesia

Private Coffee Enterprises with > 100 Ha area

No	Enterprises	Location	Status	Area in Ha
1.	PT Kalosi Arabica Enrekang	South Sulawesi	PMDN	2,000
2.	PT Sulutco Jaya Abadi Bolokan	South Sulawesi	PMDN	1,200
3	PT Bina Produksi Melosia	South Sulawesi	PMDN	500
4	PT Marane Rejeki Jaya	South Sulawesi	PMDN	185
5	PT Kalosicomas Aratirindo	South Sulawesi	PMDN	1,750
6	PT Aroma kopi Toraja	South Sulawesi	PMDN	250
7	PT Jaya Agra Watie Jember	East Java	PMDN	950
8	PT Gambar Ambar,	East Java	PMDN	898
9	PT Kandangan Pulusari	East Java	PMDN	842
10	PT Fajar madu Ratna	Lampung	PMDN	750

11	PT Candi Sewu Baru	East Java	PMDN	619
12	PT Kali Tengah	East Java	PMDN	579
13	PT Mulyaningsih	East Java	PMDN	501
14	PT Banyu Aji Bima Sena	NTB	PMDN	500
12.	PT Candiloka	East Java	PMDN	499
13.	PT Bumi Sari Songgon	East Java	PMDN	490
14.	PT Tirta Harapan Banyu Kidul	East Java	PMDN	470
15.	PT Kali Putih	East Java	PMDN	433
16.	PT Setya Mukti Raya	Kalbar	PMDN	432
17.	PT Bumisari Rojojambi	East Java	PMDN	432
18.	PT Bande Alit Tempurejo	East Java	PMDN	416
19.	PT Lijen	East Java	PMDN	396
20.	PP Glen Nevis Kali baru	East Java	PMDN	370
21.	PT Dewi Sri Wlingi	East Java	PMDN	354
22.	PT Rejobrono Wlingi	East Java	PMDN	342
23.	PT Triwindu Wlingi	East Java	PMDN	340
24	PT Blitar Putra Gadungan	East Java	PMDN	321
25	PT Jambu Sari Raya Balaisari	East Java	PMDN	309
26	PT Agro Sari Merapi	West Sumatra	PMDN	284
27	PT Sukadame Baru	East Java	PMDN	280
28	PT Margosuko Dampit	East Java	PMDN	279
29	PT Glen Faloh Glen More	East Java	PMDN	266
30	PT Mangli Dian Perkasa	East Java	PMDN	265
31	PT Kali Bendo Glagah	East Java	PMDN	256
33	PT Krismo Handayani	East Java	PMDN	244
34	PT Harta Mulya Ngelegok	East Java	PMDN	237
35	PT Graha Kidul Jatirejo	East Java	PMDN	235
36	PT Pusaka Sumber Dharma	East Java	PMDN	233
37	PT Jember Indonesia	East Java	PMDN	206
38	PT Kalianda Concern	East Java	PMDN	205
39	Perkebunan Margo Mulyo	East Java	PMDN	201

40	PT Sringin Kendal	Central Java	PMDN	192
42	PT Sumber Sri Petang	East Java	PMDN	184
43	PT Rerolara Watang Itang	NTT	PMDN	182
44	PT Halba Trading Coy, Ltd	East Java	PMDN	173
45	PT Sumur Pitu Wringinsari	Central Java	PMDN	146
46	PT Glen More Glen More	East Java	PMDN	145
47	PT Kali Jeruk baru	East Java	PMDN	135
48	PT Jatileng Tunggal	East Java	PMDN	127
49	PT Banyu Lor Songgon	East Java	PMDN	120
50	PT Jati Asmara Jolondoro	East Java	PMDN	120
51	PT Harjasari Sukajaya	West Java	PMDN	117
52	PT Trisno Kenangan	NTB	PMDN	100
53	PT Candi Artha Pleihari	South Kalimantan	PMDN	100

Total Area 29,596 Ha

Mean while, the state-owned coffee plantations with counted for the total of 14 enterprises oparte a total area of 29,050 ha, the list of which can be seen in the following ;

No	Enterprises	Location	Area in Ha
1	PTPN XII	East Java	
2	PTPN XI	Central Java	2,637
3	PTPN IV	North Sumatra	23
4	PD Perkebungan Jember*	East Java	1,438
5	Perum Perhutani Malang	East Java	674
6	PT PUSKOPADAM VII Brawijaya*	East Java	334
7	PD Swatantra*	Bali	303
8	PD Kab Trenggalek/Dilem Wilis	East Java	266
9	PD Perkebunan Kediri*	East Java	240
10	PD Semarang*	Central Java	100
11	Perum Perhutani Blitar*	East Java	55

12	PD Perkebuna, Batang*	Central Java	22
13	PD Tingkat I Bali*	Bali	2
14	PD Aneka Usaha Blambangan*	East Java	na

Source: CIC, 1998

* Heteroculture plantation

7.5. Development of Coffee Farming in Bukit Barisan High Land

Objectives:

- To find the Best technologies to improve coffee quality and productivity
- To invite the investor to invest in Bukit Barisan High Land Area
- To fine the Alternatif commodity to increase the society income

Benefits

The result of this study will be delivered to farmers, government as decision maker, private enterprises will be designed to deliver opportunities to the strategic program.

7.5.1. SWOT Analisis

The SWOT Analisis is one of part in Competitive Intelligence, how to make decision , how to creativity the project. In this Part , SWOT analysis used to answer : why coffee as subject on these study. Will be presented about the Strength, Weakness, Opportunity and Threat the Development of coffee plantation in Bukit Barisan High Land, North Sumatera, Include about the Farmers , Land , Birocracies and the Price of coffee as International Commodity.

Strenghts

- Coffe plantation has been one of the agricultural cultures among tha farmers in Bukit Barisan areas, it has been cultivated since 19th century, hence the cosilaization of this commodity will be practically easy.

- The soil type and climate of the regions are ideal for the development of the coffee plantation.
- This commodity is an ideal alternative besides the cultivation of staple food and other horticultural products. Moreover, there are some available areas to be extended for the purpose of the development of coffee plantation.
- Bukit Barisan zone consists of 34 % forest, where 20 % of it is categorized as productive forest. Accordingly, the conversion of the forest into licensee plantations area is possible.
- Coffee has a short life cycle compared to other tree plantations, within 24 months it can be harvested hence the return of Investment will be achieved in a relatively short term.

Weaknesses

- There is a very limited coffee industry in the regions to transform coffee grain into value added products. Usually the market for this commodity is made on its raw products.
- The high fluctuation of the market price, notably in 2002 where the price of this commodity had been dragged to the lowest level, this condition has inherited some traumas amongs the farmers.
- The local consumption is considerably low within a total of 0.7 kg/person/year.
- Lack of capacity of the farmers in terms of skill and know – how, as in general in all the process of coffee production from the plantation through harvest and after harvesting has been done through traditional process.

Opportunities

- The booming of coffee production from Vietnam has reached its time-end. This might be due to the industry development in the country. Meaning that the supply in the market internationally has reduced, and contributing to opportunities for Indonesian coffee production. This tendency is forecasted to remain within 5 years to come.

- Recently, the department of industry in Indonesia has released a vision to increase the value added products of food and beverages in order to minimize the independency on the export of raw-products. Meaning that the domestic consumption will be increased.
- The political and security is increasingly condussive in Indonesia as a whole, especially in Bukit Barisan zones

Threats

- High interest in the banking sectors which reach to around 20%.
- There is lack of trust among the banking institusion regarding the prospect of agri business hence access to credit will be one of the big challenging.
- Forest degrading is considerably high in Indonesia accordingly the conversion of forest into plantation will face some challenging and problems from the communities and non-government organization.
- There is a thick layers of bureaucracy in the regions, as one of the typical trend in Indonesia as a whole
- Some land holdings belong to some ethnic groups locally known as Ulayat Land. There will be some problems and challenging to cultivate these areas.

7.5.2. Strategic Factors of Development

Tabel 7.2. Strategic Factors Analysis in Development Coffee Plantation in Bukit Barisan High Land Area

No.	Factor ¹	Bobot ^{1 (b)}	Performance (t)	Value (bt)
1,	Strengths			
	• Type of Land and Climate	5	0.9	4.5
	• Ages of Plant For Production	5	0.9	4.5
	• Access Land and Forest	3	0.7	2.1
2.	Weaknesses			
	• Prices Fluctuation	5	0.9	-4.5
	• Limeted of Coffee Industry	3	0.6	-1.8

	<ul style="list-style-type: none"> • Education Level 	2	0.6	-1.2
3.	Opportunities <ul style="list-style-type: none"> • The end of Peoduction Booming of Vietnam • Safety and Political Factor • Government Vision 	5	0.9	4.5
		3	0.6	1.8
		3	0.5	1.5
4.	Thereat <ul style="list-style-type: none"> • Bank Interest Rate • Bank Trust • Birocracies 	5	0.7	- 3.5
		5	0.7	- 3.5
		3	0.5	-1.5
	TOTAL			2.9

*Note

Excellent	= 0.9 – 1.0
Good	= 0.7 – 0.8
Fair	= 0.5 – 0.6
Lack	= 0.3 – 0.4
Fail	= 0.1 – 0.2

From the table above, total value of SWOT is 2.9, meaning that the visibility of the development of this product is clear and has a high prospect.

7.5.3. Some Scenarios for the Development

Production

The Production of Coffee in Bukit Barisan High land is varie between 400 to 1000 kg/ha/year. Meanwhile the potential production can reach up to 2000 kg/year. As mentioned above, the low productivity level in the regions is influenced by some factors such as absent of management practices, lack of good seed in the market, lack of access to credit lack of agro inputs, lack of facilities and capacities, etc. Moreover, in most of the region, it is found that the practices of hetero garden system is common; where in one area or plantation area can be found many kind of trees, this lack of management has led to a very low productivity level.

Based on the present condition, some programs and intervention will be designed to solve the problems faced by the farmer. The intervention needed will be as following;

1. Revitalization of the areas, training of management practices to the farmers. This including the training or import of knowledge and know – how regarding seed bed preparation, planting distance, and integrated pest management.
2. Provision of seedlings, fertilizer, other farm inputs and training
3. Providing access to funds and credit, Facilitate the capital such as a creation of credit union
4. Provision of public tools and material, such as tractors
5. The establishment of after harvest facilities such as storage facilities (Lumbung Desa), drying facilities /Investment in post harvest activity: fermented and unfermented coffee bean, drying, sortation, and storage/warehousing
6. Creating a good marketing channels, hence reducing the layers of intermediate parties to increase the profitability of the farmers
7. Establishment of Coffee processing factory to increase the value added

With the intensification programme, it is expected that the yield will be optimized from 600 kg/ha/year to 1500 kg/ha/year.

Tabel 7.3. Cost analysis of Coffee Intensification Programme in Bukit Barisan High Land

No	Kind of Activity	Unit	Cost/Unit (IDR)	Total (IDR)
	<i>First Year (I)</i>			
1.	Rent Land	1	500,000	500,000
2.	Labour			
	Tillage	2	500,000 ¹	1,000,000
	Holing	20 HOK	30,000	600,000
	Drainase	10 HOK	30,000	600,000
	Compost Fertilizer	12 HOK	30,000	360,000
	Plant	10 HOK	30,000	300,000
	Replant	3 HOK	30,000	90,000

	Fertilizer	12 HOK	30,000	360,000
	Pesticide	5 HOK	30,000	150,000
	Naungan	15 HOK	30,000	450,000
	Control OPT	10 HOK	30,000	300,000
	Transportation	10 HOK	30,000	300,000
	Total			5,260,000
3.	Material			
	Seeds	1500 unit	1,000	1,500,000
	Compost	3000 kg	300	900,000
	Fertilizer	300 kg	1,700	510,000
	Pesticide	2 kg	60,000	120,000
	Total			3,030,000
4.	Lain - lain			
	Peralatan dan Tak Terduga	10 %		829,000
	Rate Bank	18 %		1,641,420
	Total Cost First Year			10,760,000
	<i>2 nd Year (II)</i>			
5.	Rent Land	1	500,000	500,000
6.	Labour			
	Perbaikan Drainase	5	30,000	150,000
	Fertilizer	12 HOK	30,000	360,000
	Compost vertilizer	12 HOK	30,000	360,000
	Vertilizier	12 HOK	30,000	360,000
	Transportation	5 HOK	30,000	150,000
7.	Material			
	Compost	3000 kg	300	900,000
	Fertilizer	300 kg	1,700	510,000
	Pesticide	2 kg	60,000	120,000
8.	Lain-lain			
	Peralatan dan tak terduga	10 %		341,000
	Rate bank	18 %		675,000
	Total cost 2 nd year			4,326,000
	<i>3 nd year</i>			
9.	Rent Land	1	500,000	500,000

10.	Labour			
	Perbaikan Drainase	5	30,000	150,000
	Fertilizer	12 HOK	30,000	360,000
	Compost vertilizer	12 HOK	30,000	360,000
	Vertilizier	12 HOK	30,000	360,000
	Transportation	10 HOK	30,000	300,000
	Harvest	50 HOK	30,000	1,500,000
11.	Material			
	Compost	3000 kg	300	900,000
	Fertilizer	300 kg	1,700	510,000
	Pesticide	2 kg	60,000	120,000
	Zak	200	1,000	200,000
12.	Lain-lain			
	Peralatan dan tak terduga	10 %		532,000
	Rate bank	18 %		1,053,000
	Total Cost 3nd year			6,905,000
	<i>4 nd year</i>			
13.	Rent Land	1	500,000	500,000
14.	Labour			
	Perbaikan Drainase	5	30,000	150,000
	Fertilizer	12 HOK	30,000	360,000
	Compost vertilizer	12 HOK	30,000	360,000
	Vertilizier	12 HOK	30,000	360,000
	Transportation	10 HOK	30,000	300,000
	Harvest	75 HOK	30,000	2, 250,000
15.	Material			
	Compost	3000 kg	300	900,000
	Fertilizer	300 kg	1,700	510,000
	Pesticide	2 kg	60,000	120,000
	Zak	300	1,000	300,000
16.	Lain-lain			
	Peralatan dan tak terduga	10 %		609,000
	Rate bank	18 %		1,205,000
	Total cost 4 nd year			7,904,000

	<i>5 nd year</i>			
17.	Rent Land	1	500,000	500,000
18.	Labour			
	Perbaikan Drainase	5	30,000	150,000
	Fertilizer	12 HOK	30,000	360,000
	Compost vertilizer	12 HOK	30,000	360,000
	Vertilizier	12 HOK	30,000	360,000
	Transportation	10 HOK	30,000	300,000
	Harvest	75 HOK	30,000	2, 250,000
19.	Material			
	Compost	3000 kg	300	900,000
	Fertilizer	300 kg	1,700	510,000
	Pesticide	2 kg	60,000	120,000
	Zak	300	1,000	300,000
20.	Lain-lain			
	Peralatan dan tak terduga	10 %		611,000
	Total cost 5 nd year			6,721,000
	6 nd year			
21.	Rent Land	1	500,000	500,000
22.	Labour			
	Perbaikan Drainase	5	30,000	150,000
	Fertilizer	12 HOK	30,000	360,000
	Compost vertilizer	12 HOK	30,000	360,000
	Vertilizier	12 HOK	30,000	360,000
	Transportation	10 HOK	30,000	300,000
	Harvest	75 HOK	30,000	2, 250,000
23.	Material			
	Compost	3000 kg	300	900,000
	Fertilizer	300 kg	1,700	510,000
	Pesticide	2 kg	60,000	120,000
	Zak	300	1,000	300,000
24.	Lain-lain			
	Peralatan dan tak terduga	10 %		611,000
	Total cost 6 nd year			6,721,000

	7nd year			
25.	Rent Land	1	500,000	500,000
26.	Labour			
	Perbaikan Drainase	5	30,000	150,000
	Transportation	12 HOK	30,000	360,000
	Harvest	50 HOK	30,000	1,500,000
27.	Material			
	Zak	200	1,000	200,000
28.	Lain-lain			
	Peralatan dan tak terduga	10 %		221,000
	Total cost 7nd year			2,331,000
29.	Conclusion			
	Cost (IDR)			Production (kg)
	I. 10,760,000			Year:
	II. 4,326,000			i. –
	iii. 6,905,000			ii. –
	iv. 7,904,000			iii. 1250
	v. 6,721,000			vi. 1500
	vi. 6,721,000			v. 1500
	vii. 2,331,000			vi. 1500
				vii. 1000
	total: 45,668,000			total : 6750 kg
	Benefit (IDR)			81,000,000
	BEP (IDR)			6,765
	B/C Ratio			1.773

* Sistem : Monoculture

* Coffee Species : Arabica

* Based on Market Price in August 2007

Table 7.4. Coffee Production Before and After Intensification Programme

Parameter	Before	After
	Conventional Technology (per ha)	Technologic Intensification (per ha)
Production	450 kg/ha/year	964 kg/ha/year
Benefit	IDR 5,400,000	IDR 11,565,000
Cost	IDR 3,500,000	IDR 6,667,000
BEP	IDR 7,710	IDR 6,765
B/C Ratio	1,54	1,773

Source: Result of Analysis, August 2007

- * **Selling Price of IDR 12,000/kg**
- * **Selling Price is very fluctuative from IDR 6000 – IDR 15,000**
- * **Operational Cost estimation**

7.6 The Study of Corn Farming

Introduction

Corn is the second most important cereal crop after rice, it is perceived as one of the staple food in Indonesia. The demand for corn for food and feed is steady increasing. In 2007 about 39 % of corn in Indonesia was consumed as food. About 57 % corn planted in java, which contributes about 61 % of national production. For the last three decades corn production has shown a significant growth of 4.07 percent/year⁸⁴. Until 1975, Indonesia was self – sufficien in corn, but since 1976, corn import was continuously increasing.

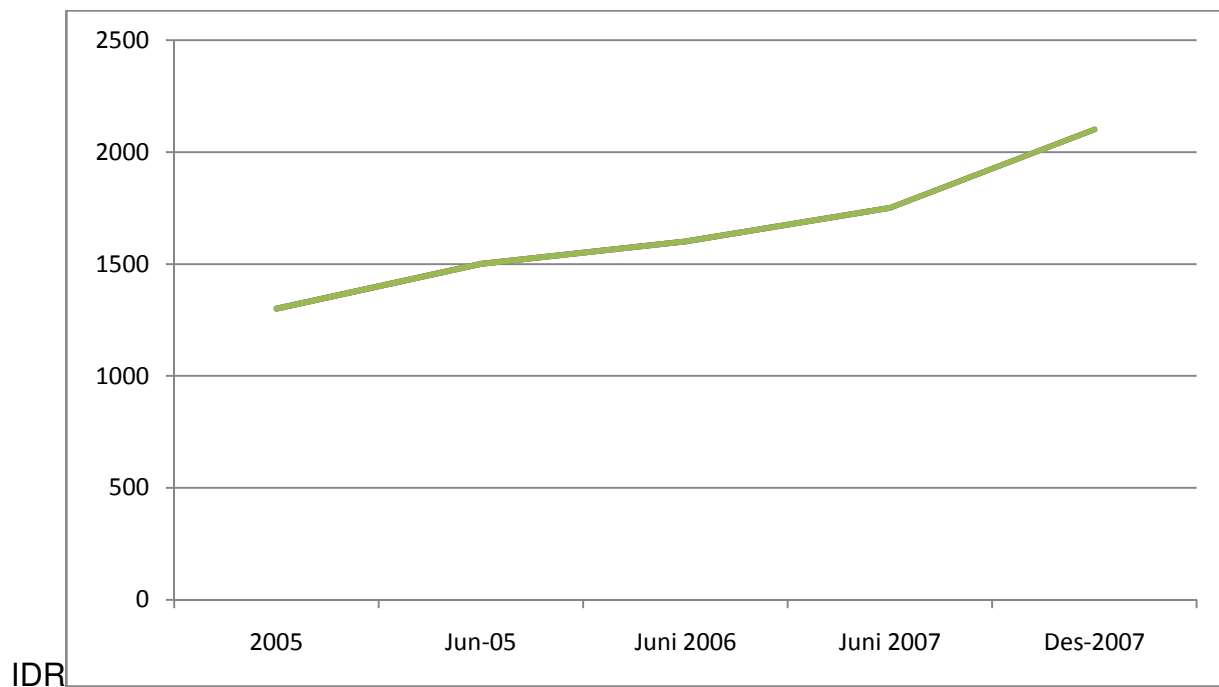
The high rocketing fuel price contributed to a continuously increasing demand for bio-fuel. This condition has pushed some countries to change their policies regarding fuel substitute to fulfil the energy need. Corn as one of the commodity converted into bio-fuel from bio-etanol has led to a very high global demand for this commodity. In addition, there is a tendency in continuously increasing demand from India and China, where the number of middle class in these countries, especially China has increased

⁸⁴ Jurnal penelitian dan pengembangan pertanian, 2007 (The Journal of Agriculture Research and Development, 2007) available at www.deptan.id

leads to increasing consumption in animal protein. Corn or mize is one of the principal foods for lifestocks. This high demand is uncovered by the total production, as the increasing of world's mize production is only around 3-10 percent⁸⁵.

The increase demand in corn of course always following by an increase in the price of the related commodity, in the last quarter of 2007 for example, the price of corn grain in Indonesia market reached to IDR 2,100/kg. As a comparison, in the first quarter of 2007, the price was in the range of IDR 1500 and 1700/kg, meaning that there was an increase of around 30%.

Figure 7.4. The Prices of Corn Grain in 2005 – 2007



Based on those phenomenons, this commodity has a prospective value for Indonesian economy. Indonesia itself is one of the biggest corn producers in the world, but at the same time is one of the biggest consumers as well. Corn has been one of the

⁸⁵ Agrobusiness Information, Indonesia Agriculture Department, 2007

socialised commodities in Indonesian agriculture, as the domination of this commodity among the Indonesian farmers.

The total harvesting areas of corn farming in 2007 covered around 3.62 million Ha with a total production of 11.61 million ton, the average yield reached to 3,207 kg/Ha (Bureau Statistics North Sumatra, 2007).

Meanwhile, the total demand in Indonesia in 2007 was around 12.6 million ton; these total amounts was to fulfil the domestic consumption for 4.1 million ton, industry 2.9 million ton, animal feed covered around 5.6 million ton. In this case, Indonesia experiences a shortfall for its domestic consumption therefore the country has to import the commodity in average of 1.5 million ton/year. In fact, this is an ironic condition as Indonesia is an agrarian country where almost 50% of its population engages in the agricultural sectors. The country supposed to be a net exporter of agricultural products, not the opposite.

In all, for the next 5 years the etanol industry will continuously booming, with a total demand of at least one fifth of the total corn production, i.e around 50 million ton/year. Meaning that, there is a golden opportunity for agrarian countries including Indonesia to increase their production.

7.7. Developing Corn Farming in Bukit Barisan High Land

The corn production in Indonesia is unable to cover its deman for this commodity, hence there is a tendency for its dependency on import for around 1.5 million ton per year. This is a big challenging for the country as the increasing demand globally has put on the price to a continuous increase. Indonesia infact has two choices, whether the nation will remain a net importer and take a huge risk of the rocketing price, or take a focus on this sector and enjoy the growth with a golden opportunity the world has provide.

As explained in the early of this chapter, the creation of Bukit Barisan High Land area as one of the agricultural center will bring the growth to the regions and to Indonesia as a

whole. The areas have potentials for this objective regarding its climate, the type of the soil, and the available areas to cultivate this commodity.

Objectives:

- To find the Best technologies to improve corn quality and productivity
- To create Bukit Barisan High Land Area as a center of agriculture in the North Sumatra province.
- To create a conducive business environment for the investor in Bukit Barisan high land.
- Finding the best alternative commodity in maximizing the land use in order to increase the agriculture productivity in the areas

Benefits

The result of this study will be distributed to farmers, government as decision maker, and private enterprises. It is expected that the farmers will be motivated to maximize their hand in hand with the government in facilitating services and overcome the obstacles in order to achieve the goals, especially to finally attract the investor. The three elements have to work together, as the concept can not be worked without any unison of the actors, i.e farmers, governments and enterprises.

7.7.1. SWOT Analysis

The SWOT Analysis is one of the parts in Competitive Intelligence, how to make decision and how to create the project. In this part, SWOT analysis will be used to answer the question of why corn is chosen as subject on the study. Hence, it will be analysed about the strengths, weaknesses, opportunities and threats regarding the development of corn in Bukit Barisan High Land, North Sumatera. The analyses will be included the related parties such as farmers, local governments and other considerations such as the land conditions and the increasing demand for the commodity.

Strenghts

- Corn has been one of the agricultural cultures among tha farmers in Bukit Barisan areas
- The soil type and climate of the regions are ideal for the development of the cultivation of corn
- This commodity is an ideal alternative to fulfil the demand for the staple food.
- Corn has a very short life cycle (4 months) it will be an ideal commodity to be intensified concerning an increasing demand for this commodity globally.

Weaknesses

- There is a very limited corn industry in the regions to transform corn grain into value added products. Usually the market for this commodity is made on its raw products, i.e dry corn grain.
- The high fluctuation of the market price, notably in 2002 where the price of this commodity had been dragged to the lowest level, this condition has inherited some traumas amongs the farmers.
- Lack of capacity of the farmers in terms of skill and know – how, as in general all the process of corn production from the plantation through harvest and after harvesting has been done through traditional process.

Opportunities

- There is a high demand domesticly and a shortage of around 1.5 million ton/year, hence there is a need to increase the production.
- The global increase of demand for corn as bio-fuel is an alternative to reduce the dependency of some developed country for the import of fuel. This phenomenon is a golden opportunity for Indonesia to achieve its growth.
- Recently, the department of industry in Indonesia has released a vision to increase the value added products of food and beverages in order to minimize the independency on the export of raw-products. Meaning that the government will be able to facilitate this programme as one of the related products to support its vision.

- The political and security is increasingly condussive in Indonesia as a whole, especially in Bukit Barisan zones

Threats

- High interest in the banking sectors which reach to around 20%.
- There is lack of trust among the banking institusion regarding the prospect of agri-business, hence access to credit will be one of the big challenging.
- There is a thick layers of bureaucracy in the regions, as one of the typical trend in Indonesia as a whole
- Some land holdings belong to some ethnic groups locally known as Ulayat Land. There will be some problems and challenging to cultivate these areas.

In the North Sumatra province, the total harvesting area covers around 212,918 ha (table 7.5) with a total production of 729,283 ton/ year. Based on the available areas, there is a possibility to extend and maximize the land use to increase the total harvesting area to 1 million ha. Meaning that, the total harvesting areas can be increased up to 5 times, and the productivity can be doubled as the potential productivity can reached up to 6,500 kh/ha. With a good intervention, the total production of corn can be multiplied up to 10 times in Bukit Barisan High Land.

Tabel 7.5. Harvesting areas and Corn Production in North Sumatra Province

	2005	2006	2007
Harvesting area (ha)	218,569	200,146	212,918
Productivity (kg/ha)	3,365	3,408	3,425
Produksi Ton/Year	735,456	682,042	729,283

Sources: BPS, Sumut 2007

Out of the total corn production in the North Sumatra, Bukit Barisan high land produce around 79.48 percent, i.e 589,056 ton/year with a total harvesting areas of 173,728 ha. The highest production is found in Simalungun and Karo Regencies following by Dairi Regencies (Tablel 7.6).

Tabel 7.6. Corn Production and Harvest Area in Bukit Barisan High Land

Regency	Areas (ha)	Productivity (ton/ha)	Production (ton)
Simalungun	62,351	3.541	220,806
Karo	62,267	3.306	205,841
Dairi	34,352	3.351	111,382
Pakpak Barat	7,756	3.308	25,653
Tapanuli Utara	3,925	3.344	13,129
Tobasa	2,500	4.124	10,310
Samosir	392	3.334	1,307
Humbahas	185	3.395	628
TOTAL	173,728	3.390	589,056

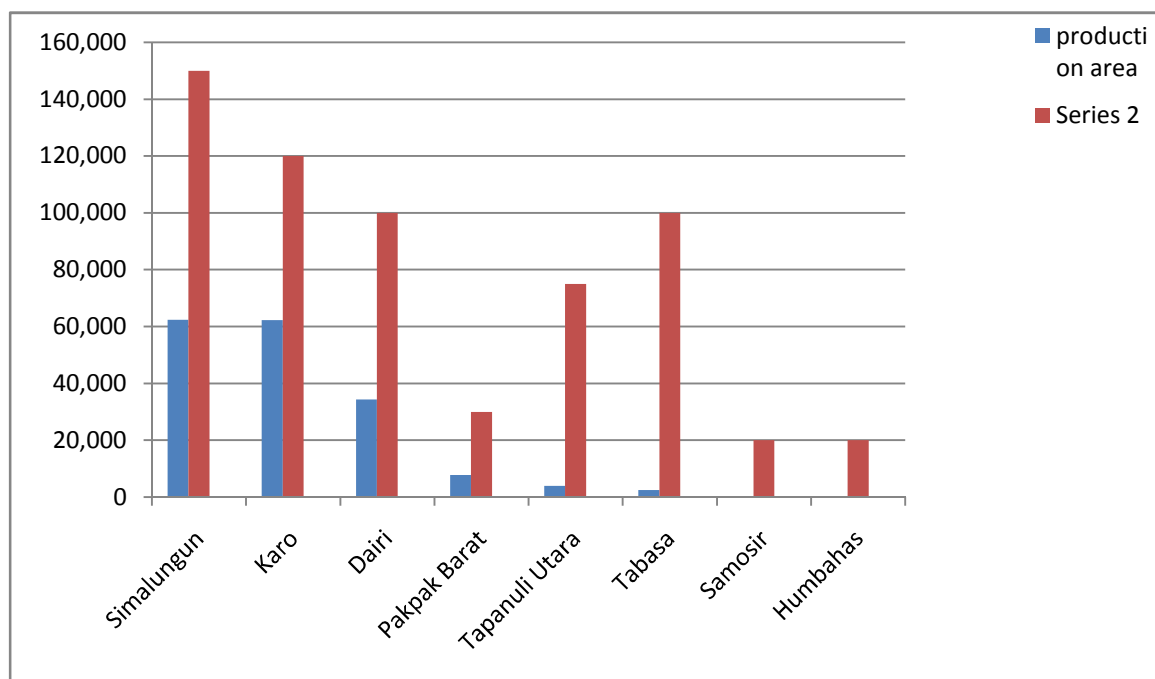
Source: Bureau Statistics of North Sumatra

Tabel 7.7. Potential Area for Corn Extensification

Regency	Potential Harvest area (Ha)
Simalungun	150,000
Karo	120,000
Dairi	100,000
Pakpak Barat	30,000
Tapanuli Utara	100,000
Tobasa	100,000
Samosir	20,000
Humbahas	20,000
TOTAL	640,000

Source: Bureau Statistics of North Sumatra

Figure 7.4. Total Production Areas and Potential for Extensification



From the table above, the productivity in the areas is only 3,390 kg/ha. This number is far behind the national productivity which reach around 6,500 – 7,000 kg/ha. With the intensification and extensification program, the expected total production can be multiplied to at least 6 times from the total production at the present time.

Based on the present condition, to achieve the expected yield, some programs and intervention will be designed to solve the problems faced by the farmer. The intervention needed will be as following;

1. Revitalization of the areas, training of management practices to the farmers. This including the training or import of knowledge and know – how regarding seed bed preparation, planting distance, and integrated pest management.
2. Provision of seedlings, fertilizer, other farm inputs and training
3. Providing access to funds and credit, Facilitate the capital such as a creation of credit union
4. Provision of public tools and material, such as tractors

5. The establishment of after harvest facilities such as storage facilities (Lumbung Desa), drying facilities /Investment in post harvest activity: fermented and unfermented coffee bean, drying, sortation, and storage/warehousing
6. Creating a good marketing channels, hence reducing the layers of intermediate parties to increase the profitability of the farmers
7. Establishment of Corn processing factory to increase the value added.

In order to achieve the objective above, the followings are the most important pillars to be considered especially to improve the farmers' motivation;

7.7.2. Critical Factors for the Development

Provision of Seedlings

The corn grain or bean can be used as seeds and grown easily whether it is a good seed or not, the only difference is the yields it contributes. Needless to say that the only good seeds which able to yield a maximum productivity is the seeds provided by the Research corn Institute with a special certification. Nevertheless, in Bukit Barisan high land, the main problem is that the cost of certified seeds is unreachable by the farmers. As a result, only 37 Percent of the farmers use the qualified seeds, and the rest of 63% uses their own production. As a comparison, qualified seeds cost between IDR 28,000 and IDR 35,000/kg whereas the traditional seeds only cost IDR 2,000/kg. Based on the research, certified seeds will increase additional 10 % of total cost of production with a double increase in yield or production.

The followings are some type of certified seeds

- Hibrida N-35
 Prices IDR 28,000 / kg
 Produced by P.T Pertani, East Java
 Hearvest ages 108 Days
 Renderer 82 %

- Hibrida NT-10
 Prices IDR 38,000/kg
 Produced by PT Pertani, East Java
 Harvest ages 103 days
 Yielder 83 %
- Hibrida Peoner
 Prices IDR 35,000/kg
 Produced by PT Dupont
 Harvest ages 105 Days
 Yielder 83 %

Fertilizer

The right fertilizer inputs is the vital step to increase the corn production with a dose of Urea of SP; KCI-200:100:100 kg/ha with an application of 2 – 3 times. In general, farmers have a very limited knowledge about the inputs of fertilizers hence the right management practices is not applied. Other than the type of Urea, it is also profitable to use organic fertilizers to increase the productivity.

Provision of Facilities

The most alarming problems facing by the farmers is lack of facilities such as machine tools especially tractors. Tractor is the most important tools in the production step, limited access to this machine will slow down the process of production or cultivation, especially when it is done traditionally i.e manual labor for the soil tillage.

The following table is the analysis of corn production, cost and total revenue by farmers. The assumption is made based on total land holdings by farmers in general i.e 0.5 ha/family

Tabel 7.8. Analysis of Corn-Farming and Cost per-unit (Kg) of Dry Corn in Bukit Barisan Hihg Land Area with Convensional Technology.

No	Kind of Activity	Unit	Volume	Cost (IDR)	Total Cost (IDR)
1.	Rent Land	Year	0.5	500,000	250,000
2.	Labour				
	Soil Tillage	Time	2	500,000	1,000,000
	Holing	HOK	4	27,500	110,000
	Cultivation	HOK	10	27,500	275,000
	Fertilizing	HOK	8	27,500	220,000
	Harvesting	HOK	10	27,500	275,000
	Drying	HOK	10	27,500	275,000
	Peeling	HOK	5	27,500	137,500
	Transportation	HOK	8	27,500	220,000
3.	Material				
	Seeds	kg	15	2000	30,000
	Urea	kg	150	1500	225,000
	SP	kg	100	2000	200,000
	KCL	kg	50	1800	90,000
4.	others				
	Consunsion				400,000
	zak	Peace	120	1000	120,000
	others				382,750
	Bank Rate	mont	4		303,138
	Total 1 + 2 + 3 + 4				4,513,388
	Result				
	Selling Price	kg	3,390	1900	6,441,000
	Production Cost				4,513,388
	Total Cost/kg				1,331

Tabel 7.9 Analysis of Corn-Farming and Cost per-unit (Kg) of Dry Corn in Bukit Barisan High Land Area with Convensional Technology

No	Activities	Unit	Volume	Cost (IDR)	Total Cost
1.	Rent Land	Year	0.5	500,000	250,000
2.	Labour				
	Production Process	Time	2	500,000	1,000,000
	Soil Tillage	HOK	4	27,500	110,000
	Cultivation	HOK	10	27,500	275,000
	Organic fertilizer	HOK	8	27,500	220,000
	Other Fertilizer	HOK	16	27,500	440,000
	Pesticide	HOK	5	27,500	137,500
	Harvesting	HOK	15	27,500	412,500
	Drying	HOK	15	27,500	412,500
	Peeling	HOK	8	27,500	137,500
	Transportation	HOK	15	27,500	412,500
3.	Material				
	Seeds	kg	15	32,000	480,000
	Organic Fertilizer	kg	3000	300	900,000
	Urea	kg	200	1,500	300,000
	SP	kg	150	2,000	300,000
	KCL	kg	100	1,800	180,000
	Pesticide	kg	2	60,000	120,000
4.	Other Cost				
	Consumption				600,000
	Sacs	Peaces	200	1000	200,000
	Miscellaneous Cost				688,750
	Bank Rate	monts	4		545,490
	Total 1 + 2 + 3 + 4				8,121,740
	Yields				
	Selling Price	kg	6500	1900	12,350,000
	Total Production Cost				8,121,740
	Total Cost/kg				1,249

Table 7.10. Comparison, Before and After Intensification Program

Parameter	Before	After
	Conventional Technology (per ha)	Technologic Intensification (per ha)
Production	3,390 kg/ha/year	6,500 kg/ha/year
Benefit	IDR 6,441,000	IDR 12,350,000
Cost	IDR 4,513,388	IDR 8,121,740
BEP	IDR 1,331	IDR 1,249
B/C Ratio	1,43	1,52

7.8. Feasibility Studies

7.8.1. Corn Plantation Managing by Enterprises

Area	:	1000 Ha
Location	:	Tobasa, Dairi, Humbahas, Simalungun, Karo Regency
Employees	:	114
Manager	:	1
Asistant	:	2
Coordinator	:	6

Tabel 7.11. Analysis of Corn-Farming and Cost per-unit (Kg) of Dry Corn in Bukit Barisan Hihg Land - Corn Plantation Managing by Enterprises

No	Activities	Unit	Volume	Cost (IDR)	Total Cost
	Investment				
1.	Tractor Machine	unit	5	1,000,000,000	5,000,000,000
2.	Harvest Machine	unit	1	2,500,000,000	2,500,000,000
3.	Drying Machine	unit	5	250,000,000	1,250,000,000
4.	Housing				
	Manager	unit	1	100,000,000	100,000,000
	Asistant	unit	2	50,000,000	100,000,000
	Employe	unit	120	25,000,000	3,000,000,000
5.	Office	unit	1	500,000,000	500,000,000
6.	Office Utility	unit	1	250,000,000	250,000,000
7.	Opening Plantation	unit	1	2,000,000,000	2,000,000,000
8.	Infrastructur	unit	1	1,000,000,000	1,000,000,000
9.	Transport Facilities				
	Cars	unit	3	200,000,000	600,000,000

	Bicycles	unit	6	15,000,000	90,000,000
	Small truck	unit	1	200,000,000	200,000,000
	Pick up	unit	2	150,000,000	300,000,000
11.	Bank rate	%	18		3,004,200,000
	Total Investment (i)				19,694,200,000
	Operational/Year				
12.	Salary				
	Manager	1	12	7,000,000	84,000,000
	Assistance	2	12	3,000,000	72,000,000
	Coordinator	6	12	1,500,000	108,000,000
	Employee	114	12	900,000	1,231,200,000
	Temporary Employee	HOK	300 x 12	30,000	108,000,000
13.	Material				
	seeds	15 kg	1000 X 3	32,000	1,440,000,000
	Fertilizer				
	-Urea	300 kg	1000 X 3	1,300	1,170,000,000
	-SP	200 kg	1000 X 3	1,500	900,000,000
14.	Tax	Ha/ye ar	1000	400,000	400,000,000
15.	Others	%	20	5,249,200,000	1,049,800,000
16.	Bank Rate	%	18	6,299,000,000	1,133,820,000
	Total Operational/year (ii)				7,432,820,000
	(i) + (ii)				27,127,080,000

Out Put

Production /ha = 5000 kg
 Total production/ 4 month = 5000 X 1000 X 97,5 % = 4875,000 kg
 Total production/Year = 14,625,000 kg
 Selling Price = IDR 1900/kg
 Total Revenue = **27,787,500,000**

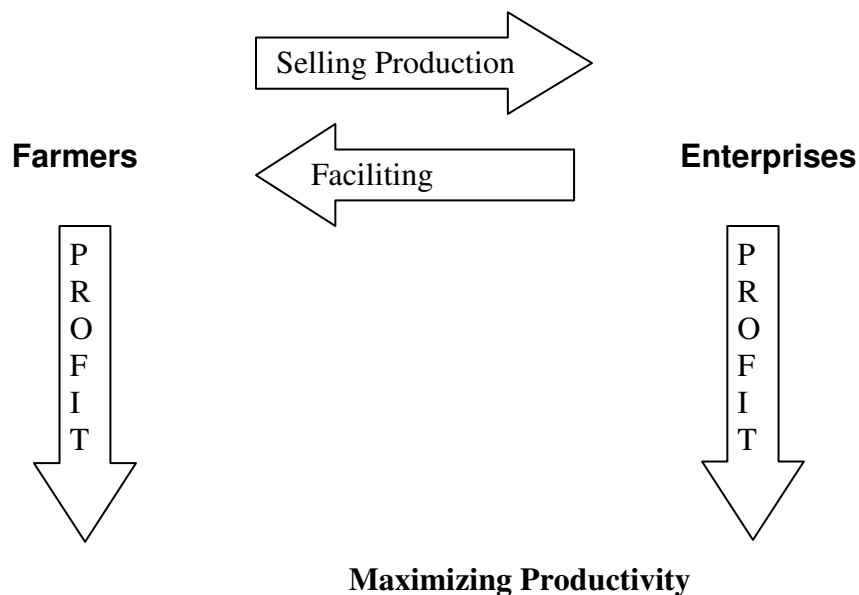
7.8.1.1. Cooperation Between Farmers and Enterprises

Farmers

- Provision of the areas for corn plantation
- Responsible for the corn production from the processing step i.e soil tillage through the harvesting.
- Selling the production i.e corn grain to enterprises

Enterprises

- Provision of Facilities and input materials such as tractors, seeds, fertilizers, etc
- Absorbing the production (Buying corn from the farmers)
- Functioning as terminal for agro products



With the scenario above, it is expected that in 2010, Indonesia will be able to fulfil domestic demand, and in 2015 will be a net exporter of corn. This targets can be achieved by the intervention within 2 factors; the extensification of the production area

and the optimisation of the productivity. Besides the supports or intervention by the local governments, the role of the private enterprises is absolutely needed to stimulate the farmers' motivations by the provision of facilities.

The most alarming problems facing by the farmers, as mentioned above is the access to facilities, agro inputs, and knowledge know-how. The existence of enterprises close to the production will generate the maximum benefits and create a good value chain in stimulating the growth in the economy. In this case, enterprises will absorb the production from the farmers hence layers of marketing channel will be minimized.

7.8.2. Coffee Plantation Managing by Enterprises

Area : 1000 Ha
 Location : Toba, Dairi, Humbahas Regency
 Employee : 95
 Manager : 1
 Asistant : 2
 Coordinator : 5

Tabel 7.12. Analysis of Coffee Bukit Barisan High Land-Coffee Plantation Managing by Enterprises

No	Activities	Unit	Volume	Cost (IDR)	Total Cost
	Investment				
1.	Processing Machine	unit	1	2,000,000,000	2,000,000,000
2.	Housing				
	Manager	unit	1	100,000,000	100,000,000
	Asistant	unit	2	50,000,000	100,000,000
	Employe	unit	100	25,000,000	2,500,000,000
5.	Office	unit	1	500,000,000	500,000,000
6.	Office Utility	unit	1	250,000,000	250,000,000
7.	Opening Plantation	unit	1	4,000,000,000	2,000,000,000
8.	Infrastructur	unit	1	2,000,000,000	1,000,000,000
9.	Transport Facilities				
	Cars	unit	3	200,000,000	600,000,000
	Bicycles	unit	5	15,000,000	75,000,000
	Small truck	unit	1	200,000,000	200,000,000

	Pick up	unit	2	150,000,000	300,000,000
11.	Bank rate	%	18		1,912,500,000
	Total Investment (i)				12,550,000,000
	Operational first year				
12.	Salary				
	Manager	1	12	7,000,000	84,000,000
	Assistance	2	12	3,000,000	72,000,000
	Coordinator	5	12	1,500,000	90,000,000
	Employee	95	12	900,000	1,004,400,000
	Temporary Employee	HOK	500 x 12	30,000	180,000,000
13.	Material				
	seeds	Piece	1000 X 1500	1,000	1,500,000,000
	Fertilizer				
	-Urea	1000 kg	1000	1,300	1,300,000,000
	-SP	500 kg	1000	1,500	750,000,000
	- Organic Vertilizer	3000 kg	1000	300	900,000,000
14.	Tax	Ha/ye ar	1000	400,000	400,000,000
15.	Others	%	20	6,280,000,000	1,256,000,000
16.	Bank	%	18	7,436,000,000	1,338,480,000
	Total Operational first year				8,772,480,000
	Operational 2 nd year				
17.	Salary				
	Manager	1	12	7,000,000	84,000,000
	Assistance	2	12	3,000,000	72,000,000
	Coordinator	5	12	1,500,000	90,000,000
	Employee	95	12	900,000	1,004,400,000
	Temporary Employee	HOK	500 x 12	30,000	180,000,000
18.	Material				
	Fertilizer				
	-Urea	1000 kg	1000	1,300	1,300,000,000
	-SP	500 kg	1000	1,500	750,000,000
	- Organic Vertilizer	3000	1000	300	900,000,000

		kg			
19.	Tax	Ha/year	1000	400,000	400,000,000
20.	Others	%	20	4,780,000,000	956,000,000
21.	Bank	%	18	5,736,000,000	1,032,480,000
	Total Operational 2 nd year				6,768,480,000
	Operational 3 nd year				
22.	Salary				
	Manager	1	12	7,000,000	84,000,000
	Assistance	2	12	3,000,000	72,000,000
	Coordinator	5	12	1,500,000	90,000,000
	Employee	95	12	900,000	1,004,400,000
	Temporary Employee	HOK	1000 x 12	30,000	360,000,000
23.	Material				
	Fertilizer				
	-Urea	1000 kg	1000	1,300	1,300,000,000
	-SP	500 kg	1000	1,500	750,000,000
	- Organic Vertilizer	3000 kg	1000	300	900,000,000
24.	Tax	Ha/year	1000	400,000	400,000,000
25.	Others	%	15	4,960,000,000	744,000,000
26.	Bank	%	18	5,704,000,000	1,026,720,000
	Total Operational 3 nd year				6,730,720,000
	Operational 4 nd year				
27.	Salary				
	Manager	1	12	7,000,000	84,000,000
	Assistance	2	12	3,000,000	72,000,000
	Coordinator	5	12	1,500,000	90,000,000
	Employee	95	12	900,000	1,004,400,000
	Temporary Employee	HOK	1000 x 12	30,000	360,000,000
28.	Material				
	Fertilizer				
	-Urea	1000 kg	1000	1,300	1,300,000,000
	-SP	500 kg	1000	1,500	750,000,000

	- Organic Vertilizer	3000 kg	1000	300	900,000,000
29.	Tax	Ha/ye ar	1000	400,000	400,000,000
30.	Others	%	15	4,960,000,000	744,000,000
31.	Bank	%	18	5,704,000,000	1,026,720,000
	Total Operational 4 nd year				6,730,720,000
	Operational 5 nd year				
32.	Salary				
	Manager	1	12	7,000,000	84,000,000
	Assistance	2	12	3,000,000	72,000,000
	Coordinator	5	12	1,500,000	90,000,000
	Employee	95	12	900,000	1,004,400,000
	Temporary Employee	HOK	1000 x 12	30,000	360,000,000
33.	Material				
	Fertilizer				
	-Urea	1000 kg	1000	1,300	1,300,000,000
	-SP	500 kg	1000	1,500	750,000,000
	- Organic Vertilizer	3000 kg	1000	300	900,000,000
34.	Tax	Ha/ye ar	1000	400,000	400,000,000
35.	Others	%	15	4,960,000,000	744,000,000
	Total Operational 5 nd year				5,704,000,000
	Operational 6 nd year				
36.	Salary				
	Manager	1	12	7,000,000	84,000,000
	Assistance	2	12	3,000,000	72,000,000
	Coordinator	5	12	1,500,000	90,000,000
	Employee	95	12	900,000	1,004,400,000
	Temporary Employee	HOK	1000 x 12	30,000	360,000,000
37.	Material				
	Fertilizer				
	-Urea	1000 kg	1000	1,300	1,300,000,000
	-SP	500 kg	1000	1,500	750,000,000

	- Organic Vertilizer	3000 kg	1000	300	900,000,000
38.	Tax	Ha/year	1000	400,000	400,000,000
39.	Others	%	15	4,960,000,000	744,000,000
	Total Operational 6 nd year				5,704,000,000
	Operational 7 nd year				
40.	Salary				
	Manager	1	12	7,000,000	84,000,000
	Assistance	2	12	3,000,000	72,000,000
	Coordinator	5	12	1,500,000	90,000,000
	Employee	95	12	900,000	1,004,400,000
	Temporary Employee	HOK	1000 x 12	30,000	360,000,000
41.	Material				
	Fertilizer				
	-SP	500 kg	1000	1,500	750,000,000
42.	Tax	Ha/year	1000	400,000	400,000,000
43.	Others	%	15	2,760,400,000	414,060,000
	Total Operational 7 nd year				3,174,460,000
	Total investment				12,550,000,000
	Total Operational				43,584,860,000

Out Put

Year	Production (kg/ha)	Total Production (kg/1000 Ha)	Total (IDR)
1.	-	-	-
2.	-	-	-
3.	1,200	1,200,000	14,400,000,000
4.	1,300	1,300,000	15,600,000,000
5.	1,500	1,500,000	18,000,000,000
6.	1,300	1,300,000	15,600,000,000
7.	1,200	1,200,000	14,400,000,000

Total Production
Total Revenue
BEP

6,500,000 kg
IDR 78,000,000,000
IDR 6705

B/C Ratio

1.789

Conclusion

The development of SMEs in Bukit Barisan High Land will be able to realize the desirable growth in the regions. It is suggested that the most prospective commodities to be developed in the regions is Coffee and Corn, due to the condition of soil, climate, and topography of the regions. The feasibility presented is aimed to give a vision to investors, where the presence of SMEs is a vital factor in achieving the productivity and value chain of production, hence a desirable growth can be reached.

CHAPTER VIII

AN EXAMPLE OF INFORMATION SYSTEM

8.1. General Aspects of Information System

It is obvious, that in developing countries and especially in remote areas, the access of information is rather difficult. In the vicinity there is no university as well as research center. The only human resource available will be some schools and the knowledge of the local industries. For the rest of it, it will be necessary to develop a network out of which some information will be available.

But, establishing a network needs the development of adequate strategies, adapted to the type of information which are necessary. This is the reason why we focus this work on the development of an agricultural center out of which the necessary human resources will be built up, step by step.

In the remote areas of Indonesia, even in the islands which are not directly linked to Internet by cable, the access to this media is done via satellite. The cost is affordable for a speed of 128 Kbytes. To obtain a greater speed, the cost increases too much, and for the beginning we think that a speed of 128 Kbytes will be sufficient. The Internet is necessary since it will provide the facility to develop a network by linking together the people engaged in it and also by providing local information or patents or other data which will be able to be commented by the network's members providing the human resources missing to the agricultural center.

The model that we choose for this platform is to use e-mail via yahoo or gmail (we have to test the speed, because at a rate of 128 kbytes the speed of access to the mail servers is critical. The velocity of the information access is not only for Indonesia itself, but also for abroad since the network may extend to various countries via the Indonesian Consulate or via students which can be sent in special places abroad (Technical centres, universities, agricultural lycées (for France), etc...

The model to set up a communication system type platform should be very simple and should provide: easy access, easy implementation of data, way of communication via comments which can be placed on the platform for any type of articles published and analyzed by the people in charge of the platform maintenance or animation. The choice for the model the platform of CIWORLDWIDE (animated by the network in Competitive Intelligence developed by Henri Dou). This system is built up around a WORDPRESS which is a freeware. The only need is a provider which will be able to host the platform. The price for several Giga bites of storage is very low and the facilities necessary to operate platform from the hosting system are quite standards.

8.2 The platform to communicate between all the network members

This presentation (from Internet using wordpress and Wikipedia as search items or only wordpress to access the official site) is about the self-hosted blog software. For the free blogging service, see WordPress.com. **WordPress** is a [blog publishing system](#) written in [PHP](#). All data is stored in a [MySQL](#) database. WordPress is the official successor of **b2\cafelog**, developed by [Michel Valdrighi](#). The name *WordPress* was suggested by Christine Selleck, a friend of lead developer [Matt Mullenweg](#). The latest release of WordPress is version 2.5.1, released on [25 April 2008](#). It is distributed under the [GNU General Public License](#)

Key Features

- **Full standards compliance** — We have gone to great lengths to make sure every bit of WordPress generated code is in full compliance with the standards of the [W3C](#). This is important not only for interoperability with today's browser but also for forward compatibility with the tools of the next generation. Your web site is a beautiful thing, and you should demand nothing less.
- **No rebuilding** — Changes you make to your templates or entries are reflected immediately on your site, with no need for regenerating static pages.
- **WordPress Pages** — Pages allow you to manage non-blog content easily, so for example you could have a static "About" page that you manage through WordPress. For an idea of how powerful this is, the entire WordPress.org site could be run off WordPress alone. (We don't for technical mirroring reasons.)

- **WordPress Links** -- Links allows you to create, maintain, and update any number of blogrolls through your administration interface. This is much faster than calling an external blogroll manager.
- **WordPress Themes** — WordPress comes with a [full theme system](#) which makes designing everything from the simplest blog to the most complicated webzine a piece of cake, and you can even have multiple themes with totally different looks that you switch with a single click. Have a new design every day.
- **Cross-blog communication tools**— WordPress fully supports both the [Trackback](#) and [Pingback](#) standards, and we are committed to supporting future standards as they develop.
- **Comments** — Visitors to your site can leave comments on individual entries, and through Trackback or Pingback can comment on their own site. You can enable or disable comments on a per-post basis.
- **Spam protection** — Out of the box WordPress comes with very robust tools such as an integrated blacklist and open proxy checker to manage and eliminate comment spam on your blog, and there is also a rich array of plugins that can take this functionality a step further.
- **Full user registration** — WordPress has a built-in user registration system that (if you choose) can allow people to register and maintain profiles and leave authenticated comments on your blog. You can optionally close comments for non-registered users. There are also plugins that hide posts from lower level users.
 - **Password Protected Posts** — You can give passwords to individual posts to hide them from the public. You can also have private posts which are viewable only by their author.
 - **Easy installation and upgrades** — Installing WordPress and upgrading from previous versions and other software is a piece of cake. Try it and you'll wonder why all web software isn't this easy.
 - **Easy Importing** — We currently have importers for Movable Type, Textpattern, Greymatter, Blogger, and b2. Work on importers for Nucleus and pMachine are under way.
 - **XML-RPC interface** — WordPress currently supports an extended version of the [Blogger API](#), MetaWeblog API, and finally the MovableType API. You can even use clients designed for other platforms like [Zempt](#).
 - **Workflow** — You can have types of users that can only post drafts, not publish to the front page.
 - **Typographical niceties** — WordPress uses the [Texturize](#) engine to intelligently convert plain ASCII into typographically correct XHTML entities. This includes quotes, apostrophes, ellipses, em and en dashes, multiplication symbols, and

ampersands. For information about the proper use of such entities see Peter Sheerin's article [The Trouble With Em 'n En](#).

- **Intelligent text formatting** — If you've dealt with systems that convert new lines to line breaks before you know why they have a bad name: if you have any sort of HTML they butcher it by putting tags after every new line indiscriminately, breaking your formatting and validation. Our function for this intelligently avoids places where you already have breaks and block-level HTML tags, so you can leave it on without worrying about it breaking your code.
- **Multiple authors** — WordPress' highly advanced user system allows up to 10 levels of users, with different levels having different (and configurable) privileges with regard to publishing, editing, options, and other users.
- **Bookmarklets** — Cross-browser bookmarklets make it easy to publish to your blog or add links to your blogroll with a minimum of effort.
- **Ping away** — WordPress supports pingback [Ping-O-Matic](#), which means maximum exposure for your blog to search engines.

There's much more, but these are the highlights. If there's something that you really want, submit a request on the [support forums](#) and there's a good chance someone will whip it up for you.

Example of Wordpress utilization for Ciworldwide:

The screenshot shows the WordPress administration interface for a site named 'CI World Wide'. The top navigation bar includes 'Tableau de bord', 'Ecrire', 'Gérer Commentaires', 'Blogoliste', 'Thème', 'Plugins', 'Utilisateurs', and 'Options'. A notification banner at the top states: 'Une nouvelle version de WordPress est disponible ! Pensez à faire une mise à jour.' The main content area is titled 'Bienvenue sur WordPress' and provides links for 'Écrire un article', 'Mettre à jour votre profil ou changer votre mot de passe', 'Ajouter un lien dans votre blogoliste', and 'Changer l'apparence du site'. Below this, there is a section for 'Blog de développement WordPress' with a link to 'WordPress Birthday Party - il y a 36 jours'. On the right side, there is a sidebar with 'Activité récente' containing sections for 'Commentaires' (1 pending), 'Articles' (with a list of recent posts), and 'Statistiques du blog' (40 articles, 0 comments).

8.1 Wordpress administration

From the administration window, you can create files, insert images, link the text to pdf or other types of files, you can make Internet link as well, and administrate the comments. Several people if they have the right to do it may enter data on the platform. For the video, the best is to upload the video to Google Video and then to link the Google Video to your text. Almost all applications can be easily done by adding a plugin to the platform.

Example of WordPress contents:

Blue Box Un blog utilisant WordPress

[HOME](#) [I.E. PAR A. JUILLET](#) [PARTNERS](#) [WHAT IS CIWORLDWIDE ?](#) [CONTACT](#)

CIWORLDWIDE
Competitive Intelligence World Wide

Search Results

Master Intelligence Economique et Compétitivité Territoriale - IMPGT - 2008
Jeudi, juin 12th, 2008 Posted in [France](#) | [Edit](#) | [No Comments](#) »

L'IMPGT (Institut de Management Public et de Gouvernance Territoriale) située à Aix en Provence et à Marseille et au sein de l'Université Paul Cézanne, offre la possibilité aux étudiants de suivre un Master original, alliant cours présentiels, travail personnel ...

WORLD OCEAN SUMMIT - MAY 2009 - MANADO - INDONESIA
Dimanche, juin 8th, 2008 Posted in [Asia](#) | [Edit](#) | [No Comments](#) »

What is WOS ? A high level global meeting of head of the states and leaders that have coastal and marine territories Why hold WOS ? International agreements and conventions are important and have been adequately accepted. However, there is a lack of ...

You have searched the CI World Wide weblog archives for 'manado'. If you are unable to find anything in these search results, you can try one of these links.


Categories

- ▣ [Asia](#) (8)
- ▣ [Europe](#) (2)
- ▣ [France](#) (15)
- ▣ [Middle East](#) (1)
- ▣ [Non classé](#) (1)
- ▣ [North Africa](#) (3)
- ▣ [South America](#) (5)
- ▣ [Tools](#) (5)

8.2 Main screen of CIWORLDWIDE


The main screen of CIWORLDWIDE allows to search among the categories and within the categories or in the whole application you can also search for world or figures by the search window.

The following screen shows the detail of an article published:




Indonesia get a large number of natural resources unable to facilitate its economic development.

But to reach such a position, Indonesia must change the way of thinking of people, must develop added value products from its natural resources and must be able to gather the stakeholders of various specific productions (agro-resources or industrial products) in clusters. In the same time a strong policy of Intellectual property and information access must be developed. This type of program can be developed within the context of a national program of Competitive Intelligence.



This is the reason why a think tank formed with French specialists and Indonesians experts (under the guidance of Dr Sri Damayanty Manullang) push the idea of the creation of the IICI (Indonesian Institute for Competitive Intelligence). Such an Institute should be able as in many developing countries, to promote a national program of Competitive Intelligence.



This program, as with the French example, could accelerate a national program of clusters development and then the creation of a national governance able to strengthen national projects and to cooperate with industries, regions or states at the international level.

This program will necessitate a strong national effort, but if we analyzed the numerous examples available in various countries, is the only way for Indonesia to become with a certain amount of chances of success a key economic country in the area. Most of the work of the Indonesian - French think tank for the last few years, has been to promote these new ideas of development, with new Public and Private partnerships. All the studies, conferences and workshops done during that time pin point the necessity to avoid dispersed activities and to focuss the attention on the regional or national critical factors of success.

Post a Comment

You are logged in as admin. To logout, [click here.](#)

mai 2008

Pages

- [I.E. par A. Juillet](#)
- [Partners](#)
- [What is CIWorldWide ?](#)
- [Contact](#)

8.3 Example of one article selected in the category Asia

The article contains various information, links and images. You can see at the end of the article the window Post a Comment. This is through this facility that the link will be maintained from the Agricultural Center to the human network which will be associated to it. The comments posted in this window, will be able to be moderated by the person in charge of this function and after made available to all users. Comments can be accessed by the users by the link which has been created between the articles and the comments.

The comment will be available to all reader, when the comment will be moderated (see figure below 8.5) and accepted. Then, it will be indicated when you open an article the number of comment(s) available. Clicking on it will give the access to the full comment. In the figure below (8.4) the description of the book : Competitive Intelligence and technology Watch for Regional Development has been commented. There if one comment which is joined to the file.

Competitive Intelligence and Technology Watch for Industry
Lundi, juin 16th, 2008 Posted in France | Edit | No Comments »

This book has been edited by the the Department of Industry of the Republic of Indonesia. It is devoted to Industry, Education and Research instituans as well as for the think tanks which may help politicians and decision makers. Writtent by Henri ...

Competitive Intelligence, Technology Watch and Regional Development
Vendredi, juin 13th, 2008 Posted in France | Edit | 1 Comment »

The book Competitive Intelligence and Regional Development is part of a serie of two books which present for Small Companies and Developing Countries the way to integrate the concept, methos and tool of Competitive Intelligence in the Company or Region ...

Benchmarking Européen des pratiques en Intelligence Economique 2008
Jeudi, juin 12th, 2008 Posted in France | Edit | No Comments »



search, analyze and survey !

Archives

- ▣ juin 2008
- ▣ mai 2008

Pages

- ▣ I.E. par A. Juillet
- ▣ Partners
- ▣ What is CIWorldWide ?
- ▣ Contact

Figure 8.4 Seeing the Comments

The administration of the comments is done in the following way:

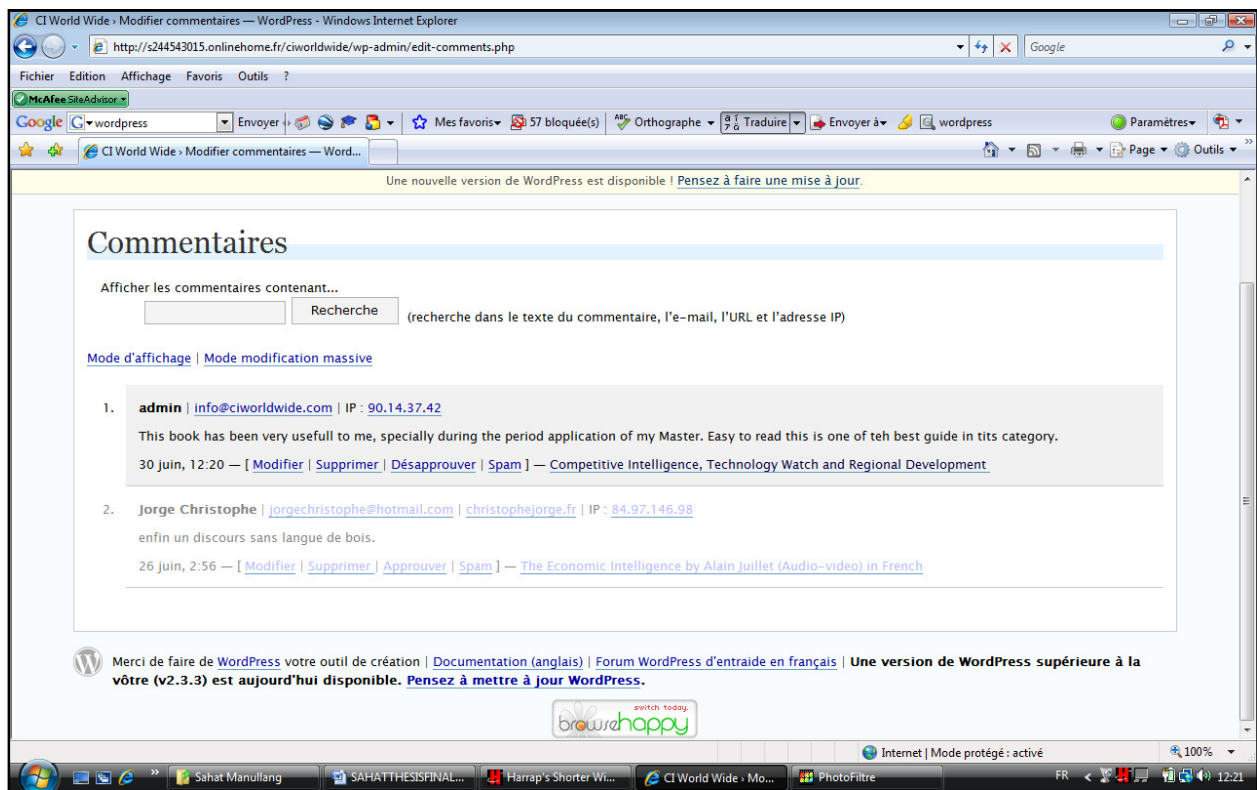


Figure 8.5 Administration of the comments

When the comment is accepted, it will be available to the users. See figure 8.4

8.3 The patent information

The patent information is very important. Not because we want that the local people patent their ideas, but because the patent information is a window opens on the world of inventions and innovations. This is the ideal information system to link industrial people to the outside world and to show what are the applications, services, actors and technologies used within a field. In this short presentation we will use the Matheo Patent facility (<http://www.matheo-patent.com>) to access the world wide patent database through the EOP European Patent Office gateway. The Matheo Patent Software has been described in many papers and this will not be developed here.

Example, using the word coffee (in title and in the abstracts) we made a search from 2008 to 2000 to show the importance of the field and of the main actors. In the meantime the useful technologies can be detected, specially for the capabilities of the Bukit Barisan region. What we have to do is to find what will be the best way to develop a brand of coffee which will have a standard quality and which should be some sort of finger print of the region. We also know that the patents have a life time of 20 years. This means that after this period they are available to the public at no charge. Then, another search (or many other searches if necessary) can be performed upon the period of time before 1988. In this period, it is possible that useful usages and technology may be found. If yes, these technologies will be available at no cost. (Of course, during this period the main actors will not be relevant since the period is too old.

In the patent analysis, the access to the technologies and applications is done through the International Patent Classification which splits the technology between 22.000 different areas. This is the analysis of the IPC field which enables the users to select the main technologies according to the local knowledge and facilities.

For the period from 2008 to 2000 there are more than 5.000 patents, using the word coffee; It is obvious that all the patents can be downloaded, but it seems wise to make a better search, that is to say combining the word coffee with for instance selected relevant IPC. For the purpose of this example we select only a few tens of the patents per year.

Automatic patent report

In the software Matheo-Patent, there is a way to build an automatic report. We give here an example of such a report on the sample of downloaded patents. The user will be able to insert the relevant figures and comments by making the charts of patent assignees or applicants, the IPC, the priority patents, etc... as well as the benchmarking of companies (matrices of companies / IPC, etc....

1 - General Report from Matheo patent

- Request Information

Name: coffee

- Request Parameters

Search 0

Name: Search #1

Abstract: coffee

Result: 128

- Request Results

Inventors: 239

Applicants: 150

IP Class 4 digits: 51

IP Class Full: 250

IP Class CI: 115

IP Class CN: 7

IP Class AI: 168

IP Class AN: 6

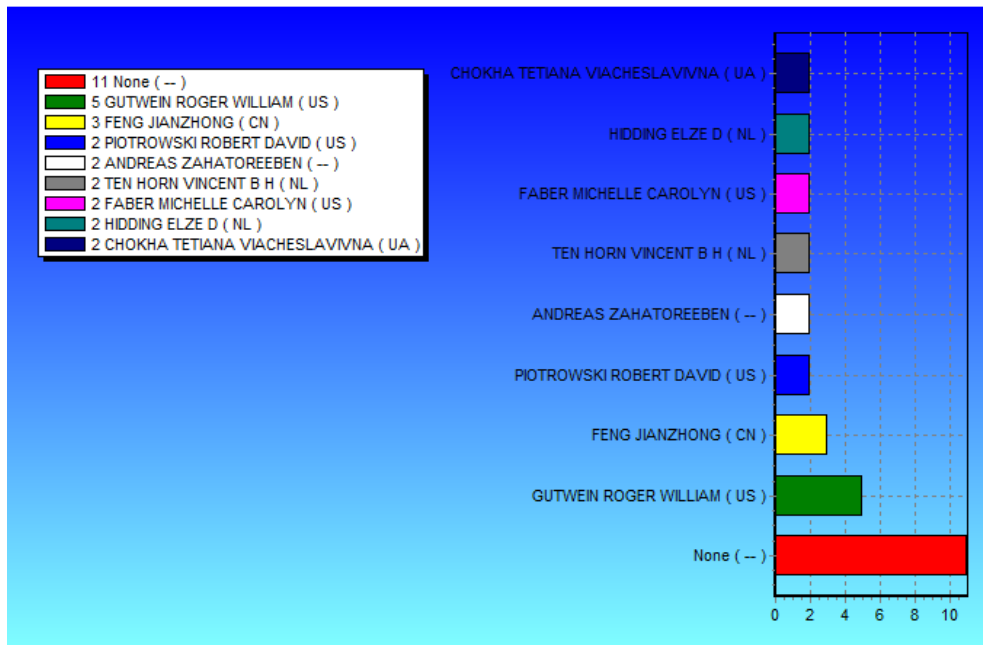
E Class: 134

- Patent information repartition

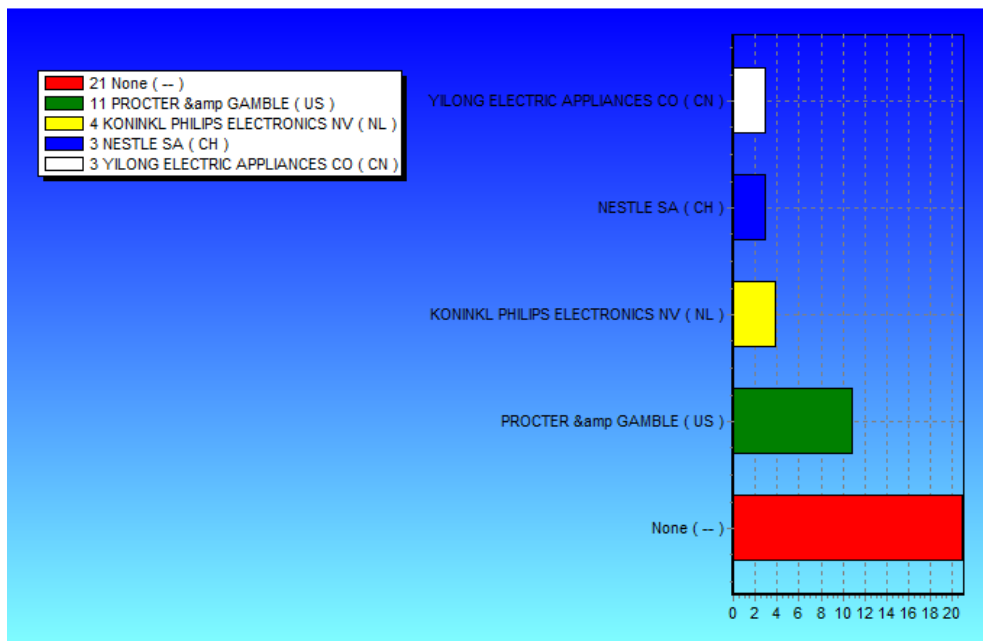
Groups: 0

2. Details

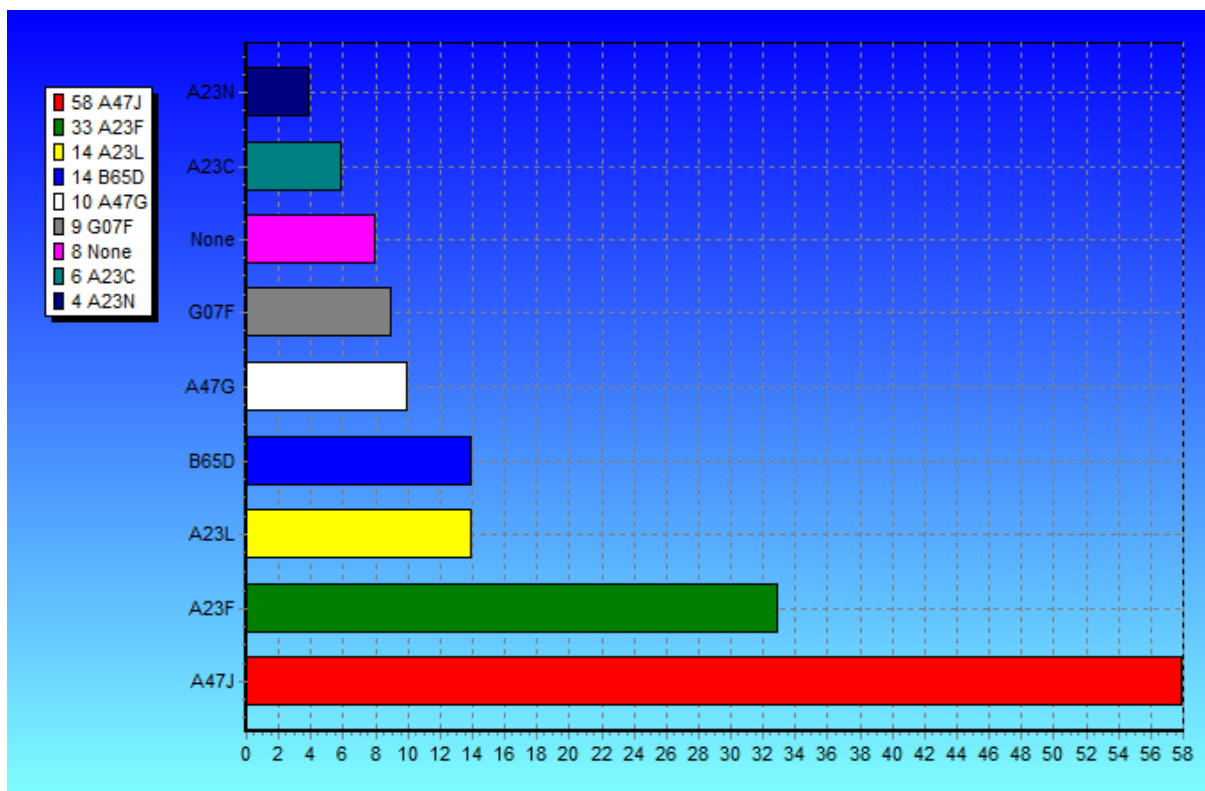
2.1. Inventors (Top 4)



2.2. Applicants (Top 4)



2.3. IP Class 4 Digits (Top 8)

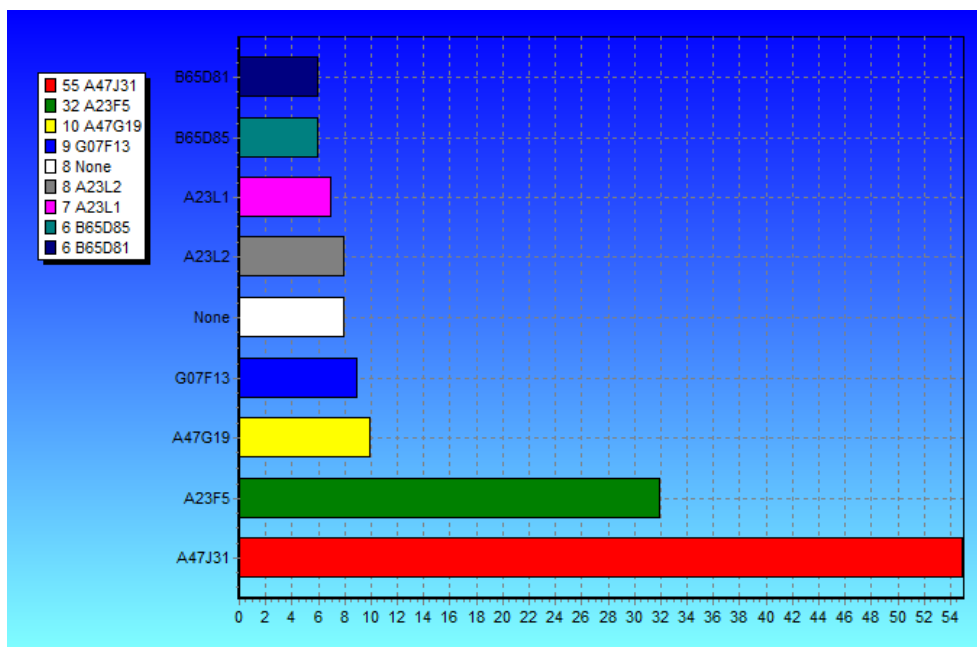


- A23C DAIRY PRODUCTS, e.g. MILK, BUTTER, CHEESE; MILK OR CHEESE SUBSTITUTES; MAKING THEREOF (obtaining protein compositions for foodstuffs A23J 1/00; preparation of peptides, e.g. of proteins, in general C07K 1/00)
- A23F COFFEE; TEA; THEIR SUBSTITUTES; MANUFACTURE, PREPARATION, OR INFUSION THEREOF (coffee or tea pots A47G 19/14; tea infusers A47G 19/16; apparatus for making beverages, e.g. coffee or tea, A47J 31/00; coffee mills A47J 42/00)
- A23L FOODS, FOODSTUFFS, OR NON-ALCOHOLIC BEVERAGES, NOT COVERED BY SUBCLASSES A23B TO A23J; THEIR PREPARATION OR TREATMENT, e.g. COOKING, MODIFICATION OF NUTRITIVE QUALITIES, PHYSICAL TREATMENT (shaping or working, not fully covered by this subclass, A23P); PRESERVATION OF FOODS OR FOODSTUFFS, IN GENERAL
- A23N MACHINES OR APPARATUS FOR TREATING HARVESTED FRUIT, VEGETABLES, OR FLOWER BULBS IN BULK, NOT OTHERWISE PROVIDED FOR; PEELING VEGETABLES OR FRUIT IN BULK; APPARATUS FOR PREPARING ANIMAL FEEDING-STUFFS (machines

for cutting straw or fodder A01F 29/00; disintegrating, e.g. shredding, B02C; severing, e.g. cutting, splitting, slicing, B26B, B26D)

- A47G HOUSEHOLD OR TABLE EQUIPMENT (book-ends A47B 65/00; knives B26B)
- A47J KITCHEN EQUIPMENT; COFFEE MILLS; SPICE MILLS; APPARATUS FOR MAKING BEVERAGES (disintegrating, e.g. mincing, B02C; severing, e.g. cutting, slicing, B26B, B26D)
- B65D CONTAINERS FOR STORAGE OR TRANSPORT OF ARTICLES OR MATERIALS, e.g. BAGS, BARRELS, BOTTLES, BOXES, CANS, CARTONS, CRATES, DRUMS, JARS, TANKS, HOPPERS, FORWARDING CONTAINERS; ACCESSORIES, CLOSURES, OR FITTINGS THEREFOR; PACKAGING ELEMENTS; PACKAGES (containers specially adapted for storing agricultural or horticultural products A01F 25/14; containers specially adapted for use in dairies A01J; travelling bags or baskets, suitcases A45C; travelling or camp equipment A45F; household or table equipment A47G; letter-boxes for home use A47G 29/12; kitchen equipment A47J; packages or wrapping arrangements for used absorbent pads A61F 13/551; associated with vehicles, see the appropriate subclass of B60 to B64; machines, apparatus, or devices for, or methods of, packaging articles or materials B65B; sack holders B65B 67/00; refuse receptacles B65F 1/00; handling sheets, webs or filamentary material B65H; load-engaging elements or devices attached to lifting or lowering gear of cranes or adapted for connection therewith for transmitting lifting forces B66C; liquid handling B67; storing gases F17; making containers, see subclasses dealing with the working of the material concerned)
- G07F COIN-FREED OR LIKE APPARATUS (coin sorting G07D 3/00; coin testing G07D 5/00)
- None

2.4. IP Class 7 digits (Top 7)



- A23F** COFFEE; TEA; THEIR SUBSTITUTES; MANUFACTURE, PREPARATION, OR INFUSION THEREOF (coffee or tea pots A47G 19/14; tea infusers A47G 19/16; apparatus for making beverages, e.g. coffee or tea, A47J 31/00; coffee mills A47J 42/00)
- A23L** FOODS, FOODSTUFFS, OR NON-ALCOHOLIC BEVERAGES, NOT COVERED BY SUBCLASSES A23B TO A23J; THEIR PREPARATION OR TREATMENT, e.g. COOKING, MODIFICATION OF NUTRITIVE QUALITIES, PHYSICAL TREATMENT (shaping or working, not fully covered by this subclass, A23P); PRESERVATION OF FOODS OR FOODSTUFFS, IN GENERAL
- A47G** HOUSEHOLD OR TABLE EQUIPMENT (book-ends A47B 65/00; knives B26B)
- A47J** KITCHEN EQUIPMENT; COFFEE MILLS; SPICE MILLS; APPARATUS FOR MAKING BEVERAGES (disintegrating, e.g. mincing, B02C; severing, e.g. cutting, slicing, B26B, B26D)
- B65D** CONTAINERS FOR STORAGE OR TRANSPORT OF ARTICLES OR MATERIALS, e.g. BAGS, BARRELS, BOTTLES, BOXES, CANS, CARTONS, CRATES, DRUMS, JARS, TANKS, HOPPERS, FORWARDING CONTAINERS; ACCESSORIES, CLOSURES, OR FITTINGS THEREFOR; PACKAGING ELEMENTS; PACKAGES (containers specially adapted for storing agricultural or horticultural products A01F 25/14; containers specially adapted for use in dairies A01J; travelling bags or baskets, suitcases A45C;

travelling or camp equipment A45F; household or table equipment A47G; letter-boxes for home use A47G 29/12; kitchen equipment A47J; packages or wrapping arrangements for used absorbent pads A61F 13/551; associated with vehicles, see the appropriate subclass of B60 to B64; machines, apparatus, or devices for, or methods of, packaging articles or materials B65B; sack holders B65B 67/00; refuse receptacles B65F 1/00; handling sheets, webs or filamentary material B65H; load-engaging elements or devices attached to lifting or lowering gear of cranes or adapted for connection therewith for transmitting lifting forces B66C; liquid handling B67; storing gases F17; making containers, see subclasses dealing with the working of the material concerned)

G07F COIN-FREED OR LIKE APPARATUS (coin sorting G07D 3/00; coin testing G07D 5/00)

3. Statistics

3.1. Applicants / IP Class 4 digits (Top 6)

PROCTER & GAMBLE (US)	A23F	9
None (--)	A47J	8
PROCTER & GAMBLE (US)	A47J	6
None (--)	A23F	6
PROCTER & GAMBLE (US)	G07F	5
None (--)	A23L	4
PROCTER & GAMBLE (US)	23F0	3
KONINKL PHILIPS ELECTRONICS	A47J	3
NV (NL)		
YILONG ELECTRIC APPLIANCES	A47J	3
CO (CN)		
PROCTER & GAMBLE (US)	47J3	3
NESTLE SA (CH)	A23F	3

8.4 The Internet

The Internet is very usefull, but because of the increasing number of information available, it is obvious that to spent to much time on Intrenet will be often useless and too much time cosuming. This is the reason why in Intrenet we advise the following strategy:

Using Google – This search engine must be use all the time in advanced mode, that is to say with the facilities to search with the Boolean operators, the selected file or hosts. Moreover, Google offer a lot of facilities (when using Google plus which gives access to those facilities). Then it is possible to search on the scientific literature (Google Scholar), on on US patent (Google Patent), or Images, or Videos.

Using Google with Matheo-Web (<http://www.matheo-web.com>)

Very often, when you use Google to select pdf files (most of the time these files contains more information that HTML files) or ppt files (for presentations in meetings, etc...) you do not know the length of the file, and downloadin the file one after the other will be too long. The Matheo-Web softaware has been created to improve your productivity and for instance to built up a local databases from all the pdf files that you will have downloaded during the night.

Matheo 6Web provides also the potentiality to download from the RSS flux or from aspecific host. We will give here an example of the serach on pdf files, using the specific words CROP and COFFEE.

There is 85.000 pdf files dealing with this questions. Among them, the following is relevant (among many other) with our subject:

Intrenet address: http://practicalaction.org/docs/technical_information_service/coffee.pdf

We show here only the text file. The pdf which has been detected can be obtained upon registration to the site.

Harvesting

By definition, 'processing' does not involve harvesting. However, one cannot produce a good product from badly harvested materials. Correct harvesting techniques could be said to be the most important factor in the production of a high quality final product.

Correct harvesting is essential. A good coffee cannot be made from poorly harvested coffee cherries.

Immature harvesting

This is the most serious problem with coffee harvesting. Under-ripe coffee cherries are very difficult to process and a low quality product is produced. One of the main causes of immature harvesting is the fear of theft. If the farmer picks it in an immature state, it prevents the thief stealing it.

Over-ripe coffee

With over-ripe coffee there is a possibility that the cherry will start fermenting which causes deterioration in flavour.

Correct harvesting

The coffee cherries should be picked when they are bright red all over. At this stage, the bean can be squeezed out from the pulp by applying light pressure between finger and thumb.

Processing

There are two ways coffee can be processed - dry ('natural') processing and wet ('fermented and washed') processing. In most cases, wet processing is regarded as producing a higher quality product. However, some areas prefer dry processed coffee for its 'fuller' flavour.

Dry processing

This is the simpler of the two methods and is popular in Brazil to process Robusta coffee and in Sri Lanka to process Arabica coffee.

Drying

The coffee cherries are dried immediately after harvest. This is usually sun drying on a clean dry floor or on mats. The bed depth should be less than 40mm and the cherries should be raked frequently to prevent fermentation or discoloration. However, there are

problems associated with this method. The most serious problem is dust and dirt blown onto the produce. Another problem is rainstorms often appear (even in the dry season) with very little warning, this can soak the produce very quickly. Finally, labour has to be employed to prevent damage or theft. Sun drying is therefore not recommended.

Solar Drying

Figures 1 and 2 are designs for two solar driers - the solar cabinet drier and the Exell solar drier. The coffee should be placed in the trays in the solar drier. The layer of the crop should be no deeper than one inch (3cm) and it is better if the whole tray area is covered. The drier should be ready as early in the day as possible so that all possible sunlight hours are used. The coffee should be stirred regularly so that a uniform colouration is formed. At night, the crop should be placed in a cool dry room.

Artificial driers

In the wet season solar drying of produce is difficult. Rain is very unpredictable and frequent. Solar driers will prevent the coffee getting wet. However, due to the low level of sunlight, solar drying can take a long time. This can lead to mould growth. An alternative drier is needed.

Hulling

The dried cherry is then hulled to remove the pericarp. This can be done by hand using a pestle and mortar or in a mechanical huller. The mechanical hullers usually consist of a steel screw, the pitch of which increases as it approaches the outlet so removing the pericarp.

Cleaning

The hulled coffee is cleaned by winnowing.

Wet processing

In this method the cherry is squeezed in a pulping machine or pestle and mortar which removes the outer fleshy material (mesocarp and exocarp) leaving a bean covered in mucilage. This mucilage is fermented and dispersed. The bean is washed and dried.

Pulping

Pulping involves the removal of the outer red skin (exocarp) and the white fleshy pulp (mesocarp) and the separation of the pulp and beans. Immature cherries are hard and green and very difficult to pulp. If the coffee is to be wet processed, correct harvesting is essential. For small-scale units, the cherries can be pulped in a pestle and mortar, this is very labour intensive.

The two most common pulpers and most suitable for small-scale units are the drum and the disc pulpers.

Drum pulpers

This involves a rotating drum with a punched sheet surface and adjustable breast plate between which the coffee cherries are pulped, the pulp and the beans separated, see Figure 3. The distance between the drum and the breast plate has to be adjusted so that the pulp is removed without the beans being damaged. These can be manually operated or attached to a treadle or bicycle. For larger scale units, motorised drum pulpers are available.

Disc pulpers

The same concept is involved with the disc pulper. The only difference is that rather than the cherries being squeezed between a breast plate and a drum, a disc with a roughened surface is used.

Mucilage removal

The amorphous gel of mucilage around the bean consists of hemicelluloses, pectic substances and sugars and is insoluble in water. This can be removed by chemical methods, warm water or by an 'agua pulper'.

8.5 The economic information

The economic information about coffee can be accessed from Intrenet, but also from various books and compendiaul available on Amazon. There are also various "coffee's commnities" which have web site and which give a lot of information on all aspects of coffe.

Some commercial databases (available from Dialog for instance) can be used to detect relevant information. But these databases are costly and very often out of reach of the centre of the Bukit Barisanone.

Conclusion

Then, this is step by step that people will have to learn of tgo get the best from their coffe production, from planting to nursing and harvesting, and after by choosing the best techniques (accroding their local knowledge) to provide a coffee with a standard quality.

In these conditions to place the centre near a cooperative will be the best condition for its functioning.

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