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Non-Farm Employment Opportunities in Rural Areas in Asia

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Edited by Prof. Dr. Tongroj Onchan, President, the Mekong Environment and Resource Institute (MERI), Bangkok, Thailand



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FOREWORD

The reduction of rural poverty continues to be a paramount goal of the developing countries as the majority of the poor population still reside in the countryside. The World Bank, for example, estimates that more than 70 percent of the world poor live in rural areas. So far, various strategies have been pursued to address this concern, and among the major ones is rural employment creation. The agriculture sector has played a central role in providing rural employment opportunities in the Asia and Pacific region. The sector, however, has been contending with a number of factors that have limited its further potential for generating new jobs in rural areas. Those factors include, for example, the small size of landholdings, insufficient capital and investment incentives, the inadequate farm infrastructure, limited markets, and stagnant prices of agricultural products. All of these have contributed to restricting the capacity for job creation in the agriculture sector.

It is therefore necessary to focus on a broader spectrum of the rural economy, not just on agriculture. The development of various non-farm activities, for example, offers great potential for creating additional rural jobs and hence for stimulating the further growth of rural economies. The establishment of rural-based industries, in particular, has often been very effective in creating new job opportunities and providing supplemental income. Diversified production and trade activities have also offered rural communities better employment prospects and accordingly more stable growth of their economies.

To review the present situation of non-farm employment in rural areas and identify major issues/problems, as well as measures for promoting rural non-farm employment in member countries, the APO organized a Seminar on Non-farm Employment Opportunities in Rural Areas in September 2001 in the Philippines. This volume is a compilation of the papers and proceedings of the seminar. I hope that it will serve as a useful reference on the subject in APO member countries.

The APO is grateful to the Government of the Philippines for hosting the seminar, and in particular to the Productivity and Development Center of the Development Academy of the Philippines for implementing the program, and to the resource speakers for their valuable contributions. Special thanks are due to Professor Dr. Tongroj Onchan for editing the present volume.

TAKASHI TAJIMA
Secretary-General

Tokyo
April 2004

SEMINAR HIGHLIGHTS

INTRODUCTION

The Seminar on Non-farm Employment Opportunities in Rural Areas was organized by the Asian Productivity Organization (APO) and implemented by the Productivity Development Center of the Development Academy of the Philippines in Manila from 24 to 29 September 2001. There were 16 participants from 14 countries – 11 member countries, two non-member countries and one country sponsored by the Colombo Plan Secretariat. The seminar also had four resource speakers, namely: 1) Dr. Jung-Sup Choi, Director, Agricultural Commodities and Marketing Department, Korea Rural Economic Institute; 2) Dr. Nerlita Manalili, Program Head, Agro-Industrial Development Program, SEAMEO-SEARCA; 3) Ms. Zenaida Cuison Maglaya, Assistant Secretary, Regional Operations, Department of Trade and Industry; and 4) Prof. Dr. Tongroj Onchan, President, Mekong Environment and Resource Institute.

The seminar had the following objectives: 1) to review the present situation of non-farm employment opportunities in rural areas; and 2) to identify major issues/problems in promoting rural non-farm employment and suggest measures for further generating such kind of employment. To fulfill these objectives the seminar consisted of resource and country paper presentations, field visits and a workshop. The resource papers covered the following topics: 1) Policies and Measures for Promoting Rural Non-farm Employment; 2) Enhancing Rural Non-farm Employment Opportunities through Agro-Industries and Rural-Urban Linkages; 3) Rural Industrialization: The Philippine Experience; and 4) Promoting Rural Non-farm Enterprises for Employment Generation and Rural Development.

For the country paper presentations participants were asked to: 1) discuss recent trends of non-farm employment in their country; 2) present major issues and problems that concern rural employment generation; and 3) cite measures for promoting rural non-farm employment. With regard to the field studies, visits were made to the following sites: 1) Paete Associated Enterprises for Trading, Export and Manufacturing, Inc. in Laguna; 2) Farmtec Foods, Inc. in Cavite; and 3) Ilog ni Maria Honey Bee Farm, also in Cavite.

HIGHLIGHTS OF RESOURCE PAPERS

Policies and Measures for Promoting Rural Non-farm Employment (Dr. Jung-Sup Choi)

Asia's agriculture is characterized by small-scale, low-income farming. In order to overcome poverty by supplementing agricultural income, the promotion of rural non-farm (RNF) activities are considered as an important policy thrust by many Asian governments and international donors.

Farm activity means agricultural activity and hence, non-farm activity is used synonymously with non-agricultural activity. RNF activity includes wage-earning activities when employed, and self-employed activities in manufacturing, commerce and other services.

There are two alternative approaches to define RNF activities. The first is the locative approach in which the primary criterion is that an RNF is performed in a location, which falls within a designated rural area. The second definition is based on the linkage approach. An industrial enterprise generates significant developmental linkages with rural residents.

Principal sources of demand for the products and services of RNF activities include: 1) the demand generated from the incomes of rural consumers; 2) the backward and forward production linkages; and 3) the urban and foreign sector. The demand for RNF employment increases as the rural income increases.

The supply of RNF activities involves issues with regard to labor intensity, labor productivity and capital productivity. It deals with job-creating abilities of RNF activities and economic efficiency. Since the RNF activities are usually undertaken by small-scale, artisan, and informal enterprises, their relationship to the larger-scale firms is important.

The levels of RNF activities suggest that South Asia is in the first stage of RNF sector transformation, in that RNF activity tends to have a production linkage with agriculture. Latin America is in the second stage, characterized by a tendency towards a greater mix of situations. East Asia appears to be in the third stage of RNF sector transformation, identified by a greater weight of urban-rural links.

Policies promoting RNF employment include macroeconomic policies and infrastructure policies. Well-designed general macroeconomic policies are necessary, but not sufficient, for the development of RNF activities. If universal economic benefits are to be generated through improved resource allocation, a combination of various policies is needed.

In facilitating rural industrialization, indirect supporting measures are mainly composed of institutional change and overhead capital improvement programs. With respect to the regulations related to land zoning, less rigorous rules are applied when the local government designates certain areas as rural industrial complexes. Local roads and water supply facilities are the major areas in need of infrastructure improvement.

Macroeconomic policies promoting RNF activities include policies on interest rates, tariffs, foreign exchange, other tax incentives and minimum wage regulations. The policies involve a certain level of influence on factor prices. It is imperative to design these policies to avoid biases against small-scale, traditional RNF enterprises. There are policies with non-price supply effects such as industrial policies. Policies designed to develop the infrastructure of a developing economy could also indirectly affect the performance of RNF enterprises.

At the project level, the general issues concerning the promotion of RNF enterprises/activities include: 1) the identification of project beneficiaries; 2) the types of direct assistance to be provided; and 3) the establishment of an effective evaluation system. Specific issues, on the other hand, include assistance for credit, technique, management, marketing and the common facilities. The assistance needed by RNF entrepreneurs the most is credit and capital. In addition, for the smaller enterprises, the primary credit requirement appears to be for working capital. For technical assistance, a cost-effective institutional mechanism for its delivery is important. For both the unemployed youth and currently employed personnel, vocational training is utilized for developing alternative job opportunities or enhancing capabilities in existing lines of activity. Management assistance comprises another key project area for the promotion of RNF activities.

There are various forms of management skills that RNF enterprises really need and these needs will likely vary depending on the size and nature of the enterprises. The design of marketing assistance for RNF enterprises raises issues on what existing or new sources of domestic, as well as external demand for the products of RNF enterprises are available. Also, the purchasing of raw materials and produce for the export markets is another area of marketing assistance for RNF enterprises since in most countries this institutional support is urban-based. The most popular type of assistance used in providing common facilities for RNF enterprises is industrial estates. Industrial estates have been utilized for decentralizing industry toward small rural towns and villages.

The RNF sector must not be viewed as a panacea for the fundamental problems of rural development and poverty alleviation. RNF activities should be considered as a supplementary measure to agricultural development aimed at eradicating rural poverty.

It is well recognized that the infrastructure to facilitate RNF activities requires a huge investment since rural areas are geographically scattered. Some argue that a concentrated industrial zone is a cheaper option. Without the trickle-down effect, however, rural areas would remain below the poverty line.

Especially after the establishment of WTO, the enhancement of agricultural competitiveness appears to be emphasized in agricultural policy. As the decrease in production costs is considered one of the major components of competitiveness, the policy measures are centered on achieving scale economy. At the same time, as more policymakers realize the fact that more active RNF could lead to the survival of small-scale farms through the supplementing of farm income from non-farm sources, RNF activity promotion programs will receive more attention during the structural reform.

Enhancing Rural Non-farm Employment Opportunities through Agro-Industries and Rural-Urban Linkages (Dr. Nerlita M. Manalili)

The agriculture or farm sector has always been viewed as the core of economic growth of developing economies. It accounts for a large share of the GDP of these countries and it represents a major source of

foreign exchange, supplies the bulk of basic food and provides subsistence and income to the large rural population. Because of the significance of agriculture, the current state of rural employment still needs attention. This is largely due to the considerable decline in the employment share of agriculture that can also be illustrated by the present state of agricultural productivity.

The non-farm sector (NFS) thus plays a crucial role in employment generation. By focusing on the NFS though there are two opposing views that should be taken into consideration. These two opposing views are between agriculture and the NFS. The first view is based on the premise that when the agriculture sector is buoyant, it generates employment opportunities in the rural areas that villagers see no need to migrate to urban centers to seek non-farm employment. The other view posits that agricultural development is brought about by productivity enhancing technological breakthroughs that lead to greater productivity out of cost efficient labor processes (farm mechanization) that in turn reduce labor requirement. Labor freed from agriculture is pushed to look for employment elsewhere, usually in the NFS or the urban centers.

In reality though there really is no right or wrong view. It is simply different phases within the same continuum. Continuing agricultural advancement provides not only jobs but also skill enhancement opportunities such that labor price differentiation occurs between skilled and non-skilled labor. Competition for scarcely available skilled labor increases agricultural development labor cost. It likewise reduces employment opportunities for the unskilled.

It is important to point out that certain types of policy instruments appear to have spatial effects on agricultural activity. Some major implications of this are as follows: 1) the growth of the NFS and the subsequent employment generation is anchored on the growth of the agriculture sector; 2) the dichotomy of rural-urban concerns and the dynamics between them also impacts on NFS development; 3) the strategy formulation for NFS enhancement is greatly dependent on realizing the differences (thus the need for measures) and interplay of rural-urban linkages; and 4) the policy thrusts have bearing on the development of the NFS as well.

Significantly, the connection of the NFS and rural-urban development is really nothing new. By virtue of the development path a community takes, it grows from a predominantly rural to a more urban character. There is really no clear delineation that separates rural from urban centers. Its duality determines the living conditions of people in villages and towns. As the villages today will be integrated into the urbanization process and become the focus of the future, the difference will only be in size. Furthermore the increase of non-farm activities will help stimulate rural-urban linkages.

The strategic approaches for NFS development include the business development or the market orientation approach and the technology development approach. The usual target of such programs or the beneficiaries are people in the rural villages though there has been an alternative view to conceive a decentralized development process built around the secondary centers or the peripheral-urban economy providing backward and forward links with the surrounding rural economy.

It should be noted that the development of rural-urban linkages is anchored on an in-depth understanding of urban and rural dynamics.

Rural Industrialization: The Philippine Experience (Zenaida Cuison Maglaya)

The issue of disparity in terms of the distribution of economic activities has been a concern of development planners in the country. The biggest challenge of the Philippine Government is how to integrate the fragmented domestic economy into a single market. The primary task is dispersing industries in the rural areas.

To address this challenge, the Philippines has employed a number of strategies. These include the breaking of monopolies in major urban centers particularly in Metro Manila, fixing domestic trade linkages, revitalizing agriculture and diversifying the rural economy and pursuing the clustering strategy. The latter is an approach that is intended to build competitiveness and productivity, accelerate small and medium enterprises (SMEs) development and disperse economic activities. Another significant approach is enabling and integrating SMEs into the domestic and global supply chain.

The Philippines has already employed a number of programs that have contributed to rural industrialization. These programs were all aimed at increasing and dispersing development in the rural sector. The Comprehensive Agrarian Reform Program (CARP) is a government program that was launched by the

government in 1988. It is a program aimed to provide the required support services and other factors needed to ensure socio-economic upliftment for its beneficiaries.

Another program is of the Small and Medium Industrial Technology Transfer Development Program (SMITTD). SMITTD was created to promote entrepreneurship and enterprise development among the farmers and affected landowners, and to provide the services necessary to ensure the success of their projects.

Industry clustering is a concept that was conceived out of a need to be more competitive in the global market. It is a collaborative model of governance that has been strongly advocated in the 1994 Export Summit. It involves the following principles: 1) the process should be as non-partisan as possible; and 2) the private sector should be actively involved right from the start.

The Developing Rural Industries and Village Enterprises (DRIVE) program is a countryside-centered, market-driven, agro-industrialization program. Its major objective is to strengthen the domestic base to maintain industry competitiveness and at the same time open up opportunities for SMEs.

The creation of the “W” Growth Corridor is another strategy that the Philippines is employing to increase growth in the rural areas. Developed from the Central Luzon Development Program (CLDP), it is a 15-year integrated development plan with the target year of 2010 for a more balanced agricultural and industrial, socio-economic and physical development in Luzon.

The CALABARZON (Cavite, Laguna, Batangas, Rizal and Quezon) program is another popular strategy that is used to promote rural industrialization. It is a large-scale, multi-sectoral project complex planned in a region contiguous to Metro Manila to transform agro-based rural economies into industrial/urban-based economies.

All these programs illustrate the experience of the Philippines in rural industrialization. Though not without flaws, they have generally been effective in pushing for a more progressive rural industrialized economy and have paved the path for better rural conditions.

Promoting Rural Non-Farm Enterprises for Employment Generation and Rural Development

(Prof. Dr. Tongroj Onchan)

The rural non-farm economy is a very important part of rural Asia. It accounts for a large proportion of the total rural employment and the total rural income. This will continue to increase over time. From the point of view of rural development, rural non-farm enterprises provide important sources of employment and income to women as well as to the poor small and landless farmers. Promoting this type of enterprises will therefore help raise employment and income, especially of the poor. Moreover, it can improve the distribution of income in the rural areas.

Rural non-farm enterprises cover many types of activities such as manufacturing, trade and services. They are located in the villages and towns where villagers can work part-time and/or set up small or micro type of enterprises that are labor-intensive. They usually use local raw materials, relatively simple and traditional technologies, some hired labor, and mostly owned funds (from saving). Markets are mostly local and district or provincial, although some products of high quality and value may also go to export markets. Rural small-scale industries form an important part of the rural non-farm sector and are getting increasing attention from policymakers to generate employment and income for rural development. Despite the fact that a rural industrialization policy has been implemented in many Asian countries in the past few decades, rural industries are still left behind other modern and urban types of industry. Today, great attention is still given to this policy due to its importance and potential for the development of the rural sector. As for Thailand, after the 1997 financial crisis, emphasis on rural development has increased and efforts and resources have been allocated for the promotion of community businesses in the villages all over the country.

With the rapid economic transformation in rural Asia, this transformation process has witnessed the expansion of rural non-farm enterprises, employment and income. Findings from studies on non-farm employment, particularly in Thailand, provide an understanding of the characteristics of non-farm enterprises and their problems. The findings include the following:

- 1) These enterprises are of small size (i.e., less than 50 workers). They usually produce different types of products, use different raw materials and serve different markets. However, certain common characteristics among these industries can be found that they use relatively simple techniques of

production and are closely linked with the agriculture sector (in terms of labor, raw materials and product market).

- 2) Seasonality in production is found to be very common among the non-farm enterprises. Production increases during the slack periods of farm production and then decreases. Seasonal employment is predominant. Causes of seasonality come from both the demand for and the supply of labor. Hired labor is an important component of the work force in rural industries. Subcontracting work is also found, particularly in the silk industry.
- 3) Raw materials are obtained from both local and outside sources. However, some still come from other areas, including foreign sources. Warping silk, for example, is mainly imported from China and Japan. As for ready-made garments and farm machinery, inputs come from Bangkok. Workers are mostly from farm families in the province.
- 4) The average amount invested in farm machinery is the highest. Working capital is about 20-30 percent of the total investment. Fixed investment is usually in the form of land, buildings, and equipment. Though the amount of total investment varies greatly among firms in different industries, the pattern of their investment in each kind of fixed assets is similar.
- 5) Most non-farm enterprises produce for local markets. However, products of ready-made garments or silk weaving are partly for export markets. The quality of products appears to be a major problem. Standardization is lacking in the farm machinery industry.
- 6) The major source of finance for the initial investment is savings. In the case of farm machinery, this accounts for 70 percent. Other sources are financial institutions and informal lenders. Non-institutional credit is also found to be quite significant, e.g., the case of ready-made garments (at present as formal rural financial markets have been significantly developed, this source of credit may be less than what is reported here). The financing of additional investment is made by means of owned funds and credit.
- 7) On profitability of the non-farm enterprises, the rates of net return to family (fixed assets), to total capital and to equity vary by types of industry, as well as by types of products. The net return to family ranges from a low of 10 percent (farm machinery products) to over 30 percent (ready-made garment products). The rates of return on total capital range from 10 percent (farm carts) to 44 percent of ready-made garments. Finally, the rates of return on equity range from 16 percent (farm carts) to 59 percent for ready-made garments. From these data, it is clear that some non-farm products give quite a high return on investment.
- 8) Problems of rural non-farm enterprises are many. They can be classified into several groups, namely; supply of raw material, market or demand, transportation, labor, capital or finance, and technology. Therefore, some enterprises have greater potential for growth than others. Furthermore, even within a type of industry (e.g., farm machinery), some products are more promising than others. This indicates that an industry approach to industrial development may prove to be more successful than a general one.

The problems just mentioned are obstacles to growth of rural non-farm enterprises. Here, five major obstacles are pointed out, namely; raw material supplies, technology, finance, marketing and product development, and labor force skill. Clearly, growth of these non-farm enterprises will depend on the effective removal of these obstacles.

Regarding the promotion of rural non-farm enterprises, major types of programs are proposed. They include those efforts to handle the supply of raw materials, the provision of technical support to the industries, the provision of financial services, and the support for market and product development. Under each type of program, several activities can be undertaken by the government and other private organizations. Training, for example, is an important activity that can help raise the capacity of local entrepreneurs or villagers. Subcontracting is another measure that can be used to improve marketing links between the village enterprises and the business firms in towns.

The roles of infrastructure and credit are important for the promotion of rural non-farm enterprises. Without good rural roads, transport and communications, it will be difficult to promote the development of trade, marketing and distribution network. Other social infrastructures like education and health services are also essential in many ways and must be adequately provided. Regarding credit or finance, this is generally accepted as essential for all kinds of development activities, non-farm enterprises included. Specialized credit

institutions may be established to provide special services to rural non-farm enterprises, including small-scale and micro enterprises. In fact, these credit programs have been set up in many countries. In Thailand, for example, there is a financial institution for small-scale enterprises. This may soon be restructured into a kind of SMEs bank as SMEs have received much attention. Moreover, a micro-finance program has been providing services for micro enterprises. These represent new initiatives and more are likely to emerge as Thailand is actively pursuing a development policy that emphasizes people-development and grassroots approach.

Finally, the role of the government is emphasized. Rural industrialization policy has been part of national development policy of many countries for many years. More effective measures must still be used if it is to have a chance of success. The “township-village enterprises” experience of the People’s Republic of China (PRC) is of particular interest and should be carefully studied to draw from it useful lessons for rural industrialization in other countries. Moreover, the role of the private sector must be recognized. Participation from private organizations such as NGOs, trade associations and research and development (R&D) centers is necessary for effective planning and promotion purposes. Regarding the promotion of rural non-farm enterprises, it must be noted that the linkages between the farm and non-farm activities within the households and the rural sector itself must be adequately conceptualized and analyzed. This should be done in the context of rural non-farm transformation which involves a much more complex process than what is usually envisaged.

HIGHLIGHTS OF COUNTRY PAPERS

The majority of the population in Asia and the Pacific still live in rural areas and in most cases, the main employer in the rural areas is the agriculture sector. The job-generating capacity of the sector, however, has been hindered by a number of factors such as the size of landholdings which are usually small, limited adoption of modern technology, lack of adequate rural infrastructure and instability of farm prices. The significant decline of the sector’s contribution to the economy in terms of GDP in many countries, as well as the impact of trade liberalization are also limiting the ability of agriculture to create more employment opportunities in the rural areas. Accordingly, many governments in the region have been prompted to promote the development of the RNF sector as a complementary measure for rural development. Such promotion has been pursued specifically to generate employment opportunities and hence improve household incomes in rural areas.

Recent Trends of Non-farm Employment

There has been a steady increase of non-farm employment in Asia and the Pacific. This can be attributed to a number of reasons. One is that agriculture in the region is not doing as well as before and there prompting an urgent need to increase the income of people in the rural areas. Another reason may be the heightened interest of many governments in the development of SMEs. In this regard, most of the participating countries have indicated an increase in the number of these enterprises in the rural areas. This development has been one of the factors that helped expand RNF activities in recent years.

Rural industrialization has also been pursued more aggressively in recent years. In terms of programs and strategies, various governments in the region have made it one of their major thrusts, leading to more rural non-farm employment (RNFE).

Another factor that can be attributed to the increase in RNFE is the establishment of industrial estates/parks in the rural areas of the participating countries. These estates/parks have aimed to disperse development from the urban to the rural areas. The increase can also be gleaned from the significant growth of the service sector in rural areas.

Major Issues and Problems of Rural Non-farm Employment

The common issues and problems that the participating countries face in terms of RNFE promotion includes: 1) inadequate rural infrastructure, particularly, roads, electricity and communications facilities; 2) lack of adequate skilled labor in rural areas; 3) limited access to credit; 4) lack of adequate access to information/lack of awareness about non-farm employment opportunities; 5) inadequate supply of raw materials for sustaining rural industries; 6) lack of training facilities in rural areas; 7) inadequate incentives

and government support; and 8) lack of effective and efficient strategies that will enable rural industries to compete in or penetrate the global market.

Most of the countries have pointed out that government programs that promote RNFE are not enough to promote RNFE and do not really address its concerns. Thus, the government will need to pay more attention to the policies that will encourage more RNF activity.

Funding and investment opportunities available for non-farm employment is visibly lacking despite efforts by government and non-government agencies. This lack of funding and investment opportunities hampers the growth of small and medium enterprises which are the major creators of non-farm employment.

Rural-urban linkages can be strengthened if adequate infrastructure is provided to rural communities. Effective strategies also will help promote RNF activities.

Effective Approaches/Strategies for Non-farm Employment

Various strategies or approaches have been adopted by the participating countries in promoting non-farm employment. These strategies include, among others, the development of small-scale businesses or SMEs in the rural areas, target marketing, micro-financing schemes and development of women entrepreneurs.

The development of SMEs is one strategy that has been commonly pursued because these SMEs generate RNFE. By providing SMEs with good policy support, funding, technical assistance and incentives, their big potential for generating RNFE can be further exploited. Other models/approaches were also examined in greater detail during the workshop.

FIELD VISITS

For their field studies, the participants visited three sites: 1) Paete Associated Enterprises for Trading, Export and Manufacturing, Inc.; 2) Farmtec Foods, Inc; and 3) Ilog ni Maria Honey Bee Farm. The highlights are as follows:

Paete Associated Enterprises for Trading, Export and Manufacturing, Inc. (PAETE)

The participants were welcomed by the Production Manager, Ms. Marlene A. Valdellon and by the Treasurer, Mr. Florentino M. Velasco. They were given a brief orientation on how the enterprise started.

The enterprise is located in the town of Paete, Province of Laguna. It is a small town famous for its woodcarvings and other creative arts. Aside from that it is a community which has remained agriculture-based. Most families in Paete still depend on farming as a major source of livelihood. However, income from farming has not been enough to support a rural family. It is through such small businesses like woodcarvings and the creative arts-like handicraft and paper mache products that help increase rural incomes in the area.

PAETE is an organization that was organized on 1 May 1999. It aimed at improving the living standards of the community and the larger society. Since it is only a year old the enterprise is still experiencing a lot of growing pains. Despite these obstacles the incorporators still believe that their efforts to be known as honest manufacturers and exporters will not be wasted.

The incorporators also aim to assist and help the people in their community by providing them with employment opportunities. They wanted to open up these opportunities to their community since they also believe in the talents of the people in their area. Aside from providing employment opportunities, they also want to assist small/backyard businesses that also make paper mache products. They provide these small entrepreneurs a venue to market their products and assist them in strengthening their business.

The participants were received at the showroom of the enterprise. They had an opportunity to look around on their own and check out the merchandise. At one of the work areas nearby, the participants were able to observe also how paper mache products were being made and to ask specific questions about the making and marketing of these products.

Farmtec Foods, Inc.

The President of the company, Mr. Fabian Espiritu, received the participants and gave them a brief orientation on the company.

Farmtec was organized in 1989 and it has been a major producer of dehydrated food ingredients. It started as a family-owned business located in Silang, Province of Cavite. Since then the business has expanded and is now a corporation that has a capacity to dry more than 3,000 kg of fresh raw materials, pulverize more than 2,000 kg of dried products, and produce 600 kg of rendered chicken. At present, Farmtec has at least 12 regular products that are supplied to more than 70 food manufacturers and distributors.

In terms of employment, Farmtec has provided opportunities for people within a 10-km radius in their community. In fact one of its missions is to fulfill its moral and social responsibility to help neighboring communities uplift their quality of life by providing employment and spiritual guidance. It has championed productivity and promoted efficiency as part of its work ethics. Their commitment is to continually strive for excellence.

After the orientation, Mr. Espiritu answered the participants' questions. The participants inquired about the cost of equipment and its acquisition, how much money was spent to start the business, how much quantity can the company produce and if it gets assistance from the government. One of the participants also inquired about the linkages involved in the business and the quality of labor.

After the question session, the participants were given a quick tour of the production facilities.

Ilog ni Maria Honey Bee Farm

Upon arrival at the Ilog ni Maria Honey Bee Farm, Mr. Joel Magsaysay, the General Manager of the 10-ha farm, greeted the participants. He started his briefing by explaining some basic misconceptions about honeybee farming. He also mentioned that there were six common honeybee products but in reality there are a lot of products that can be produced by further processing or value addition. Mr. Magsaysay stressed early on that the important thing is really exploring other products and by learning from the "thousand of mistakes" that they have made.

Ilog Maria is a 22-year-old farm. Its major product line is honeybee-based products though the farm also produces fruits and vegetables. The bee farm started through the efforts of Mr. and Mrs. Magsaysay. It was borne out of a desire to explore other business opportunities and out of frustration from working in the corporate world. The business has expanded from a 10 x 10 hut and is still undergoing expansion.

During the briefing, Mr. Magsaysay showed the participants a beehive and how some of its products are being produced. He also showed the participants the products that they produce. These products include soaps, shampoos, wine, vinegar, candles and some medicinal items. He pointed out that these products can now be ordered through their website and can be delivered everywhere in the world.

After the very interesting orientation, the participants were able to look at the products more closely and tour the area.

WORKSHOP

A workshop was conducted to provide an opportunity for further discussion and sharing of views and experiences among the participants. Specifically, three discussion points were taken up, namely:

- 1) What are the current measures/programs being pursued to promote RNFE opportunities in your respective countries?
- 2) Have these measures/programs been successful or not? What are the factors/causes that have contributed to their success or failure?
- 3) Based on the above, what lessons can be learned which may be useful to promoting RNFE in your respective countries?

To facilitate the discussions the participants were divided into two small groups. The outputs of the two groups were presented in a plenary session which have been summarized as follows:

GROUP I: Mr. J. K. Waqabaca (Fiji), Mr. M. Saxena and Mr. P. S. Singh (India), Mr. H. H. Parsa (Islamic Republic of Iran), Mr. I. Rasheed (Republic of Maldives), Mr. I. B. Thapa (Nepal), Mr. A. S. Khokhar (Pakistan) and Mr. P. D. Jayaratna (Sri Lanka)

Chairperson: Mr. Pukhrem Sharatchandra Singh (India)

A) *Analysis of Current Situation*

Measures and Programs	Factor(s) for Success	Cause(s) of Failure
Special Employment Program C Employment Assurance Scheme C Rural Employment Generation Program	C Leads to creation of infrastructure and assets for sustainable development C Provides supplementary employment to enhance income of rural poor consequentially C Focusing on providing incentives to artisans in rural areas C Tapping of local resources C Providing easy access to credit in the form of subsidy and loan	
Human Resource Development C Vocational Training C Local Community Development – devolution of powers and functions to local bodies C Entrepreneurship Development Program (EDP)	C Leads to skill upgradation and increased earnings C Minimizes mismatch between supply and demand for skilled labor C Encourages people participation	C EDPs often fails due to lack of focus/motivation/awareness and poor implementation
Marketing C Exhibitions/Fairs/Festivals/ Sales Promotion C Infrastructure – construction of clusters of sales outlets at major market centers C Export Promotion	C Makes available market for both buyers and sellers C Facilitates strategic alliance between interrelated sectors and business interests	C Lack of awareness and information among target groups C Rigidity of rules C Problem of quality/standardization of products
Welfare Programs for Weavers/Artisans		
C Housing and Work-shed Incentives C Thrift Fund C Group Insurance C Health Package	C Providing workplace at home and its multiplier effect C Providing social security C Lead to active participation and increased productivity	

... To be continued

Continuation

Measures and Programs	Factor(s) for Success	Cause(s) of Failure
Infrastructure Development C Setting up of cold chains/ storage infrastructure C Industrial estate C Food parks C Free trade zones C Rural connectivity	C Integrated approach to remove constraints of establishing enter- prises C Facilitating strategic alliance among enterprises C (New Concept) C Providing common facility and trade incentives C Government and people partner- ship in infrastructure develop- ment C Provides support system leading to diversification of rural economy	C High cost and lack of invest- ments

B) *Lessons Learned*

- i) Special Employment Programs should focus on infrastructure development.
- ii) There is a need for more research and development activities.
- iii) There is a need for technical and market/business orientation.
- iv) Strong linkages between agriculture and non-farm activities should be developed.
- v) Greater women participation should be encouraged.
- vi) Rural-urban linkages must be viewed as a continuum.

GROUP II: Dr. B.-W. Huang (Republic of China), Ms. I. Baroroh (Indonesia), Dr. J. K. Suh (Republic of Korea), Mr. S. Heuangsavath (Lao PDR), Ms. D. N. J. Loo (Myanmar), Ms. M. H. Atrengenio and Ms. C. C. Quiambao (Philippines) and Mr. P. Booranasanti (Thailand)

Chairperson: Dr. Jin Kyo Suh (Republic of Korea)

A) *Analysis of Current Situation*

Measures and Programs	Factor(s) for Success	Cause(s) of Failure
Industrial Estates/Parks	C Financial or credit program (supported by government)	C Limited amount of funds
Development of SMEs	C Public facilities (e.g., roads, education and health facilities, etc.) C Project itself (e.g., how to design the program and project; should consider the objective, coverage, impacts of policies	C Lack of infrastructure C Low motivation of rural people for acquiring business skills or entrepreneurial attitude C Lack of strategies for effective management of programs C Free trade may have negative impacts in the short run on rural development in developing countries (e.g., it is hard for developing countries to met international standards)

B) Lessons Learned

- i) The role of the government is important for effective implementation of rural development program.
- ii) The financial (credit) program is also one of the major measures for stimulating non-farm activities in rural areas.
- iii) Public facilities, including infrastructure, are an essential factor for success of policies on rural development.

CONCLUSION

The RNF sector is increasingly playing an important role in the development of rural areas in Asia and the Pacific region. Specifically, as agriculture in the region declines in importance in terms of its contribution to the economy, the RNFS will need to become more and more a major provider of employment and income to many rural folks. It should be noted, however, that RNFE is not a substitute for employment in agriculture but rather as a supplementary measure. Agricultural development is still important and should be pursued as a necessary precondition. The promotion of RNFE also should be undertaken within the broader context of rural development.

Many strategies and programs to promote RNFE have been formulated in the various countries. In this regard, the role of government is crucial, especially in the provision of necessary infrastructure and other support services in the countryside. It is also vital to improve the marketing links between the village entrepreneurs and the larger business firms located in the towns/cities. Such strategic alliances or partnerships have contributed to enhancing the sustainability of SMEs in the rural areas. Other important considerations identified during the workshop are: 1) human resource development; 2) financial/credit facilities; 3) research and development; and 4) women's participation.

The seminar provided the participants an opportunity to review the present situation of RNFE in their respective countries, as well as to discuss measures on how RNFE could be enhanced, particularly, under the current environment of shrinking economic growth in the region and the increasing globalization trend. In this regard, the seminar stressed an increasingly important role that RNFE is playing, and how various strategies/measures could be adopted to further generate non-farm employment in the rural areas.

1. POLICIES AND MEASURES FOR PROMOTING RURAL NON-FARM EMPLOYMENT

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Agricultural Commodities and
Marketing Department
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Seoul
Republic of Korea

INTRODUCTION

Asian agriculture is characterized by small-scale, low-income farming. In order to overcome poverty by supplementing agricultural income, rural non-farm (RNF) activities are considered an important policy direction by many Asian governments and international donors.

Questions

In this paper, we focus on the RNF employment (RNFE) in the rural areas. Questions to be answered in this session are as follows:

- 1) What are the concept of RNFE and its related terms?
- 2) What are the features of “Asian” RNFE?
- 3) What are the different types of RNFE?
- 4) What are the sources of demand for RNFE?
- 5) What are the major constraints of RNFE for farm households?
- 6) What determines the level of RNFE?
- 7) What are the preconditions for RNFE?
- 8) What measures can the public sector implement to promote RNFE?

CONCEPTS, DEFINITIONS, AND DEMAND FOR AND SUPPLY OF RURAL NON-FARM ACTIVITIES

Concepts and Definitions

1. *Some Essential Concepts*

Farm activity means agricultural activity and non-farm activity is used synonymously with non-agricultural activity. Farm households are defined as rural households that carry out some farming activities (i.e., agriculture). There are other households in rural area that include the landless poor and rural town residents conducting non-farm jobs. RNF activities refer to wage-earning activities, when employed, and self-employed activities in manufacturing, commerce, and other services. RNFE includes both employment and self-employment. Off-farm earnings are income generated through RNFE.

2. *Locative and Linkage-based Definitions of Rural Non-farm Activities*

Saith proposed two related definitions of RNF activities (Saith, 1992, pp. 12-16). Since the RNF activities include a range of economic activities, it is hard to define with clarity. The problem is accentuated in cross-country comparisons. Even if data is available, seemingly identical variables may be based on diverse specifications. The question of definition is also important since it specifies the scope of the sector, of the analysis and, consequently, of policy formulation.

Saith argues, that there are several points of consideration when constructing a working definition of RNF activities:

- i) Should the non-farm sector include such auxiliary activities as fishing and aquaculture, animal husbandry, and beekeeping? Bearing in mind that the strategic focus on the non-farm sector derives from the limitations of agricultural land and productivity, such activities, which are not affected by agricultural constraints, should be included. This is confirmed by the emphasis on these activities in policy packages for the landless poor.
- ii) The confusion over “off-farm” and “non-farm” activities should be avoided. Logically, the “off-farm” category could include straightforward agricultural activities, such as income earned by peasants and workers as hired labor on farms owned by others. On the other hand, “non-farm” work generally includes a non-agricultural component. “Farm” needs to be understood unambiguously as referring to a set of economic activities, rather than to the location where any particular activity is executed. A distinction between “farm” and “agriculture” would also be appropriate, where the latter refers exclusively to crop cultivation, while the former also includes the auxiliary agricultural activities, mentioned above. The correct category then is all “non-agricultural” activities, irrespective of whether they are conducted on one’s own farm or elsewhere. For simplicity, we use “non-farm” as a synonym to “non-agricultural”. Non-farm activities include both “on-farm” and “off-farm” activities.
- iii) The rural industrial sector, or rural enterprises, constitutes one part of the rural non-agriculture sector. The rural non-agriculture sector also includes various services, household-based petty production activities and non-agricultural labor, which in turn includes work on rural public works programs and creation of public infrastructure.

There are two alternative approaches to define RNF activities: the first is conventional, and may be labeled the locative approach. The primary criterion for the identification of a RNF activities is that it is performed in a location, which falls within a designated rural area. Such a definition seems appropriate with respect to the objectives pertaining to physical and spatial planning, industrial decentralization and relocation, and so on.

The second definition is based on the linkage approach. For this definition, the point is rural. The key test is whether an industrial enterprise, or any other non-farm activity, generates significant developmental linkages with the rural residents. The locative requirement is applied to the population, but not to the activity concerned. The first element in the measurement of the rural linkages of, say, an industrial enterprise could be the percentage of value-added accruing to rural residents.

Table 1. Standard RNF Activities with Linkage Effects

	Agriculture	Industrial Sector		Agriculture	Industrial Sector
Forward linkage	Inputs Tools	Subcontracts	Backward linkage	Processing Transport Marketing	Intermediate input

Principal Sources of Demand for the Products and Services of Rural Non-Farm Activities¹

1. *Rural Income*

A central issue is whether or not the demand for RNF activities should be expected to increase as rural incomes increase. There have been some divergent views. Some have argued that RNF goods and services are “inferior” and thus the demand for these goods will decline as rural incomes rise. Others have contended that there is a strong, positive relationship between rural income and the demand for RNF activities. The available evidence, though limited, tends to support this view. Virtually all the standard analyses of rural household expenditure surveys indicate that the income elasticity of demand by rural households for non-

¹ For the description of demand and supply of RNF activities, please refer to Chuta and Liedholm, pp. 22-51, 1979.

food consumption items is positive and, in most cases exceeds unity, and that these activities account for an increasing proportion of a rural household's budget as its income rises.

Consequently, these reveal that RNF goods are not "inferior", and rather than being viewed as an overriding constraint, the demand induced from increasing income should be viewed as a strong force for the growth of RNF activities in developing countries.

2. *Backward and Forward Production Linkages*

A second major demand issue centers on the nature and extent of the production linkages between RNF activities and other sectors of the economy, particularly the agriculture and large-scale industrial sector. Specifically, there are the "forward" linkages from the RNF sector, where RNF outputs serve as inputs to other sectors, and the "backward" linkages, where the RNF sector demands the outputs of other sector.

Hirschman (1958) contends, that the linkages between agriculture and other sectors are quite weak. Mellor (1976) argues that linkages with agriculture are potentially quite significant. These agricultural linkages are an essential ingredient in Mellor's "rural-led strategy of development". The empirical evidence on RNF linkage with agriculture tends to be somewhat limited. The vast majority of the input-output studies fail to include any explicit RNF activities, and thus they mask or understate the RNF linkages with agriculture. The input-output studies that specifically include RNF activities, however, indicate that the "forward" and "backward" production linkages from this sector to agriculture are quite important.

With respect to the "forward linkages" from RNF activities to agriculture, the empirical studies indicate that rurally produced agricultural inputs are particularly important where traditional "intermediate" agricultural technologies are utilized. Johnston and Kilby's analysis (1975) of farm equipment in India, Pakistan, and Taiwan stresses that traditional tools are most often made by rural artisans, while improved implements, and irrigation pumps and motors are likely to be fabricated by light engineering workshops located in rural towns.

The "backward" linkages from RNF activities to agriculture are quite significant, especially the linkages between rural agricultural processing and the agriculture sector, and between rural transport and rural marketing activities. Krishna's input-output study of India (1973) indicates that such activities as the processing of gum, tobacco, sugar, cashew nuts, and flour have the highest inter-sectoral linkages.

3. *Urban and Foreign Demand*

The final important demand issue centers on the nature and magnitude of the foreign and urban demand for the products of RNF enterprises. The lack of detailed data on the location of productive activities in most countries makes it difficult to derive any definitive conclusion on this issue.

The available evidence does indicate that RNF products do enter into international markets and that, for some activities, the international market is a major component of the total market. In Iran, handicrafts, including carpets, is the largest export item after oil, and 60 percent of the handicraft activity are undertaken in the rural areas. In India, handicraft and handloom commodities account for approximately 6 percent of the country's value of exports.

Supply of Rural Non-farm Activities

1. *Labor Intensity*

One important supply issue is whether RNF activities are more labor-intensive than other segments of the economy. In developing countries, capital and foreign exchange are relatively scarce and unskilled labor is relatively abundant. Those activities and techniques of production that are more labor-intensive would generate the largest amount of employment per unit of scarce factor and thus appear to be the most appropriate to their factor endowments.

Although some studies reveal that smaller enterprises are more labor-intensive than larger enterprises, they do not differentiate between rural and urban enterprises and thus do not conclusively verify whether RNF activities are more labor-intensive.

2. *Labor Productivity*

A second supply issue centers on how the labor productivity of RNF activities compares to that in other segments of the economy. The available empirical evidence generally indicates that the average productivity of labor is lower in small-scale enterprises than in the larger-scale enterprises. Such findings are not

surprising in light of the results presented in the previous section that the larger enterprises possess greater amounts of capital per worker.

3. *Capital Productivity of Rural Non-farm Activities*

A third supply issue is whether or not RNF enterprises use capital as efficiently as other enterprises. It has been argued during the 1960s that small-scale, labor-intensive activities would use not only more labor, but also more capital than their larger-scale counterparts. Hence, they argued that these small-scale, labor-intensive activities would offer lower output-capital ratios and would be consequently less efficient than the larger, more capital-intensive enterprises.

The majority of the empirical evidence, however, appears to support that “the smaller enterprises, with a lower level of investment per worker, tend to achieve a higher productivity of capital than do larger, more capital-intensive enterprises”.

STAGES AND REGIONAL DIFFERENCES OF RURAL NON-FARM ACTIVITIES

The Stage of Rural Non-farm Activity and Interregional Differences

The general finding emerging from available data is that the nature of RNF activity differs significantly over regions and subregions. The patterns in the levels and composition of RNF activity suggest that Africa and South Asia are in what can be considered the first stage of RNF sector transformation. During this stage, RNF activity tends to have a production or expenditure linkage with agriculture while farming directly employs a large share of the rural population and RNF activity tends to be centered in the countryside, with little dependence on rural-urban links. Indeed, RNF activities are mainly home-based and small-scale production of non-tradable goods (goods that are mainly sold locally) produced in the countryside (rather than in rural towns). In terms of farm/non-farm linkages, during this first stage agriculture tends to depend on local supplies of farm inputs and services and on local processing and distribution of farm products, usually carried out by small- to medium-scale firms. Examples of these activities include: the manufacture or mixing of fertilizer; the manufacture, rental and repair of animal traction equipment; cart production; tractor services; crop processing; transport; the construction or maintenance of market facilities; and commerce.

Latin America is in the second stage of RNF sector transformation, characterized by a tendency towards a greater mix of situations. The range includes activities based on linkages with agriculture as well as tourism, mining and service sector activities, although the latter did grow out of a historical RNF sector transformation based on linkages with agriculture. There tends to be greater rural-urban links as the basis for RNFE than in first stage. There is also a tendency for rapid “agro-industrialization” in commercial agricultural areas, both on a small scale and, particularly, on a medium to large scale. Another characteristic of this phase is the mixed levels of capital intensity, both within and across RNF sub-sectors. Thus, small-scale labor-intensive production in the countryside is observed alongside relatively capital-intensive enterprises producing the same output in local intermediate cities.

East Asia appears to be in the third stage of RNF sector transformation. There is a greater urban-rural links manifested by the greater importance of more advanced forms of business linkages, such as subcontracting arrangements and labor commuting. A number of other tendencies also characterize this stage of transformation. For example, the expansion of subcontracting beyond light durables to medium durables (such as vehicle parts); substantial RNFE arising outside linkages with agriculture; and rapid agro-industrialization in commercial agriculture.

Inter-regional and Intra-regional Differences in Characteristics of Rural Non-farm Activities

The full-time farm share of farm household shows a striking difference between Korea and Japan. In Korea, full-time farm share of total farm households was 63.6 percent in 1999. In contrast, the equivalent share was 13.4 percent in Japan. In 1999, the non-farm share of farm household income in Japan was 86.5 percent, while the share in Korea was much lower, at 52.7 percent. The share of farm population, 9 percent in Korea, was about the same as in Japan, 8.7 percent in 1999. Reflecting the fact that more farms are involved in RNF activities, the agricultural GDP share in Japan, 1.5 percent, is lower than the share in Korea, 5.1 percent.

The example of Korea and Japan is interesting since it reveals some features of RNF activities. First, the industrialization process could influence RNF significantly. More specifically, the geographical distribution pattern of industrial sites determines the level of RNFE. Second, the level of RNF activities is somewhat related to the level of farm earnings. Usually higher share of non-farm income results in higher farm income.

The varying historical experiences of different parts of the world themselves constitute an important source of explanation for contemporary interregional diversity with respect to the nature and relative magnitude of the RNF sector (Saith, 1992, pp. 21-24). Saith attempted to explain why RNF activities are exceedingly important in South and Southeast Asia, noticeably less so in most parts of Africa, and virtually negligible, relatively speaking, in many Latin American contexts. Here we refer to the case of Asia and sub-Saharan Africa to understand the regional differences. When comparing sub-Saharan Africa and South Asia, a few factors are obvious:

- 1) While both continents have endemic poverty in the rural sector, the land frontier was essentially open in Africa, whereas it had been effectively and firmly shut off in Asia. As a consequence, there is a comparatively lower number of landless in Africa. The push factor of rural poverty which drives a large section of the Asian rural poor into the non-farm sector to scratch out a livelihood operates in Africa, but here it pushes the rural poor onto marginal lands with low and unreliable productivity. This aspect has the crucial significance that the central focus in the strategy for solving the problems of rural poverty in Africa must be on the raising of levels of agricultural productivity.
- 2) For various reasons, including significant geo-natural ones, the productivity of African peasant agriculture is far lower than in most parts of rural Asia. Lower per capita income levels in the peasant sector then imply a weaker income and demand base for sustaining any substantial RNF sector.
- 3) African scattered homesteads are quite distinct from the densely clustered village communities of Asia. Weak transport systems prevent the development of the rural industrial sector. In the African situation, it is arguable that the protective effect applies to an underdeveloped situation which would be eroded further if this protection were lifted.

Patterns in Rural Non-farm Activity

1. *Comparisons of Rural Non-farm Activity Across Developing Country Regions*

Table 2 summarizes data on the shares of non-farm income and employment in total rural income and employment drawn from studies from the 1970s to the 1990s in Asia. Average non-farm income share is 32 percent in Asia. Even after taking into consideration caveats about data quality and coverage, these findings are important and surprising for several reasons.

Table 2. Share of Non-farm Income and Employment in Total Rural Income and Employment

Regions and Subregions	Non-farm Income Share		Non-farm Employment Share		Average Per Capita GNP (1995) (US\$)
	Mean (percent)	Coefficient of variation	Mean (percent)	Coefficient of variation	
Asia:	32	0.33	44	0.32	1,847
East	35	0.19	44	0.29	2,889
South	29	0.52	43	0.40	388

First, they show the significant importance of non-farm income relative to total income in rural areas, and hence its significance on purchasing power and food security. Second, one would expect the relative importance of non-farm income to be greater in regions with higher levels of per capita GNP. Indeed, richer regions tend to have better infrastructure and stronger agriculture sectors, both of which enhance RNF development.

Nevertheless, within individual regions, the richer countries and subregions tend to show higher shares and levels of RNF income. The poorest subregion, South Asia, has a low non-farm income share of 29

percent. The variability of non-farm income share is higher in the poorer areas, reflecting a diversity of conditioning factors such as degree of agricultural performance, infrastructure, urbanization rates, etc.

Growth patterns (i.e., changes in non-farm income shares over time) are difficult to discern from available income data, except in some case studies (mainly in Asia). Some case studies point to a positive growth of non-farm income shares over time in a number of countries (Bangladesh, Burkina Faso, China, parts of India, Java in Indonesia, western Kenya, Malaysia, Mexico, northern Nigeria, the Philippines and Taiwan).

Data concerning RNFE (a key indicator) over years and countries show average shares of around 44 percent for Asia. This share is higher than the income share. It should be noted that a direct comparison between the employment shares and the income shares above is difficult because the shares may differ as a result of wage rate differences.

2. *Sectoral Composition, Subcontracting and Rural-Urban Links*

The sectoral composition of RNF tends to vary over regions. In Africa, most evidence shows that RNF activity is fairly evenly divided over commerce, manufacturing and service sectors, linked directly or indirectly to local agriculture or small towns, and that it is informal rather than formal. In Asia and Latin America, the sector appears to be weighted more towards manufacturing and services.

In Asia, there appears to have been a long-term increase in commuting by rural residents to non-farm jobs in burgeoning nearby intermediate cities or rural towns and vice versa (town residents commuting to farm labor jobs). Thus, barriers between rural-urban areas and the countryside are breaking down and segmentation is disappearing.

Subcontracting between urban and rural enterprises is another type of link between urban and rural areas that has been growing. There indeed appears to have been an increasing trend towards outsourcing/subcontracting to rural enterprises and households by larger manufacturing and trading companies located in rural-urban or metropolitan areas. It may well be that these cases represent a spectrum, with one developing into the other: from light consumer manufactures, organized by traders and undertaken in homes, into consumer and capital goods, subcontracted by urban enterprises and sold in urban markets or used as components in factory-produced goods.

In Asia, it appears that urban-rural subcontracting is more of a spillover of industrial activity from the larger to the smaller cities and towns. It is taking place both in light consumer goods and in consumer and capital durables and has been growing rapidly since the 1970s in a number of Asian countries (Indonesia, the Republic of Korea, Malaysia, the Philippines and Taiwan).

POLICY ISSUES AND IMPLICATIONS

Policy Issues of the Promotion of Rural Non-farm Activities

Major problems in promoting the manufacturing and service sectors in rural area include, among other things: 1) the fact that rural areas are not preferred locations for most enterprises since the social overhead capital such as roads, water supplies, and communication networks are inferior to those in urban areas; 2) the fact that the ability of investment of local government is relatively low because of severe budget constraints; 3) the fact that it is extremely difficult to secure labor since the rural labor market suffers from personnel shortages and aging; 4) the fact that farmers' business experience is often limited, and the risk of failure is high; and 5) the fact that the traditional tendency to block agricultural investment by urban-based enterprises hinders non-agriculture sectors from participating in the promotion of RNF activities. Government policy often attempts to solve or try to assist solving the problems.

1. *Macroeconomic Policies*

Well-designed general macroeconomic policies are necessary, but not sufficient, for the development of RNF activities because they are needed to achieve an efficient use of resources throughout the economy.² If universal economic benefits are to be generated through improved resource allocation, a combination of various policies is needed. Examples include a devaluation of the chronic overvaluation of currencies,

² FAO, "Rural Non-farm Income in Developing Countries", <http://www.fao.org/docrep/W9500e12.htm>.

liberalization of trade, a reduction of fiscal deficits, the elimination or privatization of parastatals and cuts in subsidies, etc.

Macroeconomic reform alone is not sufficient to spur RNF sector development. Two points should be raised in this regard:

- i) There is often significant ambiguity regarding the effects of reforms in rural areas, particularly in the short term. Indeed, while liberalization may improve the terms of trade and create opportunities for RNF activity, short-term effects can also include the removal of protection previously enjoyed by the RNF sector and the exposure of certain RNF sectors to competition from urban-based enterprises and imports. The rural economy will inevitably undergo painful adjustment in the process.
- ii) Depending on the situation, reforms may have a positive effect because of the incentives open to rural enterprises and farms. However, there are often considerable capacity constraints that limit responses to these incentives, or cause unfair allocation especially to the asset-poor.

2. Investing in Rural Infrastructure³

Rural areas are typically poorly-equipped in terms of infrastructure. Infrastructure investment policies can strengthen linkages between the RNF sector and agriculture and thus create RNF multipliers from the growth of agriculture. It is important to improve both physical infrastructure (e.g., roads, electrification) and social infrastructure (e.g., banking systems, market information systems, educational and training facilities) as a means of reducing the transaction costs for business start-ups and subcontracting in rural areas as well as improving the productivity of RNF entrepreneurs.

For example, widespread rural electrification had a powerful developmental impact in Taiwan. The industrialization process displayed a high degree of spatial spread, especially with respect to rural areas. Also the relative incidence of rural industrialization kept up with the rapid expansion of the national economy. Well-developed rural infrastructure, in particular electrification, is very important. In China, where rural electrification was also spatially dispersed on account of the small hydroelectric energy generation policies within the rural commune framework, the effect on rural industrialization was more indirect. Local power generation led to better water management improving agricultural yields and incomes, which in turn had strong forward and backward production linkages as well as consumption linkages with the RNF economy.

However, rural electrification has a potential to generate negative side-effects. For instance, in Bangladesh, rural electrification made possible the automation of rice-processing methods. The small and large electrically powered rice hullers have effectively displaced the indigenous, manually-operated, labor-intensive *dhenki* method which constituted the single largest source of employment for rural women. Similar effects were reported earlier in the Indonesian case at the time when rural Java enjoyed benefits of rural electrification programs. Thus, increased competitiveness of small-scale industrial plants vis-à-vis larger-sized plants could go hand-in-hand with this type of displacement effect with respect to the rural micro-level, or household sector.

The conclusion is obviously not that rural electrification is generally undesirable, but rather that under certain structural conditions it could generate some negative side-effects. It is important to remember that such programs cannot universally be expected to have a flat beneficial impact on all sections of the rural economy.

In terms of education, rural areas are frequently at a disadvantage, and the importance of enhanced rural education for development of the RNF sector is incontrovertible. Empirical studies reveal education to be a strong determinant of household participation and of the level of wage earned in RNF activities. However, it appears that more specific skills and training are necessary to promote RNF activities in today's environment of competitive and liberalized trade. There is an urgent need to train rural people in skills that allow them to participate in the skilled labor market.

3. Missing Links between Agricultural Policy and Rural Non-farm Development

The significance of RNF income and employment should not be taken to mean that RNF development represents an alternative to addressing agricultural development problems; nor should it detract from the

³ FAO, "Rural Non-farm Income in Developing Countries", <http://www.fao.org/docrep/w9500e/w9500e12.htm>.

importance of agricultural policy and research.⁴ On the contrary, in all but the worst agroclimatic zones, the RNF sector is usually closely connected to agriculture, and activities linked to agriculture are predominant forces in first stage and second stage RNF sector transformation. This implies that agriculture is often crucial to the success of RNF development strategies, and vice versa.

A sector-specific policy should identify promising sub-sectors and then systematically address the constraints to incentives and capacity for development – ranging from the participation of small- and medium-scale farmers, small- and medium-sized agro-industrial development and/or linkages with larger agro-industrial companies, and market development and consumer product acceptance. The specific goal should be to provide the incentives and capacity for rural households and RNF enterprises to overcome entry barriers, and to create “linkage friendly” agriculture and RNF activities.

4. *Enabling the Poor to Participate*

Improving the asset base of the poor is crucial. Poor farm households often lack the assets that serve as important capacity variables for participating in RNF activities. In turn, unequal access to more remunerative RNFE may cause further concentration of wealth, in the form of land. A similar vicious circle may occur with other farm assets.

In some countries where land is very unequally distributed, the lack of landholding among the poor may constitute a constraint to the growth of RNF activity and employment. Income growth among the rural poor is a crucial engine for rural growth via production and expenditure linkages. On the other hand, increases in the income of wealthier population groups may be associated with leakage to the urban and foreign sectors. For example, Saith showed that land reform was critical to the broad-based rural industrialization in Taiwan and in China. He notes that this created a broad rural middle class, rising incomes, collateral for loans and demand for outputs and inputs from local agro-industry. The most far-reaching, but also the most difficult, policy to implement would be land redistribution. Short of that, non-land asset distribution, would still be useful for RNFE creation and improving access by the poor to RNF activities in the medium term.

5. *Competition between Small- to Medium-scale Rural Non-farm Firms and Large-scale Firms*

An important issue is whether a significant increase in RNF activity by small- and medium-sized companies is possible in situations where there are large-scale firms competing in the same markets. Trade and foreign investment liberalization and improvement of infrastructure can constitute a threat to small- to medium-sized RNF enterprises. Namely, reductions in economic and “natural” protection of rural companies may create pressures on their competitiveness vis-à-vis consumer goods and inputs “imported” from metropolitan areas and/or from abroad.

This can be seen in the context of a dual economy where large retail outlets and large manufacturing companies compete in rural towns and intermediate cities with small- and medium-scale rural enterprises. In globalizing or regionalizing markets, this competition can only become more intense. In such cases, even where small rural firms have the production cost advantage, this will not necessarily translate into a market advantage, as larger urban firms may have better distribution networks, brandname appeal, etc.

The potential competition between small informal sector businesses and large formal sector businesses could take place in terms of production costs, markets for farm inputs and processed foods, and distribution channels. The issue is whether the small business sector can take advantage of lower costs and prices; more appropriate products in the form of inputs and consumption goods targeted to small-scale farmers and poor rural households; more convenient access to products and services; and niche market strategies. Such competition can, of course, turn out to be beneficial to the rural consumer and farmer in terms of lower costs and access to products and services.

A promising type of arrangement is the “business linkage” between big urban companies and small rural businesses in contracted outsourcing and franchising. This is developing rapidly in East Asia and other parts of the world. Under such arrangements, a small company can enter a niche market for which it is particularly suited and/or to lower labor costs and increase the flexibility of labor arrangements. As labor costs and skills increase in the initial set-up of companies, there can be a second wave of outsourcing relationships where rural companies subcontract to other rural companies. Infrastructure development that lowers costs constitutes a key ingredient in the success of these arrangements.

⁴ *Op. cit.*, p. 23.

This type of subcontracting arrangement appears to have a number of strong advantages, as it teaches skills to small firms, creates access to dynamic markets, in some cases provides credit, etc. The buyer sometimes provides capital to suppliers by providing an advance payment for an order or by supplying raw materials for processing. Business links can help suppliers reduce their capital needs as well as cut down on search and start-up times by targeting production to an identified market. A small company can also receive marketing advice from a larger partner.

An example could be a rural entrepreneur forming a small business to distribute farm inputs or collect and perform the first processing stage of farm outputs for large business. This arrangement could be a “strategic alliance” of agro-industrial companies and small-scale farms, or a franchise or outgrower/outsourcing arrangement.

Policies Promoting Rural Non-farm Activities with Factor Price Effects

1. *Interest Rates*

In most developing countries, two distinct capital markets exist: the “formal” and the “informal”. Banks and similar institutions constitute the formal market while moneylenders, raw material suppliers, and purchasers make up the bulk of the informal market. Interest rates vary widely between the two. Banks tend to lend only to established large-scale firms, which may appear to involve lower risks and lending costs. Most of the recipients are urban-based and tend to become more capital-intensive than would have been the case at the “opportunity costs” of capital.

For the RNF activities, an important question is to what extent has the fragmented capital market resulted in depressed enterprise creation, capital formation, employment generation, and labor productivity? An important related issue is the extent to which the government imposed ceiling on “formal” interest rates contributes to the gap between the demand for and supply of credit for RNF enterprises at a given time in a country.

2. *Tariffs*

The import duty structure reflects differential treatment for the urban large-scale over the rural small-scale enterprise. For most developing countries, import duties are the lowest for heavy capital goods and become progressively higher in intermediate and consumer durable goods categories. Yet, many items classified as intermediate or consumer goods in tariff schedules are capital goods for rural small-scale firms. In Sierra Leone the sewing machine, an important capital item for tailoring firms, was classified as a luxury consumer good and taxed accordingly.

3. *Foreign Exchange*

Many developing countries institutionally maintain high price for foreign exchange but grant concessionary rates to large firms. Small firms are deprived of comparable advantages since they usually do not qualify for concessional rates. Even if there are no concessions the large firms usually import relatively more equipment and inputs and therefore benefit more than smaller ones. This encourages greater capital intensity among urban large-scale industries and a less than optimum use of capital among RNF industries.

4. *Other Tax Incentives*

Several countries employ tax incentives to encourage industrial development. These incentives differ with respect to timing and coverage. Many of these fiscal incentives have pronounced differential effects between large and small RNF firms. Income tax exemptions in many countries are only made available to enterprises above a certain minimum investment or employment threshold. In countries with no minimum requirements, the qualifying procedures are often so sophisticated and time-consuming that they discourage small entrepreneurs.

5. *Minimum Wage Regulations*

Minimum wages, often initiated to achieve socially sound objectives, often apply only to larger enterprises in urban areas of developing countries. Where they are applicable countrywide, they are often not enforced as effectively among the smaller-scale RNF activities. Minimum wages in most developing countries tend to cause greater capital intensity in urban areas and greater rural-to-urban migration. For the rural areas, the overall direct effect has been a possible reduction in the number of potential entrepreneurs and a deterrent to the development of a permanent skilled rural labor force.

Policies with Non-price Supply Effects

1. *Development of Infrastructure*

Policies designed to develop the infrastructure of a developing economy could indirectly affect the performance of RNF enterprises. The provision of expansion of electricity, water, or roads would appear to benefit these enterprises. These same amenities also benefit their larger-scale urban-based counterparts, which may now be able to enter markets previously dominated by RNF enterprises. Indeed, one differential advantage of RNF enterprises may be that they do not require sophisticated and costly infrastructure.

2. *Industrial Policies*

Many policies designed primarily with reference to large-scale urban firms are also applicable to small firms, but they often prove discouraging to the latter. Simple licenses or permits to engage in business may be hard to acquire for small firms due to strict requirements and administrative barriers. On the other hand, some countries, such as India, have taken positive measures by reserving certain business activities for the RNF or small-scale sector. Such actions bring up an issue as to whether they may cause over-corrections and raise barriers to the development of other sub-sectors.

3. *Policies Affecting the Demand for Rural Non-farm Activities*

The fact that the rural households' income elasticity of demand for RNF goods is positive and that agriculture generates the largest share of rural income have an important indirect effect on the demand for RNF activities. Consequently, pricing policies that improve the terms of trade between agriculture and the large-scale urban sector or specific investment programs and policies designed to increase, directly or indirectly, agricultural production and income can generate an increased demand for a wide array of RNF goods and services.

Government policies also can affect the demand for RNF activities that arise from production linkages with large-scale industry. Subcontracting is the most frequently discussed industrial linkage. Properly designed, such policies can provide relatively stable demand for certain products at prices which will not adversely affect the profitability of rural enterprises or the quality of the work environment.

Rural Non-farm Enterprise Project Issues

1. *General Project Issues*

One of the major issues confronting project designers of RNF enterprises is how to identify the intended project beneficiaries. Another issue is the type of direct assistance to be provided. It is crucial to first identify constraints facing the rural enterprises. Only after these constraints have been identified can the type and nature of assistance be ascertained.

The last general issue is an establishment of an effective monitoring and evaluation system for these projects.

2. *Specific Project Issues*

a) *Credit Assistance*

What is the extent of the effective demand for credit by RNF enterprises? Some evidence would appear to indicate that this demand is quite formidable. RNF entrepreneurs, for example, when asked directly to identify their greatest assistance needs and greatest perceived bottleneck, will usually list credit and capital first. There is evidence that for many types of RNF enterprises, the rates of return on existing capital are quite substantial. These high rates of return indicate that the potential demand for credit could be quite large.

Another related issue is the degree to which technical assistance institutions should be separated from the regular governmental machinery. There are advantages to sector approaches; confidence among entrepreneurs would likely be higher and qualified staff could perhaps be more easily recruited and retained.

Finally, there is the question of whether research institutions in the rural areas are well-staffed and well equipped to address relevant research problems of small RNF enterprises. The institutions should be linked to comparable research centers in the world and within the country to personnel handling information dissemination and technical advisory services.

Another demand issue relates to the composition of this credit demand of RNF enterprises. In particular, is the credit demand primarily for fixed or for working capital? For the smallest enterprises, which account for the bulk of the RNF sector, the primary credit demand appears to be for working capital. Indeed, the vast majority of these RNF enterprises have never even applied for funds from formal credit institutions. Thus, alternative institutional mechanisms to the formal ones might also need to be considered.

A related supply issue concerns the costs and risks associated with lending to RNF enterprises. It is argued that, owing to the geographical dispersion and a vast number of RNF enterprise-borrowers, the administrative costs of lending to this group are significantly higher than lending to large-scale borrowers.

The final issue that relates both to the demand for and the supply of credit is the interest rate for small-scale enterprise credit projects. In many countries, and within some donor agencies, there is a feeling that RNF enterprises should receive credit at a rate below the opportunity cost of capital.

Table 3. Forms of RNF Assistance

Type of Assistance	Form
Credit	– Loans in cash and/or fixed assets and/or working capital
Technical/Production	– Advice on processes, design of products, tools, equipment, machines, quality control, plant layout
Management	– Bookkeeping – Accounting – Production planning – Inventory control – Capital budgets, etc. – Personnel management – Entrepreneurship development
Marketing	– Advice on packaging, merchandising, product demand – Raw material procurement – Maintain emporia and displays at home and abroad – Serve as collection centers – Buy on consignment basis – Undertake export service – Offer credit insurance
Common Facilities	– Buildings – Roads, electricity and water

b) *Technical Assistance*

First, it is important to ascertain the magnitude of the demand for technical assistance. A second general issue which deserves careful consideration is what are the most cost-effective institutional mechanisms, if any, for delivering technical assistance to RNF enterprises. Vocational training institutes have been providing technical assistance, particularly to unemployed youth in developing countries. For some already employed personnel, vocational training has been utilized for developing alternative job opportunities or enhancing capabilities in existing lines of activity.

c) *Management Assistance*

An important issue which should be addressed when designing an RNF project is to ascertain whether or not there is a demand for management assistance. Another related issue is what form of management skills these RNF enterprises really need. The need will likely vary somewhat depending on the size and nature of an enterprise. A third issue is what delivery mechanism, if any, will be cost-effective in carrying out management assistance projects for RNF enterprises.

d) *Marketing Assistance*

The design of marketing assistance for RNF enterprises raises several issues. First, it is important to ascertain what existing or new sources of domestic demand are available and how these could be further stimulated or developed. A second issue relates to the external demand for the products of RNF enterprises. In particular, a key issue how to develop and deliver information to rural enterprises on the existing and new product demand in foreign markets as well as information on product handling and financial transactions. Thirdly, there is an issue of whether there is an accessible, cost-effective, institutional support which can enable RNF enterprises to purchase raw materials and produce and effectively enter the export markets. In most countries this institutional support is urban-based. Decentralization of such facilities to service the needs of RNF enterprises is crucial.

e) *Common Facilities*

In many developing countries, the most popular type of assistance used in providing common facilities for RNF enterprises is industrial estates. In some developing countries, industrial estates have been utilized for decentralizing industry toward small rural towns and villages. An important issue is whether establishing estates located in rural areas with inadequate infrastructure facilities can be cost-effective.

CONCLUDING COMMENTS

I would like to cite Saith's conclusion on RNFE that "the RNF sector must not be viewed as a panacea for the fundamental problems of rural development and poverty alleviation. The problem of development is a problem of the whole; it cannot be solved by tinkering with a single little part. The tail cannot wag the dog".

RNF activities has the potential to eradicate rural poverty, but agricultural development is regarded as a necessary precondition. It is, however, well-known that the infrastructure to facilitate RNF activities requires a huge investment since rural areas are geographically scattered. Some argue that a concentrated industrial zone is a cheaper option. Without the trickle-down effect, however, rural areas would remain below the poverty line.

Especially, after the establishment of WTO, the enhancement of agricultural competitiveness appears to be emphasized in agricultural policy. As the decrease in production costs is considered one of the major components of competitiveness, the policy measures are centered on achieving the scale economy. At the same time, as more policymakers realize the fact that more active RNF activities could lead to the survival of small-scale farms through the supplementing of farm income from non-farm sources, RNF activities promotion programs become more important during the course of the structural reform.

The basic agricultural policy direction is the encouragement of full-time farming. In order to enhance the earning power, the government assists the full-time farms to acquire the added-value through processing raw agricultural products and through marketing. As a result, agriculture is designed to become a secondary and tertiary industry. In addition, RNF activities is encouraged for small-scale farms that are willing to give up farming. Their farm land is designed to be rented out by full-time farms equipped with heavy machinery.

In a rural economy with limited land and other resources, the role of RNFE will become more important in most developing countries. However, if the pattern of economic growth is dominated by large-scale, urban-based, and capital-intensive industries, the promotion of RNFE is a challenging task. As Chuta and Liedholm wrote: "the RNF sector is influenced by the pattern of agricultural growth, but, also, the RNF sector can influence the course and rate of agricultural development (p. 81)". Especially because the policy environment is severely tough, more carefully designed programs are required for the promotion of RNF activities and employment.

A final word. With the rapid development information technology (IT), the economic environment of RNF activities will change substantially. Accessibility to the remote areas would improve and would influence both the backward and forward linkage of RNF activities. Again, infrastructure to improve the connection is a key issue.

REFERENCES

- Choi, J. S., 1998. "Policies Promoting Rural Non-farm Activities in Rural Development Programs in Korea After the Uruguay Round", paper presented at the 23rd Conference of the International Association of Agricultural Economists, August 1998, Sacramento, California, U.S.A.
- Chuta, E. and C. Liedholm, 1979. "Rural Non-farm Employment: A Review of the State of the Art", MSU Rural Development Paper No. 4, Michigan State University (mimeo).
- Hirschman, A. E., 1958. *The Strategy of Economic Development*, Yale University Press, New Haven.
- Johnston, B. F. and P. Kilby, 1975. *Agriculture and Structural Transformation: Economic Strategies in Late-developing Countries*, Oxford University Press, London.
- Krishna, R., 1973. "Unemployment in India", *Indian Journal of Agricultural Economics*, 28:1-23.
- Mellor, J. W., 1976. *The New Economics of Growth*, Cornell University Press, Ithaca.
- Saith, A., 1992. "The Rural Non-farm Economy: Processes and Policies", International Labor Office, Geneva (mimeo).

2. ENHANCING RURAL NON-FARM EMPLOYMENT OPPORTUNITIES THROUGH AGRO-INDUSTRIES AND RURAL-URBAN LINKAGES

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INTRODUCTION

The agriculture or farm sector, has always been viewed as the core of economic growth in developing economies. It accounts for a large share of the GDP, represents a major source of foreign exchange, supplies the bulk of basic food, and provides subsistence and income for large rural populations (FAO, 1998). Besides agriculture's contribution to accelerating output growth and the fact that it already employs a large proportion of the labor force, it still has great potential to generate rural employment. The gains per worker engaged in agricultural productivity were surpassed by those in other economic sectors leading to a steadily declining employment share of agriculture.

The non-farm sector (NFS) on the other hand plays a crucial role in employment generation, particularly in the rural areas. In Asia for instance, the rural NFS accounts for about 20-40 percent of the total rural employment and about 25-50 percent of the total rural income (Nangju, 1999). However, the NFS productivity or output growth has been rather modest.

Given the contrasting performance can there be a meeting point for the farm sector and NFS so that they may both achieve sustained output growth as well as employment generation? In order to understand this, it is necessary to review the interplay of agriculture and the NFS, the growth dynamics in the region under study and the rural-urban linkages development and approaches. These topics and their relations to non-farm employment are the focus of this paper.

NON-FARM SECTOR EMPLOYMENT GENERATION AND AGRICULTURAL DEVELOPMENT

Ever since the agriculture sector has been associated with the rural areas and the non-agriculture with the urban area, there is obviously a close relationship between the shift in the balance of economic activity from agriculture to non-agriculture. In fact very few low income countries have achieved rapid non-agricultural growth without corresponding rapid agricultural growth. Similarly the shift in the residential location of the population from mainly rural to a higher proportion in urban areas is likewise linked with the shift in the agriculture and non-farm activity, (U.N., 1998).

There are seemingly two opposing views on the relationship between agriculture and the NFS as far as employment generation is concerned: those of labor absorbing and labor displacing. The first view is based on the premise that when the agriculture sector is buoyant, it generates employment opportunities in the rural areas. Villagers see no need to migrate to urban centers to seek non-farm employment. The labor displacing view posits that agricultural development is brought about by productivity enhancing technological breakthroughs that lead to greater productivity out of cost-efficient labor processes (farm mechanization) which in turn reduce labor requirement. Thus labor freed from agriculture are pushed to look for employment elsewhere, usually in the NFS or at the urban centers.

Are there really two different viewpoints or just phases of the same continuum? What are their implications and relevance?

A closer look at the development process will tell us that the labor absorbing aspect is observable during the early agricultural development stages where most farm activities are labor-intensive and the labor cost is low. The labor displacing view, on the other hand, occurs usually during the advanced development stages where technological breakthroughs and cost efficient farming systems reduce labor intensiveness of agricultural endeavor. It follows that they are just phases of the same continuum. Economics' law of supply and demand provides explanation. The abundant supply of labor owing to fewer job opportunities during initial development stages leads to low labor cost promoting labor intensiveness of agricultural activity. Further agricultural advancement provides not only jobs but skills enhancement opportunities causing labor price differentiation between skilled and non-skilled labor. Competition for scarcely available skilled labor increases labor cost. It likewise reduces employment opportunities for unskilled ones.

Nangju further suggests that the types of policy instruments appear to have different spatial effects on agricultural activity as well. He added that farm mechanization thrust enhances labor displacement while land productivity enhancing policies (irrigation) retain labor. The implications of the foregoing statements are crucial. They are as follows:

- 1) The growth of the NFS and the subsequent employment generation is anchored on the growth of the agriculture sector;
- 2) The dichotomy of rural-urban concerns and the dynamics between them also impacts NFS development;
- 3) The strategy formulation for NFS enhancement greatly depends on knowing the difference (thus the need for measures) and interplay of rural-urban linkages; and
- 4) The policy thrusts have bearing on the development of the NFS as well.

THE ASIAN SCENARIO

As non-farm employment opportunities in ASIA is the focus of this paper, a look at the non-farm situation in ASIA is followed.

Agriculture

The Asian region as a whole has made headway as far as agriculture is concerned between 1970 and 1995. The population increased by 60 percent from 1.7 billion to 2.8 billion and cereal production doubled to a 650-million mt level through increase in yields, thereby increasing food availability over 20 percent (from 2,045 to 2,537 cal/person/day) and per capital income by 189 percent (from US\$177 to US\$512) (APCPA-6FAR 1999). In addition, the total number of rural and urban poor declined by 25 percent (from 930 to 700 million) and the total number of rural poor fell by 10 percent from 720 to 650 million.

In spite of these developments, there are still 650 million people living poverty in rural Asia. While agriculture has made remarkable progress during the past 30 years, more has to be done to reduce poverty. The NFS with its great potential to create job opportunities has to be closely looked at and developed.

Table 1. Asian Scene, 1970-95

Indicator (unit)	From	To	Percent Change
Population (billion)	1.7	2.8	+65
Agricultural production (cereal) (mt)	313	650	+108
Food availability (cal/person/day)	2,045	2,537	+24
Per capita income (US\$)	177	512	+189
Rural/urban poor	930	700	-25
Rural poor	720	650	-10

Source: APCPA-6FAR, 1999.

Urbanization Trends and Projection

In terms of urbanization growth rate for the year 2000, Asia's 32-36 range is substantially below the world standard of 48.2 (Table 2). However, Asia's urban population growth rate of 4 percent is higher than the 2.52-percent world growth rate meaning that given this rate a doubling of urban population in 17 years is expected (U.N., 1998).

Table 2. Southeast and East Asian Urbanization Trends and Projections, 1960-2005
(Unit: Percent)

	1960	1970	1980	2000
World Total	33.6	37.2	39.9	48.2
Southeast Asia	17.6	20.2	24.0	35.5
Indonesia	14.6	17.1	22.2	36.5
Thailand	12.5	13.3	17.3	29.4
	(16.2)	(20.8)	(24.5)*	(40.0)
Philippines	30.3	33.0	37.4	49.0
Malaysia	25.2	27.0	34.2	50.4
		(28.7)	(37.4)	(n.a.)
Myanmar	19.3	22.8	23.9	28.2
Cambodia	10.3	11.7	10.3	14.5
Vietnam	14.7	18.3	19.3	27.1
Lao PDR	7.9	9.6	13.4	25.1
Papua New Guinea	2.7	9.8	13.1	20.2
East Asia	25.0	26.9	28.1	32.6
China	16.8	19.3	20.4	25.1
Japan	62.5	71.2	76.2	77.7
Rep. of Korea	27.7	40.7	56.9	80.5
DPR Korea	40.2	50.1	59.7	72.9

Source: U.N.

Table 3. Annual Growth Rates of Urban Population
(Unit: Percent)

	1960-65	1970-75	1980-85	1990-95	2000-05
World Total	2.97	2.65	2.42	2.55	2.52
Southeast Asia	3.77	4.14	3.96	3.83	3.44
Indonesia	3.72	4.92	4.60	3.96	3.24
Thailand	3.53	5.59	4.66	4.02	3.70
Philippines	3.85	4.02	3.81	3.71	3.32
Malaysia	3.77	4.87	4.51	3.87	2.77
Myanmar	3.83	3.23	2.09	3.21	3.84
Cambodia	3.48	-2.09	3.54	4.19	4.30
Vietnam	4.18	2.86	3.27	4.16	4.38
Lao PDR	3.14	5.52	5.58	5.45	4.77
Papua New	15.44	6.08	4.35	4.88	5.05

Source: U.N.

Note: * Alternative set of estimates.

Until recently poverty is associated only with rural condition. Rapid urbanization, however, has given rise to poverty among a large mass of urban dwellers. Rural to urban migration worsens. A situation where there will be more urban to rural dwellers is not that far off. This represents a different challenge that calls for a different solution.

The influx to urban areas is brought about by either the pull of economic growth or the push of declining employment opportunities in the rural sector, among others.

Labor Scene

Global population growth is still on the upward trend and is projected to reach 8.5 billion by 2050. A more cohesive labor market within the countries and across the region was experienced in the 1990s, prior to the 1997 Financial Crisis in Asia.

Massive layoffs and severe unemployment problem due to closure of many factories were expressed. It was during this critical time that agriculture bailed out the economies from the crisis as it absorbed back displaced urban labor. The concern is whether how long this can be sustained. The main issue, however, is that more employment opportunities in the NFS are needed, if economic development is to be continued.

Integration

Trends and progresses in any region should be taken within a bigger context, a regional one. This will allow evaluation of opportunities and threats and a better understanding why, despite continuing development efforts, development progress comes in drops and not in trickles.

In the case of the ASEAN region despite declining share of agriculture in GDP, potentials exist, a result of the continuing enhancement of agri-based industries (Figure 1). Threats of environmental degradation and heightened competition hopefully will be offset by the enhancement in the rural non-farm economic sector and rural-urban linkages that will pave the way for new development opportunities.

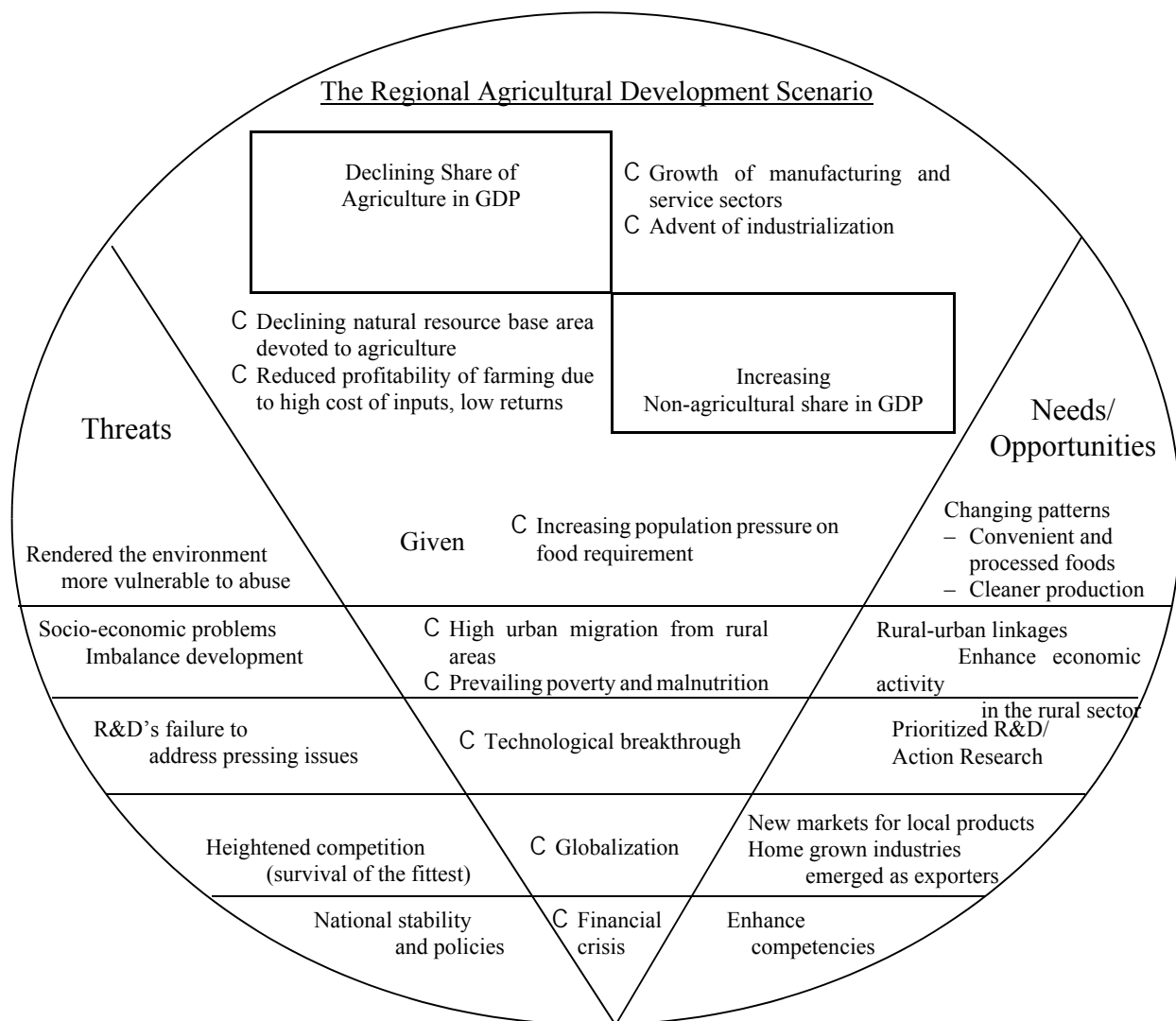


Figure 1. The Regional Agriculture Development Scenario

Source: N. M. Manalili, SEARCA-AIDP, 1998.

NON-FARM SECTOR AND RURAL URBAN DEVELOPMENT: WHAT'S THE CONNECTION?

While the rural sector produces a surplus of agricultural commodities in order to fuel industrial growth, a complementary sector has to provide value-adding activities and support infrastructure that will provide the much needed link between agriculture and industries, as well as between the rural and urban sectors where they are respectively based.

Amid declining share of agriculture in total outputs as industry and services expand, the agribusiness sector in developing countries noticeably maintains or increases its share of economic output. This is primarily because agribusiness caters to the input, production processing, marketing and support services sub-systems. Agribusiness plays a crucial role in agricultural and economic development as it absorbs agricultural surpluses and at the same time meets the demands of both urban and rural population through its value-adding activities. Most of these activities are carried out by agro-based small- and medium-scale enterprises (SMEs).

The urban rural dichotomy is nothing new. By virtue of the development path a community takes, it grows from a predominantly rural to a more heavily urban character. A deeper understanding however, will serve as the basis for measures that can improve both urban and rural livelihood and environments. The nature of the inter linkages impacts the relative levels of income in the two areas and on the types of problem faced by the poorer and disadvantaged members of population in each area (World Bank, 1998). While the characteristics vary (Table 4), there is no dividing line that separates rural from urban centers.

Table 4. Characteristics of Rural and Urban Areas

Characteristics	Rural Areas	Urban Areas
Demographics	Inhabitants dispersed in small clusters	Inhabitants concentrated and growing
Physical access	Low quality transportation and services Higher time/travel costs	Locus of transportation, infrastructure but quality of service varies, e.g., due to congestion
Physical and social infrastructure	Facilities often remote and disconnected Services and operation and maintenance often of poor quality Access to infrastructure and services limited (largely because of distance, low density and lack of fund)	Access to infrastructure and service difficult for low-income groups because of high prices, illegal nature of their homes (for many) and poor governance
Food security	Greater reliance on favorable weather condition Adverse climatic conditions may cause local food shortages and hunger	Greater reliance on cash for access to food, water, sanitation, employment, garbage disposal Food adequacy depends on cash availability
Economic activity	Mainly natural resource-based production Livelihoods drawn from crop cultivation, livestock, forestry, or fishing (i.e., for key livelihood is access to natural capital)	Location of concentrated economic activity mainly based on manufacturing, trade, and services Labor market often dualistic
Economic activity	Livelihood opportunities needed to reduce income risk and diversify income sources Non-farm income often sought elsewhere, through periodic migration Fewer opportunities for earning cash; more for self-provisioning	

... To be continued

Continuation

Characteristics	Rural Areas	Urban Areas
Housing and land	Access to land for housing and building materials not generally a problem but land tenure may be insecure	Access to land for housing very difficult Housing and land markets highly commercialized and vulnerable to corruption Choices often limited Environmental risks Illegal land use
Institutions/ governance	Largely removed from formal structures of power, but traditional structures remain More distant from government as regulator and provider of services	Community and social networks nearer to service provision
Environmental vulnerability	Adverse climatic conditions impact livelihoods	Production and population density related (wastes, pollution) Density and poor urban management worsen effects of environmental disasters and risks

The duality of the urban-rural linkages determines the living conditions of people in villages and towns as the village of today will be integrated into the urbanization process and becomes the focus of tomorrow. The difference will only be in size (Braon and Virchow, 2000). In fact one could find basic urban characteristics in a rural area the same way that rural activities can be found in urban centers.

Rural dwellers may become partially urbanized without even migrating as their access to infrastructure and services normally associated with urban areas increases. The growing importance of non-farm income-generating activities in rural areas is gradually reducing the economic differences between urban and rural centers. The improvement of rural non-farm activities would be further enhanced if urban-rural links can be forged.

NON-FARM SECTOR DEVELOPMENT: STRATEGIC APPROACHES AND TARGETS

Approaches

Considerable efforts have previously been undertaken to develop the NFS. There are two main approaches: the business development or market orientation approach or the technology development approach (Austin, 1992).

By applying Austin's classification of designing and analyzing an agro-industry system, the Lao PDR example follows the market-oriented approach where market requirement assessment is the starting point followed by the design processing which is dictated by the market and the raw material sourcing system requirement.

Vietnam employs the traditional or production approach where the system starts with the production of the raw commodity which is moved through processing and distribution and onto the final market. The great risk associated with this approach, according to Austin, is that there may not be sufficient demands for the delivered products at the prices and quantities necessary to make postharvest operations financially viable. Thus, activities are focused more on marketing than on facility enhancement. This explains why Vietnam's cashew processing still relies on manual operations and better processing technologies are in need.

Thailand (a good example is the production of processed eggplant) uses a combination of production and market-oriented systems. The stable and large demand allows for a system that incorporates both production and market orientation.

Strategic Targets

The usual target of program enhancing the non-farm, usually in small enterprise development related packages economy, are mostly the rural villages themselves. While there is nothing wrong with this, their

absorptive capacity is hampered, however, by first the need to balance between sourcing basic food requirements and participating in development activities, second by the lack of basic knowledge or entrepreneurial spirit, and third by the absence of basic services and infrastructure that can propel economic endeavor to greater heights or objective realization.

The alternative view is to conceive a decentralized development process built around the secondary centers or the peripheral-urban economy providing backward and forward links with the surrounding rural economy. The rationale behind this is that these peri-urban centers by virtue of its transportation and communication links and proximity to urban centers have greater ability to harness resources and avail of venture enhancing facilities and infrastructures in the area. In a way agro-industries as well as modern industrial are sustained given this strategic targeting.

A parallel scenario is when most programs aim to make the farmers to serve as the traders of their own produce to eliminate the middleman. While to a certain degree this is possible, most of the time it is not viable. Each role requires special skills and knowledge. When a farmer assumes the role of trader, opportunity cost is high because he is foregoing his productive role where he is good at and instead is involving in trading activities which is not his area of expertise potentially causing him to lose businesses.

Support Infrastructures

Improvements in transportation and communication facilities help pave the way for rural-urban integration. Transportation facilities make it possible for the rural people to commute to the urban centers without migrating to the urban areas.

Transportation facilities also provide access to external markets and broaden the enterprise options open to the rural dwellers, in the same manner that it broadens the rural investment options for medium to large-scale industries.

CONCLUSIONS

- C Growth of the NFS is primarily driven by agricultural growth, a broad based one.
- C Agribusiness plays a crucial role in agricultural and economic development as it provides the much needed link between agriculture and industries and between the rural and urban sectors where they are respectively based.
- C While opportunities for profitable agribusiness enterprises exist given willing partners, linkages will not take its own course out of timidity, differences, and inequality, but will have to be brokered through business matchings and new forms of institutional arrangements (strategic alliances).
- C Rural-urban linkages development is anchored on an in depth understanding of urban and rural dynamics.

	Government Initiated	Private
Philippines	Growth Area Development: C Export Processing Zones (EPZ) C Regional Growth Centers (RCC)	C Strategic alliances contract farming
Indonesia	C Nucleus smallholder C Agribusiness terminals	Partnership: C With farmers C With investors
Malaysia	C Technology parks	Partnerships with academe (hydroponics)
Thailand	C Royal project	Strategic alliance Village level tie-up
Vietnam	C Research institution/village tie-up	Joint venture
Lao PDR	C Academe-based initiatives	

REFERENCES

- Bakker, Nico, Marielle Dubbeling, Sabine Gundel, Ulrich Sabal-Koschella and Henk de Zeeur, 2000. *Growing Cities, Growing Food – Urban Agriculture on the Policy Agenda*, German Foundation for International Development.
- Gast, Hartmut and Jurgen Richter (eds.), 1995. *Ecologically Appropriate Agriculture: A Manual of Ecological Agriculture Development for Smallholders in Development Areas*, German Foundation for International Development.
- Manalili, Nerlita M., 1999. “Strategic Alliances between Small or Medium-scale Agribusiness Enterprises and Large Corporations”, *Asian Academy of Management Journal*, Vol. 4, No. 2, pp. 39-53.
- , 2001. *Rural-Urban Linkages, Strategic Alliances and Quality Assurance: Emerging Reasons to Current Agro-industrial Challenges*, SEARCA, College, Laguna.
- Richter, Jurgen, Alois Basler and Hubertus Franzen (eds.), 1995. *Small-scale Food Processing Contributing to Food Security*, proceedings of an international workshop, German Foundation for International Development.
- South-East Asia Regional Center for Research and Graduate Education in Agriculture (SEARCA), 2001. “Agro-industrial Development Program”, *Emerging Issues: Agro-industrial Development in Southeast Asia, 1997-99*, College, Laguna.
2000. International Symposium on Agribusiness Management Towards Strengthening Agricultural Development and Trade (ISAM), 10-12 November 2001, Chiang Mai, Thailand.
1999. *Asian Pacific Economic Literature*, Volume 13, Number 1.

3. RURAL INDUSTRIALIZATION: THE PHILIPPINE EXPERIENCE

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INTRODUCTION

A Fragmented Economy

The Philippines has a fragmented economy. One of the major concerns of development planners in the country is the disparity in the distribution of economic activities within and among regions. About 56 percent of total income is generated by the National Capital region, southern Tagalog, and Central Luzon regions, with Metro Manila alone accounting for 34 percent of total income. This monopoly has led to:

- 1) gaps in the supply chain – brought about by poor infrastructure, logistics and support services, which have constrained the development of non-agricultural enterprises, as well as intra/inter-provincial trade.
- 2) rural economy remains agri-based – labor productivity in the agriculture sector is the least productive, as it is only a third of industry, and half of services.
- 3) the strategic industries identified in the past failed to establish backward linkages that would have spurred economic activities in the countryside.

Small- and medium-sized enterprises (SMEs) account for about 99 percent of all firms but only employ 67 percent of the labor force and contribute 33 percent of the economy's value-added.

Given the above situation, the biggest challenge the government is facing is how to integrate the fragmented domestic economy into a single market. One primary task is dispersing the industries in the rural areas.

STRATEGIES

Breaking the Monopoly of Metro Manila

As we need more domestic sources of growth, we seek to disperse industries and thus move economic activities all across the countryside. This involves strengthening domestic trade linkages, revitalizing agriculture and diversifying rural economy, pursuing vigorously the "Cluster Strategy", and maintaining support to key "strategic" industries.

1. Domestic Trade Linkages

This will include the conduct of commodity flow studies to identify the most important and critical distribution channels of selected local commodities across the regions. The government will enhance intra/inter-province/region transportation system. It will foster competition in the transportation and telecommunication sectors to make their services efficient, accessible and affordable in support of economic activities all over the country. It will push for the modernization of the shipping industry and existing infrastructure support facilities, build feeder roads from production centers to markets and inter-province rail systems and will support an open skies policy for key regional centers.

2. Revitalize Agriculture and Diversify Rural Economy

It is necessary to:

- increase agricultural production through modern technology and effective delivery of farm support services
- reduce cost of doing business in rural areas through the provision of adequate rural infrastructure to include communal irrigation, postharvest facilities, ports, etc. Also, minimize distribution channels to lessen time and cost
- strengthen rural finance system by increasing and improving access to credit
- provide access to productive resources, i.e., agricultural land.

3. ***Pursue Vigorously the Clustering Strategy***

Pursue clustering approach as an industrial policy intended to build competitiveness and productivity, accelerate SME development and disperse economic activities in the countryside.

Enabling and Integrating SMEs into the Domestic and Global Supply Chain

SMEs are the backbone of the Philippine economy. They constitute 99 percent of all firms, employ 67 percent of the labor force, and contribute 33 percent of the economy's value-added. SMEs contribute to a more equitable distribution of income, disperse economic activities to the countryside, and act as a potent force in the war against poverty. A vibrant SME sector provides the strong domestic supply base for globally competitive industries.

The clustering approach will be a major strategy to accelerate SME development, and will also recognize the complementary role of big industries within the clusters. Actions to be taken include the following:

- 1) Direct business development support
- 2) Simplifying procedures and improving business environment
- 3) Product development and diversification
- 4) Special initiatives.

RURAL INDUSTRIALIZATION: THE PHILIPPINE EXPERIENCE

The Comprehensive Agrarian Reform Program (CARP)

Launched in 1988 by the government, CARP seeks the distribution of some 10 million ha of agricultural lands to farmers and regular farm workers. The government also directed specific agencies to provide the required support services and other factors needed to ensure socio-economic upliftment in the lives of the beneficiaries.

Creation of the SMITTD

Established in 1988, the Small and Medium Industrial Technology Transfer Development Program (SMITTD) falls under the Department of Trade and Industry (DTI). SMITTD is primarily supportive of the government's focus on countryside development through setting up of rural industries.

SMITTD promotes entrepreneurship and enterprise development among the farmers and affected landowners and provides the services necessary to ensure success of their projects.

Objectives of the SMITTD

- 1) To tap the idle manpower of farmers and their families for income-generating projects (IGPs), thereby increasing their household incomes and stimulating industrial activity in their communities; and
- 2) To utilize the newly acquired liquidity of the landowners through investment in agro-industrial projects which will provide local employment opportunities.

1. ***Program Beneficiaries***

Assistance is directed to Agrarian Reform Communities (ARCs) nationwide aiming at providing support services to farmers and affected landowners and their families as well as assisting cooperatives/associations of farmers, landowners, women and youths who are capable of managing small business enterprises.

2. **Program Components**

Provides a comprehensive package of support services to stimulate agro-industrial activities in the ARCs.

- i) *Training/Seminars* – Basic and managerial skills and the right values/attitude toward entrepreneurship
- ii) *Studies* – Pre-investment studies, feasibility studies and other relevant studies for the establishment of IGPs of beneficiaries
- iii) *Market Development Assistance* – Market linking through trade fairs, market matching, market into services and product development which includes prototyping, packaging, labeling and product/quality improvement
- iv) *Consultancy Services* – Expert advice on areas related to planning, development, management and operation of Common Service Facilities (CSFs)/IGPs
- v) *Financing of CSFs* – A financing scheme to enable the beneficiaries to acquire tools, machineries and equipment necessary to improve their level of efficiency, productivity and profitability.

3. **Program Accomplishments**

The program promotes the development of viable, self-reliant ARCs as it continuously undertake strategic interventions that lead to the development of craft villages and identification and promotion of business opportunities in the countryside.

i) *Key Result Areas*

From 1989 to 2000, the program has served 934,357 agrarian reform beneficiaries (ARBs). It has generated PhP (Philippines peso) 840,164,636 worth of investments that led to the creation of employment for 70,784 people. It has also helped the farmers market their products locally and abroad and generate PhP 664.76 million in sales revenue.

ii) *Problems and Constraints*

- C Inadequate infrastructure – i) absence of adequate irrigation facilities; ii) incomplete farm-to-market road network; and iii) gaps in power energy availability and its high cost
- C Expensive shipping costs
- C Relative inaccessibility of credit for SMEs
- C Gap in agricultural extension

Industry Clustering

Borne out of the need to be more competitive in the global market, the clustering concept as a collaborative model of governance has been strongly advocated and approved in the 1994 Export Summit. Further, the 1999 Philippine Export Development Plan (PEDP) mandates clustering as its main strategy.

The PEDP defines industry clustering as the grouping of firms in an industry, the allied businesses which support the industry through the provision of goods, services, machinery and specialized inputs (e.g. knowledge), and the buyers, all operating under an environment shaped by the government, the physical and cultural heritage, and available infrastructure.

In effect, it is a grouping of firms and institutions (private, government and academic) competing and cooperating among themselves in the core activities, supplier industries and support or specialized cluster resources.

1. **Cluster Segments**

This cluster model tries to achieve the following:

Collaborative Model of Governance

- C Policymaking
- C Government-industry partnership to develop better technology
- C Equal partnership: government with industry; and company to company (networking)
- C Middle sector: trade associations, consortia, and informal groups leading to global competition.

2. **How Do We Put Together a Cluster?**

A cluster should include industries and institutions with important linkages or spillovers and should reflect economic reality, not necessarily political boundaries. Cluster initiatives will invariably depend on a region's particular needs, industry make up level of economic advancement and organization, resources, among others.

Cluster initiatives should include: 1) the process should be as nonpartisan as possible; and 2) the private sector should be actively involved right from the start, as they are the ones who will provide the competitive perspective, given their respective industries' makeup, key needs and challenges.

3. **Guidelines**

- Selection of industry/industry segments that form a cluster
- Construction of the cluster profile
- Projection of a cluster/industry vision
- Development of a blueprint to implement and achieve the cluster-industry vision.

Example of an Industry Cluster: Wood (Gmelina), DTI XI

1. **Quick Facts on Region XI**

- Land area: 27,141 km²
- Population: 5,000,000
- Labor force: 2,900,000
- Employment rate: 92 percent
- Poverty incidence: 44.3 percent.

2. **Wood Industry Cluster**

- Wood chips
- Furniture and furnishing
- Woodwork and construction.

3. **Background**

- Wood industry on the decline
- Wood products No. 6 in export (1998) to No. 11 (2000)
- Developed area under Community-based Forest Management (CBFM): 482,458 ha
- Area planted to Gmelina by CBFM-people's organizations (POs): 38,500 ha
- Area of harvestable trees: 10-12,000 ha
- Beneficiaries: 110,000
- Limited market for Gmelina lumber
- Department of Education, Culture and Sports (DECS) restriction on use of Gmelina for desk.

4. **Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis**

i) **Strengths**

- C Estimated 10,000 ha of Gmelina at harvestable age
- C Large area available for commercial tree plantation
- C Highly trainable workers available
- C Training and production center in place
- C Unutilized capacities of existing wood-based processors.

ii) **Weaknesses**

- C Inadequate access to market information
- C Limited access to appropriate technology
- C High start-up cost requirement
- C High labor cost
- C High turnover of skilled workers
- C Low labor productivity
- C Negative perception on the Gmelina specie
- C Too many middlemen.

iii) **Opportunities**

- C World trend on the use of renewable and bio-degradable materials
- C Improved air, sea and land linkages
- C Japanese preference for white wood species, i.e., Gmelina, Bagrass, Falcatta
- C Market trend/acceptability for commercially grown species
- C Intensified rural electrification (treated poles).

iv) *Threats*

- C Product substitutes such as plastics, fiber, metal, etc.
- C Competition from other countries
- C Legislated wage increases
- C High cost of shipping.

v) *Industry Gap*

- C Research and development institute
- C Advance kiln drying technology
- C Wood industry financing window
- C Infrastructure support (farm-to-market road [FMR])
- C Product (Gmelina) promotions
- C Designers' pool
- C Display center
- C Ancillary and support industries
- C Reforestation program for Gmelina.

5. **Bottom Line Targets for CY200-03 in terms of Employment, Investment and Exports Generations**

– *Milestones for CY2001*

- C Three-year industrial development plan
- C Sawmill expansion
- C Establishing Phil Chip Co. HK
- C Final supply agreement signed
- C Signing of Memorandum of Agreement (MOA) with CFIPs
- C Arrival/installation of equipment
- C Setting up/mobilization of reforestation program
- C Signing of MOA Local Government Unit (LGU) regarding nursery
- C MOA on housing project with LGU
- C Launching of project
- C First wood chip shipment.

Developing Rural Industries and Village Enterprises (DRIVE)

- C A countryside-centered, market-driven, agro-industrialization program
- C Strengthen the domestic base to maintain industry competitiveness and at the same time create more opportunities for SMEs
- C Cover a cluster of municipalities within a distinct geographical area where the core of processing activities is centered around the raw materials readily available in the area.

1. **Objective**

Fostering countryside entrepreneurship with massive job creation for poverty alleviation in the rural areas.

2. **Components**

i) *Marketing*

- C National branding program
- C Franchising, licensing
- C Subcontracting; assembler-supplier matching, center-satellite program
- C Assistance to distribution channels (e.g., middlemen)
- C Other existing programs (trade fairs, market weeks, etc.)

ii) *Production*

- C Productivity improvement program
- C Product development and design program
- C Technology transfer
- C Craft village development/One *Barangay*-One Product/industry sector clustering
- C Small business consultancy (Medium- and Small-scale Industries Coordinated Action Program [MASICAP] II, expert volunteer consultancy program).

- iii) *Financing*
 - C Close interaction with banks
 - C Guarantee program
 - C Other financing programs
 - C Possible SME stock exchange.
- iv) *Human Resource Development*
 - C Provincial Small and Medium Enterprise Development (SMED) Council strengthening
 - C Key industry sector association revitalization/reinvigoration
 - C Focus training on wheels, Technology Education and Employment Authority (TESDA)-guided skills program, Technology Livelihood and Resource Center (TLRC)-DTI entrepinoy program
 - C Entrepreneurship development program.

Example of a DRIVE Project: Department of Labor and employment (DOLE)-DRIVE Projects, Region XI

1. *DOLE-DRIVE Project Dispersal*

Project	Location
Pineapple production	Pololomok, Gen. Santos, Tupi, Bukidnon
Papaya production – Yellow and red – Solo variety	Tampakan Pololomok Sta. Cruz, Davao
Nata de coco production	Pololomok, Tupi/Surallah, Gen. Santos
Asparagus production	Tupi, Kablon
Cut-flower production	Tupi, Kablon
Banana production	Davao, Bukidnon
Rice production	Davao Oriental, Bukidnon, Bicol
Diverse vegetables production	Bukidnon

2. *Project Status as of December 2000*

- i) *DOLE-DRIVE Results*

Investments (PhP million):	1,626.69	(46 percent)
Sales (PhP million):	Domestic	106.4326
	Exports	2,175.5985
Jobs	16,445	(113 percent)
- ii) *Bottom-line Targets*

Investments (PhP million):	3,064.0
Jobs	16,050

The “W” Growth Corridor

The W Growth Corridor defines Central Luzon’s key growth areas. It is the spatial representation of the vision for Central Luzon anchored on the strategy of focusing on specific sets of economic activities in certain areas of the region which have distinct comparative advantages. It comprises Central Luzon’s key investment area for tourism, industry and agriculture. These areas represent the growth municipalities of the region, which when plotted on a map, form the shape of a “W”.

The W Growth Corridor concept was derived from the region’s vision of becoming an industrial heartland of the Philippines and the Asia-Pacific region, an international transshipment hub, a world conference center, and a showcase of competitive and vibrant agriculture sector. This developed from the Central Luzon Development Program (CLDP), a 15-year integrated regional development plan with the target year of 2010 for the balanced agricultural and industrial, socio-economic and physical development of Central Luzon.

Investment Areas

1. *The Tourism Belt*

It covers the municipalities outlining the western portion of Zambales and Bataan due to the area's natural beauty, string of white sand beaches free of underwater rocks and corals, and coastlines ideal for world class eco-tourism projects. Capitalizing on the area's world-class convention and tourism facilities, the Tourism Belt supports the region's vision of becoming a world conference center. Its main anchor is the Subic Bay Freeport Zone.

2. *The Industrial Hub*

This is where the region's industrial estates (IEs) and economic zones serve as magnets for investments. The industrial corridor of about 10,000 ha plays host to skills-intensive and technologically-advanced industries. The Industrial Hub supports the vision for Central Luzon to become the industrial heartland and the next transshipment hub in the Asia-Pacific region with Clark as the main anchor.

The main catalysts for development in the industrial hub are the region's seaport and international airport, which can very well support Central Luzon's projected role of becoming an alternate transshipment hub in Asia, following that of Hong Kong and Singapore. Companies supporting the transshipment role include Fedex and eventually the United Parcel Service (UPS).

3. *The Green Corridor*

It is the area that showcases productive farms of high value crops and agro-forestry. Central Luzon has a total of 635,345 ha devoted to agricultural production, 30 percent of which is concentrated in Nueva Ecija, and 13 percent in Bulacan. The Green Corridor has two main anchors: Muñoz as the agro-science and research center, and Palayan City as the center for agro-processing activities. The recent declaration of Muñoz as the first science city in the country is expected to strengthen the city's role in enhancing agro-research and laboratory services.

Investment Performance

The W Growth Corridor contributes an average of 14 percent to the national investment performance. Within a period of five years, Central Luzon has generated a total investment of Php310 billion. While there was a decline in 1998 due to the Asian financial crisis, it recorded its highest performance in 1999 with an amount of Php102 billion, the majority of which is attributed to the Petropower Corporation in Bataan.

In terms of nationality, the top five investors in Central Luzon are Filipino, Taiwanese, American, Japanese and Korean.

1. *Major Locators*

The corridor is home to more than a thousand Board of Investment (BOI)/Philippines Economic Zone Authority (PEZA)-registered companies and locators within IEs. Any investor interested in Central Luzon will be joining an elite group of world-renowned companies such as Sanyo, Yokohama, Acer, Fedex, America Online, Lockheed Martin, UPS, among others. These companies have been with us since the early 1990s and still continue to manifest the same optimism and confidence as evidenced by their extension plans and renewal of contracts.

2. *Export Performance*

The W Growth Corridor has an annual average growth rate of 36 percent, contributing an average of 5 percent to the country's national export performance.

Last year, the value of exports amounted to US\$3.12 billion. Electronics is the region's leading export product, followed by garments/textile and industrial manufactures. Central Luzon's top export markets are the United States, Japan, Europe, Singapore, Taiwan and Hong Kong.

Strategic Advantages

1. *Strategic Location*

Central Luzon is strategically located in the heart of Asia and occupies the central part of Luzon. It is one of two growth areas closest to Metro Manila, the national capital region of the Philippines.

2. *Access*

It is also the only region in the country that is accessible through three major international airports: Ninoy Aquino International Airport (NAIA), Clark International Airport (CIA), and Subic International Airport (SIA).

Subic and Clark are also potential cargo hubs. Subic, a natural deep-water harbor, could provide crucial relief from cost-penalties incurred in Manila, the current principal port of entry. Clark, with the airport facilities left behind by US Air Force, has the finest landing strip in the country, and provides the best expansion abilities of any potential site with practical access to Metro Manila.

3. *Strategic Infrastructure Projects*

Key institutional bodies are proactively advocating the implementation of major infrastructure projects for the W Growth Corridor. To further attract investors and pursue development efforts for Central Luzon, strategic inter/intra-regional infrastructure projects have been identified to support the W. These are:

- C Subic-Clark-Tarlac Expressway
- C North Luzon Tollways Project
- C North Luzon Expressway Extension
- C Tarlac-Iba Road
- C Manila-Clark Rapid Railway System.

4. *Market Sphere*

Central Luzon's economic and market spheres of influence cover a potential market of 35.68 million consumers. Central Luzon's integration with northern Philippines and its economic alliance with economies in the Central East Asia region further strengthen its market base.

5. *Investment Opportunities*

- C Information and knowledge-based industries
- C Ancillary and/or support services to the locators of IEs and eco-zones
- C Tourist destinations and facilities development
- C Agri-processing industries
- C Establishment of international schools, training, health and research institutions
- C Businesses on "international lifestyle" and "local color"
- C Government projects.

6. *Business Offers*

- *Bataan*: Paysawan Port Development, Rehabilitation and Development of Sibul Spring
- *Bulacan*: Bulacan Municipal Fish Port, Bulacan North Food Terminal, establishment of class AA abattoir cum livestock market, full operationalization of Philippine Jewelry Center and common service facilities for production, Marble Industry Development Program; Marble Production and Training Center
- *Nueva Ecija*: Palayan City Agro-industrial Center, Northern Ecija Cold Storage Plant, Expansion of Mt. View Resort
- *Pampanga*: Operationalization of NK Farm
- *Tarlac*: Establishment of postharvest facilities and training center
- *Zambales*: Development of Uacon Lake Resort Complex, Mt. Tapulao Eco-tourism Park.

Problems and Constraints

1. *Infrastructure*

- Need to expand and improve access to major economic zones and growth centers
- Full operation of airport/seaport facilities needed
- Need to improve/upgrade telecommunications facilities
- Slow resolution of issues specially Right of Way (ROW)
- Inefficient solid waste management project
- Perennial flooding problems.

2. *Trade, Tourism and Investments*

- No clear government priorities and directions
- Delays in the processing of documents like permits and licenses by concerned government agencies and LGUs

- Lack of transparency and consistency in the documentation process specifically in the issuance of Environmental Compliance Certificate (ECC)
- Need to create more tourist attractions/amenities in the region to further encourage investments
- Labor strikes
- Degradation of ecosystems and habitats, declining water quality and pollution, declining coastal fisheries, endangered species and wildlife.

3. ***Land Use and Agriculture***

- Inadequate basic infrastructure support and services specifically irrigation facilities, FMRs and postharvest facilities.

CALABARZON

CALABARZON is a large-scale, multi-sectoral project complex planned in a region contiguous to Metro Manila. It is originally conceived by the DTI to transform agro-based rural economies into industrial/urban-based economies through a high degree of industrialization led primarily by foreign export-processing type industries. CALABARZON is one of the most ambitious regional development projects ever attempted in the Philippines.

For CALABARZON to give the maximum benefits to the local people, other sectors will have to develop simultaneously in a manner balanced with the industrial sector. Thus, the Calabarzon Project has been reformulated, encompassing all the sectors: economic sectors (agriculture, livestock, fishery, manufacturing, mining, tourism and services); infrastructure sectors (water, transportation, telecommunications, energy and utilities); and social sectors (education, health, livelihood development and others).

Overview of the Sub-region

Calabarzon comprises five provinces of Cavite, Laguna, Batangas, Rizal, and Quezon.* Four regions cover a land area of 19,468 km² corresponding to 5.4 percent of the total national land. The total population is 7.9 million, 4.47 million of which belong to the labor force. Its population growth rate of 3.72 percent is higher than most regions due to Calabarzon's proximity to Metro Manila. Literacy rate is 97.62 percent.

History

- i) 1989: Calabar for Cavite, Laguna, Batangas and Rizal was designated as a growth center area
- ii) 1990: Master Plan was prepared by Japan International Cooperation Agency (JICA). Midway into the planning, Quezon was included and then President Cory Aquino launched CALABARZON Project in October of the same year.
- iii) 24 October 1991: Integrative body, the CALABARZON Coordinating Council with five governors, BOI, DTI – Region IV representatives as members.
- iv) February 1992: CALABARZON Master Plan was turned over by the Japanese Government to the Philippine Government.
- v) 14 September 1992: President F. V. Ramos directing Cabinet members to provide support for the efficient implementation of CALABARZON Project issued Memorandum Order No. 38.
- vi) 1996: Province of Aurora was integrated.

CALABARZON Objectives

- i) To enhance the income level in rural areas by creating employment opportunities in primary agriculture, agro-processing and service activities as well as by increasing productivity in agriculture;
- ii) To sustain high level of growth on the balance between agriculture and industry by promoting their complementary linkages, improving the industrial structure and inducing related service activities;
- iii) To promote more equitable development, not generating the urban poor and squatters, uplifting the rural people from poverty, and realizing better distribution of population and economic wealth; and

* A new province, Aurora, was later created out of Quezon province.

- iv) To create a better human environment and increase social capacity for development by protecting/enhancing natural environment, improving the provision of physical infrastructure and social services, and incorporating socio-cultural values in project planning and implementation.

Strategy

1. *Integrated Planning Strategy*

Projects have been planned and partly implemented by various government implementing agencies to address problems that are mutually interrelated and have common roots. Integrated regional development planning also coordinates the efforts of various implementing agencies and reflects the interests of local people.

2. *Agro-based Strategy*

This will emphasize agriculture, agro-processing, and the development of services directed to the rural population. It will call for increasing agricultural output to support processing industries and changing the cropping patterns to exploit the marketing opportunities provided by Metro Manila and the growing urban centers within CALABARZON. This will also emphasize the maximum utilization of other indigenous resources such as tourism resources, limited mineral resources, and human resources.

3. *High Industrialization Strategy*

High industrial growth will depend primarily on: 1) how much incremental growth of Metro Manila-based firms will take place; and 2) to what extent the export-oriented, assembly-type industry will lead to the development of linkage industries including SMEs. This strategy will make the most of the spillover from Metro Manila for high industrialization of CALABARZON. The spillover will only have to be directed to more desirable locations by deliberate planning and locational policies.

Infrastructure and Utilities

- i) Has around 450 commercial, rural and development banks
- ii) Presence of power plants in Batangas, Laguna and Quezon with an aggregate capacity of 2,062 MW. Major power requirement is being supplied by Manila Electric Company and National Power Corp.
- iii) Completion of the 700 MW Pagbilao coal-fired power plant and several energy projects in the sub-region assures industries of regular and standby power supply
- iv) Water supply is served by pumps and waterworks system derived from rivers, springs and streams and managed by Metropolitan Waterworks and Sewerage System (MWSS) and Local Water Utilities Administration (LWUA)
- v) Availability of telephone services, both land-based and cellular, telegraph operators, door-to-door service couriers, radio broadcast stations, newspaper and postal services (Philippines Long Distance Telephone Company [PLDT], Philippines Telephone Corporation [PILTEL], Islacom, Smart, Bayantel, Extelcom)
- vi) Present of one major international container and passenger port in Batangas; two commercial ports in Quezon; and 64 fishing ports lying within 150 km south of Manila. There are around four feeder airports in Aurora.
- vii) To facilitate the flow of goods and services within and outside, the South Expressway and the Maharlika Highway linking Calabarzon with the Bicol region, and the Infanta-Marikina road network opening the Pacific side, are both being completed.

Industrial Development

- i) Home to 13 world-class IEs. Most notable are Laguna Technopark, Light Industry and Science Park, Carmelray Industrial Park, Gateway Business Park, Laguna International Industrial Park, First Cavite Industrial Park, and the government-owned Cavite Export Processing Zone.
- ii) There are 30 IEs in the provinces of Batangas, Cavite and Laguna. Existing SMEs located outside the IEs are engaged in food processing, woodcraft, papier-mache, footwear, linens and garments, stuffed toys, basketry, furniture and furnishing, cut-flowers and other ornamental and other handcraft products.

Anchor Projects – Power (status as of 25 June 1998)

C	Pagbilao Coal-fired Thermal Power Project	100 percent completed
C	Batangas (Calaca II) Coal-fired Thermal Power Project	100 percent completed
C	Macban D&E Modular Geothermal Power Plant	100 percent completed
C	Maibarara Geothermal Power Project	ROW being settled
C	Makban Binary Cycle Geothermal Power Plant	100 percent completed
C	Fluidized Bed Boiler	100 percent completed
C	Batangas Power Project	100 percent completed

Roads and Highways (status as of 25 June 1998)

C	South Luzon Expressway Extension	64.5	percent completed
C	Lipa City-San Pablo City Road	72.09	percent completed
C	Carmona-Ternate-Nasugbu Road	61.23	percent completed
C	Marikina-Infanta Road	94.25	percent completed
C	Manila-Cavite Toll Expressway	To be implemented under BOT	
C	Calamba-Calawag Road Rehabilitation	99.02	percent completed
C	Famy-Tignoan-Real-Infanta Road	100	percent completed

Port (status as of 25 May 1998)

C	Batangas Port	– Phase 1: 93.62 percent completed
		– Phase 2: Detailed engineering completed
		– Phases 3 & 4: Feasibility study going on
C	Dalahican Port	– 100 percent completed

Performance and Contribution to the Economy1. **Exports**

- C Average US\$5.5 billion in exports from 1995 to 1999
- C 21.6 percent of national total exports.

2. **Employment**

- C 20,773, average from 1995 to 1999:
 - 98.17 percent of regional total in employment
 - 28.0 percent of national total in employment.

3. **Investments**

- C PhP38.62 billion, average from 1995 to 1999
 - 91.4 percent of regional total in investments
 - 12.0 percent of national total in investments.
- C Hosts 51 IEs and special economic zones.

4. PROMOTING RURAL NON-FARM ENTERPRISES FOR EMPLOYMENT GENERATION AND RURAL DEVELOPMENT

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INTRODUCTION

In the past few decades, non-farm enterprises or non-farm employment has received increasing attention among policymakers and planners in many developing countries. This interest reflects, in part, the inability of the agriculture sector to absorb the rapidly growing rural labor force. The non-farm sector has in fact been expanding at a high rate as rapid economic transformation has been occurring. This is expected to increase rural employment, contribute to economic growth, improve income distribution, and alleviate poverty. In this regard, available evidence shows that non-farm income is important to farm households in developing countries. Its average share in total rural household income was 42 percent in Africa, 40 percent in Latin America, and 32 percent in Asia. Moreover, the importance of non-farm income has also been increasing over the past few decades (Reardon, *et al.*, 2000).

As developing Asia as a whole has made remarkable progress in economic and rural development since 1960s when the Green Revolution started, dramatic changes have occurred with regard to food production, per capita income and poverty reduction. The Rural Asia Study by the Asian Development Bank (ADB, 2000) reveals useful lessons that can form the basis for formulating strategies for sustainable rural development in Asia. These lessons can be summarized as follows (ADB, 2000, p. 13):

- C Agricultural growth is a prerequisite for economic development in general and rural development in particular.
- C To reduce poverty and improve quality of life in rural areas, agricultural growth must be both pro-poor and environmentally sustainable.
- C Promoting the growth of the rural non-farm economy will greatly enhance the pace of rural development.
- C Efficient rural financial markets play a key role in promoting rural development.
- C To improve the overall quality of life in rural areas it is necessary to go beyond growth, poverty, and environmental considerations and directly address specific concerns of particular relevance to rural Asia.

Among the lessons learned, agricultural growth has significantly contributed to the necessary economic transformation in many ways, including the supply of raw materials for agro-industry and of labor and capital to the growth of the non-farm sector (Box 1). Another important lesson of interest is the need to ***promote the growth of the rural non-farm economy*** to enhance the pace of rural development.

This paper will first review the structural change, economic growth, and the significance of rural non-farm employment in Asia. It will then use the case of Thailand to discuss the characteristics of rural non-farm enterprises, factors affecting growth and obstacles to growth of these enterprises. Finally, ways to promote non-farm enterprises will be discussed. It is hoped that the case of Thailand will help to provide some useful insights into major issues of interest.

Box 1. Structural Transformation of the Rural Non-farm Economy

The present *structure of the rural non-farm economy* in Asia is a result of an *economic transformation* that has been going on for many generations and at varying speeds in different countries. The *process* begins with a countryside dominated largely by self-sufficient and primarily agricultural households producing for themselves most of whatever farm and non-farm goods and services they need. There is little trade or commerce and the prevailing agricultural technologies require few if any external inputs. Gradually, as population densities and market access increase, new technologies and modern farm inputs become available, leading to increased agricultural surpluses in some commodities and increased opportunities for trade. Increasing agricultural productivity also raises incomes, which in turn increases the types and amounts of consumer goods and services that rural households wish to purchase. Household begins to specialize, taking greater advantage of their particular skills, resource endowments, and market opportunities. Some *non-farm activities* that were initially undertaken by farm households for their own consumption expand and are spun off as separate full- or part-time businesses. There is greater trade among rural households and in small market centers and rural towns. The latter is beginning to grow more rapidly.

..... On the other hand, some *services activities* prosper in rural areas, particularly in the larger villages and rural market centers where they can better capture local demand (e.g., retail establishments, tea and coffee shops, and agricultural machinery service and repair shops). *Rural towns* grow in importance and as the rural economy continues to grow, trade with larger urban centers also expands and more urban goods become available. These often displace many traditional rural products, forcing structural changes in the composition of the rural economy and its towns

Source: Rosegrant and Hazell, 2000, pp. 92-93.

STRUCTURAL CHANGE, ECONOMIC GROWTH AND RURAL NON-FARM EMPLOYMENT IN ASIA AND THE PACIFIC

Before the financial crisis that began in 1997, many developing countries had undergone significant structural changes and also achieved rapid economic growth. Thailand, Korea, Malaysia and the People's Rep. of China (PRC) experienced annual growth rates of 5-9 percent over the entire period of 1965-96 (World Bank, 1998). The South Asian countries of Bangladesh, India, Nepal, Pakistan, and Sri Lanka grew at rates ranging from 3 to 5 percent. With high growth rates, many Asian economies have been able to generate substantial increases in per capita income.

In the process of economic development, structural changes in the economy will occur. The size of the non-farm sector will increase relative to that of the farm sector. Therefore, farm employment will decline while that of the non-farm sector will increase. The proportion of urban population also increases with the rapid pace of urbanization (Table 1). Finally, the economy will become industrialized and per capita incomes increased. This process of structural transformation will create an explosion in *rural non-farm activities*. This is because as agriculture becomes more commercialized, the demand for new farm inputs such as seeds, fertilizer and farm machinery will increase. Specialized non-farm firms will then emerge to supply these support services as well as other non-farm products, trade, transport and other services. More non-farm employment will be generated. This will raise rural household incomes, particularly of the landless and the rural poor.

However, despite the impressive growth and the economic transformation, poverty remains widespread in Asia. Over 900 million people in about 180 million households in the region live in poverty. Most of the region's poor (i.e., those who earn less than US\$1.00 a day) or more than 670 million people, live in rural areas and are engaged in agricultural or related activities as laborers or small-scale farmers. Poverty is particularly a serious problem of South Asian countries and some countries in Southeast Asia. Furthermore, the problem of income disparity is generally serious in the region (Tables 2 and 3).

Table 1. Long-term Structural Change in Asian Countries, 1970-96

Country	Agriculture Value-added as Percent of GDP			Percent of Total Labor Force in Agriculture		Urban Population as Percent of Total Population	
	1970	1996	1999	1970	1996	1970	1996
Bangladesh	55	30	25	81	65	8	19
India	45	28	-	71	64	20	27
Nepal	67	42	42	94	94	4	11
Pakistan	37	26	27	59	52	25	35
Sri Lanka	28	22	21	55	48	22	22
Indonesia	45	19	-	77	55	18	37
Malaysia	29	13	11	54	27	34	54
Philippines	30	21	18	58	46	33	55
Singapore	2	-	-0.2	3	-	100	100
Thailand	26	11	10	80	64	13	20
Vietnam	-	27	25	77	71	18	19
Hong Kong	-	-	0.1*	4	1	88	95
Japan	6	2	-	20	7	71	78
Rep. of Korea	25	5	-	49	18	41	82
Taiwan	29	13	11	54	27	34	54
Mongolia	-	36	-	48	32	45	61
Papua New Guinea	37	26	31	86	79	10	16

Sources: World Bank, 1998, *World Development Indicators*, Washington, D.C.; and ADB, 2000, *Key Indicators*.

Note: * 1998.

Table 2. Poverty and Income Distribution in Selected Asian Countries

Country	Year	Population in Poverty (percent)	Income Ratio of Highest 20 percent to Lowest 20 percent	Gini Coefficient
South Asia				
Bangladesh	1995-96	47.5	8.8	0.43
India	1993-94	36.0	5.7	0.38 ^a
Nepal	1996	42.0	5.9	0.37
Sri Lanka	1995-96	26.7	11.4	0.48
Southeast Asia				
Indonesia	1999	18.2	5.6	0.36 ^b
Malaysia	1998	8.0	12.0	0.49 ^c
Philippines	1997	36.8	9.0	0.49
Singapore		-	8.5	0.39 ^d
Thailand	1998	12.9	9.7	0.44 ^c
East Asia				
Hong Kong		-	9.0	0.37 ^b
Rep. of Korea	1984	4.5	4.5	0.28 ^a
Taiwan	1998	0.6	5.5	0.32

Source: ADB, *Key Indicators*, 2000.

Notes: ^a 1997; ^b 1996; ^c 1995; ^d 1992-93; and ^e 1999.

Table 3. Income Shares from Agricultural and Non-farm Activities, Rural Areas
(Unit: Percent)

		Agriculture	Non-farm
India ^a	1967/68	74.5	25.5
	1975/76	69.5	30.
	1981/82	65.2-69.8	34.8-30.2
Rep. of Korea ^b	1971	81.9	18.1
	1981	67.2	32.8
	1991	53.7	46.3
Thailand ^c	1971/72	54	46
	1995/96	37	63

Sources: Rosegrant and Hazell, 2000; and Table 8.

Notes: ^a Taken from Hazell and Haggblade, 1991 (p. 516); ^b farm households only; and ^c calculated from the rural household survey data (Table 8).

With regard to employment, Table 4 shows employment shares by activity in rural and urban areas in selected Asian countries. Non-farm employment is quite significant in rural areas, ranging from 23 percent in India to 50 percent in Thailand. Manufacturing share of rural employment ranges from about 7 percent in Bangladesh to 30 percent in Thailand. Non-farm employment on trade and services is very important in rural areas in all countries, combining over 40 percent of the total non-farm employment in Sri Lanka, Pakistan, India, Philippines and Indonesia. Regarding the growth rate of non-farm employment, it ranges from 0.38 percent in the Philippines to 4 percent in Indonesia. The average annual growth rate of manufacturing enterprises in rural areas was quite high in India and Indonesia but was generally lower than that in urban areas. Again, trade and service activities experienced a relatively high growth in most countries (Table 5).

The effect of non-farm enterprises on rural household income was also quite significant and tended to increase over time. For example, in India, it increased from 25.5 percent in 1967/68 to about 35 percent in 1981/82 while in Korea, from 18 percent in 1971 to 46 percent in 1991; and in Thailand, from 46 percent in 1971/72 to 63 percent in 1995/96 (Tables 3 and 6). Moreover, non-farm employment and income are important to landless and small farmers and hence the poor. In India, non-farm employment contributed 46 percent of the total employment of the landless farmers. Similarly, the smallest group of farmers in Korea, Taiwan, and Thailand obtained 80, 67 and 88 percent of the incomes from non-farm sources (Table 6). Another interesting aspect of non-farm employment is the participation by women. The data in Table 7 shows that women's share in non-farm employment in rural areas was quite high, ranging from 15 percent in Bangladesh to 41 percent in Thailand. Women were particularly active in manufacturing, trade and service activities.

RURAL NON-FARM ENTERPRISES IN THAILAND: SIGNIFICANCE, CHARACTERISTICS AND FACTOR AFFECTING GROWTH

Introduction

Before the Asian financial crisis which started in Thailand in 1997, the Thai economy experienced high growth averaging over 7 percent per year, for over three decades. Economic growth during the period of 1987-95 was particularly impressive. Nevertheless, while the poverty level decreased significantly, income disparity seemed to get worse. This issue of inequity was taken up seriously in the 8th National Economic and Social Development Plan (1997-2001) which emphasized the concept of people-centered development. When the 9th Plan starts later this year, growth with equity and sustainability will also be strongly emphasized.

The recent decades have also witnessed a remarkable change in the structure of the Thai economy. Though declining in importance, agriculture remains a predominant sector, particularly in terms of employment as about 50 percent of the nation's labor force are employed in agriculture. Agricultural exports contribution decreased from over 80 percent to about 36 percent of the total export value. Again this is still

Table 4. Employment Shares by Activity in Rural and Urban Areas, Selected Countries

	Rural Population (as percent of total)		Total Employment		Manufacturing	Transport	Non-farm Employment			Construction	Other
	1960	1994	Agri- culture	Non- farm			Trade	Services	Finance		
Bangladesh (1991)											
Rural			66.1	39.9	6.8	4.0	...	35.4	...	3.3	50.2
Urban			15.1	84.9	8.1	6.5	...	31.8	...	3.4	50.1
Total	95	82	54.6	45.4	7.3	5.1	...	33.8	...	3.3	50.4
Sri Lanka (1981)											
Rural			55.7	44.3	19.8	8.3	16.5	25.2	1.5	6.6	22.1
Urban			7.3	96.7	16.0	9.7	23.9	28.7	2.8	3.7	15.0
Total	82	78	45.2	54.8	18.5	8.8	19.2	26.5	2.0	5.5	19.5
Pakistan (1992-93)											
Rural			63.8	36.2	19.0	10.4	21.9	26.8	0.7	19.4	1.8
Urban			5.8	94.2	22.6	10.6	28.9	26.0	2.4	7.1	2.4
Total	78	66	47.6	52.4	20.8	10.5	25.4	26.4	2.6	13.2	2.1
India (1993/94)											
Rural			76.9	23.1	30.7	6.9	19.4	...	26.8	...	11.6
Urban			17.7	82.3	22.2	12.7	25.9	...	38.3	...	3.1
Total	82	73	61.5	38.5	28.5	8.4	21.1	...	29.8	...	9.4
Philippines (1980)											
Rural			74.0	26.0	20.9	11.9	13.2	32.1	3.0	11.5	7.4
Urban			18.3	81.7	19.4	11.3	14.9	35.9	7.1	8.1	3.3
Total	70	47	51.4	48.6	19.9	11.5	14.3	34.7	5.8	9.2	4.6
Indonesia (1995)											
Rural			63.1	36.9	23.8	8.2	31.7	24.2	0.5	9.4	2.2
Urban			9.4	90.6	20.0	8.0	30.1	31.1	2.4	6.8	1.6
Total	85	66	45.9	54.1	21.8	8.1	30.9	27.9	1.5	8.0	1.8
Thailand (1996)											
Rural			49.9	50.1	30.3	5.1	22.1			21.5	1.3
Urban			1.9	98.1	22.6	7.0	29.9			9.7	2.0
Total	87	80	39.7	60.3	27.6	5.8	24.8			17.4	1.6

Source: Rosegrant and Hazell, 2000, p. 83.

Table 5. Average Annual Growth Rates in Non-farm Employment by Sector, Rural and Urban Areas, Selected Countries

(Unit: Percent)

Country	Agriculture	Total Non-farm	Manufacturing	Transport	Trade	Service	Finance	Construction	Other
India (1977/78-1993/94)									
Rural	1.31	3.45	2.47	5.20	3.46	••• 3.29 •••		5.95	
Urban		3.51							
Total	1.34		2.40	4.08	3.51	••• 3.74 •••		6.32	
Philippines (1970-80)									
Rural	2.1	0.38	-3.25	2.76	0.06	1.82	18.36	1.53	-0.54
Urban	7.3	4.57	3.53	5.90	4.77	3.25	17.06	5.70	3.61
Total	2.7	3.02	0.65	4.75	3.12	2.80	17.26	3.81	1.25
Indonesia (1990-95)									
Rural	-0.4	3.92	3.28	6.28	3.88	3.94	-3.97	5.71	-1.15
Urban	5.6	6.95	7.82	6.14	8.03	6.26	1.19	6.54	3.63
Total	0.0	5.45	5.36	6.21	5.92	5.28	0.28	6.08	0.84
Rep. of Korea (1972-91)									
Farm households	-2.6	0.8	1.2	n.a.	n.a.	n.a.	n.a.	2.2	n.a.
Non-farm households	-2.5	6.6	7.5	n.a.	n.a.	n.a.	n.a.	8.4	n.a.
Total	-2.6	6.2	7.0	n.a.	n.a.	n.a.	n.a.	7.8	n.a.

Source: Rosegrant and Hazell, 2000, p. 83.

Table 6. Share of Non-farm Income/Employment in Total Household Income/Employment
by Farm Size Groups, Selected Countries

(Unit: Percent)			
Farm Size (ha)	Non-farm Share (percent)		
	Employment	Income	
India	<u>1987/88</u>		
Landless	46.1		
0.01-0.4	29.3		
0.41-1.0	19.0		
1.01-2.0	14.0		
2.01-4.0	11.8		
4.01+	9.0		
North Arcot, India	<u>1973/76</u>	<u>1982/83</u>	
0-0.1	15	35	
0.1-1.0	22	23	
1.0+	7	20	
Rep. of Korea	<u>1970</u>	<u>1996</u>	
0-0.5	49	80	
0.5-1.0	26	64	
1.0-1.5	7	49	
1.5-2.0	16	42	
2.0+	5	37	
Taiwan		<u>1979</u>	
0-0.5		67	
0.5-1.0		58	
1.0-1.5		48	
1.5-2.0		40	
2.0+		33	
Thailand (4 regions)		<u>1980/81</u>	
0-4.1		88	
4.2-10.2		72	
10.3-41.0		56	
41.0+		45	

Sources: Rosegrant and Hazell, 2000: data are: from India, Chadha, 1993; North Arcot, Hazell, Ramasamy and Rajagopalan, 1991; Korea, Choi, 1997; Taiwan, Ho, 1986a; and Thailand, Liedholm, 1988.

Table 7. Women's Share in Total Non-farm Employment by Sector, Rural and Urban

(Unit: Percent)

Country	Total Non-farm	Manufacturing	Transport	Trade	Services	Finance	Construction	Other
Bangladesh (1991)								
Rural	14.7	18.2	1.5		... 5.1 ...		3.9	22.8
Urban	12.1	15.9	1.4		... 5.7 ...		3.3	15.7
Sri Lanka (1981)								
Rural	17.9	22.3	3.4	9.6	32.8	16.1	3.3	12.9
Urban	18.5	24.3	5.5	7.6	33.7	22.9	5.8	11.4
India (1993/94)								
Rural	19.4	30.3	1.8	14.0	... 18.6 ...		11.9	16.9
Urban								
Philippines (1980)								
Rural	38.6	51.5	2.0	55.4	56.3	36.5	1.2	13.1
Urban	38.2	34.6	5.3	39.1	56.0	38.9	1.9	15.9
Indonesia (1995)								
Rural	35.6	46.2	1.1	51.9	30.8	16.9	1.3	15.0
Urban	33.5	35.7	3.0	44.8	37.0	29.0	3.7	11.9
Thailand (1996)								
Rural	41.3	51.0	8.1	52.7	... 48.5 ...		18.5	17.7
Urban	45.4	46.1	14.3	48.4	... 56.7 ...		24.5	40.0

Source: Rosegrant and Hazell, 2000.

quite significant, especially in time of economic crisis when non-farm exports are experiencing difficulties.¹ At present, rural development has again received much attention from the government. After the crisis, there has been an increased interest in community-based development which emphasizes self-reliance. The concept of *sufficiency-economy* development has also been widely publicized and promoted.² A large amount of fund has been allocated to every village (about 70,000 villages in total) for community/village projects. A *one-village one-product program* has also been initiated nationwide. At present, it is clear that promoting rural non-farm enterprises, including agro-industries, is an important policy and program of the Thai government.

Significance of Non-farm Enterprises, Non-farm Employment and Income

Rural households receive farm and non-farm income from various sources. Non-farm income comes from household enterprises (e.g., food processing, basketry, wood carving, ready-made garments) and from wages and other sources such as remittance and income transfer. The data from national rural household surveys over time gives useful information about the structure of farm households (Table 8). From the data, it is quite clear that non-farm income is very significant in all regions of Thailand. From 1971/72 to 1986/87, the increased importance of non-farm income was quite remarkable. The proportion of the average income from non-farm sources increased from 46 percent to 63 percent. Non-farm income was particularly important for the poorest region of the Northeast. From 1986/87 to 1995/96, the national average non-farm income increased more than double, while the proportion remained the same (i.e., 63 percent). Nevertheless, the proportion of Northeast households increased considerably, from 73 percent to 81 percent.

The data from the household surveys in certain provinces of Thailand confirms similar patterns of non-farm income. It ranges from about 50 percent in Khon Kaen to 81 percent in Chiang Mai (ROFEAP, 1981; and Onchan, 1986) where farms are relatively small. Non-farm income is found to be very important in poorer provinces. This study also found an inverse relationship between non-farm income and farm size. Moreover, as it is found in other East Asian countries, non-farm income contributes significantly to the equality of the distribution of income in rural areas.³

Finally, the data from the household surveys also shows the importance of non-farm enterprises in rural employment. As a rule, every member of the farm household works either on the farm, or in non-farm and off-farm enterprises. In the province of Chiang Mai, for example, males spent over 70 percent of their working time on non-farm (and off-farm) enterprises while females over 80 percent. Females appear to work more off-farm than on the farm. Furthermore, low-income households spent more time on non-farm (and off-farm) work. Finally, the inverse relationship between off-farm employment and farm size and the landless was also established.

The data, both at national level and provincial level, clearly indicate the significance and effect of non-farm enterprises on employment and income. Promoting non-farm enterprises will therefore generate employment, increase household incomes, improve income distribution and ameliorate rural poverty.

Although, as presented earlier, manufacturing enterprises in rural areas form an important part of the total rural non-farm employment. Therefore, these enterprises are important and their promotion and development will contribute greatly to rural development. The next section will focus on this type of rural non-farm enterprises.

General Characteristics of Rural Non-Farm Enterprises⁴

1. Types of Industry

In general, commerce is the most important non-farm enterprise in rural towns and villages. Next to commerce, the most important category in terms of employment is textiles and textile products including tailoring, dress making and silk and cotton weaving. Other enterprises are repairing, wood and bamboo

¹ The overall export growth of 2001 may be negative.

² Given by the King of Thailand, the concept emphasizes self-reliance and moderation in economic and social practices.

³ Evidences are also found in other regions of the world (Reardon, *et al.*, 2000).

⁴ The detailed data are from the survey of 14 major rural industries conducted in both towns and villages in 1980 and 1985. Recent data are not available, but these findings remain relevant today.

Table 8. Income Structure of Farm Households, by Source and Region, Thailand, 1971/72, 1986/87 and 1996/97

	Region	Northeastern	Northern	Central Plain	Southern	Average Whole Kingdom
1971/72	Net-farm cash income	1,675 (51)	2,103 (56)	5,688 (61)	1,621 (40)	2,268 (54)
	Non-farm cash income	1,579 (49)	1,632 (44)	3,625 (39)	2,412 (60)	1,943 (46)
	Total	3,254	3,735	9,313	4,033	4,211
1986/87	Net-farm cash income	6,664 (27)	9,945 (35)	17,605 (36)	21,688 (39)	13,296 (37)
	Non-farm cash income	17,910 (73)	18,597 (65)	30,998 (64)	33,956 (61)	22,306 (63)
	Total	24,574	28,542	48,603	55,644	35,602
1995/96	Net-farm cash income	11,808 (19)	26,094 (40)	55,572 (46)	67,103 (53)	29,812 (37)
	Non-farm cash income	50,891 (81)	38,662 (60)	65,737 (54)	58,324 (47)	51,058 (63)
	Total	62,699	64,756	121,309	125,427	80,870

Source: Office of Agricultural Economics, Ministry of Agriculture and Cooperatives, *Agricultural Statistics*, Crop Year 1971/72, 1986/87 and 1995/96; data are from farm household surveys, non-cash and imputed incomes are excluded.

Note: Figures in parentheses are percent.

products, food processing, non-metallic and metallic products. At the village level, several types of cottage industry such as basket making, cotton and silk weaving, mat making, and hand tools are very common.

2. *Size*

Most of the establishments (84 percent) are of small-scale with less than six employed persons. On the average, there are five employed persons per establishment. Among the enterprises, the commerce and textile industries are the smallest while the chemical, metallic, and food processing are of large size. Hired labor accounted for 53 percent of the total employment, while family labor and apprentices shared 39 percent and 8 percent, respectively.

3. *Employment*

Family labor, hired labor and household subcontracting form the general employment pattern in the rural small-scale industry. Permanent hired labor accounts for a major part of the total employment in ready-made garment, silk weaving and furniture making, while skilled workers are more important in cement products and noodle-industries. Family labor is in general a major component of the total employment in the cottage industry.

Rural small-scale industries generate gainful employment for family labor. About two family members were employed per establishment each month. Each of them worked about 20-27 days per month. Rural small-scale industries also generate full-time work for permanent workers, on the average 20-29 days per month. However, an average temporary worker worked about 13-16 days per month.

It is also found that subcontracting work for rural households is also provided by rural small-scale industries. On the average, 4.57 and 2.38 households have subcontracting work from silk industry and ready-made garment, respectively.

Small-scale industries also generate employment in related industries. For example, the production of noodle generates employment in food services including restaurants.

It is also evident that small-scale industries and village industries can help alleviate the seasonal unemployment and underemployment problem of the rural people. An increase in the production of small-scale industries and village industries can absorb labor during the dry season.

Finally, it must be noted that most of the production in small-scale industry employs labor-intensive technique, and the ability of small-scale industry to absorb labor is found to be quite significant.

4. *Level of Technology*

The majority of rural enterprises did not use any power-driven machinery. It was found that only 42 percent of all the establishments surveyed used power-driven machines. Generally, the technology used is traditional, particularly in cotton and silk weaving, bamboo product, mat making and hand tools industries.

5. *Finance*

Financial requirements vary by type and size of rural enterprises. Relatively large fixed capital, for example, is required for industries such as cement products and ready-made garments. Working capital is found to be of an immediate concern for most industries. Commercial banks are the most important source of finance for both fixed and working capital. In many cases, initial investment is largely obtained from savings by the owner of the enterprise.

6. *Production and Sale*

Seasonality in production and sale is an outstanding characteristic of the rural industry. The production and sale of almost all types of rural industries increase before planting and after harvesting seasons. The variation of seasonal production and sales is largely due to availability of raw material, labor supply and the demand for products. Production and sale of village industries move in a similar pattern.

7. *Price*

Price of products varies according to types and quality of products. Generally, within an industry, high quality product has high price. Price fluctuations during seasons also exist but are quite significant for certain products such as ready-made garments and food.

8. *Marketing*

The domestic and local markets are the major outlets of the products of small-scale and village industries. Types of markets for products of the industries under study are shown as follows:

<u>Industry</u>	<u>Market</u>		
	<u>Local</u>	<u>National</u>	<u>Foreign</u>
Cement products	V	-	-
Fruit and vegetable pickling	V	V	V
Noodles	V	-	-
Been curds	V	-	-
Metal tools	V	-	-
Bricks	V	-	-
Pottery	V	-	-
Furniture	V	V	-
Wood carving	V	V	V
Silk weaving	V	V	-
Cotton weaving	V	V	-
Ready-made garments	V	V	V
Mats	V	V	-
Bamboo products	V	V	-

9. **Subcontracting**

Subcontracting system is widely practiced in the production of ready-made garments, silk, wood carving, furniture, fish net making, knitting, lacquer-ware, and metal products in the North and the Northeast.

The study indicates that 7 percent of all total economically active adults covered by the survey engaged in subcontracting activities. This figure is unevenly distributed by province and by sex, with the major concentrations being among male and females in Chiang Mai, and females in Khon Kaen provinces.

The subcontracting system has advantages for rural employment and for small-scale industries as follows:

- i) Providing flexibility of working time.
- ii) Parent firms in towns or in cities provide technical, marketing, and financial assistance.
- iii) Reduction in social and economic cost of urbanization.

The disadvantages of the subcontracting system are lack of government control and risks of exploitation.

10. **Efficiency and Profitability**

Profitability and net returns to labor vary among industries and quality of products. On the average, net return to labor in furniture production is the highest, ranging from B8.54 per hour of chair making to B47.43 per hour of table sets production. This type of production lines requires skilled labor. Cement products production generates the second highest returns. The production of low quality ready-made garments and silk fabric yields low net returns to labor as well as management. Among other things, the findings indicate that quality improvement of products will increase net returns to labor.

11. **Entrepreneurship**

Most of rural small-scale and village enterprises are of single proprietorship. The majority of entrepreneurs are local men. They also have had many years of experience in the same type of business.

Factors Affecting Growth of Rural Non-farm Enterprises

There are three major factors which have facilitated the growth of industries in rural areas of Thailand: an *existence of a local demand* or outlet for particular products; the *supply of raw materials*; and the *development of a labor force* skilled in certain production techniques.

The three factors, singly and in combination, are the major strengths of rural producers, the key advantages which enable them to thrive in the face of competition from larger producers in the big city. Today, however, each of these three potential sources of strength is under pressure. Looking first at the labor question, there may be substantial numbers of workers in rural areas who have skills in traditional industries, yet in most cases the level of those skills is not high. The skills they have are ones which are relatively easily learned by newcomers. With growing labor surpluses in urban areas, wage rates of city workers in these industries are bid down to levels comparable to those in rural areas. As a result, the rural labor advantage is weakened.

With regard to rural advantages in terms of raw material supplies, this potential may decrease in importance for any of the three reasons. The supplies of materials in rural areas may run out, as land becomes deforested or local supplies of clay are depleted. Alternatively, other sources of raw materials may be developed elsewhere which are cheaper or of better quality. Mat-makers, for example, may switch from using (local) natural reed to (urban factory-made) plastic as their basic raw material. Finally, improvements in transport and marketing arrangements may enable urban producers to obtain raw materials at prices which are comparable to those paid by rural producers, even though the latter are closer to the original source.

With regard to the rural advantage of proximity to markets, its significance is determined by the magnitude of transport costs and the extent of information on the existence and nature of demand. With growing market integration – falling transport costs and improving information flows – the advantages of physical proximity decline in economic significance.

If up-country producers are to maintain their advantage over competitive firms in Bangkok, they need to capitalize on their strengths in these three areas: skilled labor, local raw materials, and local markets. Table 9 provides summary information concerning these three aspects for fourteen industries. The Table indicates that there are seven industries (listed together in Group 1) which use mostly local raw materials and produce mostly for local markets: cement products, pickled fruits and vegetables, noodles, bean curds, metal tools, bricks and pottery. With the possible exception of metal tools producers and the managers of the pickling firms, the skill levels in these industries are only modest. In spite of this fact, there is every reason to believe that rural producers in these industries will be able to maintain their dominance in rural markets, both in village and provincial towns. With raw materials accounting for over half of final product prices for most products in this group of industries, rural producers with a convenient source of raw materials nearby have a significant cost advantage over competitors from Bangkok. A more difficult question concerns the future growth in demand in rural areas for these groups of products. The picture is mixed in this regard. For cement products and bricks – key inputs in the growing construction industry, and with demand receiving a further boost from the increasing scarcity of wood for building – one can be optimistic about future market growth. Demand for noodles will likewise receive a boost from the growth in population in rural towns, since noodle consumption has until now been concentrated primarily in towns and cities. For other industries in this group – pickled fruits and vegetables, bean curds, metal tools and pottery – it seems likely that demand will grow well for selected products within each of these industries, but will face stagnant or declining markets for others.

Table 9. Selected Characteristics of Major Industries in Rural Areas of Thailand

Industry	Raw Material Source	Location of Market for Output	Skill Level of Labor Force
Group 1			
Cement products	All local except cement	Local	Average
Fruit and vegetable pickling	Local	Local (and national)	High for management, low for others
Noodles	Local	Local	Average
Bean curds	Local	Local	Average
Metal tools	Local	Local	High
Brick	Local	Local	Low
Pottery	Local	Local	Low or average
Group 2			
Furniture	Decreasingly local	Local and national	High in some firms
Wood carving	Decreasingly local	National	Fair – good
Silk weaving	Decreasingly local	Local (and national)	High in some producers
Cotton weaving	Mostly Bangkok	Local	Average
Ready-made garments	Bangkok	Local (and national)	High in some producers
Group 3			
Mats	Local	National (and local)	Average
Bamboo products (mostly baskets)	Local	National (and local)	Average

Source: Onchan, *et al.*, 1981.

A second group of industries is made up of those which rely increasingly or entirely on raw materials brought in from outside sources. For some, the raw materials were used to be available in rural areas, but either decreasing supply (wood for furniture or carving) or increasing demand with no corresponding supply increases (thread for silk or cotton weaving) has forced producers to buy from other areas or even from other countries. In the case of ready-made garments, most of the cloth has always been imported from Bangkok. In general, firms in these industries sell in both regional and national markets. The workers have a wide range of abilities; some especially women are quite skilled.

For firms in this second group in rural areas, the present competitive position and prospects for future growth are more uncertain. Local raw material supplies can be developed in some cases (e.g., silk), or alternative inputs used (e.g., types of wood other than teak). In each of these industries, producers have a choice of focusing on local markets or penetrating into national or even international markets. Demand in rural areas is growing only slowly for silk, cotton cloth, and wood carving, but may be expanding quite rapidly in urban areas. For certain types of furniture and ready-made garments, on the other hand, demand in rural areas seems to be growing quite well. For all five industries in this group, competition with outside producers will be strong, whether the sales are in rural or urban markets. It is of particular importance that rural producers maintain or improve the quality of their products. This, in turn, is closely related to the third factor discussed; the skill level of the labor force. In order to maintain their position in growing rural markets or penetrate into new urban or international ones, it will be necessary to produce quality products, to expand product lines, and to understand and take advantage of market trends. To accomplish these requires not only imaginative managers but also workers of more than just ordinary skills. This required skill upgrading may be the most serious challenge facing firms in this group of industries.

Finally, there are two industries – mats, and bamboo products – which use local raw materials but sell in national markets. Both industries require higher level of production skills. In the case of mats, up-country producers have some advantages in that the appropriate kinds of reeds grow only in certain areas of the country. Aside from that, the product's export potential (e.g., to the Middle East) can be realized depending on (skilled) labor force, product quality and establishment of marketing links.

Obstacles to Growth of Rural Non-farm Enterprises

Rural industries face problems in a number of areas and they must be resolved if these enterprises are to be promoted. Some of the major problems will be discussed below.

1. *Raw Materials Supplies*

As suggested in the previous discussion, producers in a number of industries reported problems concerning raw materials: quantity, quality, timeliness, and price. At least three industries are affected – furniture, wood carving, and cement products. The raw material supply problems either originated from or have been made worse by misguided government in the form of price controls (cement) or government regulations of marketing channels, sales locations and prices (wood). What is needed in these cases is not new government interventions but rationalization or elimination of existing ones. In the case of supplies of yarn for silk weavers, a number of different projects have been undertaken in the past to encourage village production of higher quality and quantity of silk yarn. So far the results have been unsatisfactory. The undertaking is important, though, since silk weaving – a widespread source of supplemental income all over Northeastern Thailand – is currently facing constraints of limited quantity and quality of local yarn.

2. *Technology*

There are many cases where rural producers run into technical problems which they do not know how to solve. They need information about the drying and carving characteristics (as well as availability and price) of different types of wood, as they consider a shift away from teak. They need information about techniques for storing Chinese mustard so they can keep it for a longer period of time in inventory. They need information concerning the extent to which different dyes are color-fast. In some cases, the required information is available. What is needed is a mechanism to make such information readily accessible to the users. In other cases, the required information does not currently exist in Thailand. Basic research is needed. However, the urgent need in this technical area at present is not for more research facilities but a better information network joining the sources of industrial knowledge with the users.

3. *Finance*

Small producers in a number of different industries in both villages and towns report that they have major financing problems related primarily to **working capital**. This need for working capital arises from two major sources. The first reflects the high degree of seasonality in certain industries. Producers report that a shortage of working capital prevented them from buying as much as they would have wished during the period when the raw material was available. In the case of cement products, seasonality arises on the demand side; construction activity is concentrated during certain periods of the year, while raw materials can be purchased any time. Producers try to build up their inventories of finished products in anticipation of seasonal peaks in demand, but are constrained by their limited supply of working capital. In each of these cases, increased supplies of short-term finance would enable rural producers to increase their levels of production and employment.

There are other cases where working capital needs derive from other sources. Village producers of knives and agricultural implements report that they obtain their raw materials – the metal with which they make knives – from merchants in nearby towns. The merchants advance the raw materials to them with an understanding that the producers will sell the finished products back at a “favorable” price. A larger supply of working capital would enable the producers to buy raw materials outright and sell the products wherever they wish and at the price they want, thereby earning a higher return. In this case, access to working capital would enable them to increase their incomes.

However, the need for fixed capital should not be underestimated. Among 148 town firms interviewed in the survey, only 28 percent received any loans from financial institutions when they started their business. In an earlier and more extensive study of small enterprises throughout the country, the overwhelming source of finance was from own savings and money borrowing from relatives and friends. For producers wishing to start out in business, the opportunities to obtain financial assistance are limited. Banks know that the failure rate among new small firms is always high. If the provision of fixed capital loans to such borrowers is indeed a priority in order to facilitate the expansion of the universe of new firms, then it is clear that some form of government intervention will be necessary to cover part of the costs of loan evaluations, to guarantee at least a part of the loan against default, or simply to cover a portion of the bank’s interest charges, and to permit small enterprises to loan money at a subsidized rate (which still might be higher than the rate applied to large established producers).

4. *Marketing and Product Development*

There are two closely interrelated aspects: keeping in touch with market trends; finding out what is being bought, where, and at what price; and modifying product designs to respond to market opportunities. The first aspect is particularly important where markets are distant from the rural producers; in Bangkok or abroad. It is even more important where product designs change rapidly, as in the case of ready-made garments. Even where tastes do not change so abruptly – furniture, wood carving, or baskets – the information flows between final consumers and producers are of critical importance in enabling up-country producers to find profitable areas of expansion.

The need for market information is essential but is insufficiently provided in a number of different industries in Thailand. The provision of such information by the government and public sector agencies, the parties responsible, has not been satisfactory. It is advised that up-country producers be encouraged to enter into commercial arrangements with merchants or agents for assistance in their markets. Such arrangements have already been developed in many industries; they can be an effective means of linking rural producers to markets beyond their immediate neighborhood.

The second challenge facing up-country producers remains; the modification of product designs in response to perceived market demands. Success depends on capable entrepreneurs who are aware of the importance of innovation in product design and skilled workers who are able to come up with new designs.

The Industrial Services Institute in the province of Chiang Mai has been engaged in product development work for some time; in a few cases (e.g., gold-plated orchids and laminated trays), they have been quite successful. Similarly, *the Food Research Institute* of Kasetsart University has developed some new products which later were profitably adopted by private firms. For all its limitations – relating to the mentality of government officials and problems concerning availability of information mentioned above – this approach may offer the greatest hope for government initiatives in this area. It seems most likely, though, that for all the problems of market imperfections, the most effective product development activities will

continue to take place in selected private firms. Spreading the news that such investments do pay off, thereby, will encourage more firms to expand this type of activity. This may be the most important key to progress in this area.

5. Labor Force Skill Improvement

The last problem area to be discussed is closely related to the previous one; it concerns improvements needed in the skill level of the work force. There are three points to be made here. The first is that skill upgrading is made difficult by a high rate of labor turnover, which in turn arises from the high degree of seasonality in employment. There is an ebb and flow of workers in many firms, reflecting the workers' dual participation in manufacturing and in agriculture as well as the seasonality of raw material supplies and product demand discussed earlier.

The second point to emphasize is that, in general, there is now an adequate labor force with sufficient skills to continue producing – and even in most cases, to expand production of – the products currently being made. The need for improved skill is closely tied to the question of product development discussed above. In several industries, future growth is dependent on improvements in product quality and increases in production flexibility to take advantage of changing market opportunities. This can be made possible by the use of more highly skilled labor force.

The third point follows the second, and is conditioned by the first. The most effective training programs will be those aimed at upgrading the skill level of existing workers, those already employed, or their children (particularly the children of the entrepreneurs). By doing so, the training can be tailored to appropriate product groups and appropriate (low) levels of mechanization. Those trained can immediately enter the production process, where hopefully their newly-acquired skills will immediately be put to work.

PROMOTING RURAL NON-FARM ENTERPRISES

It seems that to be effective the promotion scheme for rural industries has to be *based on their basic characteristics*. These are the availability of raw materials, the dispersed market, the lack of entrepreneurship, and seasonal nature of the labor supply. The rising cost of transportation will have a positive effect on the rural area, for it would encourage firms to locate their plants nearer to the source of raw materials and market. Technical assistance will have to be provided together with credit assistance. The rate of interest can be charged at the market-competitive rate. Also, the availability of the labor force very much determines the type of industries which can be located in rural areas. Agro-based industries are obvious candidates. The cottage industries which are very small and do not require expensive machinery, which has to be kept running most of the time, are also good candidates. This type of industries requires a comprehensive promotion scheme ranging from credit, operation, and marketing. Finally, the labor-intensive industries can only be profitably set up in the area near town centers. The promotion of such industries has to be linked to export promotion policy. In this case it would also require a reduction in policy bias in favor of big industrial centers like Bangkok.

Promoting rural non-farm enterprises poses a major challenge to the government. In this section, we will focus first on major activities to be undertaken as indicated by available data from Thailand's studies. Then, a discussion will be made of some other specific policies and issues of importance.

Major Types of Activities/Changes

Useful lessons can be learned from Thailand's experience. As discussed above, there are several obstacles to growth of rural non-farm enterprises in general and rural small-scale industries in particular. These obstacles must be removed if the enterprises are to be effectively promoted. Therefore, the following changes and/or actions are needed, both in Thailand and in other developing Asian countries.

1. Raw Materials

Raw materials are very important for the growth of rural small industries. Some actions can be taken as follows:

- i) Rationalization of current government intervention, for example, for wood and soybean in Thailand. Taxation policies may be appropriate for certain types of raw materials (e.g., on the import of logs or wood).

- ii) More effective programs to promote agriculture. For Thailand, as the shortage of high quality silk yarns is serious for example, village *sericulture* must be effectively promoted. This responsibility falls under the Ministry of Agriculture and Cooperatives. As silk industry has been expanding in Thailand and will remain to be so in the future, the need for good quality silk yarns increases over time.

2. Technical Support

Although technology used by rural industries, including cottage ones, is still rather simple, certain types of industries, like food processing and cement products, need more information and support. Better information network and closer cooperation with research and extension centers of the Ministry of Industry and regional universities will be necessary and helpful.

3. Finance

The data from studies in Thailand on non-farm enterprises provides useful information about the need or demand for credit and financial services. Two things are of particular importance for the growth of non-farm enterprises:

- i) Increased flow of working capital; and
- ii) Increased flow of fixed capital to new firms.

As finance is a very important factor for the promotion of rural non-farm enterprises in developing Asian countries, more about this topic is to be discussed.

4. Market and Product Development

Marketing and product development are important for the success of business operations. In the case of rural non-farm enterprises/rural industries, they are of particular importance for their growth. Thailand's lessons may be summarized as follows:

- i) Strengthening of product development work at existing centers (the Industrial Service Institutes in Thailand), and improved information flows to disseminate findings;
- ii) Education or training to convince businessmen that investments in product development will pay off; and
- iii) Encouragement or promotion of contracts with commercial firms to improve marketing links.

In most cases, marketing is the weakest aspect of the management of rural non-farm enterprises. As indicated by the Thai study, while local markets are important, national markets (i.e., Bangkok, and other big cities) and even international markets (for silk products and wood furniture) are also important and can be further developed. This will require support from public and private business organizations especially those located in regional and provincial centers.

5. Training

Training is mostly about capacity building of local (both district and provincial) entrepreneurs and workers. The main purpose is to upgrade the skills of workers and management capability of the entrepreneurs. This may be provided by a variety of organizations, including the Regional Industrial Service Institutes (Thailand), skill development centers of the Ministry of Labor and Social Welfare, and other private trade and business centers. Regional universities and colleges may also take part in this activity. As Thailand is now putting a lot of emphasis on the promotion of small- and medium-sized enterprises (SMEs), including community/village businesses and industries, great efforts have been made to provide training in relevant aspects of the development of SMEs. Moreover, micro-enterprises are now getting increasing attention from the government. This will be further elaborated later.

It must be mentioned that the above list of activities to promote rural non-farm enterprises does not imply the need for major new government institutions. In fact, to a significant extent, its implementation requires the development of effective market links in conjunction with decreasing attempts by the government to manipulate these markets. A key focus of the list relates to information flows concerning *technical issues* in the production process, *new products* being developed, and *changing markets*. In Thailand, as in many developing countries, the links between technical centers, producers, merchants and consumers are often a weak point in the operation of the economy. Their development as a result should be a key goal for trade association, private firms, and government agencies.

The Roles of Infrastructure and Credit

1. Infrastructure

Among major factors that can contribute to the growth of the rural non-farm sector, infrastructure stands out to be the most important one. In most developing countries, the rural areas, including towns, do not have adequate infrastructure essential for non-farm sector development. Lack of adequate infrastructure is a problem widely recognized in many Asian countries but has not been addressed. A good system of roads, transport, and communications will encourage and promote specialization and division of labor by rural households. It will also promote the development of trade, marketing, distribution network, including sub-contracting arrangements (which are found commonly practiced in many rural areas of Thailand) linking farm and non-farm sectors to local towns or big cities and making business enterprises more financially profitable (Islam, 1997). In this regard, Thailand particularly has made good progress with good road systems nationwide, communication facilities (like village telephone services), electricity, health and education services. There is therefore good potential for the promotion of rural non-farm enterprises provided that other essential elements for their development are in place.

2. Credit

The issue of finance and credit is very important and essential for the promotion of rural non-farm enterprises. In fact, this is a common issue of great interest in many Asian countries. New development initiatives on this have been witnessed in the region. In many cases, specialized credit or financial programs have been set up to support rural non-farm enterprises and/or small industries and micro-enterprises. The purpose of these programs are mostly for helping certain target groups or for achieving some specified development objectives. They may be established in various forms ranging from specialized projects of governmental agencies responsible for industrial and/or rural or community developments to development-type banks or financial institutions. In Thailand, there is a financial institution specializing in servicing small-scale industries. Moreover, a specialized SME banking institution is being planned. A people-bank type of financial program is another interesting recent initiative. This latter is aimed at helping the poor. The Grameen model has been of particular interest for this micro-credit program (administered by the government's savings bank). Furthermore, in Thailand, a special fund has been set up, and an amount of B1 million is being allocated to every village in the whole country (a total of about 70,000 villages). This fund will be administered by the village committee and will be used for the promotion of village enterprises, including non-farm activities.

The reason behind all these recent developments on rural credit policies is the need (or demand) for credit for non-farm enterprises of the rural households. Our survey results from Thailand indicate the need for working capital for existing firms and the need for start-up capital for new firms. However, more and specific information about credit needs of rural non-farm enterprises is still needed before a specialized credit program can be effectively designed and implemented.

As *micro-finance* has received increasing attention in recent years, especially after the well-known Grameen Bank has been widely publicized, this type of credit program should be carefully studied whether it can really help promote rural non-farm enterprises in other Asian countries, including Thailand. Experiences of similar programs in many countries give mixed results. It must be noted that the success of any program promoting rural non-farm enterprises will depend on a number of factors, some major ones have been mentioned earlier. Credit, or capital, is only a factor essential for a business operation. A business enterprise or a rural industry must be financially viable or profitable to be successful. Findings from Thailand's study indicate that only certain rural non-farm enterprises are profitable. Some enterprises, in fact, give a low rate of return to labor and capital. Nevertheless, it is clear that the development of rural financial markets is urgently needed. As rightly stated by Meyer, "*Rural financial markets in Asia are ill-prepared for 21st century. That is the undeniable conclusion of this study*" (Meyer, 2000, p. 1). Although Meyer's study focuses mainly on farm finance, he also touches on the importance of rural non-farm activities to rural development, particularly in regard to the rural poor. Another study by Rosegrant and Hazel (2000) which also pays attention to the rural non-farm transformation, emphasizes the need for "... *efficient rural financial markets that serve the full range of financial needs of farmers and non-farm enterprises ...*" (Rosegrant and

Hazell, 2000, p. 120). They also support micro-finance programs⁵ to help women and poor people develop non-farm enterprises so as to help alleviate poverty. However, these programs, they state, “... *will probably contribute little to overall non-farm economic growth. Micro-finance also needs to be accompanied by appropriate training programs to give women and poor people the skills they need to compete in the market*” (Rosegrant and Hazell, 2000, p. 120).

The Role of the Government

The role of the government in promoting rural non-farm enterprises or rural industries cannot be underestimated. Over the past few decades, Asian governments have paid much attention to rural industrialization to achieve the development objective of growth with equity. Successful cases in Taiwan and the Rep. of Korea have often been cited as useful lessons for other developing Asian countries. Thailand, for example, has been pursuing rural industrialization policies for over two decades.⁶ However, little progress has been made and a great concentration of industries remains. Efforts are also made to promote cottage industries but, again, they have not been successful. Despite these disappointing experiences, Thailand is now undertaking a major step to promote village industries and SMEs by providing funds, credit, and other technical and support services.

In developing Asian countries, the governments, with the objective of developing the rural non-farm economy and containing the concentration of urban growth, have come up with several kinds of policy interventions to promote rural non-farm enterprises (see Box 2) with varying degrees of success.

Box 2. Rural Industrialization Policies

Recognizing that the rural non-farm economy can play an important role in creating employment and containing the growth of large cities, many governments formulated intervention policies to promote the growth of their rural non-farm economies. Typical interventions include:

- C Creation of industrial estates in rural areas and smaller towns where firms receive privileged treatment in terms of infrastructure support and technical assistance;
- C Subsidies, tax breaks, foreign exchange licenses, etc. that give targeted firms a competitive edge in the market;
- C Technical assistance and subsidized credit programs that are targeted to certain types of non-farm firms; and
- C Macro and trade policies that promote exports and protect domestic firms from cheap imports, at least during the early stages of an industry's development. Such policies have been used in a number of East Asian countries (beginning with Japan) to promote manufacturing, but they also impact on rural industry.

Some countries, for example, the PRC and India, have also developed their own unique approaches to rural industrialization. The PRC's successful experience with “township-village enterprises” represents a rational response to the unique economic conditions created in rural areas by the absence of efficient factor and product markets (Otsuka, 1998) India developed a policy of protecting certain reserve industries as the unique domain of small-scale firms and cottage industry, prohibiting imports or the emergence of large-scale competitors.

Source: Rosegrant and Hazell, 2000, p. 115-116.

⁵ Micro-finance is the provision of a broad range of financial services such as deposits, loans, payment services, money transfers, and insurance to poor and low-income households, and their micro-enterprises (ADB, 2001).

⁶ See a review of past policies in Bigge, *et al.*, 1990 and Loha-unchit, 1990.

The effectiveness of such policy interventions depends a great deal on a number of factors, some of which have already been mentioned. Economy-wide policy (e.g., trade, exchange rate, and minimum wage) can have an impact on the growth of rural industries. What is also important in this development effort is the strength of local government institutions. In this regard, decentralization policy has been actively pursued in many developing Asian countries, again, with a varying degree of success. With effective and efficient local governments, promoting rural non-farm enterprises will likely have a better chance of success. This is evidenced in Taiwan and the Rep. of Korea where local governments with local participation are particularly effective. In Thailand, there is a strong policy to promote people's participation for effective local governments. A new local government organization has been set up and is responsible for community and other development activities/projects. This is a new initiative under the new constitution of 1997 and the policy of the new 9th National Development plan (2001-05). However, questions remain regarding how a decentralized pattern of industrialization that will promote or stimulate rural economic activities can be promoted. Although some attempts to give answers have been made here, there are still a lot of questions left unanswered. This, among other things, requires a systematic analysis and studies on specific industries and their special characteristics. A study of national industrialization policy with a special emphasis on rural-industry development should also be conducted.

Finally, on governmental policies, it will also be useful to incorporate the development of rural non-farm enterprises into the overall rural development policy of the country.⁷ This means that policymakers must clearly understand the significance and the potential of rural non-farm enterprises in generating rural employment and income which will ultimately contribute significantly to sustainable rural development (Polman, 2000). Furthermore, the roles of the private business sector and NGOs may also be significant for certain types of enterprises. This, in fact, is essential in the process of economic transformation which is rapidly taking place in many developing countries, especially in Asia.

The Role of the Private Sector

The role of the private sector cannot be underestimated. In planning and evaluating the promotional program, qualified people from private organizations and business firms should be involved. This will include NGOs, trade associations and academic institutions.

Production and marketing integration through subcontracting and joint investment among firms should be encouraged. In this regard, the government can play an important role. In Thailand, for town-based industries engaging in subcontracting with village-based or Bangkok-based industries (by providing raw materials, technology, know-how, credit, market, etc.), the government should provide concessional credit and/or investment tax credit.⁸ For exporters who engage in subcontracting with regional industries, some reduction in business and income taxes should be granted. For machinery or regional industry suppliers that transfer technological know-how to regional industries, some kind of reduction in taxes is suggested.

Another role of the private sector is to help identify specific problems of rural industries. A team of private consultants, for example an economist, an engineer, and an entrepreneur, should be hired by the promotional agencies from time to time to identify and analyze specific problems of certain rural industries. The findings could then be used for the preparation of the annual operation plan of responsible agencies for planning and promotion of rural industries.

SUMMARY AND CONCLUSION

The rural non-farm economy is a very important part of rural Asia. It accounts for a large proportion of the total rural employment and the total rural income. This will continue to increase overtime. From the point of view of rural development, rural non-farm enterprises provide important sources of employment and income to women as well as to the poor small and landless farmers. Promoting these types of enterprise will therefore help raise employment and income, especially of the poor. Moreover, it can improve the distribution of income of people in the rural areas.

⁷ It must be noted that rural industrialization policies should also form an integral part of the overall industrial development policy.

⁸ This is not available in Thailand at present. In the U.S.A., business firms can deduct as a credit.

Rural non-farm enterprises cover many types of activities such as manufacturing, trade and service. They are located in the villages and in village and district towns where villagers can work part-time and/or operate small or micro type of enterprises that are labor-intensive. They usually use local raw materials, relatively simple and traditional technologies, some hired labor, and mostly owned funds (from saving). Markets are mostly local and district or provincial, although some products of high quality and value may also go to export markets. Rural small-scale industries form an important part of the rural non-farm sector and are getting increasing attention from policymakers trying to generate employment and income for rural development. Despite the fact that, rural industrialization policy has been implemented in many Asian countries in the past few decades, rural industries are still left behind other modern and urban types of industry. Today, great attention is still given to this policy due to its importance and potential for the development of the rural sector. As for Thailand, after the 1997 financial crisis, emphasis on rural development has increased and efforts and resources have been allocated for the promotion of community businesses in villages all over the country.

With the rapid economic transformation in rural Asia, this transformation process has witnessed the expansion of rural non-farm enterprises, employment and income. Before discussing ways to promote rural non-farm enterprises, this paper summarizes findings from studies on non-farm employment, particularly in Thailand. This gives an understanding of the characteristics of non-farm enterprises and their problems. Then factors affecting their growth as well as obstacles to growth are discussed. This information is helpful in identifying measures to promote growth.

The following presents a summary of some important points and findings.

1. The enterprises are of small size (i.e., less than 50 workers). They usually produce different types of products, use different raw materials and serve different markets. However, certain common characteristics among these industries can be found: they use relatively simple production techniques; and are closely linked with the agriculture sector (in terms of labor, raw materials, product, and market).
2. Seasonality in production is found to be very common among the non-farm enterprises. Production increases during the slack periods of farm production and then decreases. Seasonal employment is predominant. Causes of seasonality come from both the demand for and the supply of labor. Hired labor is an important component of the workforce in rural industries. Subcontracting work is also found, particularly in silk industry.
3. Raw materials are obtained from both local and outside sources. However, some still come from other areas, including foreign sources. Warping silk, for example, is mainly imported from PRC and Japan. As for ready-made garments and farm machinery, inputs are from Bangkok. Workers are mostly from farm families in the province.
4. The average amount invested in farm machinery is the highest. Working capital is about 20-30 percent of the total investment. Fixed investment is usually in the form of land, buildings, and equipment. Though the amount of total investment varies greatly among firms in different industries, the pattern of their investment in each kind of fixed assets is similar.
5. Most non-farm enterprises produce for local markets. However, products of ready-made garments or silk weaving are partly for export markets. Quality of products appears to be a major problem. Standardization is lacking in the farm machinery industry.
6. The major source of finance for the initial investment is through savings. In the case of farm machinery, this accounts for 70 percent. Other sources are financial institutions and informal lenders. Non-institutional credit is also found to be quite significant, e.g., the case of ready-made garments.⁹ The financing of additional investment is made by means of owned funds and credit.
7. On profitability of the non-farm enterprises, the rates of net return to family (fixed assets) to total capital and to equity have been calculated. The rates of net return vary by types of industry as well as by types of product. The net return to family ranges from a low of 10 percent (of farm machinery

⁹ At present, as formal rural financial markets have been markedly developed, this source of credit may be much less than what is reported here.

products) to over 30 percent (of ready-made garment products). The rates of return on total capital range from 10 percent (farm carts) to 44 percent of ready-made garments. Finally, the rates of return on equity range from 16 percent (farm carts) to 59 percent for ready-made garments. From the data, it is clear that some non-farm products give a higher return on investment.

8. Problems of rural non-farm enterprises are many. They can be classified into several groups, namely supply of raw material, market or demand, transportation, labor, capital or finance, and technology. Therefore, some enterprises have greater potential for growth than others. Furthermore, even within a type of industry (e.g., farm machinery), some products are more promising than others. This indicates that an *industry approach* for industrial development may prove to be more successful than a general one.

The problems just mentioned are obstacles to growth of rural non-farm enterprises. Five major obstacles are raw material supplies, technology, finance, marketing and product development and labor force skill. Clearly, the growth of non-farm enterprises will depend on effective strategies to remove these obstacles.

Regarding the promotion of rural non-farm enterprises, major types of activities or changes are proposed. They include efforts to handle the supply of raw materials, the provision of technical support to the industries, the provision of financial services, and support on market and product development. Several activities can be undertaken by the government and other private organizations. Training, for example, is an important activity that can help raise the capacity of local entrepreneurs or villagers. Subcontracting is another measure that can be used to improve marketing links between the village enterprises and the business firms in towns.

The roles of the infrastructure and credit are important for the promotion of rural non-farm enterprises. Without good rural roads, transport, and communications, it will be difficult to promote the development of trade, marketing, and distribution network. Other social infrastructures like education and health services are also essential and must be adequately provided. On credit or finance, this is generally accepted as essential for all kinds of development activities, non-farm enterprises included. Specialized credit institutions may be established to provide special services to rural non-farm enterprises, including small-scale and micro-enterprises. In fact, these credit programs have been set up in many countries. In Thailand, for example, there is a financial institution for small-scale enterprises. This may soon be restructured into a kind of SMEs bank as SMEs have received much attention. Moreover, a micro-finance program has been providing services for microenterprises. These represent new initiatives and more are likely to emerge as Thailand is actively pursuing a development policy which emphasizes people-development and grassroots approach.

Finally, the role of the government is emphasized. Rural industrialization policy has been part of national development policy of many countries for many years. More effective measures must be implemented if it is to have a chance of success. The "township-village enterprises" experience of the PRC is of particular interest and should be closely studied to draw from it a useful lesson for the development of rural industrialization in other countries. Moreover, the role of the private sector must be recognized. Participation from private organizations such as NGOs, trade associations, and research and development (R&D) centers is necessary for effective planning and promotion purposes. Regarding the promotion of rural non-farm enterprises, it must be noted that the linkages between the farm and non-farm activities within the households and the rural sector itself must be adequately conceptualized and analyzed. This should be done in the context of rural non-farm transformation which involves a much more complex process than what is usually envisaged.

REFERENCES

- Anderson, D., and M. H. Leiserson, 1978. *Rural Enterprise and Non-farm Employment*, World Bank, Washington, D.C., January 1978.
- , 1980. "Rural Non-farm Employment in Developing Countries", *Journal of Economic Development and Cultural Change*, University of Chicago.

- Asian Development Bank, 2000. *Rural Asia: Beyond the Green Evaluation*, Manila.
- , 2001. *Micro-finance Development Strategy*.
- Bigge, T., *et al.*, 1990. *Rural Industry and Employment Study*, Thailand Development Research Institute (TDRI).
- Ho, Samuel, P. S., 1982. "Off-farm Employment and Farm Households in Taiwan" in R. T. Shand (ed.), *Off-farm Employment in the Development of Rural Asia*.
- Islam, Nurul, 1977. *The Non-farm Sector and Rural Development: Review of Issues and Evidence*, International Food Policy Research Institute (IFPRI), August, 1977.
- Meyer, R. L., and D. W. Larson, 1978. "Rural Non-farm Employment: The Recent East Asian Experience", *Journal of Economic Development*, July, 1978.
- Meyer, R. L., and G. Nazarjan, 2000. *Rural Financial Markets in Asia*, Oxford University Press.
- Onchan, Tongroj, Pradit Charsombut, Richard L. Meyer and Donald C. Mead, 1979. "Description of the Rural Off-farm Employment Assessment Project in Thailand", Research Paper No. 1, ROFEAP, October, 1979.
- Onchan, Tongroj and Yongyuth Chalamwong, 1980. "Structure of Income of Poor Farmers: Significance of Farm Versus Off-farm Income", Discussion Paper No. III, Center for Applied Economics Research, Kasetsart University, April, 1980.
- , 1981. "Rural Off-farm Employment and Income of Rural Households in Thailand: Some Research Findings", Research Paper No. 5, Center for Applied Economics Research, Kasetsart University.
- Onchan, Tongroj, Pradit Charsombut and Donald C. Mead, 1982. "Rural Industries in Thailand", a report submitted to USAID, Bangkok.
- Onchan, Tongroj, Saroj Aungsumalin and Preeyanuch Apibunyopas, 1985(b). "Rural Industrialization and Employment Generation", research report prepared for ILO-ARTEP (ASEAN Regional Team for Employment Promotion).
- Onchan, Tongroj, 1986. *Non-farm Enterprises and Rural Development of Thailand*, Bangkok.
- , 1991. "Non-farm Enterprises, Rural Employment and Rural Development", *Measures for Rural Employment Generation*, APO.
- Oshima, H. T., 1984. "The Significance of Off-farm Employment and Incomes in Past War East Asian Growth", *Asian Development Bank Economic Staff Paper*, No. 21.
- Polman, Wim, 2000. "Policies and Institutional Infrastructure in the Promotion of Rural-based Small-scale Industries", *Promotion of Rural-based Small Industries in Asia and the Pacific*, Asian Development Bank.
- Reardon, T., *et al.*, 2000. "Effects of Non-farm Employment on Rural Income Inequality in Developing Countries: An Investment Perspective", *Journal of Agricultural Economics*, May, 2000.
- Rosegrant, M. W. and P. B. R. Hazell, 2000. *Transforming the Rural Asian Economy: The Unfinished Revolution*, Oxford University Press.

- Shand, R. T. (ed.), 1986. *Off-farm Employment in the Development of Rural Asia*, Australian National University.
- Syed, R. H. (ed.), 1987. *The Rural Non-farm Sector and Process of Economic Development*, Association of Development Research and Training Institute of Asia.
- World Bank, 1987. *World Development Report*, Washington, D.C.
- , 1998. *World Development Indicators*, Washington, D.C.

1. REPUBLIC OF CHINA

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INTRODUCTION

In Taiwan, land reform implemented in the 1950s encouraged farming and resulted in increased production. The economy gradually took off in the 1960s. Manufacturing and commerce sectors developed rapidly, however, development in agriculture slackened somewhat. The income of farm family was also lower than that of non-farm family prompting the population in the rural areas to gradually migrate to the urban areas causing population pressure in the latter. In order to help and encourage farmers, the government has adopted the price guarantee measure since 1970s. Due to limited cultivable land at about 1 ha per farm, the price policy cannot effectively raise the farm income. As a result, more non-farm employment opportunities to raise income are needed.

To create non-farm employment opportunities in rural areas and balance development of rural and urban areas, the government has been actively improving infrastructure and establishing industrial parks in rural areas resulting in a gradual increase in part-time job opportunities for farmers. The percentage of part-time farm family to total farm family increased from 70 percent in 1970 to 91 percent in 1980. In order to facilitate Taiwan's economic development, the government has promoted internationalization and trade liberalization since the 1980s. The reforms have great impact on agricultural development.

For the agriculture sector, the government has implemented adjustment measures on agricultural structure and developed leisure agriculture to create non-farm employment opportunities. Agricultural development has been redirected towards the service sector. The devastating earthquake on 21 September 1999 in the central part of Taiwan had caused great damages to industries in the rural areas. People in the affected areas either lost their job or had to change job. In order to solve these problems, the government has actively implemented many measures to create non-farm employment opportunities.

Based on the above, the objective of this study was first to focus on the changes of employment structure in the rural areas in Taiwan. Secondly it tried to survey the sources and measures of employment in rural areas; for example, the establishment of industrial districts, development of small- and medium-sized enterprises (SMEs), leisure agriculture, and reconstruction of 9/21 earthquakes. Finally, it introduced a successful case for creating non-farm employment opportunities in rural areas in Taiwan, Chao-Men community.

RURAL EMPLOYMENT IN TAIWAN

Changes in Rural Employment

The number of employed persons has increased in Taiwan from 8.28 million in 1990 to 9.49 million in 2000, as listed in Table 1. The employed persons in rural areas also have increased from 5.98 million in 1990 to 6.87 million in 2000. For the past 10 years, the percentage of employment in rural areas has been at 72 percent of the total employment in Taiwan. This reveals that the movement of employers from rural areas to urban areas has been gradually decreased.

The changes of employment structure among industries in the rural areas were listed in Table 1. It showed that the number of employed persons in agriculture in rural areas decreased from 1.01 million in 1990 to 714,000 persons in 2000. In the meantime, the percentage of agricultural employment in rural areas decreased from 17 percent to 10 percent. The percentage of employment in the service sector in rural areas, however, increased from 39 percent to 48 percent. It showed that the structure of employment in rural areas was turned to the service sector. But the percentage of employment in this sector in the rural areas was lower than that in the urban areas. For example, the percentage of employment of service in urban areas was 72

percent in 2000. This implies that industry also plays an important role on non-farm employment in rural areas.

Table 1. Employed Persons by Industry in Taiwan Area

	(Unit: 000 persons)					
	Urban Area		Rural Area		Taiwan District	
	Number	Percent	Number	Percent	Number	Percent
1990:						
Agriculture	52	2	1,012	17	1,064	13
Manufacture	759	33	2,626	44	3,385	41
Service	1,491	65	2,343	39	3,834	46
Total	2,302	100	5,981	100	8,283	100
2000:						
Agriculture	26	1	714	10	740	8
Manufacture	709	27	2,825	41	3,534	37
Service	1,887	72	3,331	49	5,218	55
Total	2,622	100	6,870	100	9,492	100

Source: Directorate-General of Budget, Accounting and Statistics (DGBAS), *Report on the Survey of Family Income and Expenditure in Taiwan*, Executive Yuan, <http://www.dgbasey.gov.tw/>

Note: The urban areas include Keelung city, Taichung city, Tainan city, Taipei municipality, and Kaohsiung municipality. The other regions are classified as rural areas.

Factors of Growth of Non-farm Employment Opportunities in Rural Areas

The increasing number of employed persons in industry and service sectors in rural areas reflected an increase in non-farm employment opportunities. The main factors contributing to this trend are as follows:

- An increase in transportation construction project and an establishment of transportation network have reduced the travel time of products from rural to urban areas and also have encouraged entrepreneurs to build plants in the rural areas.
- The government has tried to balance the development of rural and urban areas, for example, the establishment of industrial districts in rural areas that promotes the development of rural enterprises.
- Improvement of public facilities in rural areas and the development of rural enterprises have mitigated the movement of employers from rural areas to urban areas. The rural areas are now more commercially attractive drawing in the development of the service sector.
- The government has actively constructed attractive rural communities and developed leisure agriculture. The traditional farm villages and agriculture are changing. For example, they are now providing services relating to tourism. Such transformation creates non-farm employment opportunities.
- The economic growth increased the price of land in urban areas whereas the price of land in the rural area is still relatively low. Moreover, there is an abundance in manpower in rural areas. Hence enterprises are gradually established in the rural areas.

The Effect of Rural Non-farm Employment on Farm Family Income

An increase in non-farm employment in the rural areas helped utilized the labor force of farm families and their income. Based on the survey of farm family income and expenditure, as listed in Table 2, the percentage of non-farm income gradually increased from 74 percent in 1981 to 82 percent in 1999. It showed that most of the farm family income came from non-farm sources, which helped raise the standard of living of the farm families.

Table 2. Farm Family Income

Year	Average Per Farm Household Income (NT\$)	Percentage of Non-farm Income (percent)	Ratio of Farm to Non-farm Family (percent)
1981	244,424	74	77
1985	310,585	75	80
1990	503,830	80	77
1995	871,082	80	82
1999	927,663	82	80

Source: DGBAS, *Report on the Survey of Family Income and Expenditure in Taiwan*, Executive Yuan, <http://www.dgbasey.gov.tw/>

RURAL ENTERPRISES AND NON-FARM EMPLOYMENT OPPORTUNITIES

In an early stage of an economic development, rural enterprises can absorb the surplus labor force of agriculture. That helps raise farm family income. Moreover, rural enterprises have become the support power for the development of rural areas following the decline of the economic position of agriculture during the economic development process. In the meantime, the development of rural enterprises can alleviate the pressure of population in urban areas. The development of rural enterprises was affected by two important factors: the establishment of industrial parks; and the development of SMEs. Those will be briefly described as followed:

Industrial Parks

1. *Establishment of Industrial Districts and Employment Opportunities*

To develop the industry and promote economic growth, the government has established many industrial parks throughout the country since 1960s. There are seven locations in rural areas and eight locations in urban areas. It showed that most of the industrial parks were built in rural areas due to cheaper land price and abundant supply of labor force. According to statistical data, the total number of employed persons in industrial parks was 490,000 in 2000 with 407,000 persons in rural areas and 83,000 in urban areas, as listed in Table 3. This indicated that an establishment of industrial parks has provided non-farm employment opportunities in rural areas.

Table 3. Number of industrial Parks and Employed Persons

	Number of Industrial Parks	Employed Persons (000)
Urban areas	8	83
Rural areas	79	407
Total	87	490

Source: <http://idb.management.org.tw/top/index5c.asp>

The major goals of an establishment of industrial parks include the following:

- C To accelerate industrialization and promote the economic growth.
- C To increase the rural employment opportunities and raise farm-family incomes.
- C To efficiently utilize the surplus labor force of agriculture.
- C To improve the rural economy, balance the region development, and narrow the gap of rural and urban development.
- C To reduce the migration of population from rural to urban areas and decrease the pressure of population in urban areas.

2. *The Issues of Development of Industrial Parks*

The major issues of the development of industrial parks include the following:

- C The development of industrial parks causes environmental problems such as polluted air and water. These problems lead to the protests of civilians in rural areas. Agricultural production is also affected.

- C The land for the development of new industrial parks becomes difficult to obtain. The price is getting higher driving up the development costs of new industrial parks. Non-farm employment opportunities in the future are expected to decrease.
- C Following the economic development and the changes of industry structure, some older industrial parks are faced with transformation issues. In the meantime, the industrial parks near the urban areas are confronted with the issues of de-industrialization caused by an expansion of urban areas. These will affect the non-farm employment opportunities in rural areas.

Small- and Medium-sized Enterprises

1. *The Development of SMEs*

SMEs played a very important role in Taiwan's economic development. In Taiwan, the number of SMEs was 872,000 in 1992, 97 percent of total enterprises and 1.061 million in 1999, 98 percent of total enterprises. In 1992, 4.019 million persons were employed, 47 percent of total employees and 4.587 million persons in 1999, 49 percent of the total employees. It showed that SMEs provide numerous non-farm employment opportunities.

The allocation of SMEs in rural and urban areas was listed in Table 4. The percentages of SMEs in urban and in rural areas were 24 percent and 76 percent, respectively in 1983. It showed that most of SMEs were located in the rural areas. In 1992, the percentage of SMEs in rural areas was raised to 82 percent displaying a rapid increase in SMEs between 1983 and 1992. These enterprises provided many non-farm employment opportunities and helped bridge the gap between urban and rural areas. However, the percentage of SMEs in rural areas has recently gone down to 63 percent probably due to the changes in industrial structure.

Table 4. Allocation of SMEs in Rural and Urban Areas
(Unit: Percent)

District \ Year	1983	1992	1999
Urban areas	24	18	37
Rural areas	76	82	63
Total	100	100	100

Source: Ministry of Economic Affairs, *White Paper on Small and Medium Enterprises in Taiwan*, <http://www.moeasmea.gov.tw/html/90white/white%2Ehtm>

The industrial structure of SMEs in rural areas was listed in Table 5. There were 671,125 SMEs in rural areas in 1999. The percentages of agriculture, industry, and service were 1, 26 and 73 percent, respectively. There were 389,618 SMEs in urban areas in 1999 with the percentages of 1, 11 and 88 percent for agriculture, industry, and service, respectively. Three observations were made: (1) most of the SMEs in rural and urban areas were in the service sector; (2) the percentage of SMEs in rural areas was higher than in urban areas; and (3) there were not many SMEs engaged in agriculture.

Table 5. Industrial Structure of SMEs in Rural and Urban Areas in 1999

District	Agriculture	Industry	Service	Total
Urban areas	4,996 (1)	44,699 (12)	339,923 (87)	389,618 (100)
Rural areas	7,832 (1)	174,285 (26)	489,008 (73)	671,125 (100)
Total	12,828 (1)	218,984 (21)	828,931 (78)	1,060,743 (100)

Source: Ministry of Economic Affairs, *White Paper on Small and Medium Enterprises in Taiwan*, <http://www.moeasmea.gov.tw/html/90white/white%2Ehtm>

Note: Figures in parentheses are percent.

2. *The Issues of Development of SMEs*

The development of SMEs presents two major issues as follows:

- C Due to salary and land price increase, the operation costs of SMEs have gone up prompting some SMEs to move overseas. Non-farm employment opportunities have decreased as a result.
- C Because Taiwan will join the World Trade Organization (WTO), SMEs are pressed to become more competitive internationally. The generation of non-farm employment opportunities will be affected.

LEISURE AGRICULTURE AND NON-FARM EMPLOYMENT OPPORTUNITIES

Leisure agriculture is a result of people's increasing demand to engage in activities in leisure time due to their income increase. Also to cope with the challenge of trade liberalization, the government pushes leisure agriculture aggressively. People believe that more non-farm jobs and higher income levels will be created if agriculture can be transformed from the primary industry to an integrated new industry with the characteristics of the service sector.

The Concept and Development of Leisure Agriculture

Based on the document of the Council of Agriculture (COA), Taiwan, leisure agriculture is defined as a farming operation characterized by: 1) the utilization of a village's scenery, natural surroundings, and environmental resources; 2) the combination of agricultural productions, operation activities, village culture, and rural living; and 3) the offering of leisure life and specific experiences on rural life and farming operation. Briefly speaking, the traditional farming operation is focused on production activities while leisure agriculture focuses on service activities. There are two main purposes of developing leisure agriculture. The first is to develop the multifunction characteristics of agriculture. Secondly, it is to provide resorts for relaxation for busy people from the urban areas.

In 1965 the establishment of A-Li Mountain Leisure Area is the first step for leisure agriculture development in Taiwan. The history of leisure agriculture development is divided into three stages for the last two decades.

1. Initial Development Period (1976-79)

In this period, pioneer farmers originally brought up the ideas of leisure agriculture. There were several famous examples within this period, such as the Tein-Wei Roadside Garden at Chang-Hwa county in 1976 and the Da-Hou All-You-Can-Pick Strawberry Garden at Miao-Li county in 1978.

2. Flourishing Development Period (1980-92)

In this stage, many sightseeing gardens, leisure forestry farms, and pastures were established through the assistance of farmers' associations and government institutions. The scale of business was relatively bigger than in the former period. The services offered were also more diverse.

3. Legal Management Period (1992 till now)

To improve the quality of management and administration of leisure agriculture business, COA announced the Rules of Establishment and Administration of Leisure Agriculture Regions in December 1992. The rules were amended in July 2000.

Establishment of Opulent and Attractive Rural Communalities (OARC) by Government

The fast growing economy in Taiwan widened the standard of living gap between rural and urban areas. To address this issue, the Soil and Water Conservation Bureau (SWCB) of COA implemented several projects including "the Projects of Integrated Developing Planning and Construction for Hillside Villages" in 1987, and "the Projects of Integrated Developing Planning and Construction for Villages in Rural and Fishery Areas" in 1993.

In 1998, the two projects were merged into a plan called "the Projects of Integrated Developing Planning and Construction for Rural Villages (IDPCRV)". There are five main objectives of this project.

- 1) To improve the agricultural production environment and agriculture operation patterns, lower the production costs, create new jobs in rural areas, and increase farmers' incomes.
- 2) To program the rural development properly, fulfill the multifunction mechanisms of rural areas, promote the interaction between rural and urban regions, and empower the rural economy.
- 3) To provide the housing loans with low interest rate, increase the infrastructural investments, and extend the scale of rural economy.
- 4) To improve the surroundings and quality of life in rural areas, narrow the gap between rural and urban areas, and stabilize the outflow of rural population.
- 5) To offer basic public facilities and leisure space for rural people, and enhance the competitiveness of rural villages.

From 1989 to 1998, SWCB injected NT\$4.4 billion into 337 regions under the IDPCR. Two demonstration regions and 14 major regions were set up not only to create a new feature of rural village but also to promote a better quality of life and to provide non-farm jobs. The projects led to increase in income which helps narrow the difference of quality of life between rural and urban areas.

Operation Types of Leisure Agriculture by Private Sector

The government plays a major role in the operation of the OARC project. On the side of the private sector, which includes farmers, farming groups, and other private companies, several kinds of operation types in leisure agriculture have also been established. The main operation types can be described as follows:

1. *You-Pick Orchard (Tourist Farm)*

With the project entitled “Demonstration Plan of Sightseeing Farm Development”, the former Provincial Department of Agriculture and Forestry helped some farmers set up tourist farms on their site. The farm provides the you-pick experience. Twenty or more fruits including grapes, strawberry, and pear, are available throughout the year. For this type of operation, tourists stay on the site for only a short period of time. There are currently 64 farms on the island.

2. *Leisure Farm*

COA permitted seven leisure farms to run business in 1990. Tourists can either choose to purchase the fresh products from the shop or experience fruit harvest in the yard. Also, leisure farms provide food and housing services on site. Tourists stay longer on the property than in the previous type. There are currently 26 sites in operation.

3. *Citizen Plantation*

The first citizen plantation was established in Taipei city in 1990. Twenty-three farms are under the administration of COA. This type of operation is close to the urban areas. With a small-scale of land, the farms provide space for urban people to experience the farming operation through planting flowers, vegetables, and fruit trees.

The Issues of Leisure Agriculture

There are three issues affecting the development of leisure agriculture:

- 1) The financial requirement is often beyond the means of farmers.
- 2) The basic infrastructure required causes a huge demand of land. Private lands are hard to acquire because the owners are reluctant to cooperate.
- 3) Due to lack of effective management and marketing strategies, further development of some leisure agriculture farms is limited.

Reconstruction of Damaged Areas Caused by 9/21 Earthquake and Non-farm Employment

On 21 September 1999, a devastating earthquake struck the central part of Taiwan. Two rural areas, Taichung county and Nantou county, were seriously damaged. The percentage of totally or partly collapsed manufacturing plants was 8.5 percent in these areas. The areas were originally famous for trip services. There were lots of hotels scattering all over sightseeing spots around the mountains. The percentage of totally or partly collapsed hotels was 31 percent. Because of the severe damage, all businesses in the disaster area shut down. Unemployment soared. To solve the problem of unemployment, the government has actively taken on many measures which are to be briefly discussed as follows:

Measures of Employment Assistance

1. *Employment Instead of Outright Grant*

In order to stabilize the unemployed victim's life in the disaster area, the measure of employment instead of outright grant was implemented. Residents were paid through their help of cleaning up and restoring the surroundings. There were 65.1 thousand people benefiting from this measure through June 2001.



Figure 1. Avalanche of Hillside Fields Caused by 9/21 Earthquake

2. *Subsidy of Temporary Work*

The government engaged these people in temporary work and paid them some premium. A total of 9,055 people benefitted from this plan till June 2001.

3. *Reward of Hiring Victims*

To encourage business owners to hire unemployed persons in the disaster areas, the government gives them an incentive by reducing their costs. There were 2,037 unemployed persons who were hired by June 2001.

4. *Employment Matching*

In February 2000, a single window service station was set up in the disaster area. The extension and propagation of employment service and vocational training was enhanced. In the meantime the activity of employment matching was held on fixed period and location. The number of employment through the matching reached 177,019 by June 2001.

5. *Employment Reestablish Battalion*

The “Employment Reestablish Battalion” was founded in October 2001. It provides non-public construction employment opportunities to unemployed persons in the disaster area. These opportunities offer careers in environment and ecosystem protection, culture teaching, tourism servicing, etc. A total of 5,905 employment opportunities were created by June 2001.

Vocational Training

1. *To Subsidize Local Government for Vocational Training in the Disaster Area*

Based on local industry development and on labor market requirements, the local government transacts vocational training for the local masses. There were 10,196 persons who were trained by December 2000.

2. *To Conduct Vocational Training for Necessary Skills of Reconstruction*

The reconstruction of disaster area needs lots of skilled workers. The government conducted training courses for the occupations in great demand. There were 3,223 persons who were trained by December 2000.

Issues of Employment Creation for the Victims

Because the government aggressively implemented many reconstruction measures that resulted in the generation of lots of employment opportunities, the utilization of labor force in the disaster area gradually improved. In the process, the government encountered some issues as follows:

- a) Because the industries in the disaster area were seriously damaged by the typhoon, employment opportunities were very limited, an obstacle to the government’s activities to generate employment opportunities.
- b) According to the 25th rule of reconstruction regulation, hiring reward was given to public reconstruction firms that hired people in the disaster area, over 1/3 of their workforce. This regulation could help victims getting a job. Originally the unemployed persons were mostly engaged in agriculture and service. However, those industries that looking to hire the locals for reconstruction are mostly construction and traditional industries. This resulted in the difference between labor demand and supply making employment matching task a challenge.

- c) Most people living in the disaster area are permanent inhabitants. They wanted to restore and rebuild their own homes. It is therefore difficult to convince them to move away and work in other counties. This also affects their decision to participate in vocational training offered by public training institutions away from home.

A SUCCESSFUL CASE OF NON-FARM EMPLOYMENT GENERATION CHAO-MEN COMMUNITY

Chao-Men community is located in Xin-Pu town in Xin-Zhu county. The planned area is about 300 ha. Most lands are privately-owned. The arable and pasture land occupies 80 percent. More than half of local residents are farmers. The major crop is pear. Owing to the cooperation of the local residents, this community was chosen as a rural village multiple development planned area by the SWCB in 1991. The construction from 1992 to 1999 has turned it into an opulent and attractive community. It also has been transformed from a traditional rural village into a leisure agriculture area. The achievements of construction and the issues of the community development are briefly discussed as follows.



Figure 2. Entrance of
Chao-Men Community



Figure 3. A Pear Orchard

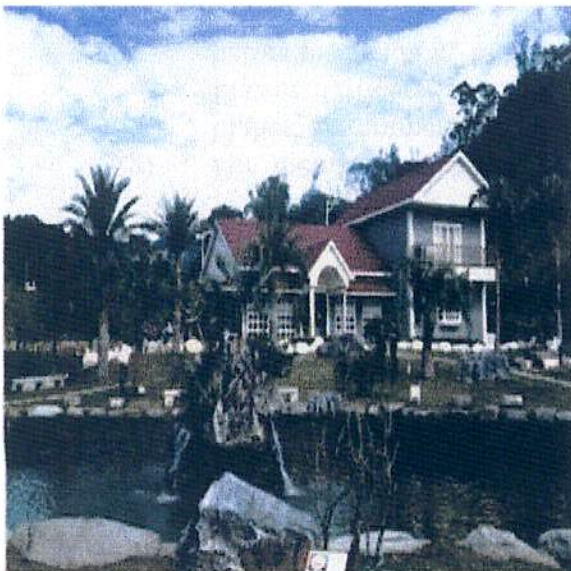


Figure 4. A Garden of Leisure Farm

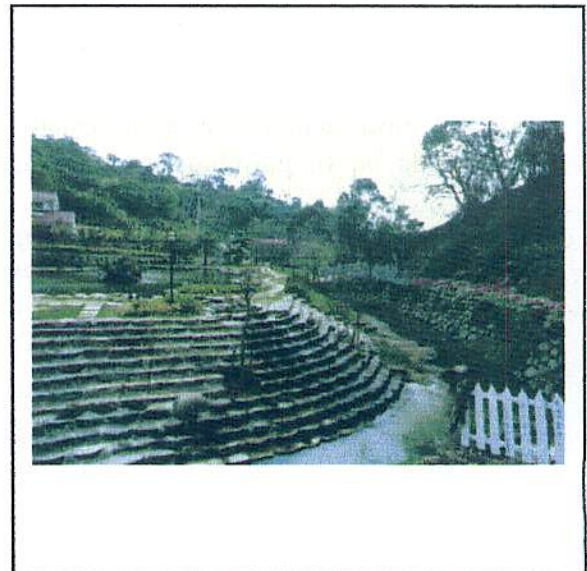


Figure 5. Playing with Water Park

The Achievements of Construction

1. *The Completion of Infrastructure*

The government invested NT\$179 million from 1992 to 2000. The major infrastructure projects completed include improving road system, dredging wild stream, building up irrigation system, enhancing surroundings, setting up leisure facilities, etc. Hence the Chao-Men community displays an elegant new feature. It is not only a good place to live, but also a wonderful leisure and recreation location for urban citizens. Furthermore, the price of land has promptly risen. The real wealth of the local residents consequently increases.

2. *Growth of Community Population*

There were 1,393 migrants from 1984 to 1990 in this small village. In 1990, however, the number reduced to 963 people reflecting the severe migration problem before the plan. The major reason is that the community's main industry was agriculture. Agricultural production remained at the same level. After the plan, the population increased due to the income boost from the stream of tourists. The community's population rose to 991 persons in 1999.

3. *Generation of Non-farm Employment*

With the increase of national income came the demand of leisure and recreation. Originally, there were no tourists at Chao-Men community. Because of successful planning, the community attracts a great number of tourists. Based on the calculation, at least one million tourists visited the community in 2000. The commerce value was estimated at about NT\$100 million. For this reason, many leisure farms and restaurants were built up. Dining services around the community also sprang up. More than 100 non-farm jobs were created.

4. *Reappearance of Agricultural Vitality*

The primary production is agricultural products, especially pears, at Chao-Men community. The agricultural development became stagnant because its products were not easy to sell. Since the tourists began to visit the community, however, sales of the local products have been increasing. The price of products in this community is higher than that in the neighborhood. The farm family income has increased and the agricultural development displays vitality.

The Issues of the Community Development

- a) Because the community is classified as an agricultural area, there are many limitations on the utilization of land. It is difficult to expand the dining services or to build residential houses. The demand for leisure and recreation cannot be fully satisfied. It is necessary to loosen restrictions on the utilization of land. The result could be the prosperity of the community and more non-farm employment opportunities.
- b) Owing to increasing tourists, the maintenance of facilities and surroundings has become more demanding. To promote consistent development of the community, the entrance fee could be charged and used as part of the maintenance expense.
- c) An increase in the number of tourists led the local residents to illegally set up buildings destroying the landscape of the community. Vendors from outside of the community also cause traffic problems and make the area dirty during the holidays. Hence it is necessary to set up a management committee to address these issues.

CONCLUSIONS

In Taiwan, the government has aggressively supported the generation of non-farm employment opportunities in the rural areas leading to an increase in the number of employed persons. For the past 10 years, the percentage of employment in rural areas has been maintained at 72 percent of the total employment in Taiwan. The trend suggested that the movement of employers from rural areas to urban areas was gradually decreasing. Moreover, due to increasing non-farm employment opportunities, the number of farmers who were engaged in off-farm work was gradually increased. The non-farm income not only enhances farm family income, but also serves as the main source of farm family income. The percentage of non-farm income of farm family was 82 percent in 1999.

The development of rural industries resulted in an increase in non-farm employment opportunities. Industrial districts and SMEs played an important role in the development of rural industries. The industrial parks were established around Taiwan in 1960s. In 2000, of the total of 87 parks, 79 were in the rural areas. The parks employed 490,000 persons. Regarding SMEs, the trends showed an increase in such enterprises as well as the number of jobs. In 1999, 4,587,000 people were employed (in 1,061,000 locations), 63 percent were in rural areas.

Besides rural industries, the development of leisure agriculture also provided many non-farm employment opportunities. In response to the national economic policy of trade liberalization and the fast-growing tourism industry, the government has been promoting leisure agriculture since 1980s. That gradually turned agriculture from traditional production to service sector. Due to the government's efforts, many OARCs were established. These showed a new dimension of farm villages, as a recreational area. A successful case of Chao-Men community was discussed. Originally there were no tourists at Chao-Men community, but recently this community has been drawing in lots of tourists. Based on the calculation, there were about one million tourists in 2000. In addition, the government assists private groups in the development leisure agriculture. The operation types include tourist farms, leisure farms, and citizen plantations offering tourists unique village experiences.

On 21 September 1999, a disastrous earthquake hit the central part of Taiwan. The rural areas, Taichung county and Nantou county, were seriously damaged causing businesses in the area to shut down. Unemployment was on the rise. To solve the problem of unemployment, the government has actively generated non-farm employment opportunities. With regard to employment assistance, the main measures include employment instead of outright grant, subsidy of temporary work, reward for hiring victims, employment matching, and employment reestablish battalion. Concerning vocational training, the main measures are to subsidize local government for vocational training and to conduct vocational training to equip the locals with necessary skills for reconstruction.

To summarize, an increase in non-farm employment opportunities in rural areas has revitalized the rural economy, reduced the gap between rural and urban areas, and raised farm family income. After joining the WTO, however, Taiwan's agriculture will face a serious challenge. Based on an estimate, 100,000 farmers will be affected. They might decide to abandon the agriculture sector. As a result, the government must aggressively create non-farm employment opportunities in rural areas.

2. FIJI

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INTRODUCTION

The majority of Fiji's rural areas contain untapped natural resources that could be commercially developed to generate income for rural dwellers. These areas are considered the "hidden strength" of the economy given their high level of food security and traditional family mechanism. For these reasons, it is important to accurately identify the potentials in the rural areas and fully develop them to achieve socio-economic objectives.

The rural areas are highly vulnerable and at a disadvantage in terms of geographic spread, remoteness from markets, natural disasters, and high cost of transportation and communication. Over the last three decades, the government has identified rural areas that need to be addressed urgently. It has formulated policies directed at narrowing the disparity between rural and urban areas and improving the living standard in the rural areas.

Lack of employment opportunities and acceptable standard of services offered to rural dwellers, and continual increase in rural-to-urban migration are major development issues in the rural areas the government is trying to address.

TRENDS IN RURAL EMPLOYMENT

There has been no specific trend of employment in the rural areas. It varies among different sectors in the economy. In the rural areas tourism is the most predominant income-generator. Most rural villages are involved in eco-tourism projects which have contributed to the continuous rise in employment within this sector. The government has therefore placed priority on eco-tourism. These community-based activities often revolve around natural and distinctive cultural heritage that distinguishes Fiji from the rest of the world. After the recent political crisis, employment in the tourism industry has significantly dropped.

Most rural dwellers resort to agriculture as a means of earning income. Unfortunately, under current political situations and with the unstable prices of agricultural products in the world market, it is necessary for Fiji to look for other avenues of generating income and employment for people who mainly rely on agriculture. Non-farm employment opportunities as a result have been encouraged in the rural areas to bridge the standard of living gap between rural and urban areas.

Banks are quite reluctant to give loans to farmers because of high risk involved in these ventures, particularly their susceptibility to natural disasters. Commercial banks require 100 percent security on lending. A major lending institution, Fiji Development Bank has become increasingly reluctant to give loans to agribusiness even if the business is financially and economically viable. Approval of agricultural loans has gradually declined in the past six years.

Non-farm employment in the rural areas is a slow growing sector. There are those who have pursued business such as canteen operation, cooperatives, weavers, caterers, and those involved in tourism industry as entertainers in hotels and tour guides to name but a few.

A few organizations in Fiji have been established to assist in the creation of jobs in rural areas. Organizations such as Small Business Advisory Unit (SBAU), Micro-Finance Department, Ministry of Cooperatives, and Ministry of Women aim to create employment/income-generating projects in rural areas.

There are also other non-profit organizations with similar objectives such as embassies located in the rural areas.

1. ***Small Business Advisory Unit***

SBAU is a division of the Ministry of Commerce, Trade and Investment, providing individuals and organizations – potential entrepreneurs – with the following:

- i) *Advice* on sources of finance or funding (accessibility and requirements), project/business feasibility, available business opportunities, registration (requirements/procedures/forms/costs), and training offered by the Unit or others
- ii) *Funding referrals*: Information and contact persons at commercial or private organizations and information on available funding through embassies and agencies
- iii) *Marketing support*: Business cards, sourcing through the Internet or inter-ministry, flyers development
- iv) *Secretarial assistance*: Facilitation of referral appointments, proposals typing, business correspondence
- v) *Training*: Start-Your-Business/Improve Your Business Workshops, follow-up thematic workshops on taxes, value-added tax (VAT), and financial records
- vi) *Business proposal*: Basic format through Start-Your-Business workshop
- vii) *Information* on and *direct assistance* with accessing data on forms, development of basic business profiles, identifying data on cheaper supplies of materials.

SBAU's role is basically a facilitating role.

2. ***Micro-finance Department***

This is another division of the Ministry of Trade and Commerce. The assistance program has been in existence for two years. At the moment, the scheme is at its pilot stage. The Micro-finance Department's role is quite similar to SBAU, except that instead of merely facilitating the projects, it actually finances and monitors their progress. Most projects that the Department has been involved in are in the urban area. There is only one project in the rural area that they have been engaged in – Drekena village. The cost of establishing projects in rural area is quite expensive. The main problem they are facing is funding from the government. There are currently 4,000 applications on their hands that have not been processed because of insufficient funds.

3. ***Ministry of Cooperatives***

The Ministry of Cooperative's duties are similar to that of the SBAU. It advises and trains its members. In addition, it provides financial loans to businesses that have been in existence for at least three years and intend to expand. A maximum of \$5,000 is loaned to these businesses, and it is expected to be paid back within in a year.

There are 460 operating cooperatives with 25,000-26,000 members. This number has been decreasing every year. Most members of the cooperatives are starting their own small business.

Cooperatives in the islands are mostly involved in canteen business, while most of the western side of Viti Levu and Taveuni are into eco-tourism projects. Some cooperatives engage in land development projects where they develop and sell developed vacant land while others do contract work.

4. ***Ministry of Women, Culture, Heritage and Social Welfare (MWCHSW)***

The Ministry is solely responsible for the development of women throughout Fiji. It established a scheme known as Women and Social Economic Development (WOSED) which assists underprivileged women, especially in the rural areas, in improving the standard of living by creating employment for them.

Over the years, the demand for assistance has rapidly increased, exceeding available funds.

PROBLEMS AND ISSUES AFFECTING NON-FARM EMPLOYMENT OPPORTUNITIES

Inadequate Infrastructure

Roads, wharves, ports, airfields, water, power supply, and transportation services are some of the critical factors which influence an investor on where to invest. Investors are attracted to areas that offer good infrastructure, which translates to lower establishment costs. Poor infrastructure is one of the major problems restricting development in the rural areas. In most of the rural areas, there are no proper roads nor power

connection. Existing transport services are poor and unreliable. These obstacles are very discouraging to investors and make operating businesses in rural areas difficult. Rural dwellers have constantly expressed their concerns over the pathetic conditions of the roads.

Shipping services to outer islands are unreliable. Every so often, shipping schedules change. The passengers are not notified of these changes in advance. Transporting costs of goods to outer islands are expensive. Entrepreneurs also face problem of delay in the delivery of goods. These are some of the problems outer island businesses face.

There is an urgent need, therefore, to upgrade infrastructure in rural areas which will pave the way for the development in remote areas. The government has established Fiji Road Upgrading Project (FRUP) concentrating on upgrading existing roads and building new ones to service remote areas. Inter-island shipping services also need to be addressed because of its significance to commerce. Basically, with the provision of these essential services, investors would consider investing in the rural areas.

Irregular Income for Rural Dwellers

It is important for anyone who wishes to start a business (in particular retail business) to bear in mind that income for rural dwellers are generally seasonal because they do not trade daily unlike their urban counterparts. A village shop will be lucky to earn \$25 in a normal day. To open the shop or not depends on the previous sales, which should not be the case. Whether villagers have money or not, the shop should stay open.

Operating costs are more than or equal to revenue earned, which means that entrepreneurs are almost always at breakeven situations. This is not a healthy business scenario. It is therefore very essential for all types of business to identify the right market for the products in order to ensure there is a demand for the products and to be able to keep the business in operation. Identifying the market requires a thorough study of the demand of people in the area.

Incentives

Lack of incentive for businesses and industries to conduct business in rural areas restricts the creation of employment in these remote areas.

The caretaker government in pursuing economic recovery has identified the investment taxation regime as a critical area of change. It discovered that the current tax regime is difficult to administer and is costly to both the government and the investors. Thus, it has developed a new investment package with the following features:

- C The package is equitable, efficient and simple.
- C The package is attractive internationally. Tax burden on investors will be lower. Duty on construction materials and capital goods will be reduced from 10 percent to 3 percent. Moreover, to ease burden during this economic downturn, the duty rate will be at 0 percent for the next two years before going up to 3 percent.
- C The package honors any agreement that investors have already signed with the government. Therefore investors who are currently under one of the various incentive provisions, including Tax Free Zone Scheme, can be assured that their concessions will remain until the existing approval lapses.
- C An investment allowance of 40 percent will be available for the development of value-added industries using Fiji's natural resources, and for information technology and knowledge-based industries. The allowance will be available for five years and requires a minimum investment of \$50,000 in one year.

Lack of Training for Rural Investors

Not all rural dwellers that have started businesses in rural areas are well-educated. These people need proper training to upgrade their skills in management, trading, marketing, etc. Most businesses fail because entrepreneurs lack skills and knowledge to tackle difficult business situations.

Currently, the Fiji Trade and Investment Board is conducting training throughout the main centers around Fiji. Would-be entrepreneurs need to be properly informed on market trends and must be trained to run a business.

MEASURES FOR PROMOTING NON-FARM EMPLOYMENT OPPORTUNITIES

Case: Women and Social Economic Development

Although this project is specifically designed for women, it turns out to be the most successful scheme ever implemented in Fiji.

In 1993, MWCHSW implemented a scheme known as WOSED to uplift the standard of living of families particularly in rural areas through assisting unemployed women. Three projects were chosen as pilot projects from three different areas; Cakaudrove (in Vanua Levu), Ra (western part of Viti Levu) and Suva (south eastern part of Viti Levu). The projects were quite successful leading to the popularity of the scheme. To date, there are similar projects throughout the country including Rotuma.

MWCHSW's assistance is not directed to individuals but to groups of women – a maximum number of five in one group. These groups apply through MWCHSW's field officers who would then thoroughly examine the application and make a field visit to confirm that these applicants are underprivileged and rightfully deserve the assistance. Once the application is approved, training officers conduct a 2-week training for applicants on managing small businesses and financial management to prepare them for the business world.

The amount of funds allocated to the groups depends on the type of business they are going into, with the field officer's recommendation. An important factor that concerns MWCHSW is the market for the products. Each project must have identified the market. Field officers discourage similar businesses operating in the same area as this would create competition which is not healthy for small businesses.

Individuals in a group pay \$5 a month to the MWCHSW. Out of the \$5, \$3 goes to the groups' loan account, \$1 goes to a so-called "center fund" and \$1 to the individual's savings account. The center fund is the groups' profit account. If at any point in time, a member of the group decides to leave the group, her share from the center fund is given to her plus money from her savings account.

This scheme has been quite successful. In one of the project groups in Navua (outside Suva) one lady who used to live in an iron house managed to build her own three-bedroom concrete house. Her income was from selling ice blocks in her area. There are similar cases in other parts of Fiji.

The WOSED is a very popular program. Its main problem is insufficient funds. The assistance that MWCHSW gives is limited. According to officials, there are lots of applications on hold due to lack of funds. With such great demand plus the proven success of the scheme, the government should seriously consider pumping more funds into this program.

SUGGESTIONS

Continuous Support by Government

Government departments involved in assistance schemes agree that there is not enough support from the government. Effective policy implementation would require consistent financial support from the government in order for these programs to be successful.

Normally, at the launching of the schemes or help programs, assistance would be at its peak. This however, would slowly decrease as the program progresses. Assistance from the government should in fact increase especially if the program has been proven a success. Limited funds is the main obstacle to assistance programs.

Provision of Infrastructure in Rural Areas

An important factor that could assist in bridging the standard of living gap between urban and rural areas is infrastructure. Good roads, proper wharves, etc. would attract investors to rural areas therefore providing employment. Provision of hospitals, schools, postal services and the likes in rural areas also contributes to the improvement of the living standard. Decentralization of services should be a priority now because it could alleviate rural-to-urban migration.

Training and Consistent Monitoring

Most schemes fail because of lack of training and monitoring. Consistent monitoring is a must especially for amateurs in the business world. The Department of Cooperatives conducts monitoring once

a year while WOSED (Ministry of Women) carries out monitoring monthly. This clearly reflects the increase in demand for WOSED program plus its success. It also explains the decrease in the number of members of cooperatives every year. Nothing is achieved easily; sacrifices must be made for any project to be successful.

Market

In any business, one of the most important issues is the market. An unstable market is very discouraging to an investor. It creates a bleak future for the business.

Fear of unstable market is a big problem. The government could however, alleviate this fear by assisting businesses in identifying the market. Unstable market is also a problem in the agriculture sector. People are reluctant to invest.

3. INDIA (1)

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INTRODUCTION

Majority of population in India lives in rural areas and its dependence on agriculture almost as an exclusive source of livelihood has been a matter of serious concern for the policymakers in the country. The efforts therefore have been directed towards sustainable development of rural economy by way of provision of non-farm employment opportunities, safe drinking water, empowering women and equipping them with skills, tools and finances for around economic development, promoting weaker sections of society and creating self-employment opportunities for rural youth.

The contribution of income from agriculture in GDP declined from around 50 percent to 30 percent in 50 years since the country got independence from colonial rule. The share of the rural population in the national total has declined from about 83 percent in 1951 to 74 percent in 1991. Yet, the rural population has more than doubled from 300 million in 1951 to 628 million in 1991. Whereas, the share of the labor force in agriculture to total labor force marginally declined until the 1960s and showed only a meager descend since the beginning of 1970. The trend since the 1970s gave hopes of a sustained fall in the agricultural labor force and rural non-farm employment as a solution to the problem of unemployment and poverty. The new economic policy of the government after 1991 has greater focus on market-oriented approach which has made positive impact on the growth of Rural Non-farm Sector (RNFS). It may also be noted that for a country like India, agricultural and other land-based activities, in the long run, even with the high and diversified rate of growth will not be able to ensure employment to all the rural workers at adequate levels of income. Technological advancement coupled with institutional changes in agriculture sector will lead to further shrinking of employment potential and also conversion of a substantial number of those under employed in agriculture into openly unemployed seeking work elsewhere. Given the fact that some of them will be able to get employment in urban areas; still it is necessary that the rural economy gets diversified into non-farm activities to provide productive employment to rural labor force. This will also help in arresting migration from rural areas to urban areas.

STRUCTURE AND GROWTH OF THE RURAL NON-FARM SECTOR

The RNFS in India is too diverse in respect of activities, unit size and geographic dispersal. Further, it does not consist of a homogenous set of activities in terms of income and productivity levels. The RNFS is classified into three major sub-sectors. In the first sub-sector, the enterprises are run on more or less stable basis with target on the surplus generation and growth, employing labor with certain degree of technical sophistication. The second sub-sector consists of products or activities, which are often seasonal, run solely with the help of unpaid family labor, using primitive technology and catering mostly to the local market. These two sub-sectors can be differentiated in terms of capital use production relations rather than product categories. The third sub-sector consists of paid workers characterized by low earnings and disintegrated market with respect to labor supply. Broadly speaking, the RNFS is comprised of formal and informal sectors. The informal sector consists of caste-based artisan and service workers.

Rural non-farm economy has in the recent times assumed importance as an effective tool for eradication of rural poverty. It has also been considered as an effectual strategy for decentralization of economic activities to rural India and giving a halt to the migration of people to urban centers. According to census for 1991, the non-farm sector employs 39.4 million rural main workers, which represent 17.7 percent of all such

workers. According to the available National Sample Survey Statistics for 1987-88, 52.4 million rural workers are principally engaged in the non-farm sector, or 23.4 percent of all principal status workers in rural India. Therefore implying that about 20-50 million workers are primarily employed in RNFS in the country. According to the census the number of workers in RNFS grew at an annual rate of 2.8 percent during the period 1981-91. The share of RNFS jobs in rural employment thus rose from 16.6 percent in 1981 to 17.7 percent in 1991. The contribution of rural areas to employment generation grew in absolute terms in all decades from 1961 to 1991. In the decade 1961-71, there was a sharp contraction in the absolute number of non-farm workers in rural areas. However, in the subsequent two decades, the absolute number of non-farm workers as well as share of rural areas in the growth of non-farm workers grew. Forty percent of all new non-farm jobs during the 1980s were created in rural areas. Further in rural areas, non-farm jobs (1981-91) account for close to a third of all new jobs for male workers. RNFS employment was already growing at 3.9 percent a year. This statistics suggests that with the declining capacity of agriculture to support additional cultivation, the growing rural labor force can be absorbed either as agricultural or as RNFS workers. The latter option is clearly preferred by planners. Moreover, in some states such as Andhra Pradesh and Tamil Nadu agricultural labor already accounts for more than 40 percent of all rural employment.

Income Trend

Various studies have estimated that the earnings of regular workers in the RNFS were 2.4 times higher than that of agricultural workers. Casual laborers earn higher wages in non-agricultural activities than in agriculture. For male laborers wages are 40 percent higher. For female the difference is just over 20 percent. According to National Sample Survey, only 10 percent of male rural workers and 5 percent of female workers were regularly employed. A trend of a shift from self-employment in agriculture to higher paid casual work in non-agricultural activities has also been pointed out by some independent studies. Estimates based on National Council of Applied Economic Research data concluded that the non-farm sector normally contributes 25-30 percent of total income of households in contrast with its 20-25 percent share of employment. Moreover, the studies based on National Statistical Survey data highlighted that the well-to-do or the landed group benefits more from the shift from agriculture than poorer groups, such as the landless or marginal farmers.

Rural Non-farm Sub-Sectors

As discussed earlier the RNFS is characterized by its diversity and heterogeneity, including primary, secondary and tertiary activities. According to 1981 census, more than 80 percent of all RNFS employment is generated by 17 major sub-sectors but declined to around 63 percent per the 1991 census report. The shares of these sub-sectors, presented in order of their contribution, are shown in Table 1.

When compared with all RNFS employment generated, the above list of sub-sectors clearly shows that substantial employment in rural areas is found within the public sector reflecting the significance of national and state governments in employing rural workers. It has been estimated that over half of all manufacturing jobs in India are in rural areas. However, many of the high-share sub-sectors in rural manufacturing are traditional sub-sectors: cotton textiles (especially handlooms), textile products and wood products. Likewise pottery, grain milling and bidi rolling are prominent. Figures presented above clearly indicate that since many of these activities are household-based, their ability to absorb workers is minimal; they have little capacity to create more productive jobs.

Based on experience as well as literature review, there are many sub-sectors which have potential for generating rural non-farm employment. These sub-sectors need to be ascertained for particular states, regions and localities. The sub-sectors are: oilseed processing, herbal products and photo-chemicals, fruit and vegetable processing, sericulture, leather foot wear and other products, stone quarrying and polishing, ceramics and glassware, structural metal products, plastic products, restaurants and hotels, business services, prawn processing, spice processing, poultry processing, textile garments, repairs, cement ware and building materials, agro-services, and rural tourism. However, this list is not comprehensive. There may be more sub-sectors which have location-specific potential.

Table 1. Contribution of Major Sub-sectors in RNFS Employment

NIC Code	Sub-sector	1981		1991	
		Rural Main Workers	Percentage in RNFS Employment	Rural Main Workers	Percentage in RNFS Employment
65	Retail trade in food, beverages and tobacco	2,636,537	8.8	2,854,523	8.4
92	Educational services	2,410,555	8.1	2,531,783	7.4
90	Public administration and defense	2,145,762	7.2	3,860,387	11.3
96	Personal services	1,910,460	6.4	2,054,552	6.0
50	Constructions	1,723,151	5.8	1,804,453	5.3
27	Wood, wood products, furniture and fixers	1,585,702	5.3	782,635	2.3
70	Land transport	1,542,536	5.2	2,366,629	6.9
23	Cotton textiles	1,532,897	5.1	664,506	1.9
26	Textile products	1,378,665	4.6	307,640	0.9
32	Non-metallic mineral products	1,302,119	4.4	834,901	2.4
20-21	Food products	1,226,249	4.1	1,141,749	3.3
22	Beverages, tobacco and tobacco products	1,180,233	4.0	270,924	0.8
39	Repair	1,013,494	3.4	180,584	0.5
99	Miscellaneous services	835,366	2.8	272,014	1.1
69	Restaurants and hotels	612,445	2.1	637,780	1.9
93	Medical and health services	609,640	2.0	590,541	1.7
34	Metal products and parts	511,336	1.7	350,921	1.0
Overall		24,157,147	81.0	21,506,522	63.1

Note: Figures based on 1981 and 1991 census reports.

MEASURES FOR THE DEVELOPMENT OF THE RURAL NON-FARM SECTOR

Non-farm activities are either residual activities helping to keep the poor from falling into deeper poverty, or routes of upward mobility, helping to lift the poor above the poverty line. Keeping this in view it becomes significant to identify the important sectors to focus on in order to alleviate poverty. Rural households are engaged in different activities, therefore, it is imperative to estimate the extent to which the non-farm earnings contribute to household incomes in rural areas. Policy initiatives should give poor households more flexibility and mobility in income generation.

It has been observed that women either do not participate in the non-farm sector at all, or they tend to be involved in activities offering the lowest returns. Women are the majority among the poor. Increase in their income through improved opportunities in non-farm sector will have positive impact on rural community development. A better understanding of these processes would enable policymakers to help women enter the right sector or engage in activities that best suit their abilities and skills. Besides, a clear insight into intra-household dynamics of access to non-farm employment would assist in the development of appropriate policy and interventions. Expansion of RNFS is important in improving employment among women, in particular by drawing them away from agricultural labor which yields the lowest return. Within RNFS, manufacturing, services and trade generate the most jobs for women. Almost half of the female employment in manufacturing is outside of household. The most important manufacturing sub-sectors are tobacco products (largely bidi), cotton textiles, wood products and non-metallic mineral products (largely pottery), which together generate more than a third of all female employment in the RNFS.

RNFS which has accounted for a steadily rising share of the rural workforce (from about 15 percent in 1978 to 22 percent in 1987-88 and 23 percent in 1993-94) has registered a rate of employment growth of around 5 percent between 1987-88 and 1993-94. There is certainly a discernible shift in the growth structure

of productive employment opportunity in the non-farm sector in the rural areas. Over the years, all non-farm activities have shown a steady increase in employment. Manufacturing and services respectively accounted for 31 and 27 percent of rural non-farm employment; trade accounted for 20 percent and construction 12 percent in 1993-94. Manufacturing has shown about 1 percent growth in employment during 1988-94. Whereas services, transport and trades have shown an annual growth in employment of about 4, 3 and 3 percent, respectively during this period. Such diversification and expansion of the rural economy particularly non-farm sector is possible through promotional policies and efforts particularly in respect of infrastructure, improved access to credit, technological upgradation and training in entrepreneurial development and marketing support. Measures undertaken by Ministry of Rural Development, Government of India for development of non-farm sector by creating employment opportunities through various sponsored schemes are highlighted below:

Swarnajayanti Gram Swarozgar Yojana (SGSY)

This scheme has been launched with effect from April 1999. The objective of the scheme is to bring the assisted poor families (*swarozgaris*) above the poverty line by providing them income-generating assets through a mix of bank credit and government subsidy. The scheme has been conceived as a holistic program of self-employment viz. organization of the rural poor into Self-Help Groups (SHG) and their capacity building, training, planning of activity clusters, infrastructure build-up and technology and marketing support. There are two key aspects of the SGSY, namely, activity clusters and the group approach. Each block has to concentrate on 4-5 key activities based on local resources, occupational skills of the people and availability of markets so that the *swarozgaris* can draw sustainable income from their investments. Selection of these activities has to be done with block level and District Rural Development Agency at the district level. These key activities should preferably be taken up in clusters so that the backward and forward linkages can be effectively established. The SGSY also focuses on organization of the poor at grassroots level through a process of social mobilization for poverty eradication. Social mobilization enables the poor to build their own organizations, SHGs in which they participate fully and directly take decisions on all issues. An SHG may consist of 10-12 persons belonging to families below the poverty line.

Assistance under SGSY to individuals or SHGs is given in the form of subsidy by the government and credit by the banks. The subsidy under SGSY varies in the range of 30-50 percent of the project cost with ceiling on the upper limit. The SGSY is financed on 75:25 cost sharing basis between Center and the States. The financial and physical progress made under the SGSY during 1999-2000 and 2000-01 (provisional) are presented in Tables 2 and 3.

Table 2. Financial Progress under SGSY Scheme

		(Unit: Rs. million)	
S. No.	Item	1999-2000	2000-01
1.	Total allocation	14,723.3	13,325.0
2.	Central allocation	11,050.0	10,000.0
3.	Central releases	8,695.5	2,743.2
4.	State releases	2,614.7	1,365.9
5.	Total funds utilized	9,598.6	4,993.8
		(65.19) ^a	(37.48) ^a
6.	Total credit target	32,050.0	32,050.0
7.	Total credit mobilized	10,564.6	5,584.6
	Percentage of credit mobilized	(32.96) ^b	(17.42) ^b

Source: Ministry of Rural Development, Government of India, *Annual Report 2000-2001*.

Notes: ^a Percentage of funds utilized to allocation; and ^b percentage of funds utilized to allocation.

Table 3. Physical Progress under SGSY Scheme

S. No.	Item	1999-2000	2000-01
1.	Number of SHGs formed	292,426	385,443
2.	Number of SHGs taken up economic activities	29,017	16,956
3.	Total <i>swarozgaris</i> assisted	933,868	44,190
4.	Percent of women assisted	44.62	43.23
5.	Percent of disabled assisted	0.91	0.73

Source: Ministry of Rural Development, Government of India, *Annual Report 2000-2001*.

Employment Assurance Scheme (EAS)

The primary objective of the EAS is creation of additional wage-employment opportunities during the period of acute shortage of wage-employment through manual work for the rural poor living below the poverty line. The secondary objective is the creation of durable community assets for sustained employment and development. The program is implemented as a centrally sponsored scheme on cost sharing basis between the Center and the States in the ratio of 75:25. The EAS is open to all rural poor who are in need of wage-employment.

Since the program is self-targeting in nature and only the minimum wages are to be paid, it is expected that only persons below the poverty line would come for the unskilled work. Only labor-intensive works of productive nature which create durable assets can be included in the Annual Action Plan. The works under the scheme are normally taken up to provide additional wage-employment whenever there is acute shortage and the resources under normal plan/non-plan schemes are not available to generate adequate opportunities of wage-employment to meet demand. Priority is given to the works of soil moisture conservation, minor irrigation, rejuvenation of drinking water resources and augmentation of groundwater, traditional water harvesting structures, formation of rural roads linking the villages with agricultural fields, drainage works and forestry besides desilting of irrigation tanks/village ponds. Physical and financial performance under the EAS scheme are presented below:

Table 4. Financial and Physical Performance under EAS Scheme

(Unit: Rs. million)					
Year	Central Release	State Release	Total Utilization	Percent Utilization	Million Wage Days Generated
1993-94	4,391.0	1,096.6	1,837.5	33.48	49.474
1994-95	11,285.2	2,817.3	12,354.5	69.59	273.956
1995-96	17,056.9	4,259.4	17,206.1	64.61	346.527
1996-97	19,395.9	4,841.9	21,604.1	63.85	403.002
1997-98	19,687.2	4,917.5	23,079.5	67.37	381.677
1998-99	19,884.5	4,966.8	28,821.8	85.84	427.936
1999-2000	17,364.2	5,931.1	21,826.0	74.99	278.617
2000-01*	7,220.0	1,712.6	6,501.6	41.83	74.524

Source: Ministry of Rural Development, Government of India, *Annual Report 2000-2001*.

Note: * 31 December 2000.

Some of the major schemes undertaken by National Bank for Agriculture and Rural Development (NABARD) for employment generation in RNFS are summarized below.

District Rural Industries Project (DRIP)

The program of DRIP was launched by the NABARD in 1993-94 in five selected districts with the objective of generating sustainable rural employment opportunities by providing adequate credit support for rural industrialization together with promotional measures. The program has resulted in a four-fold increase in ground level credit for RNFS, with an average annual growth rate of 26 percent. Considering the success,

the project period, originally envisaged for five years was extended for a further period of two years. Further seven more districts have been included in the purview of the scheme.

Rural Entrepreneurship Development Program (REDP)

The REDPs focus on providing training and skill development of the upcoming entrepreneurs in the areas of project management, accounting practices, marketing information, technical guidance, motivation, and institutional support mechanism. The National Bank has been providing grant to capable NGOs/training institutions for conducting REDPs for rural youth for setting up of small enterprises. Cumulatively 1958 REDPs, covering 62,826 rural youths and involving grant of Rs.73.8 million were conducted.

SCHEME OF TRAINING-CUM-PRODUCTION CENTERS SET UP BY NATIONAL CENTRE FOR JUTE DIVERSIFICATION

An Indian Case

National Centre for Jute Diversification (NCJD), a body under Ministry of Textiles, Government of India is making continual efforts in spreading the application of jute (a natural fiber and eco-friendly product) in diverse trade and territories through various assistance schemes. A major component of assistance has been aimed at human development and its sustainability. Since the inception of scheme under this component about 150 projects have been assisted through support of NGOs for setting up training-cum-production centers (TPCs). The total project investment under this component is about Rs.70.4 million and the share of NCJD assistance is Rs.26.1 million. The basic objective of this program is:

- C to create employment opportunities at grassroots level, especially for women, through jute-based activities.
- C to spread awareness on potential of jute-based activities as a medium of sustainable human development.

NGOs have been provided financial grant for setting up training-cum-production units in the form of matching grant upto the extend of Rs.200 thousand. Some of the units, which proved promising, were also provided a second dose of assistance for their continuing in the program. Activities pertaining to weaving of jute/jute-blended cloths, jute-wool items, home furnishings, handloom and handicraft items, paper making, etc. have been taken up at the production centers. The trainees are encouraged to start their own production centers on completion of training.

For extending logistical as well as technological support services to entrepreneurs engaged in manufacture of jute diversification products (JDPs). Jute service centers (JSC) were formulated to spread the activities and provide need-based support services at various locations in the country. These JSCs also help the centers as well as individual in marketing their finished goods through fairs, exhibitions and other such mechanisms. In all 16 such centers have been set up in the country.

Further, to ensure the availability of raw material such as raw jute, fine yarn of different varieties, laminated fabric and other required raw materials at the mill gate price as well as at manufacturers approved rates near the place of work of weavers, artisans and craft persons, jute yarn/Raw Material Bank (RMB) scheme have been formulated. At present there are 18 RMBs spread over eleven States. These banks are required to sell raw materials in small quantities (units of kilograms) to small artisans, weavers and craft persons, which is otherwise not available to them in that measure. These banks are operated through various collaborating agencies that procure all the required materials from jute mills/spinning mills and make them available to the banks. NCJD reimburses the claims for operation of the banks as per the set guidelines.

The evaluation of these schemes have been carried out by NPC, India. The methodology followed and the major achievements/impact of the scheme are discussed in the following paragraphs.

As a part of this study 105 TPCs besides 18 RMBs and 16 JSCs spread in different States of the country were visited by the study team and the pertinent details on program implementation and target achievement by individual centers were collected on a pre-structured pro forma. An interview of beneficiaries regarding their activity profile and prospects besides income generation has also been conducted as a part of the study.

Impact of NCJD Schemes

The spread of jute diversification activities through decentralized sector has assisted in making positive change in socio-economic profile of the project area. The growth in jute diversification has opened new avenues for the growers/producers who are now better placed to fetch remunerative price.

The success of NCJD schemes is visible from the fact that the concerted approach adopted through aforesaid endeavors has transformed the consumer outlook, consequently the JDPs are now being increasingly accepted as substitute for wood and environmentally hazardous petrochemical products like plastic used for packaging, etc. The socio-economic objective is also being achieved at reasonable scale by way of application of diversified technologies in generation of direct as well as indirect gainful employment for rural masses on continual basis through training and retraining components of the scheme. Skill upgradation elements of the schemes have also contributed towards augmentation of monthly income of semi-skilled/skilled artisans to a noticeable extent in various commercial pockets where the NCJD schemes are operational.

Through the training activity conducted by 105 TPCs visited during the course of study, over 6,800 individuals have been imparted training in JDPs, out of which above 90 percent were women. Over 40 percent of the trained trainees are engaged in the jute products manufacturing activity at various scales. Almost 41 percent of NGOs are continuing to provide training after the NCJD assistance and have trained nearly 1,840 individuals through their own funds. This reflects on the acceptance of the program by the local population and highlights its usefulness in employment and income generation on sustainable basis. More than 51 percent of the NGOs provided assistance under NCJD scheme are engaged in full-fledged production activity and have generated direct employment for more than 3,800 individuals. The average incremental earning per individuals falls in the range of Rs.650-700 per month and the average annual turnover per TPC works out to exceed rupees half a million generated through jute-based activities.

The major achievements of this scheme has been the development of employment opportunities for rural women on continual basis, supporting them to achieve economic independence thereby empowering women to contribute in day-to-day decision process making for the good of their community.

The NCJD schemes discussed above have yielded multidimensional results which can be gauged in terms of their contribution both towards socio-economic development as well as creation of sustainable employment opportunities in the project area. The efforts of NCJD through these schemes conceived with the objective of developing a business environment where all the requisites like raw material availability, skilled manpower, technological needs, continuous skill development through training and retraining, independent production centers, marketing, diversified jute product range development besides establishing forward and backward linkages are gaining grounds.

Table 5. Achievements of TPC Highlights

A. Training Activity

Trainee Category	Number	Percent
Scheduled castes	1,692	24.85
Scheduled tribes	1,086	15.95
General	4,031	59.20
Total	6,809	100.00
Women	6,178	90.73
Weaves	2,151	31.59
In jute activity	2,746	40.33

B. Continuation of Training Activity by Centers

Total number of NGOs/TPC	105
Number of NGOs/TPC continuing with training	43 (40.95 percent)
Number of trainees trained	1,840
Average number of trainees per NGO/TPC	43

... To be continued

Table 5. Continuation

C. Achievements of Production Centers

Total number of NGOs/TPC	105
Number of NGOs engaged in production activity	54 (51.42 percent)
Number of employees employed	3,808
Average number of employees per NGO	70.5
Average earning per employee (Rs.)	650-750 per month
Average annual turnover per NGO (Rs.)	547,735

Source: "Evaluation of Jute Service Centres, Raw Material Banks and Training-cum-Production Centres Setup under National Jute Development Programme", *NPC Report 2000-2001*.

In the present context of undertaking sustainable human developmental efforts, it has been suggested to NCJD that it has to play a proactive role by directing its efforts towards expanding the activity base by designing new activity mix and venturing into new potential locations. This effort of NCJD not only requires active participation from policymakers, planners, Center and State governments, trade associations, manufactures, research and developmental institutions, financial institutions, local populations, etc. but also requires additional budgetary allocations for achieving this task, which can be achieved by making all the promotional activities self-sustaining and mobilizing financial support through active involvement of financial institutions.

The above case study amply demonstrates the need for greater involvement of decentralized sector in planning and implementation of schemes for development of employment opportunities for rural masses in non-farm areas by way of utilizing local resources and skills besides taking care of technological requirements as well as extending market support on sustainable basis.

ENHANCING EMPLOYMENT OPPORTUNITIES IN THE NON-FARM SECTOR

It has been discussed in the preceding paragraphs that the non-farm sector is extremely heterogeneous in terms of activities. Bottlenecks and constraints are likely to vary from one local community to the next. Therefore, it is suggested that the mechanisms to allow for greater local input into decision-making coupled with decentralization initiatives (assuming that they are substantive and adequately funded) will offer greater opportunities for the development of employment opportunities in the non-farm sector in rural areas. There is a danger, however, that within local communities there can remain a considerable degree of heterogeneity. If proper measures to ensure accountability are incorporated this constraint can be countered.

The non-farm sector is covered by numerous government departments (each with different responsibilities). There is no single obvious institutional entry point for work on non-farm sector. Therefore, involvement of decentralized non-governmental institutions may offer such entry point. Efforts are needed to identify appropriate and effective institutional vehicles for development of non-farm sector policy and interventions for creating employment opportunities. The issue of infrastructural needs, market prospects and technological requirements for some of the key RNF activities needs to be examined and appropriately dealt with regards to both forward and backward linkages with a view to make the activities self-sustaining in the changing competitive environment.

REFERENCES

- Bhalla, Sheila, 1993b. "Patterns of Employment Generation", *The Indian Journal of Labour Economics*, 36(4), pp. 506-24.
- Bhattacharya, B. B. and Arup Mitra, 1993. "Employment and Structural Adjustment: A look at 1991 Census Data", *Economic and Political Weekly*, 28(38), pp. 1989-95.
- Chadha, G. K., 1993. "Non-farm Employment for Rural Households in India: Evidence and Prognosis", *The Indian Journal of Labour Economics*, 36(3), pp. 296-327.

- , 1997. "Access of Rural Households to Non-farm Employment; Trends, Constraints and Possibilities" in G. K. Chadha and Alakh N. Sharma (eds.), *op. cit.*
- Government of India. Ninth Five-Year Plan Document (1997-2002).
- Ghosh, Jayati, 1995. "Employment and Labour under Structural Adjustment – India Since 1991", *The Indian Journal of Labour Economics*, 38(4), pp. 567-76.
- Ministry of Rural Development, Government of India. *Annual Report 2000-2001*.
- National Bank for Agriculture and Rural Development. *Annual Report 1999-2000*.
- NPC. *NPC Study Report on Evaluation of NCJD Schemes – 2000-2001*.
- Papola, T. S., 1992. "Rural Non-farm Employment: An Assessment of Recent Trends", *The Indian Journal of Labour Economics*, 35(3), pp. 238-45.
- Samal, Kishor C., 1997. "Features and Determinants of Rural Non-farm Sector in India and Orissa", *Journal of Indian School of Political Economy*, 9(1), pp. 65-93.
- Shukla, Vibhooti, 1992b. "Rural Non-farm Employment in India; Issues and Policy", *Economic and Political Weekly*, 27(28), pp. 1477-88.
- Sundaram, K., 2001. "Employment-Unemployment Situation in the Nineties: Some Results from NSS 55th Round Survey", *Economic & Political Weekly*, 17 March 2001, pp. 931-940.
- Unni, Jeemol, 1996a. "Diversification of Economic Activities and Non-agricultural Employment in Rural Gujarat", *Economic and Political Weekly*, 31(33), pp. 2243-51.
- , 1996b. "Non-agricultural Employment and Rural Livelihoods: Macro vis-à-vis Micro View", *The Indian Journal of Labour Economics*, 39(4), pp. 795-808.
- , 1997a. "Employment and Wages among Rural Labourers: Some Recent Trends", *The Indian Journal of Agricultural Economics*, 52(1), pp. 59-72.
- , 1998. "Non-agriculture Employment and Poverty in Rural India; A Review of Evidence", *Economic and Political Weekly*, 28 March, pp. A36-44.
- Visaria Pravin, 1995. "Rural Non-farm Employment In India: Trends & Issues for Research", *Indian Journal of Agricultural Economics*, Vol. 50, No.3, July-September.

4. INDIA (2)

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INTRODUCTION

To provide employment for additional labor force, which is estimated to grow at the rate of 2.51 percent per annum during the Ninth Plan period (1997-2002), besides reducing the backlog of unemployment accumulated from the past, is a daunting challenge for India. Despite an expected reduction in the growth rate of population to 1.58 percent per annum by 2002, the labor force growth reaches 2.51 percent per annum. This is attributed to change in the age structure of the population and an increase in the population in the most active working age group of 15-59 (Table 1).

Table 1. Age Structure of Population, 1997-2002
(Unit: Percent)

Age Group	1997	2002
0-14	37.23	33.59
15-59	56.07	59.41
60+	6.70	7.00

Source: Planning Commission, Government of India, Ninth Five-Year Plan 1997-2002, Vol. I: Development Strategy and Policies, p. 185.

LABOR FORCE GROWTH AND EMPLOYMENT REQUIREMENTS

Growth or decline in the labor force participation rates (LFPRs) depends on certain factors. With the increasing thrust on education, LFPRs in the age group 15-19 years will decline. On the other hand, with improved health and longevity, LFPRs in the older age groups, particularly 50+ years, will increase by 52.4 million during the Ninth Plan period (Table 2).

Table 2. Labor Force Projections by Age Groups

Age Group	1997	2002	(Unit: Million)
			Growth (percent per annum)
15-19	40.31	45.03	2.24
20-24	55.45	62.91	2.55
25-29	56.89	61.47	1.56
30-34	52.64	58.88	2.26
35-39	46.60	52.80	2.53
40-44	39.56	46.04	3.08
45-49	32.90	38.13	2.99
50-54	25.86	30.27	3.20
55-59	18.86	22.45	3.55
60+	28.15	31.64	2.37
Total (15+)	397.22	449.62	2.51

Source: Planning Commission, Government of India, Ninth Five-Year Plan 1997-2002, Vol. I: Development Strategy and Policies, p. 187.

The labor force is projected to increase by 58 million during the period of 2002-07 which implies the need for an increase in the pace of creation of additional work opportunities commensurate with the growth of labor force. Unemployment is estimated at 7 million, 1.66 percent of the labor force (Table 3). To achieve full employment by 2007, it is estimated that employment should grow at 2.8 percent as compared to 2.44 percent projected in the Ninth Plan. This would require GDP to grow at 7.7 percent per annum.

Table 3. Population, Labor Force and Employment

	(Unit: Million)	
	9th Plan (1997-2002)	10th Plan (2002-07)
Population*	1,028.9	1,112.9
Labor force	423.4	478.8
Employment	416.4	474.7
Unemployment	7.0	4.1
Unemployment rate (percent)	1.65	0.86

Source: Planning Commission, Government of India, Ninth Five-Year Plan 1997-2002, Vol. I: Development Strategy and Policies, p. 191.

Note: * Population at the terminal year of the plan.

Quality of Employment

Nearly 70 percent of the workforce are either illiterate or educated below the primary level (Table 4). Even in industries where skill upgradation for raising productivity requires a reasonable level of educational standard, 52 percent of the workforce were educated below the primary level, 26 percent being illiterate. The pattern of development of the Indian economy requires skill and education levels not immediately available thereby leading to a mismatch between the demand and supply of labor services – an increasing level of unemployment in one segment of the labor market while a labor shortage in the other.

Table 4. Distribution of Workers by the Level of Education, 1993-94

	(Unit: Percent)				
	Level of General Education			Total	Share in Workforce
	Illiterate	Literate up to Primary	Middle and Above		
Agriculture	60.8	22.8	16.4	100.0	56.6
Rural persons	61.5	22.6	15.9	100.0	52.4
Urban persons	52.2	25.8	22.0	100.0	4.2
Other than Agriculture	25.8	26.0	48.2	100.0	43.4
Rural persons	34.9	28.8	36.2	100.0	15.2
Urban persons	20.9	24.4	54.7	100.0	28.2
All Industries	45.6	24.2	30.2	100.0	100.0
Rural persons	55.5	24.0	20.5	100.0	67.6
Urban persons	25.0	24.6	50.4	100.0	32.4

Source: Planning Commission, Government of India, Ninth Five-Year Plan 1997-2002, Vol. I: Development Strategy and Policies, p. 192.

The quality of employment also relates to wages and security of the worker. Wages paid/received depend on the productivity and education of the worker. The more skilled and educated, the higher the wage. A full-time worker, illiterate and unskilled, may not earn adequate income. There is high incidence of this kind of underemployment.

A gradual increase in the proportion of casual laborers is also observed over the recent two decades; from 23 percent in 1972-73 to 32 percent in 1993-94. On the other hand, there has been a decrease in the proportion of regular employees.

Educated Unemployed

Surveys reveal a substantial increase of illiterates among the unemployed persons (Table 5). Over the period of 1983 to 1993-94, the proportion of those with secondary school or higher educational level among the unemployed increased from 47 percent to 64 percent. It shows not only a lack of sufficient efforts and resources to educate the workforce, but also a mismatch between the kind of job opportunities that are needed and those that are available in the job market. The situation also indicates the need for more jobs requiring skilled labor rather than the simple low productive manual labor.

Table 5. Education Profile of the Unemployed in India

					(Unit: Percent)
Year	Level of Education				
	Illiterate	Literate			Total
		Primary	Middle	Secondary and Above	
Census of population (all age groups)					
1981	29.62	14.57	16.84	38.97	70.38
1991	19.56	12.17	20.89	47.38	80.44
Sample surveys on employment and unemployment (15 years and above)					
1983	6.10	19.32	27.58	47.00	93.90
1993-94	5.24	11.01	20.20	63.55	94.76

Source: Planning Commission, Government of India, Ninth Five-Year Plan 1997-2002, Vol. I: Development Strategy and Policies, p. 205.

RURAL EMPLOYMENT AND POVERTY ALLEVIATION

Employment generating growth and productivity of workers alleviates poverty. In other words, “acceleration of economic growth, with a focus on sectors which are employment-intensive, facilitates the removal of poverty in the long run”. However, in spite of all efforts to accelerate the growth process, the problem of unemployment and consequential poverty remains a major challenge for India. In 1993-94, there were 244 million rural poor (37 percent of the rural population) in the country. In search of appropriate instruments to address this specific issue, the government formulated anti-poverty programs for the generation of both self-employment and wage-employment in rural areas as briefly discussed below:

1. *Swarnajayanti Gram Swarozgar Yojana (SGSY)*

Launched in 1999, SGSY is a holistic program of micro-enterprises covering all aspects of self-employment viz. organization of the rural poor into self-help groups (SHGs) and their capacity building, planning of activity clusters, infrastructure build-up, technology, credit and marketing. Micro-enterprises in the rural areas are established by building on the potential of the rural poor.

The focus is on vulnerable sections among the rural poor with Scheduled Castes/Scheduled Tribes (SCs/STs) accounting for 50 percent; women, 40 percent and the disabled, 3 percent of the beneficiaries. The main features of the program are as follows:

- C Organization of the poor in SHGs of 10-20 persons and their capacity building;
- C Involvement of female members in each SHG with at least half of the groups in a block exclusively for women;
- C Identification of 4-5 key activities on the basis of resource endowments, occupational skills of the people, availability of markets, and setting up of micro-enterprises in clusters;
- C A credit-cum-subsidy program, with credit as the critical component and subsidy as a supporting component:
 - Subsidy for individuals 30 percent of project cost subject to a maximum of Rs.7,500 (for SCs/STs, 50 percent subject to a maximum of Rs.10,000).
 - Subsidy for groups 50 percent subject to a ceiling of Rs.125,000.

- C Skill development through orientation and training of beneficiaries (10 percent of SGSY funds to be set apart for training);
- C Fifteen percent of SGSY funds are set apart, at the national level, for projects of special significance to be taken up in association with semi-government/international organizations or other government departments;
- C Planning, implementation and monitoring through District Rural Development Agencies (DRDAs) in which banks, line departments, *Panchayati Raj* Institutions (PRIs), NGOs and semi-government agencies participate; and
- C Funds are shared by the Center and the States in the ratio of 75:25 and central allocation distributed mainly in relation to incidence of poverty in the States.

Rs.8.04 billion was spent on providing assistance to 0.34 million SHGs during 1999-2000 and the allocation for 2000-01 was Rs.10 billion. Although it is too early to measure the impact of the two-year-old scheme, there is optimism that SHGs could significantly contribute to the success of micro-enterprises as vehicles for economic empowerment of the poor. "Group activities stand a better chance of success because it is easier to provide back-up support and marketing linkages for them."

2. **Jawahar Gram Samridhi Yojana (JGSY)**

The primary objective of JGSY is creation of community village infrastructure and assets to increase employment opportunities for the rural poor. The secondary objective is generation of supplementary (wage) employment for the unemployed rural poor below the poverty line. The program has the following features:

- C A Centrally-sponsored Scheme (CSS) with funding in the ratio of 75:25 between the Center and the States;
- C 22.5 percent of the funds to be earmarked for SCs/STs and 3 percent for the disabled;
- C Emphasis on labor-intensive works involving low cost technology and wage material in the ratio of 60:40;
- C Village *panchayats* (local bodies) as the sole authority for implementation of schemes costing up to Rs.50,000; and
- C Village monitoring and vigilance committees oversee the works, *gram sabhas* (village level local bodies) conduct social audit and DRDAs/*zilla parishads* (district local bodies) coordinate the implementation of the program.

0.58 million jobs worth Rs.18.41 billion were taken up during the first year of launching the program (1999-2000). A central outlay of Rs.16.50 billion was made for JGSY for the year 2000-01.

3. **Employment Assurance Scheme (EAS)**

EAS was launched as a CSS in 1993 and restructured during 1999-2000 to make it the single wage employment program. The main objective of EAS is creation of additional wage employment opportunities during the slow season through manual work for the rural poor living below the poverty line.

The secondary objective is the creation of community, social and economic assets which would help sustain employment and development.

The main features of EAS are as follows:

- C Implementation through *zilla parishads*/DRDAs which are represented by Members of Legislative Assembly (MLAs) and Members of Parliament (MPs), among others;
- C Seventy percent of the funds allocated for each district go to the *panchayat samitis* (intermediate local bodies) and 30 percent reserved at the district level;
- C Wage material ratio is 60:40;
- C Only labor-intensive works of productive nature which create durable assets are taken up under the scheme; and
- C A maximum of two adults per family are provided wage employment.

By focusing on providing gainful employment for the rural poor during the period of acute shortage of wage employment, Rs.19.98 billion was spent to generate 256.64 million man-days during 1999-2000. The central outlay for EAS for 2000-01 is Rs.13 billion. Ironically, there are plenty of food grains for public distribution, but there is lack of funds to sustain, *inter-alia*, the employment programs due to fiscal deficit. Integration of Public Distribution System with employment initiatives through Food for Work Program could be a viable strategy to deal with such a situation.

RURAL NON-FARM EMPLOYMENT

Agriculture contributes 29.4 percent of GDP and employs 64 percent of the workforce. However, technological advancement and institutional changes in agriculture sector will lead to the shrinkage of employment opportunity, and the conversion of those underemployed into unemployed seeking work elsewhere. Therefore, it is necessary that the rural economy become diversified into non-farm activities to provide productive employment to the rural labor force. This will also help stop rural-to-urban migration.

Rural non-farm sector has accounted for a steadily rising share of the rural workforce (from 15 percent in 1978 to 22 percent in 1987-88 and 23 percent in 1993-94) and registered a rate of employment growth of 5 percent between 1987-88 and 1993-94. The growth of productive employment opportunity in the non-farm sector in the rural areas is not due to saturation in agriculture sector. In fact, all non-farm activities have shown a steady increase in employment. Manufacturing accounted for 31 percent of rural non-agricultural employment; services, 27 percent; trade, 20 percent; and construction, 12 percent in 1993-94. Manufacturing has shown about 1 percent growth in employment; services, 4 percent; transport, 3 percent; and trades, 3 percent per annum during 1988-94.

Diversification and expansion of the rural economy, particularly non-farm sector, which will generate activities with a high employment potential for rural workers, is possible through promotional policies and efforts especially in the areas of infrastructure, access to credit, technological upgradation, entrepreneurial development and marketing support.

The sectoral employment prospects are briefly stated below:

1. *Industrial Sector*

Consumer goods industries account for two-thirds of manufacturing employment and one-third of GDP from manufacturing. A large domestic demand for consumer products offers tremendous scope for expansion of output and employment in this sector. With an overall investment intention of Rs.6,347.6 billion, consumer goods industries generated an estimated employment of 5.7 million during 1991-96.

Textile industry is one of the largest and the most important sectors in the economy:

- C contributing 20 percent to the national industrial production;
- C contributing 33 percent to the national export earnings; and
- C providing over 20 million jobs.

Handloom sector is expected to provide about 17.3 million jobs by the end of the Ninth Plan (2002) against 12.4 million jobs during 1996-97, which is next to agriculture in terms of employment intensity. Obsolete technology, high price of inputs and inadequate market information are the main constraints.

Handicrafts sector provides employment to approximately 7.2 million persons during 1999-2000, and its growth during the last few years has been phenomenal. Sericulture, which is an important labor-intensive and agro-based cottage industry, employs about 6.2 million persons.

Food processing industry contributes about 18 percent of the total output of the industrial sector (GDP) and provides employment to about 1.5 million persons. With India being the largest producer of vegetable and having a large livestock population and a long coastline for marine fisheries, this sector has potential for growth. However, the growth in production as well as exports has not been satisfactory in the recent past.

Village and Small Industries (VSI) sector has been growing at the rate of 2-3 percentage points higher than the large and medium industries sector. It contributes 40 percent of the gross value of output in the manufacturing sector and provides employment to 17.1 million people, i.e., 80 percent of total employment in the industries sector. Its contribution to exports is about 35 percent (both directly and indirectly).

Realizing the immense potential for creation of employment at low cost in *Khadi* and Village Industries (KVI) sector, a high power committee headed by the Prime Minister laid down a mandate (1994) for the creation of additional two million rural jobs – six million persons already employed – and doubling *Khadi* production. Accordingly, KVI Commission (KVIC) has since formulated a scheme for financing projects with investment limits up to Rs.2.5 million under Rural Employment Guarantee Program (RLEGP). Under this scheme, 25 percent of the project cost up to Rs.1 million will be provided as “Margin Money” by way of subsidy. However, till 1998-99, only 3,86,000 new jobs had been created, and it is expected that only one million jobs may be created by the end of the Ninth Plan.

The KVI sector utilizes local skills and resources and provides part-time as well as full-time work to rural artisans, women and minorities. Application of improved tools and implements needs to be stressed. The spread of village industries would also ensure increase in income levels and quality of life of rural workers, artisans and craftsmen. Politics and red tape are the major constraints.

The overall performance of Indian industry during the Ninth Plan fell short of the projected average annual growth rate of 8.2 percent due to slackened aggregate demand, slowdown in general investment climate, falling export growth, etc.

2. *Other Sectors*

In the construction sector including housing and rural roads, the growth rate of employment in the last 10 years (i.e., 1983 to 1993-94) has been at 5.33 percent per annum. The employment effect of construction growth is very high not only because of its high employment elasticity, but also because of the high employment multiplier effect it has among the major sectors of the economy.

The growth rate of employment in trade has been at 3.55 percent per annum during 1987-88 to 1993-94. In transport sector, employment growth rate between 1983 and 1993-94 has been about 3.59 percent per annum. Current economic slowdown would have some bearing on these sectors. In the services sector, the growth rate of employment has been 5.39 percent per annum during the period from 1987-88 to 1993-94. Services sector performed well during 1999-2000.

EMPLOYMENT AND WOMEN EMPLOYMENT

The Ninth Plan gives thrust on training-cum-employment-cum-income generation programs to make women economically independent and self-reliant. Some of the intervention measures are discussed below:

Support to Training-cum-Employment Program (STEP)

Launched in 1987, STEP aims to upgrade the traditional skills and knowledge of women through training besides providing employment, credit and market linkages, in the traditional sectors of agriculture, animal husbandry, dairying, fisheries, handlooms, handicrafts, KVIs, sericulture, etc. to enhance their productivity and income generation. Since the inception of the program, about 442,000 women have been involved in 81 projects. The Ninth Plan's outlay is Rs.883.2 million. For the Annual Plan 2000-01, an outlay of Rs.130 million to benefit 16,000 women has been provided.

STEP for Women Weavers in Manipur: Success Story

Developed by Manipur Development Society (MDS), the Training and Employment Program for Women Weavers in Manipur was implemented with the financial support provided by the Central Government during 1997-99.

Mobilized women in groups of 25 for each training-cum-center production are provided:

- C training support (with stipend) for three months;
- C support to trained weavers for the formation of cooperative societies;
- C support services – general awareness, healthcare, and nutrition for children;
- C marketing support – marketing/sales personnel, marketing outlets;
- C managerial support and quality control; and
- C working capital/raw materia.

The program enabled female weavers to enhance their productivity and take up weaving as an income generation activity. The success was mainly due to the utilization of local resources (women's traditional skill and aptitude for weaving), effective partner-ship between project functionaries and beneficiaries, participatory management and market-driven production.

Employment-cum-Income Generation-cum-Production Units (NORAD)

The program (popularly known as NORAD), financially supported by the Norwegian Agency for Development Cooperation (33 percent of the total outlay), aims to equip young women/girls with knowledge and skills through training in non-traditional trades like electronics, watch assembling, computer programming, garment making, fashion designing, secretarial practices, etc. The State women's development corporations are involved in monitoring and evaluation of the program. The program has so far provided employment opportunities to 228,000 young women/girls through 1,477 projects. The Ninth Plan's outlay is Rs.889.8 million.

CONCLUSION

The state policy seeks improvement of quality of life, generation of productive employment and removal of regional disparity. Therefore, the focus of employment strategies has to be shifted towards creating conditions not only to expand employment opportunities but also to achieve better living and working conditions.

Agriculture will continue to play an important role in providing employment in India, at least until the absorption rate of the labor force by the non-agriculture sector is high enough to provide sufficient employment opportunities. It is necessary that the rural economy gets expanded and diversified into non-farm activities towards providing productive employment to the growing labor force. Such diversification and expansion of the rural economy is possible through promotional policies and efforts. The success of these policies will largely depend on the ability to do away with some of the inherent weaknesses of the delivery system and the ability to design appropriate strategies as some are suggested below:

- C Given the high incidence of underemployment and increasing casualization of labor, a primary objective of the state policy should be to generate productive work opportunities in sectors which are more labor-intensive.
- C It is not enough to merely create employment opportunities, but also to provide the people with the human capital which will enable them to take advantage of these opportunities. Education and skill development are the prerequisites for such empowerment. Special programs should be implemented to develop skills, enhance technological levels and provide marketing channels for people engaged in traditional occupations.
- C There is a tendency to implement many schemes with similar objective targeting the same population. Convergence of related schemes across sectors will help obviate any duplication of effort and depletion of resources as well as reduce the overhead cost of programs.
- C A long-term perspective of development, reinforced by a consistent state policy, is crucial to successful implementation of programs. Change of government, which occurs frequently in India and many Asia-Pacific countries, coupled with adhocism and populism, often leads to abrupt change of priorities and multiplication/duplication of schemes.
- C Isolated successful interventions cannot make any perceptible impact on social and economic development. Yet, these micro level experiments represent the seeds of change and need to be multiplied on a wider scale towards the realization of the development goals. As a result, institutionalization of the process and methods adopted in these experiments are necessary.
- C The essence of success stories is "people's participation". The essential ingredients of people's participation in the development process are assessment of local resources, local level planning, people development, and establishment of local organizations as an umbrella support mechanism to facilitate people's actions. These processes will need to be institutionalized and sustained through the PRIs, which should be strengthened with greater devolution of central powers and functions.

In the ultimate analysis, growth generating productive employment will be an outcome of efficient institutions which implies good governance.

REFERENCE

Ministry of Rural Development, Government of India. *Annual Report 2000-2001*.

Planning Commission, Government of India. *Annual Plan 2000-01*.

----- . *Mid Term Appraisal of Ninth Five-Year Plan (1997-2002)*.

----- . *Ninth Five-Year Plan 1997-2002*, Vol. I: Development Goals, Strategy and Policies.

5. INDONESIA

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INTRODUCTION

Indonesia is a developing country consisting of many islands. The majority of the areas are considered rural. The urban areas of the country are usually more developed causing a gap between rural and urban areas. Rampant urbanization leads to a wider gap. Policymakers should turn to rural areas where the majority of the population live and develop programs to improve the standard of living of the rural people as well as to promote employment opportunities to solve the problem of unemployment and alleviate poverty.

Small-scale businesses are an important income-generator in the rural areas. Farm employment is experiencing a decline. Soil degradation and depletion of resources are part of the reason. The fact that young educated people are not interested in working in the farm also contributes to the decline.

Promoting rural small businesses in the primary sector like agriculture will increase employment opportunity in rural areas. This could be done by developing the agro-industries and agribusiness activities. Rural small businesses which play an important role in rural labor force absorption should also be encouraged and promoted.

Based on observations, small businesses, especially those in informal sector, are more likely to survive even when the whole country is suffering from economic crisis. This is because they use local materials and resources.

EMPLOYMENT OPPORTUNITIES GROWTH IN RURAL AREAS

The Condition of Labor Force in Rural Area

An increase in employment opportunities depends on the government's development plan for the rural areas. In Indonesia, most economic development activities are concentrated in urban areas where employment opportunities are much better than in rural areas. Rural employment is still dominated by agriculture though the sector is in decline.

According to the National Labor Force Survey data (1996-2000), rural employment opportunities are experiencing a downward trend. This is due to the decline in the farm sector. Educated people are not interested in working in the farm. The manufacturing and service sectors on the other hand are generating more employment opportunities for the rural people.

Nevertheless, rural employment will continue to be dominated by the agriculture sector, especially for the uneducated labor force (Table 1).

The government, in anticipating that the number of educated rural labor force will increase, makes an effort to promote employment opportunities in the non-farm sector in rural areas. In general, non-farm employment in rural areas is increasing over time. According to Table 1, employment in manufacturing increased from 7.08 percent in 1996 to 20.26 percent in 1999. Such a big leap is partly due to the growth of the informal small business sector. The growth of this sector is a result of the economic crisis forcing the laid-off workers to enter this sector at the time when employment opportunities in the urban area are scarce. In 2000, the data showed a decrease in non-farm employment in rural areas because the economic began to recover and the educated people moved out of the rural areas to look for a job in the cities. Regardless, the

non-farm employment sector will continue to expand in rural areas due to the development of small enterprises which use local resources.

Table 1. Rural Employment in Indonesia by Location, Education and Main Industry, 1996-2000
(Unit: Percent)

	Variable	1996	1998	1999	2000
Location	Rural	65.63	61.43	61.08	59.71
	Urban	34.37	38.57	38.92	40.29
Main industry	Agriculture	57.84	44.96	37.21	45.28
	Manufacturing	7.08	16.29	20.26	16.85
	Services	35.08	38.75	42.53	37.87
Education	Below primary school	80.35	65.53	60.83	58.34
	Junior secondary school	10.39	13.91	13.85	14.24
	Senior secondary school	8.13	16.59	19.40	20.63
	Academy/Diploma	0.67	1.88	3.43	3.97
	University	0.46	2.09	2.50	2.82

Source: Central Bureau of Statistics (CBS), NLBS (1996-2000).

Types of Rural Non-farm Employment Opportunities

Based on the study of the Center for Research and Development of the Ministry of Manpower and ILO (1986), the data indicated that the majority of employment opportunities in rural Indonesia were generated by small-scale businesses. These small-scale businesses consist of small industries and trades, and are called the “informal sector”.

Small industries usually are those processing agricultural products such as foods/snacks and beverages. Besides they also produce handicrafts, souvenirs/gifts, and garment products. Some are traders selling necessities, both food and non-food items, on a daily basis.

Non-farm enterprises in rural areas are of small-scale and home-based with an average number of labor force of less than 10 persons. The labor absorption in small-scale businesses by employment size is shown in Table 2.

Table 2. Number of Small-scale Industries and Trades in Rural Areas by Employment Size, 1996
(Unit: Percent)

Type of Industry	Employment Size				Total
	1	2-4	5-9	>10	
Manufacturer of food and beverages	25.19	66.63	6.13	2.05	100.00
Manufacturer of textiles, leather and apparel	67.60	22.94	6.52	2.94	100.00
Retail trade	59.22	38.70	1.80	0.28	100.00

Source: CBS, Economic Census 1996.

Other characteristics of small-scale business or the informal sector in rural areas are as follows:

- Not a corporate body
- Small-scale business activities
- Family-owned
- Heavily depends on local and natural resources
- Employs less than 10 persons
- Uncertain work hours
- Labor-intensive
- Unskilled and uneducated labor
- No marketing efforts.

Based on the National Labor Force Survey (1996), of the total processing industries in the rural areas, the processing industries that fall under the informal sector category account for 75.34 percent. The number dropped to 56.2 percent in 1997 due to the economic crisis. However, in 1998, it climbed up to 64.2 percent (Table 3).

Table 3. Processing Industries in Rural Areas by Job Status
(Unit: Percent)

Job Status	1996	1997	1998
Formal	24.66	43.8	35.8
Informal	75.34	56.2	64.2

According to Table 4, Java has the highest number of small-scale industries. The number however, decreased in 1997 when the country underwent monetary crisis.

Table 4. Proportion of Small-scale Industries in Rural Areas in Large Islands, Indonesia, 1994-98
(Unit: Percent)

Province	1994	1995	1996	1997	1998
Sumatera	9.93	9.92	10.84	14.38	14.69
Java	70.47	70.20	69.15	62.75	66.24
Kalimantan	5.49	5.54	5.54	6.59	1.77
Bali + West Nusa Tenggara	7.49	7.63	7.68	7.60	10.56
Sulawesi	5.79	5.80	5.82	7.31	6.03
Maluku + Papua	0.66	0.72	0.84	1.08	0.70

Table 4 also showed that small-scale industries are mainly concentrated on Java island where the central government is located. Besides, in Java, better facilities such as marketing, transportation networks, and financial institutions are available. The island also offers these small-scale businesses more potential consumers, skilled labor, and raw materials.

FACTORS INFLUENCING THE PROMOTION OF NON-FARM EMPLOYMENT OPPORTUNITIES

The followings are some major factors which can affect the generation of rural non-farm employment opportunities:

- C The strategy and government policy on expanding employment opportunity in rural areas, especially on community development and the development of small rural industries.
- C Provision of revolving fund or micro credit for rural small-scale businesses following the Grameen Bank model.
- C Placement of young educated persons in rural areas to help rural communities in development activities including labor force skill improvement and developing small businesses.
- C Provision and improvement of business facilities such as marketing, financial and transportation networks.
- C Promotion of export market, especially for handicrafts.

MAJOR PROBLEMS OF PROMOTING RURAL NON-FARM ENTERPRISES

Lack of Skills

According to the data in Table 1, the labor force in rural areas is dominated by those with elementary school level education or below. These people lack skills and knowledge required in the development of non-farm industries.

Lack of Good Infrastructure

Infrastructure in rural areas is underdeveloped. Facilities like marketing and financial services, and electrical and transportation networks are lacking. This is an obstacle to the development of non-farm enterprises in rural areas.

Lack of Information

Non-farm small-scale businesses need information on market demand and product designs and quality in order to be able to cater to the needs of the consumers. Lack of available information is one of the main constraints.

RURAL NON-FARM EMPLOYMENT PROGRAMS

To improve employment opportunities in rural areas, the Indonesian Government initiated intensive programs through relevant line departments to address these problems. The six major programs described below.

Campaign of Self-employment

This program is to enhance employment opportunities for the labor force in rural and urban areas through self-employment activities. Under this program are the following projects:

1. *Young Professional Entrepreneurship Development*

This project is undertaken by the Ministry of Manpower. Talented university graduates who are unemployed are encouraged to become entrepreneurs. They will be involved in community education, businesses, banking, NGOs and other community activities. Their performance will be evaluated. There is a competition for an award for the best young professional entrepreneur.

2. *Educated Self-employment*

This project is also undertaken by the Ministry of Manpower in cooperation with NGOs to motivate young graduates from secondary school to become self-employed. This is achieved through recruitment and selection, training, apprenticeship and follow-up services.

3. *Application of Labor-Intensive Technology*

This project is undertaken by the Ministry of Manpower with the objective of generating employment and income in labor-intensive enterprises as well as improving skills and productivity of the communities through the transfer of technology and the optimum use of natural resources so that people in the communities can start small-scale businesses, especially those in manufacturing/processing industries.

Small-scale Business Development

This project aims to develop small-scale businesses to increase non-farm employment opportunities. Development is made possible through a provision of consulting services for business management, raw materials and fund, and assistance in marketing. There are two projects under this program:

1. *Formation of Entrepreneur Development*

This project is undertaken by the Ministry of Industry and Trade to establish small-scale businesses, especially those in food and beverage manufacturing and home industries.

2. *Establishment of Small Business through Cooperative*

Undertaken by the Ministry of Cooperative, this project focuses on the development of small business by providing funds and management and marketing advice, and by establishing village cooperatives.

Improving Labor Force Skills in Rural Areas

This is to improve the knowledge and skills of the rural labor force so that they can enter the job market, both formal and informal sector. The program especially emphasizes self-employment and includes the following activities:

1. *Mobile Training Unit*

Using the Mobile Training Unit, the training of necessary skills the rural people need is conducted. Such training has been beneficial and effective especially in isolated rural areas.

2. *Training of Technology Application*

The project aims to equip the rural labor with the knowledge of appropriate technology that can be applied in the manufacturing of agricultural products as well as how to efficiently use natural resources. Through this project the rural people can set up small business or home industry such as soybean processing for tofu, tempe, and soybean milk.

Formation of Technical Producer Unit (TPU)

This is the responsibility of the Ministry of Industry and Trade. The main goal is to help small business owners or industries in technology assistance, raw material provision, business management, access to information/finance, marketing, etc. The TPU is built in an industrial center near the rural area.

Formation of Village Cooperative Unit

The Village Cooperative Unit is established to help set up cooperatives so that businesses can join forces in the marketing of their products. Through cooperatives, they can obtain cheaper raw materials. The Unit also assists in product marketing, business management consulting, skill/knowledge improvement in technology, and financing.

Infrastructure Development

Infrastructure is important for economic development as it facilitates the operation of trade and business, supports industrial activities, and improves productivity. Rural areas with good infrastructure are far more competitive than those with poor infrastructure. The success of the promotion of non-farm employment opportunities in the rural areas depends on the area's infrastructure. Good transportation network makes it easier for small-scale businesses to market their products and reduces the cost of production due to lower cost of transportation. Beside transportation, the program called "Rural Electrification" is implemented. Electrical network is needed by small-scale businesses as electricity can improve productivity; people can work longer hours.

STRATEGIES FOR SELF-EMPLOYMENT EXPANSION

As mentioned above, employment opportunity in the formal sector especially in the rural areas is very limited. But it is possible to promote self-employment through the formation of small-scale businesses and industries which can absorb labor force of various levels of skill, education and age.

Appropriate Technology Application

Indonesia is rich in natural resources which can be useful for the development of rural areas. The problem is that the rural communities do not or cannot yet use these resources. This is one of the reasons contributing to poverty in the rural areas. Untapped natural resources is a result of the rural people's lack of knowledge related to relevant technology coupled with limited facilities.

Hence, to help the rural communities utilize available natural resources to the fullest, a technical assistance program called "appropriate technology program" is implemented. Through this program, the economic well-being of the rural people is expected to improve.

Replicating Micro Credit of Grameen Bank Scheme for Women

When Indonesia was hit by the 1997 economic crisis, unemployment was rampant and poverty problem became severe. At the family level, females were forced to work to support the family. They faced a problem as they entered the workforce. What types of employment are available for them?

Recognizing the problem, the government launched a program replicating the micro credit of the Grameen Bank Scheme for women. The program has reported an impressive result in several countries like Malaysia and Bangladesh. The credit is given to females who have good business ideas after an assessment of project proposals. This assistance is given not only to an individual but also to a group. The business group

is like a collateral as members are responsible for the loans. This soft loan is of a revolving nature. Besides the loans, supervision and advisory services are also provided to females who run the business. The types of business include retailing, food processing and the use of materials from natural resources to make.

Self-help Community Development

This program is aimed to enhance self-help community development and improve the well-being of the people. It is managed by foreign volunteers under the assistance of the Ministry of Manpower and UNDP, and is implemented in five provinces. The main activity is to develop a socio-micro credit system to provide working capital support to the target group which is formed within and by the community. To obtain the assistance, each group has to come up with a business proposal. The credit amount that can be given is from Rp.6 million to Rp.10 million depending on the business. During the proposal writing period, a voluntary worker will help the target group identify feasible business opportunities. Other activities include sanitary improvement, education, road construction, water supply development, entrepreneurship training, etc.

IMPLEMENTING PROGRAMS TO ENHANCE EMPLOYMENT OPPORTUNITIES IN RURAL AREAS

Introduction and Application of Appropriate Technology

Appropriate technology is simple technology that can be applied by a relatively unskilled labor. Rural people who can handle this type of technology will be able to set up small-scale industries or home industries based on available natural resources.

Stages of implementation of appropriate technology are as follows:

1. *Preparation Phase*

- C Identification and selection of location and type of technology
- C Recruitment and selection of participants.

2. *Implementation*

- C Training rural people how to apply appropriate technology: theory and practice
- C Educate them on how to use appropriate technology to create small-scale industries.

3. *Evaluation*

The evaluation process is undertaken to gain information about program implementation and to track the number of participants who set up small-scale industries.

Diversification of Cultural Products

The rural labor force has to be informed about cultural product diversification. They should realize that cultural products are not just for a ritual ceremony, but can also be used to fulfill other activities and needs. For example, ethnic/cultural motifs can be used on table cloths, wall decorations and many other items. To reach this objective, the rural labor force can be trained so that they can start their own business. The training given is usually on design, color and quality.

Access to Technology and Information

Improved information network in the rural areas will allow rural people to access information about technology and market, both local and international. Besides, technology and market information, small-scale businesses in rural areas can obtain information about product design trends, prices and marketing to help them become more competitive. The end result of improved access to technology and information in the rural areas is hopefully an increase in rural employment opportunities.

CONCLUSION

Non-farm employment opportunities are mainly influenced by the quality of the local labor force, various natural and cultural resources, economic facilities and infrastructure, government strategies and policies, and access to technology and information. They can be further enhanced by the formation of self-employment or small-scale industries and local trade.

6. ISLAMIC REPUBLIC OF IRAN

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INTRODUCTION

Employment generation is one of the most important objectives of a national economic plan. Unemployment and loss of employment result in a slowdown in economical, social and cultural development as well as rural-to-urban migration. It is found that most poor people are unemployed. Hence, one of the basic policy measures to alleviate poverty, especially in rural areas, is the creation of employment opportunities and employment security.

Regarding the general profile of the country, Iran covers 1,633,188 km² area and has a population of 60,055,488. To the north are the Republic of Turkamaniston, Caspian Sea, Azarbayjan and Armnaiston and to the east are Afghanistan and Pakistan. The south borders the Persian Gulf and Oman while the west borders Iraq and Turkey. Iran is divided into 28 provinces, 252 townships, 680 districts, 614 cities, 2,213 villages and 68,125 small villages. It has a total of 12,398,235 households, 4,413,700 of which reside in rural areas (with an average 5.15 persons per household).

According to available statistics, over the past 40 years, the population growth rate was at 2.93 percent. The rate has been decreasing in recent years.

Table 1. Population Growth Rate, 1956-96

Year	1956	1966	1976	1986	1991	1996
Growth rate	4.77	4.99	5.18	5.45	5.62	5.22

In recent years while the number of population of the country decreases, the number of family members in rural areas is increasing. The trend shows that after the Revolution more attention has been given to the rural areas leading to the reduction in death rate among children and causing an increase in population of rural areas.

According to an estimate by the U.N., over the next 30 years, the population of Iran will reach 97 million. As shown in Table 2, the majority of the population is between 5-14 years old. It is therefore necessary to prepare an employment plan for this group of population, especially in the rural areas.

THE EMPLOYMENT SITUATION IN RURAL AREAS

Of the total population of Iran, nearly 38.24 percent (23,026,293 persons) live in rural areas; 1,164,972 persons are male and 11,421,321 are female.

Table 2. Population by Age and Sex

Age	Male	Female	Total Population in Rural Areas
0-4	1,390,095	1,313,836	2,703,931
5-9	1,824,356	1,744,605	3,568,961
10-14	1,792,962	1,739,544	3,532,506
15-19	1,375,316	1,401,475	2,776,791
20-24	1,005,535	1,043,734	2,049,270

Table 3. Rural Population by Type of Communities

Area	1,633,188 km ²
Number of townships	252
Number of districts	680
Number of villages	2,231
Number of small villages	65,125
Population	60,055,488
Rural	23,026,313
Male	11,604,972
Female	11,421,341
Average rate of persons in each family	5.22

Table 4. Employed Persons in Urban and Rural Areas

	Male		Female		Total (000)
	Number (000)	Percent	Number (000)	Percent	
Urban or cities	7,808	88.74	991	11.26	8,799
Rural areas	4,945	86.60	765	13.40	5,710
Whole country	12,753	87.90	1,756	12.10	14,571

The total employed population was about 14,571,570 persons, 5,710,813 of which work in rural areas. Of the total employed rural persons, 2,819,889 are engaged in hunting, agricultural and forestry activities, 21,375 in fishing and the rest 2,789,549 persons in other activities such as mines, building, repairing the motor conveniences and services. Finally, of the whole rural employment, 86.6 percent are male and 13.4 percent are female.

In Iran, as most rural women work outside of home (such as in agriculture and husbandry), the percentage of employed women in rural area is greater than that in the cities.

Based on the statistics, an estimated population of Iran is 60 million. The country's workforce is expanding prompting a need for employment generation program.

There is evidence that in recent years, agricultural employment has been declining while that of industry and services sectors is increasing. This may be because of increasing mechanization of laws concerning wages, and higher salaries or incomes in non-agriculture sectors. The agriculture sector has to increase production by using new technologies. From available statistics, 1,335 rural communities are experiencing a decline in employment in agriculture. The highest rate of decline occurred between 1987 to 1995 (at 17 percent).

Table 5. Employed Persons by Economic Sectors

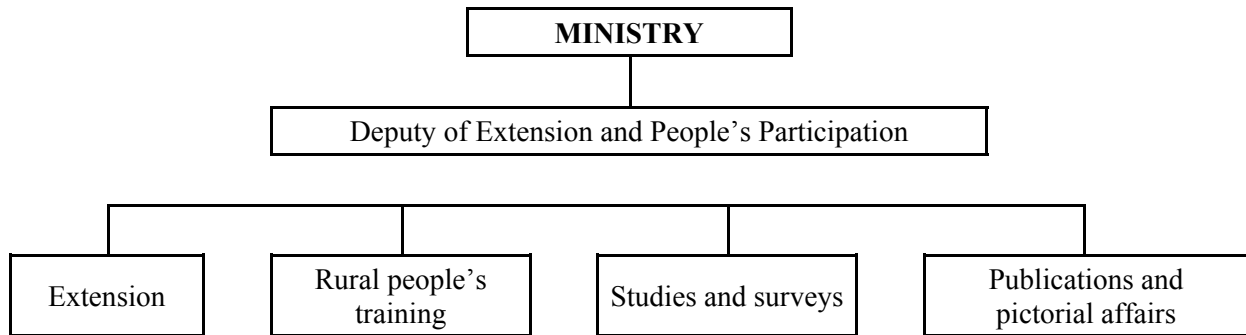
	Urban	Rural	Whole Country
Agriculture	461,089 5.24	2,841,129 49.75	3,302,218 22.76
Industry	2,936,367 33.37	1,532,782 26.84	4,473,472 30.80
Services	5,225,977 59.39	1,256,949 22.01	6,482,926 44.68
Other	175,988 2.00	79,951 1.40	255,939 1.76

Note: Figures in parentheses are percent.

PLANNING FOR CREATING NON-AGRICULTURAL ACTIVITIES

Increasing employment and human productivity depend on several factors. The most important one is necessary skills and training.

Based on the organizational structure shown below, the deputy of extension and people participation is responsible for improving the skills of the rural people. This can be carried out through extension activities and training. In addition, studies and surveys are being conducted. Once they are completed, dissemination of information based on findings will be promoted.



7. REPUBLIC OF KOREA

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INTRODUCTION

During the last three decades, the Korean Government has continuously implemented various programs to increase non-farm incomes of farm households through the creation and/or extension of off-farm job opportunities in rural areas. The Side-Job Promotion in the late 1960s, the so-called “Saemaul Industry Program”¹ in the 1970s, the Rural Industrial Complex Project (RIC) from the mid-1980s (still an ongoing project), and the Green Tourism Program in the late 1990s are typical programs aimed at promoting off-farm employment in rural Korea.

It was believed, at least till the mid-1990s, that these policies or programs were quite successful in light of increasing off-farm incomes and non-farm employment opportunities of farm households. The real off-farm income per farm household went up to ₩8,132,000 in 1997 from ₩1,463,000, implying almost six times growth. In relation to non-farm employment, the off-farm employment rate in farm households increased from 13.8 percent in 1981 to 20.3 percent in 1997.

However, the current situation of off-farm employment in farm households in Korea paints a different picture from the past. The growth rates of both non-farm employment and off-farm income of farm households have been sluggish in recent years though the period of recent economic crisis (from 1998 to 2000) is excluded as an exceptional case. Moreover, a recent study on non-farm income (Oh, 2001) shows that there is little room to significantly increase non-farm income in the future. Why such a gloomy prospect for non-farm income and non-farm employment of farm households is predicted though many kinds of off-farm job opportunities have been provided to the rural areas?

Based on an examination of the structure of rural labor force in Korea, this paper attempts to find out why such a dismal prospect is predicted. The objectives of the paper are to: (i) review the historical trends and current situations of non-farm employment of farm households in Korea; (ii) identify current problems in Korea in relation to promoting off-farm job opportunities and to increasing non-farm income of farm households; and (iii) suggest future directions of rural non-farm employment programs in Korea. In the end, policy implications are presented.

The outline of the paper is as follows. In the first and the second chapters, some key features of the trend of non-farm employment in farm households in Korea are briefly discussed. The third chapter describes the current problems in Korea: structural problems of farm labor force. Several alternatives to solve the problems follow in the fourth chapter. The last chapter draws conclusions and discusses some policy implications.

HISTORICAL PROFILES OF NON-FARM ACTIVITIES OF FARM HOUSEHOLDS

Overall Features of Population

First, the agricultural census data on economic activity and occupation is reviewed in order to obtain an overall picture of non-farm employment of farm households in Korea. Table 1 represents how the total population, the farm household population, and the entire economically active population (EAP) have

¹ The Saemaul Industry Program is part of the New Community Movement (the *Saemaul* Movement) which is better known as the Korean Model of Integrated Rural Development. By 1983, a total of 1,357 *Saemaul* factories have been constructed in rural areas under the financial supports of the government.

changed over the last four decades. As expected, the population of farm households in Korea has been declining rapidly from the mid-1960s, the time when the comprehensive economic development plan started. The percentage of the farm household population of the total population fell sharply from 57.0 percent in 1960 to 28.4 percent in 1980. The year 2000 witnessed another downward trend at 8.5 percent. The rate at which the farm household population decrease has been rising steadily over the last 40 years, from 0.1 percent during 1960-70 to -4.9 percent during 1990-2000. The sharp decrease resulted in the reduction of the size of farm households which have been reduced from 6.1 persons in 1960 to 2.9 persons in 2000.

Table 1. Trends of Total Population and Farm Household Population in Korea: 1960-2000
(Unit: 000 persons)

Year	Total Population (A)	Farm Household Population (B)	Number of Family per Farm Household (person)	Percent (B/A)
1960	24,989	14,242	6.1	57.0
1970	31,466	14,422	5.8	45.8
1980	38,124	10,827	5.0	28.4
1990	42,869	6,661	3.8	15.5
1995	45,093	4,851	3.2	10.8
2000	47,275	4,032	2.9	8.5

Annual average growth rate (percent)				
1960-70	2.3	0.1	-0.5	
1970-80	1.9	-2.8	-1.5	
1980-90	1.2	-4.7	-2.8	
1990-2000	1.0	-4.9	-2.6	

Sources: Ministry of Agriculture and Forest (MAF) and National Statistics Organization (KNSO), *Agricultural Census*, from 1960 to 2000.

The change in EAP indicates a similar trend to that of the farm household population. The speed at which the number declined over the years is, however, not as drastic (Table 2). From 1980 to 1990, the average annual growth rate of the EAP in farm households was at -3.9 percent. It fell to -3.2 percent in the last decade. It should be noted that this rapid decrease in the population of farm households, to be discussed in more details later, brings about certain constraints on increasing off-farm income of farm households in Korea, an issue the government have not paid much attention to.

The overall picture is clear. The share of farm household population in the total population dropped sharply over the last three or four decades, in terms of both total and EAP. Such a decrease is a common trend in the process of economic growth. The speed at which it declined should be closely looked at. The drop in farm household population in Korea happened fairly rapidly; in only 25 years, the population of farm households was reduced to one-fifth of the total population. In 1975, the share of farm households was over 50 percent. In 2000, however, it dropped to below 10 percent.

Off-farm Employments and Farm Incomes of Farm Households

The historical trends of off-farm employments in farm households of Korea show that the situation of non-farm employment relates, in part, to associated programs or policies. The total number of off-farm employees in farm households, climbed up to 575,000 persons in 1992 to from 479,000 in 1984, the first year of the RIC project, but then gradually declined to 534,000 in 1997.

Figure 1 indicates both the reversing trend in the number of off-farm employees (we may see the year 1984 as a turning point) and the rapid decreasing trend in the number of total employees in a farm household. An increase in the number of non-farm employees during 1984-92 can be attributed to the result of non-farm employment policies implemented at the time. Under the RIC project, 219 of rural industrial complex estates had been constructed from 1984 to 1990. This figure is almost 74 percent of the total rural industrial complex estates established up until last year.

Table 2. Trends in EAP in Korea: 1980-2000

(Unit: 000 persons)

Year	Total EAP	EAP in Farm Household					Total
		Number of Employment					
		Farm (A)	Off-farm (B)	Total (C)	B/C	B/A	
1980	14,431	4,306	802	5,108	15.7	18.6	5,163
1984	14,997	3,496	479	3,975	12.1	13.7	4,007
1985	15,592	3,309	497	3,806	13.1	15.0	3,847
1990	18,539	2,904	552	3,456	16.0	19.0	3,476
1992	19,499	2,698	575	3,273	17.6	21.3	3,299
1995	20,853	2,250	531	2,781	19.1	23.6	2,795
1996	21,243	2,148	535	2,683	19.9	24.9	2,696
1997	21,662	2,092	534	2,626	20.3	25.5	2,644
1998	21,456	2,233	415	2,648	15.7	18.6	2,688
1999	21,634	2,065	454	2,519	18.0	22.0	2,556
2000	21,950	2,004	474	2,478	19.1	23.7	2,502
Annual average growth rate (percent)							
1980-90	0.1	-3.9	-3.7	-3.8			-3.9
1990-2000	1.7	-3.6	-1.5	-3.3			-3.2

Source: KNSO, Statistical Database (KOSIS), *Employment Data*, <http://www.nso.go.kr>

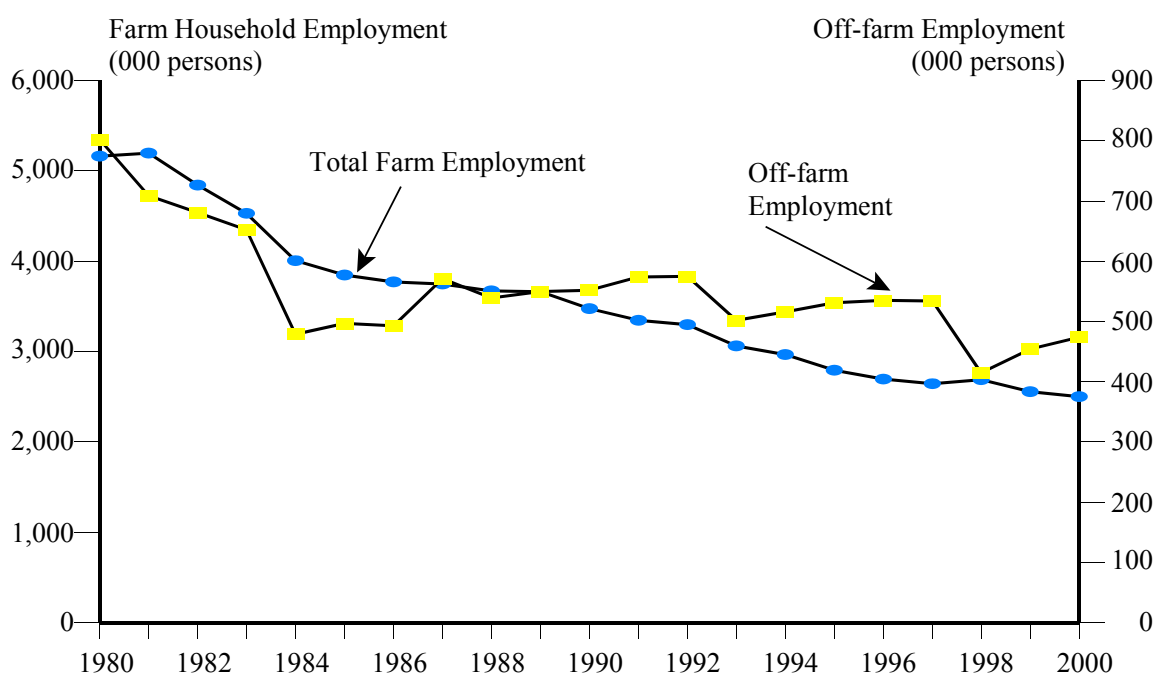


Figure 1. Trends in the Number of Off-farm Employees in Korea, 1998-2000

Source: KNSO, Statistical Data Base (KOSIS), *Employment Data*, <http://www.nso.go.kr>

The ratio of off-farm employees to total employees in farm households provides another proof of a positive relationship between non-farm employment and related policies (the seventh column in Table 2). The number of non-farm employment opportunities started to go up from 12.1 percent in 1984 to a record high of 20.3 percent in 1997.

Concerning the trends of off-farm income of a farm household, in general, the extension of off-farm employment opportunities leads to an increase in off-farm income. Table 3 indicates changes of farm and off-farm income per farm household during the last two decades.

The annual growth rate of real off-farm income per farm household is about 8.5 percent, which is higher than that of farm income (2.8 percent) during the whole period considered. Of greater interest and importance is the difference in the growth rates. From 1985 to 1995 (the RIC project was widely expanded during the period), the growth rate of off-farm income was almost two times as high as that in other periods. This comparison may support a notion that the government's programs for extending non-farm employment prove to be quite successful.

It is also interesting to find that the periods of high growth in off-farm and farm income overlap each other, with the former being from 1987-94 and the latter from 1985-95. This may reflect the linkages between farm and non-farm activities, even though the direction of the linkages is not clear.²

Table 3. Trends in Farm and Off-farm Income of a Farm Household: 1983-2000
(Unit: ₩ 000, 1995=100)

Year	Farm Household Income			B/C
	Farm Income (A)	Off-farm Income (B)	Total (C) (A+B)	
1983	5,338	1,463	6,801	0.22
1984	6,196	1,600	7,796	0.21
1985	6,345	1,818	8,163	0.22
1986	6,351	2,088	8,439	0.25
1987	6,818	2,231	9,049	0.25
1988	7,723	2,849	10,572	0.27
1989	8,127	3,114	11,241	0.28
1990	8,308	3,768	12,076	0.31
1991	8,335	4,339	12,674	0.34
1992	8,155	4,904	13,059	0.38
1993	9,271	5,545	14,816	0.37
1994	10,938	6,551	17,489	0.37
1995	10,469	6,931	17,400	0.40
1996	10,390	7,178	17,568	0.41
1997	9,563	8,132	17,695	0.46
1998	7,590	5,911	13,501	0.44
1999	8,718	5,804	14,522	0.40
2000	8,547	5,829	14,376	0.41

Annual average growth rate (percent)				
1983-2000	2.8	8.5	4.5	
1983-97	4.3	13.0	7.1	
1985-95	5.1	14.3	7.9	
1995-97	-4.4	8.3	0.8	

Source: KNSO, *Farm Household Economy Survey Report 2000*.

² Readon (1999) mentioned that "... The concept of farm/non-farm linkages is most commonly used to describe the relation between the farm and non-farm sectors. These sectors can be linked directly via production linkages, in which case the linkage occurs either 'upstream' or 'downstream'. When growth in the farm sector induces the non-farm sector to increase its activities by investing in productivity or additional capacity for supplying inputs and services to the former, the linkage is upstream. It is downstream (and is often referred to as a value-added activity) in case where the non-farm sector is induced to invest in capacity to supply agro-processing and distribution services, using farm products as inputs. The farm and non-farm sectors can be linked directly via production linkages, which occur either upstream or downstream".

Problems in Korea

It seems that Korea has problems, though not severe, regarding non-farm employment issues. However, a closer review on the recent trends of farm household income leads us to better understanding and ways to solve the problems. The annual average growth rate of farm household income was merely at 0.8 percent during 1995-97.³ The recent situation in farm income presents a more severe case. The annual average growth rate of farm income during 1995-97 was -4.4 percent. According to the recent baseline projections⁴ of Korean agriculture, farm income is forecasted to be stagnant and unstable during the next decade. This is due partly to the decline and the fluctuation of agricultural prices brought about by Korea's agricultural open market policy.

From the late 1990s, the Korean Government turned its attention to off-farm income, including the diversification of income sources for farm households. The government is currently planning various programs and policies in order to increase non-farm income, diversify income sources and, in particular, encourage non-farm activities. The implementation of these programs or policies without proper consideration of the following issues may yield no desired results.

The first issue is the shortage of labor force in farm households and rural areas. This is a fundamental problem in rural Korea. As previously indicated in Tables 1 and 2, the population of farm household continues to decline particularly in remote or mountainous areas. As presented in Table 1 (the fourth column), a farm household comprised 6.1 persons in 1960, but the size was reduced to 2.9 persons in 2000. No matter how many non-farm jobs are created for farm households, they (or rural households) still have trouble in the job market.

The survey report supports the above argument. More than 90 percent of the managers of firms located in the Rural Industrial Complex estates, mentioned the shortage of labor force, in particular, skill.⁵

The second, and more serious, problem is the rapid increase in the number of aged farm households. Old age prevents them from entering non-farm job market besides making working physically on the farm more difficult (Figure 2 and Table 4).

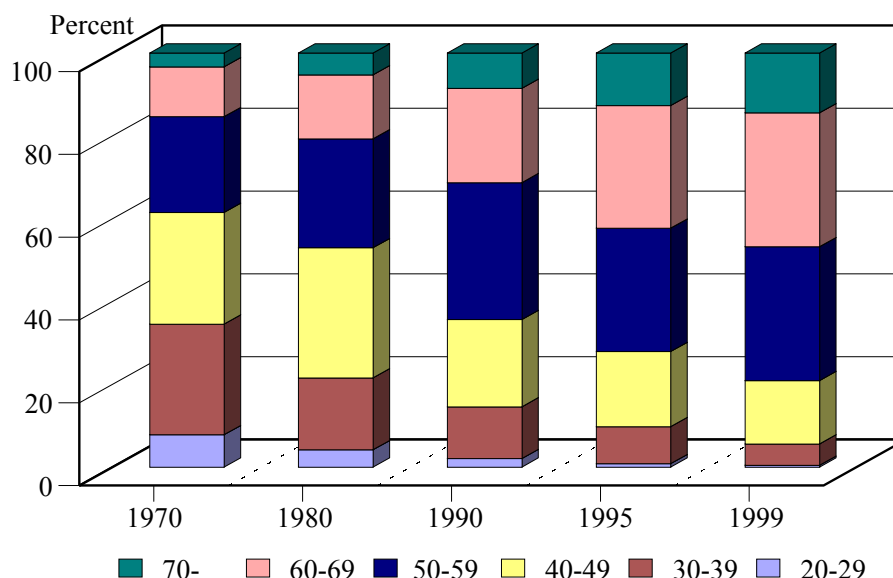


Figure 2. Trend of Aged Farm Household: 1970-99

Source: MAF, *Agricultural and Forest Major Statistics 2001*, 2001, <http://www.maf.go.kr>

³ As I mentioned, the last three years (1998-2000) are excluded from my considerations, since the economic crisis occurred during the period.

⁴ See *Agricultural Outlook 2001*, KREI.

⁵ See *The Business Survey of Small- and Medium-sized Enterprise: 2000*, Ministry of Commerce, Industrial and Energy (MOCIE), 2001.

Table 4. The Composition of Farm Household by Age: 1970-99

Age	1970	1980	1990	1995	1999
20-29	192,371	88,188	36,268	12,217	6,502
30-39	657,922	367,123	221,177	134,201	78,097
40-49	662,953	664,794	372,508	272,494	229,973
50-59	569,564	555,907	583,964	447,256	362,562
60-69	295,752	327,123	402,633	444,563	487,383
70-	81,315	110,453	150,032	189,920	217,089
Total	2,459,877	2,113,588	1,766,582	1,500,651	1,381,606
Share (percent):					
> 50	38.5	47.0	64.3	72.1	77.2
> 60	15.3	20.7	31.3	42.3	51.0
> 70	3.3	5.2	8.5	12.7	15.7

Source: MAF, *Agricultural and Forest Major Statistics 2001*, 2001, <http://www.maf.go.kr>

The share of farm households with head of the household over 60 years old was 51.0 percent in 1999. The trend is expected to go upward in the next decade. The Korean Government should pay more attention to these aged farm households and address this fundamental problem.

Solutions

As mentioned, the current problems of Korea, are structural problems of farm labor force, caused by unbalanced growth strategies of the Korean Government in the process of rapid economic growth. Through concentrating on industrialization in the urban sector, Korea has accomplished high economic growth rates, while the rural areas do not get as much attention and have been regarded as poor and uncomfortable places among Korean people. There has been a rapid outflow of population from the rural to the urban areas.

In order to solve these problems, it is important to slow down the rural-to-urban migration. More urgent is the need to encourage young farmers to work in rural areas. It is not an overstatement to say that the future of agriculture in Korea depends on these young farmers.

Apparently, policies targeting these young farmers are required. It is also important to think about why young farmers leave the rural areas. Differences in (expected) income or wage rates between rural and urban areas can be one reason for their departure. The quality of life might also play a big role causing them to migrate. It is, however, widely recognized that not all determinants of migration are economic.⁶ In conclusion, the following ideas may prove to be candidates for policies of non-farm employments in Korea.

Modernization of the Farm Sector

Modern agriculture is intensive in terms of inputs, services and commercial linkages. The more modern and competitive the agriculture sector, the larger the contribution of secondary and tertiary activities to rural GDP. In a broad sense, it will require improved linkages with input supply systems, agricultural processing chains, and distribution systems of fresh and processed products. Modern agriculture also requires cooperation with agro-industry in order for the products to meet the demanding quality and safety standards of domestic and international markets. We have already seen some positive relationships between farm and non-farm incomes.

Improvement of Quality of Life for Rural Residents including Farm Households

The term “rural” should no longer refer to backwardness or underdevelopment. The rural areas should offer the residents better economic opportunities. The gap of quality of life between rural and urban environments should be reduced or eliminated. Rural life should be appealing to both urban and young rural residents.

⁶ If the urban sector has more amenities, people may want to migrate even when the expected income or wage rate at the urban is lower.

- i) Easy access to modern healthcare and services in rural areas. Access to proper healthcare should be provided for the rural areas, not just for the people living in urban areas.
- ii) Good education systems in rural areas.
- iii) Infrastructure (particularly roads, telecommunications and electricity) is also an important factor affecting young rural residents' decisions whether to leave or stay in the rural areas. One of the many advantages of good infrastructure is that it facilitates access to jobs in town, increasing job opportunities for the rural people.

CONCLUSION: POLICY IMPLICATIONS

Rural development deals with more than just an expansion of agricultural output and growth in real per capita farm income. In many developing countries, agriculture is not the sole employer and source of income for households in the rural areas. Non-farm activities in many developing countries often account for as much as 50 percent of rural employment. Similar percentage represents the contribution of non-farm income to rural income household. The degree to which this is the case varies among countries, regions and stages of economic development.

The non-farm sector appears to be heterogeneous. This component of the rural economy comprises a very wide spectrum of activities and institutional types, and is also often linked, in complex ways, to country-specific agricultural settings. It is thus difficult or even unnecessary to prescribe broad policies to promote the sector as a whole; specific policies are required.

In this paper another special feature of non-farm employment in rural areas is added: heterogeneity. In advanced developing countries, like Korea, policymakers wishing to promote growth in the rural non-farm economy must look for the future trends in rural or farm labor force. The implementation of unbalanced growth strategies is apt to cause the shortage of labor force in rural areas in the long run. Korea's case is a good example.

The current problems in Korea in relation to non-farm employment may be different from other developing countries. In many developing countries, a large portion of the population lives in rural areas, and this population continues to grow at a substantial rate. However, in the end, most developing countries may face similar problems as Korea if they put an emphasis on the modernization of the urban sector neglecting the rural sector. Such policy prompts an outflow of rural population to the urban sector. Korea's case suggests that policy imbalance is not beneficial to the country in the long run.

REFERENCES

- Choi, Kyeong-Hwan, 2001. "Assessment of Rural Industrial Complex Project and Directions for Improvement", *Korea Rural Economic Review*, Vol. 24, No.2 (in Korean).
- Ellis, F., 1999. "Rural Livelihood Diversity in Developing Countries: Evidence and Policy Implications", *Natural Resource Perspectives*, No. 40, April 1999, Overseas Development Institute, London.
- Islam, N., 1997. "The Non-farm Sector and Rural Development", *Food and Environmental Discussion Paper 22*, International Food Policy Research Institute (IFPRI), Washington D.C.
- Ministry of Industry and Resource. *Current Situation of Firms located in RIC Estates: 2000*.
- Oh, Nae-Won, 2001. "The State of Non-farm Income and Policy Implications", *Korea Rural Economic Review*, Vol. 24, No.2 (in Korean).
- Reardon, Tom, 1999. "Rural Non-Farm Income in Developing Countries", *The State of Food and Agriculture 1998*, FAO, Rome.

8. MONGOLIA

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INTRODUCTION

During the socialist era, before the 1990s, Mongolia had virtually no unemployment. People were made to understand that every one must be employed. The reason was that everything from land, water, cattle, forests, industries to tools belonged to the government who was, at the time, the sole employer. During this period, in rural areas, cooperative property was only symbolic. The government was in control and coordinated the cooperative property of the people in the rural areas. At the beginning of 1990, the country adopted market economic system and from then on different kinds of property holdings emerged. Unemployment became a fact of life (Table 1). State, private, cooperative and shareholder properties came into existence. The government is no longer the only employer.

Table 1. Employment Situation, 1992, 1996 and 2000

	(Unit: 000)		
	1992	1996	2000
Number of population able to work	1,134.6	1,212.8	1,347.4
Labor force	860.0	825.0	847.6
Employed population	806.0	769.6	809.0
Unemployed population registered in labor force coordination office	54.0	55.4	38.6
Unemployed population	150.2	227.2	282.7
Number of students able to work	104.9	116.3	153.7
Number of the disabled population	106.1	138.0	77.9
Level of unemployment	6.3	6.7	4.6

CURRENT EMPLOYMENT SITUATION

In the last 10 years or the transitional period to the market economy, water, forests, pastures, land and other public properties had no specific owners. The government control was weak causing 70 percent of the pasture land to be totally neglected and forests destroyed. Sixty percent of the land from the total 1.3 million ha which used to be plantation remained uncultivated. When the process of privatization started, agricultural land and plantations remained the state's property. The problem arose when the government started to sell plantations to people who had money but no experience in plantation work. Due to such complete lack of land policy, during the last five years, crop yield had been diminished. In 1998, 21 percent of the land became a desert, and 4 percent of it were in severe condition. This situation contributed to an increase in unemployment.

The following section presents the non-farm employment situation in the rural areas of Mongolia using some specific examples in Selenge, a province of Mongolia, which is greatly used for plantation. Some useful statistics are presented in Table 2. In this province, there are 52,000 people who are able to work, and of those 20,000 are unemployed.

* He was unable to attend the Seminar, but had submitted the paper.

Table 2. Employment Situation in Selenge Province by *Sumon* or Administration Unit of the Province

<i>Sumon</i>	Population	Employed	Unemployed	Pupil	Disabled Population
Mandal	22,043	6,074	3,922	1,349	877
Sant	2,050	528	482	38	25
Khushaat	1,233	327	274	17	41

Selenge province has 21 *sumons*. Sant *sumon* is selected as a case study for this paper. Its current non-farm employment situation is gloomy. This *sumon* has more than 110,000 ha of land. The total population is 2,000 and there are about 40,000 cattle. Six thousand and seven hundred ha of land are being used for plantation. The major activities of the population are stock-breeding and plantation. Before 1994, almost the entire population worked, with 20 percent of them working in stock-breeding, 70 percent in plantation and the other 10 percent in the public service/*sumon* administration, school, preschool, hospital and service. In 1994, the government privatized plantations causing 80 percent of the workers to lose their jobs. Currently 55 percent of the total population of this *sumon* are unemployed.

Table 3. Poverty Situation, 1995 and 1998

	1995	1998
Percentage of population with low income:		
In Mongolia	36.3	35.6
In Ulaanbaatar/capital city	35.1	34.1
In province	33.1	32.6
Number of poor population:		
In Mongolia	820.7	862.9
In Ulaanbaatar/capital city	214.1	221.3
In province	350.1	369.5

THE NON-FARM UNEMPLOYMENT SITUATION

There are several factors contributing to non-farm unemployment in the rural areas of Mongolia. Severe climatic conditions and droughts are major factors. A cattle-breeder could lose most of his cattle after a heavy snowstorm, and a remainder of his cattle cannot provide for his needs. A plantation experiencing bad harvest season can be another factor. In this case, the plantation cannot afford to employ its workers. In addition, when the government cut back on forest industry activities, the workers who used to work in this industry lost their jobs. Privatization comes with job loss, and job loss causes poverty.

During the transition period from the command economic system to the market economic system, a portion of the population experienced a decline in income. This scenario led to an increase in inequality in the population. If we look at the Gini coefficient (0 = absolutely equal condition and 1 = one person owns all income) it was 0.31 in 1995 and increased to 0.35 in 1998.

WAYS TO PROMOTE NON-FARM EMPLOYMENT

Most of the unemployed are women who used to be employed in the service sector and those who used to be tractor drivers, combine operators, drivers, mechanics, and electricians. It would be effective to organize and encourage the following activities to reduce unemployment and alleviate poverty:

- i) Involve the unemployed population in training depending on their knowledge and capability.
- ii) Increase and develop financial resources of the provincial government and employers.
- iii) Invest more capital in activities which strengthen human resource potential.
- iv) Support the province's spearheads.
- v) Improve the quality of service, trade and business dealings.

- vi) Establish a loan and assistance cooperative bank.
- vii) Support small manufacturing firms by introducing a new tax policy.

Recently the government received US\$10,000-15,000 to help support small and medium manufacturers that want to do business in the rural areas by means of tax reduction. Favorable conditions now exist for the creation of non-farm employment. The setting-up of a small bread factory, a garment factory, a fertilizer factory, a hairdresser, a photo studio, a carpenter factory, a shoe repair shop, etc. should be promoted. These establishments will contribute to increasing non-farm employment.

To enhance the development of small manufacturing, the government should assist them by giving loans. For example, in 2001, during the first six months, one of the commercial banks “Zoos” lent 1.4 billion tugrik to more than 820 persons. Through this loan 210 people in the Selenge province became employed in non-farm sector.

However, borrowing money from the bank can be difficult. When the government decided to lend money to people to start business, it transferred money from the state bank to the commercial bank. Unfortunately, those who want to start a business usually could not provide a property guarantee required by the commercial bank and as a result could not get a loan. Only people who have acquaintances at the commercial bank and who have property and money are able to borrow money from the bank. Therefore, there is a need to change the loan policy; those who want to borrow money will guarantee to pay back the money after the business takes off. Mongolia has just started to form loan cooperatives. This enables the poor and average people to start their own small business and to earn an income. They will then return the amount loaned to the bank and will continue to operate their business.

PROJECT AND PROPOSAL

In this paper, Sant *sumon* of the Selenge province was chosen as an example or a case study. This *sumon* is situated on one of the largest river banks which does not offer big arable area but before privatization 3,500-ha field was harvested yielding the highest national crops (3,700 kg from 1 ha). The state irrigation system helped boost crop yields. The area has the potential for the development of intensive plantation. The crops harvested from this field can be used as raw material for bread-making factory. This area is located not far from Hotol city, about 45 km and about 100 km from Erdenet city which has well developed infrastructure. The products in Sant *sumon* could be sold to the population of these two cities.

It is therefore proposed that a small experimental biological fertilizer factory be established. The factory will produce biological fertilizer using the remnants of meal, bone, ash, the refuse of coal, cattle excrement and vegetable garbage. This process will exterminate and disinfect microorganisms which can cause health problems in humans. These microorganisms can be propagated in the waste. The process will also reduce infection rate both directly and indirectly as well as reduce toxic gas that comes from the detritus. In short, this process promotes healthier environment. An initial sum of US\$10,000 is needed to start the project. If this project materializes, five people will hold a permanent job. They should be able to operate the business by themselves after the factory has been set up.

9. NEPAL

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INTRODUCTION

Nepal is a small landlocked country with the land area of 147,181 km². Geographically, Nepal is divided into three regions; namely, the Himalayan region, the Mountainous region, and the Terai region. More than 83 percent of the country are rugged terrain while the rest (17 percent) is plain.

Nepal has parliamentary system headed by constitutional monarchy. Politically, it is divided into five development regions. These regions are sub-divided into 14 zones which are further divided into 75 districts. Kathmandu is the capital city.

Economy

Nepal is the least developed country in the region reporting per capita income of US\$210. The country and its population heavily depend upon agriculture. However, only 22 percent of the total land are cultivable. The share of agriculture in GDP is 38 percent. However, it is declining consistently. The service sector is currently assuming a more prominent role in the economic structure. The marked increase in the share of service sector in the GDP is mainly attributed to the expansion of trade and tourism services. The growing share of the service sector in GDP (11 percent on average) and the concentration of service activities in urban areas (where 12 percent of the population reside) imply that income is largely skewed in favor of the urban population. In the mid-1980s, Nepal adopted outward-oriented economic policies to promote trade for rapid economic growth. However, trade liberalization measures have so far failed to introduce export diversification. Carpet and garment industries, two of the economy's strongest exports, also suffered setbacks due to both external and internal reasons.

Industry

The industrial development of the country is still at an infancy stage. Most industries are small-scale family-owned enterprises. Agriculture remains the major contributor to national economy, but it is very informal in nature. Because of the topographic climate of the country, herbiculture has good potential. This sector, however, remains undeveloped. Service-oriented industries present much better potential for the future but still require further exploration. In the production sector, carpet, garment, pipes, food products, cables, ghee, steel, and cement are the major industries. Woolen carpets and garments hold the largest share of export.

Labor Force and Employment Situation in Nepal

Unemployment and under employment problems in Nepal are severe not only in the agriculture sector but also in the non-farm sector. The problems are concentrated in rural areas. It was estimated that at the end of the Eighth Plan (1992-97), the size of labor force in Nepal stood at 11.669 million of which 4.9 percent were unemployed and 47 percent underemployed. Of the total employed labor force, 81 percent were engaged in agriculture and 19 percent in the non-farm sector (5 percent in industry, mines, power and construction, and 14 percent in trade, hotel business, transport, communication, finance, real state and social service). Under employment is severe in the agriculture sector and hence non-farm activities are needed to address this problem.

Problems of Non-farm Employment Opportunities in Rural Areas

It appears that unskilled and minimally-educated labors are joining the work force while educated, skilled, and healthy labors are conspicuously lacking. There is an imbalance between employment opportunities and the size of the work force. This is due in part to the lack of an analysis of demand and supply of manpower in various sectors of the economy.

The main problems in developing the non-farm employment sector in the rural areas could be attributed to the low level of education and health specially in the backward/remote communities, lack of private sector's involvement in the economic activities, lack of access to information, lack of skill development activities, and lack of physical, social and institutional infrastructure in the rural areas.

Basic needs such as education, vocational and skill development training, health service, supply of safe drinking water, sanitary housing and nutrition have not been provided in the rural areas. It also seems that the link between employment opportunities and manpower development is missing.

ENHANCING NON-FARM EMPLOYMENT OPPORTUNITIES IN RURAL AREAS

Income, consumption level and overall living standard of the people have remained very low. To raise the living standard in a sustainable manner by alleviating the existing poverty has become the biggest challenge ever. The great majority of the population live in villages, and a large proportion of them are poor. From the very beginning of the country's economic development plan, an emphasis was placed on the development of agriculture and physical infrastructure in order to improve the living standard of the common people. To this effect, the Seventh Plan (1985-90) comprised elaborate program with a view to fulfill basic needs of people. Poverty alleviation was one of the main objectives of the Eighth Plan (1992-97). Comprehensive policies and targeted programs were implemented. At the beginning of the Eighth Plan, approximately 49 percent of the people were living below the absolute poverty line. The objective of the plan was to reduce the number to 42 percent.

In the current Ninth Plan (1997-2002), the same objective has been maintained. Pursuing the long-term vision, the size of the population below the poverty line (42 percent) would be brought down to 10 percent in the next 20 years, i.e., by 2016/17. As a result, it is imperative to launch a comprehensive poverty alleviation campaign. The task of poverty alleviation is possible only with multidisciplinary effort. Coordination of activities under various sectors is necessary. An extension of economic activities is indispensable for poverty alleviation. It is also equally essential to create conducive social condition to enable the very poor to benefit from opportunities and make sure common people have access to the opportunities and facilities provided by the state.

In Nepal, the poverty level varies from region to region. It can be said that poverty is the product of the inconsistency in the social and economic structure. Poverty cannot be alleviated from external efforts or programs imposed from above. Participation of the poor themselves is very important in every program. The poor have to be involved in all the programs and activities aimed at poverty alleviation in order for these programs and activities to be successful.

POLICY AND IMPLEMENTATION STRATEGY FOR THE PROMOTION OF NON-FARM EMPLOYMENT OPPORTUNITIES

The followings are the sectoral and multi-sectoral policy implementation strategy stated in the Ninth Plan of Nepal for the development of non-farm employment opportunities in the rural areas.

Sectoral

- C The private sector will be attracted and mobilized for the development of the non-agriculture sector to solve the unemployment and under employment problems.
- C Emphasis will be placed on creating income-generating employment through the development of tourism and trade, and the promotion of employment requiring higher level of education.

Multi-sectoral

- C Emphasis will be placed on mobilizing the manpower in appropriate sector on the basis of its education, training and experience.

- C Emphasis will be placed on fulfilling the basic needs such as primary education, basic health facility and safe drinking water for the sake of manpower development.
- C Priority would be given to backward groups and women while development of manpower and their participation would be encouraged in the employment programs operated by various sectors.
- C Policies and programs for manpower development would be formulated by bringing about multi-sector coordination.
- C A policy of “one employment for one family” will be adopted to give full employment to at least one individual from each family in the rural area.
- C Necessary assistance will be extended from the public sector in skill development and capital mobilization for the development and expansion of labor-intensive cottage industries. The private sector and the NGOs will also be mobilized for their assistance.
- C Construction works relating to rural infrastructure development will be linked with local plans, and employment promotion will be emphasized through the adoption of labor-intensive technology.

Special Programs for Increasing Non-farm Employment Opportunities in the Rural Areas

Policies have been adopted to run various programs to enable the local people to provide good services to tourists. Community-based income-generating programs are implemented to produce goods especially food items catering to tourists. This has greatly benefitted rural people in many areas. The promotion of tourism in various pockets has led to employment and income generation. Other efforts to generate non-farm employment include promoting cottage and small-scale industries.

Some of the programs that help create non-farm employment in rural areas are as follows:

1. *Physical Infrastructure Development*

Programs are being implemented to build rural roads to enhance physical infrastructure in the rural areas for the growth of cottage and small-scale industries as well as other non-farm activities.

2. *Remote Area Development*

During the Eighth Plan period, various schemes like provision of drinking water, irrigation, suspension bridge construction, herbal farming, school renovation, milk processing, fruit preservation, afforestation, and operation of mechanical mills were completed in 22 mountain districts, enabling the rural people to engage in different economic activities.

3. *Integrated Rural Development*

The Gulmi-Argkhachi, Dhading, Gorkha, Lamjung, Seti and Karnali projects are part of the integrated rural development program aimed at improving the living standard of the local people through multidimensional development of rural areas and poverty alleviation schemes to promote self-employment among the poor.

4. *Increasing Access of the Poor to the Productive Resources*

Programs aimed at increasing access of the poor to productive resources are as follows:

i. *Credit Provision for Rural Women*

The main purpose of this program is to improve socio-economic condition of poor women through institutional credit, training and community development. This program has been going on for the last 15 years. At present, the program is being implemented in 652 village development committees (VCDs) in 67 districts. During the project period, micro credit for women projects have been launched in 12 districts under ADB assistance. This has increased the involvement of rural women in many non-farm activities.

ii) *Rural Development Bank*

The bank has been providing credit through simple procedures to the rural poor for self-employment and income-generating activities. There are altogether five rural development banks established in five development regions. The bank also operates through 1,400 centers and 8,000 groups in 300 VCDs and in 26 districts. It has provided 40,000 group members with credit and supported them in self-employment and increasing their income.

iii) *Intensive Banking*

Under this program, many banks have provided extended credits to the poor groups in 75 districts.

iv) *Education and Training*

Various skill development training programs are being provided under remote area development, women development and other rural development programs. In the training programs, skill promotion training, income-generating training, herbal training, and cottage industry training are offered. Similarly, 81 types of training programs on health, nutrition, population education and family welfare have been conducted. In addition, carpentry, consumer group training and mobile skill training program for rural women have also been implemented.

v) *Social Extension*

Various programs like social mobilization and cooperative development at the local level have been launched to enable the poor community to participate in local development programs and to organize themselves in groups to increase their income and improve their community.

vi) *Employment Generation*

Efforts have been made to generate employment for the poor through special banking program, extension of civil works, establishment of processing and industrial plants and miscellaneous activities conducted in the non-agriculture sector.

5. Programs for the Backward Community

These programs have been implemented in 21 districts to uplift the socio-economic condition of the backward and aboriginal races viz. Chepang, Raute, Mushanar, Jhagad, Dum, Chamar, Dusad, Sattar. Some of the special programs are:

- C Programs for the improvement of the deprived, oppressed and down trodden community
- C National program for the upliftment of the schedule caste
- C Vocational development and rehabilitation program for Kamaiyas
- C Kaimayas women development programs.

CONCLUSION

Nepal is the least developed country in the region and heavily depends on agriculture. However, only 22 percent of the total land are favorable for agriculture. Although agriculture contributes the largest share in the GDP, the sector is in decline. The service sector is now assuming a more prominent role in the economic structure. The considerable increase in the share of service sector in the GDP can be attributed to the expansion of trade and tourism services. It has been observed that 19 percent of the total labor force are engaged in non-farm employment.

Most of the underemployed are in agriculture sector. As a result, it is necessary to increase non-farm activities to help the under employed in the agriculture sector.

The growing share of service sector in GDP and the concentration of service activities in urban areas imply that income is largely skewed towards the urban population, prompting an urgent need for increasing non-farm activities in the rural areas. The volume of the total trade in the country grew after the liberalization of the economy. However, trade liberalization measures have so far failed to introduce export diversification. Carpet and garment industries, two of the country's strongest exports, also suffered setbacks because of the external and internal reasons. Trade activities have to be expanded to the rural areas for the economic development of the rural areas as well as the country as a whole.

In order to increase the non-farm employment opportunities in the rural areas, the government has put forward both sectoral and multi-sectoral policies as well as implementation strategies. Various programs have been implemented to increase non-farm employment opportunities in the rural areas.

10. PAKISTAN

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INTRODUCTION

Pakistan emerged on the world map on 14 August 1947 following the departure of the British from India after centuries of colonial rule. It comprised two wings, East and West Pakistan. The two wings separated in 1971, and West Pakistan became what is now known as Pakistan. The country is divided into four provinces, viz. Punjab, Sindh, North Western Province (NWFP) and Balochistan. Pakistan shares its borders with China, India, Iran, Afghanistan and the Arabian Sea.



Under the colonial rule, the areas comprising Pakistan mainly provided grains for the vast British empire. Thus, the economy inherited from the British was essentially agrarian in nature, and it has remained the backbone of Pakistan's economy ever since. The productivity in the agriculture sector in Pakistan has

remained low as in other developing countries due to various reasons. The slow and meandering growth in the agriculture sector is unable to keep pace with the fast and persistently growing population pressure. This phenomenon has given rise to the development of non-farm sector in the country.

Admittedly, the rural non-farm sector has immense contribution to the growth, employment generation and poverty alleviation in the developing world. However, in most countries including Pakistan, adequate assessment of size, composition and structure of activities of this segment of the economy has not been made. The data limitation explains, partly, neglect of research endeavors to focus on this important sector. It can also be attributed to the intricate and complex nature of the interactions between the rural non-farm sector and the rest of the economy. Research on and analysis of the subject is a challenge.

Definitional Issues and Data Problems

Quantification and assessment of the size, composition and role of rural non-farm sector confronts various difficulties and statistical pitfalls. If the measurement focuses upon the input use particularly the labor, the design of the existing data collection instruments such as censuses and household surveys very often fail to capture the switching of labor from farm to non-farm during the reference period. Except for the time-use surveys with explicit identification of the industry and occupation, other household surveys generally report major activity and sometimes secondary activity as well. These limitations could lead to erroneous judgments regarding farm/non-farm shares in employment, which is difficult to be treated as mutually exclusive in actual time use of individuals.

It will be instructive in this context to examine the distribution of multiple activities available from the data collected by Rural Financial Market Survey (RFMS) 1995/96. The detailed classification is provided in Table 1. Briefly the results suggest that only 11 percent of the working population (age 10 years and over) were exclusively engaged in the farm sector. For non-farm and livestock, the percentages were 2 percent and 21 percent, respectively. In other words, more than two-thirds of the employed were engaged in both sectors.

Table 1. Pattern of Work Participation by Industry by Sex (Age 10+)

Activities	Male		Female		Total	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Farm only	1,260	11.8	671	8.7	1,931	10.5
Non-farm only	322	3.0	58	0.8	380	2.1
Hired labor only	464	4.3	807	10.5	1,271	6.9
Livestock only	1,712	16.0	2,194	28.6	3,906	21.3
Farm + non-farm	53	0.5	12	0.2	65	0.4
Farm + hired labor	252	2.3	211	2.7	463	2.5
Farm + livestock	5,220	48.7	2,196	28.6	7,416	40.5
Non-farm + hired labor	6	0.1	14	0.2	20	0.1
Non-farm + livestock	93	0.9	83	1.1	176	1.0
Hired labor + livestock	306	2.9	675	8.8	981	5.4
Farm + non-farm + hired labor	7	0.1	6	0.1	13	0.1
Farm + hired labor + livestock	841	7.8	655	8.5	1,496	8.2
Farm + non-farm + livestock	141	1.3	48	0.6	109	0.6
Non-farm + hired labor + livestock	8	0.1	31	0.4	39	0.2
Farm + non-farm + hired labor + livestock	24	0.2	17	0.2	41	0.2
Total	10,709	100.0	7,678	100.0	18,307	100.0

Source: RFMS, 1996.

On the output or product end, livestock clearly defies delineation. The Agriculture Census defines livestock holders as non-farm wherein land is not used or operated. The same data, however, reflect participation of both, farm/non-farm and non-agricultural households in livestock rearing. Nearly two-thirds of cattle, sheep and other livestock are kept by farm households.

Besides data inadequacy, the problems of data inconsistencies and non-correspondence of definitions used in different sources of data further complicate the analysis. The major sources of data such as Labor Force Survey (LFS) and Population Census opt a classificatory scheme at variance with the Agricultural Census. The first two identify the sector or occupation of a worker on the basis of reported labor input made into that activity, while the latter is more restrictive. Access to land either as owner or tenant serves as a condition for identification as farm household. The landless agricultural labor and livestock holder are defined as non-farm households. In the 1990 Agricultural Census, the non-agricultural households were also reported. These households do not fall under the above-mentioned farm and non-farm households. The above caveats for the interpretation of the analysis have to be kept in view.

THE NON-FARM SECTOR IN PAKISTAN

It is traditionally understood that rural household income comprises farming, animal husbandry, cultivation and agricultural wages. However, a substantial part of household income is also derived from non-farm sector. This sector is often poorly understood. In Pakistan agriculture contributes about 25 percent of GDP and employs 44 percent of the country's labor force. Over the last decade, agriculture grew at an average annual rate of 4.5 percent, with some fluctuations in growth mainly due to weather conditions. Agricultural growth has suffered a severe setback during last decade owing to:

- a) shift of farm labor to non-farm activities.
- b) unprecedented drought situation and shortage of irrigation water.
- c) rural-urban migration.

In rural economy, households are forced or motivated to enter non-farm sector either by the "pull" or the "push" factor. Households situated in the zones where agricultural activities are concentrated are likely to be "pushed" to diversify into rural non-farm sector to increase their income. Households in areas where agricultural activities involve less risk might participate in non-farm activity mainly for the higher returns they give or to alleviate cash and credit concerns. In Pakistan, the "pull" factor contributes more towards non-farm activity. Recent drought has badly affected Pakistan's economy and further strained its ability to provide for rural households.

Rural poverty is another factor causing the shift from the traditional agriculture sector to non-farm sector. It has become more and more severe and a big challenge to the country. Overall it has increased from 17 percent to 33 percent while rural poverty has increased from 18 percent to 35 percent during the same period. Poverty is not restricted to the lack of food and other basic necessities of life, but also includes an exclusion from social, economic and political opportunities in the society. Within a household poverty rate is higher among children, women and elderly members of the family. In the rural sector, it is higher among wage laborers, landless labor, tenants and women. The rural poor are linked with the economy through tradable and non-tradable goods and services, which are consumed locally. Small-scale farmers and tenants are the only groups who have some access to small landholdings through ownership or sharecropping. These groups have very limited access to physical and financial capital.

The survival of the rural poor depends upon the farm and non-farm income. Rural wages and prices of staple food items, like wheat flour, play a very important role in their lives. In order to meet the basic necessities, there is a dramatic shift of farm labor to non-agricultural activities. Non-agricultural activity covers industry and manufacturing (secondary sector) and services (tertiary sector) but excludes primary production whether in agriculture, mineral or fisheries. Many farming households also generate rural non-agriculture income through wage earning work in primary activities on farming establishments. In Pakistan rural non-farm income is comprised of:

- i. *unskilled labor* – includes wages from unskilled non-farm activity, such as construction and ditch digging.
- ii. *self-employment* – includes profits and earnings from shop-keeping and artisan activity (for example bricklaying, shoe repair) plus labor/construction contractors.
- iii. *government employment* – includes wages from all grades.

- iv. *private sector* – includes wages from private sector companies.
- v. *others* – other non-farm wages.

Size and Composition of Rural Non-farm Sector

Rural population of Pakistan, according to 1998 Population Census, accounted for nearly two-thirds of the total population. There has been a perceptible decline in the share of rural population overtime from 82 percent in 1951 to 67.5 percent in 1998. However, the population in rural areas rose overtime, from 60.8 million in 1981 to 88.12 million in 1998, registering an annual growth rate of 2.24 percent in contrast to the country's 2.61 percent growth rate.

The classification of farm/non-farm within rural areas confronts various data and definition problems. Based on the information in Population Census and Census of Agriculture, the following population distribution data during the past three decades is shown (Table 2):

Table 2. Population, Farm and Non-farm Households in Rural Areas

	1972	1980	1998
	(Unit: 000)		
Rural population	47,363	58,641	88,120
Households total:	7,287	9,023	13,450
Farm households	3,993	4,265	5,049
Non-farm households	3,294	4,758	8,401

Source: Census of Agriculture 1972, 1980, 1990.

Since the farm and non-farm classification of households is primarily based on Agriculture Census, it is imperative to understand the definitions used by the 1990 census. The above census adopts the following definitions for the classification of different households:

- a. Farm households include households reporting any farm area irrespective of its tenure and whether operated individually or jointly with other households.
- b. Non-farm households include households that do not operate in any farm area. Households owning land but not operating are also included in this category.
- c. Livestock holder is a household without land. Households having cattle, five sheep/goats, but no farm areas are included in this category.
- d. Agricultural households include farm households and livestock holders.
- e. Non-agricultural households include households which do not fall in the categories of farm households or livestock holders.

The distribution of households according to 1990 Agricultural Census is shown in Table 3.

Table 3. Distribution of Farm and Non-farm Households, 1990

	Number of Households	Percent of Household
Non-agricultural households	5,931,451	43.5
Agricultural household	7,703,376	56.5
Livestock holders	2,584,633	19.0
Farm households	5,118,743	37.5
All households	13,634,827	100.0

Source: Census of Agriculture 1990.

The data in Table 3 indicates that non-agricultural households, excluding livestock holders, account for 43 percent. Farm households constitute less than two-fifths of the total (37.54 percent). Almost one-fifth of the households (19 percent) has been identified as livestock holders. Farm vs. non-farm composition varies across provinces and districts (Table 4). Interestingly, provinces rich in agricultural resources such as Punjab

and Sindh reflect a lower share of farm households in rural areas than NWFP and Balochistan. For instance, farm households account for over 50 percent in NWFP and Balochistan compared to 36 percent in Punjab and 27 percent in Sindh. Alternatively, one can use household surveys such as LFS to estimate the farm/non-farm proportions in rural areas. However, these sources of data afford two types of information. First, using the information on the employing industry of the head of the households, a distinction can be made between agricultural and non-agricultural households. In this case, livestock holders are included in the agriculture. Using the information from LFS 1996/97, it is found that almost half (47.8 percent) of the households were reported to be engaged in agriculture, while 37.6 percent of heads of households were identified to be employed in non-agriculture segments of the rural economy. It should be added that around 14.6 percent of the heads of the households were not reported.

Table 4. Percentage of Households and Average Size of Households, 1990

Province		Number of Households	Percentage of Households	Average Size of Households
NWFP	Non-agricultural households	597,973	30.72	6.7
	Agricultural households	1,348,367	69.28	8.5
	Livestock holders	275,447	14.15	8.0
	Farm households (total)	1,072,920	55.13	8.7
	All households	1,946,340	-	8.0
Punjab	Non-agricultural households	3,563,895	42.82	6.2
	Agricultural households	4,758,703	57.18	6.9
	Livestock holders	1,760,554	21.15	6.6
	Farm households (total)	2,998,149	36.02	7.1
	All households	8,322,598	-	6.6
Sindh	Non-agricultural households	1,624,336	56.21	6.5
	Agricultural households	1,265,224	43.79	7.1
	Livestock holders	460,415	15.93	6.8
	Farm households (total)	804,809	27.85	7.2
	All households	2,889,560	-	6.7
Balochistan	Non-agricultural households	145,247	30.49	7.3
	Agricultural households	331,082	69.51	8.6
	Livestock holders	88,217	18.52	7.9
	Farm households (total)	242,865	50.99	8.8
	All households	476,329	-	8.2
Pakistan	Non-agricultural households	5,931,451	43.50	6.4
	Agricultural households	7,703,376	56.50	7.3
	Livestock holders	2,584,633	18.96	6.8
	Farm households (total)	5,118,743	37.54	7.5
	All households	13,634,827	-	6.9

Source: Census of Agriculture, 1990.

Employment data available at the level of individual constitutes the second estimate. It can be used to work out the size, which falls under the category of farm and non-farm employment. The data are suggestive of a rise in the share of non-farm employment over the time period (Table 5). In other words, the inter-temporal comparison, based on available data, is reflective of a shift away from the farm to non-farm. This is evident from the data sets both at the level of households and the level of individuals.

Size of the non-farm segment of rural areas discussed above needs to be interpreted carefully. Under- or overestimation of urban/rural population in the census impairs the validity of these estimates. Secondly, the estimated number of rural households varies according to source of information. For instance, Population Census 1998 reported 13.45 million total rural households while Census of Agriculture 1990 reported 13.63 million for 1990. Further in-depth study is needed to arrive at some conclusion in this respect. The available data, however, do suggest a shift away from farm to non-farm in the rural areas as shown in Table 6.

Table 5. Relative Shares of Agriculture and Non-agriculture Sectors in Rural Employment, 1979-80 to 1996-97

(Unit: Percent)					
Years	Employed in Agriculture	Share of Non-agriculture Sector	Years	Employed in Agriculture	Share of Non-agriculture Sector
1979-80	68.76	31.24	1990-91	63.74	36.26
1982-83	67.69	32.31	1991-92	63.26	36.74
1984-85	66.69	33.31	1992-93	63.76	36.24
1985-86	70.94	29.06	1993-94	64.76	35.24
1986-87	65.24	34.76	1994-95	61.94	38.06
1987-88	67.49	32.51	1996-97	60.83	39.17

Source: Labor Force Surveys.

Table 6. Farm and Non-farm Composition of Households

(Unit: Percent)						
Period	Farm		Non-farm		Undefined	
	Unweighted	Weighted	Unweighted	Weighted	Unweighted	Weighted
1992-93	51.9	52.9	32.9	31.4	15.2	15.2
1996-97	47.8	49.2	37.5	36.3	14.6	14.4

Source: Labor Force Surveys.

Note: Farm/non-farm distinction is made on the basis of the head of households employing industry.

Unfortunately, not much research has been done to explain the changes in the composition of rural economy in terms of farm vs. non-farm. Lack of data partly explains this neglect. Another reason lies in the focus of researchers on the question of landlessness due to resumption of land by large landowners resulting in eviction of tenants.

RURAL EMPLOYMENT IN PAKISTAN

Up until the mid-2001, of the estimated population of 140.5 million, the labor participation rate was 29.4 percent. The total labor force came to around 41.2 million. Employment situation in agriculture and other sectors shows that the majority of the employed persons work in agriculture. The share of non-farm labor in different categories was about 36.8 percent in 1997, but had increased to 40 percent in 2001. The shifting trends of employment and unemployment support these facts. Tables 7-9 show the statistics on unemployment in rural/urban areas and actual composition of rural/urban labor force.

Table 7. Unemployed Labor Force by Rural/Urban Areas, 1995-2001

(Unit: Million)							
Year	Population (mid-year)	Unemployed Labor Force			Unemployment Rate (percent)		
		Rural	Urban	Total	Rural	Urban	Total
1995	122.4	1.1	0.7	1.8	4.8	6.9	5.4
1996	125.4	1.1	0.8	1.9	4.8	6.9	5.4
1997	128.4	1.4	0.9	2.3	5.7	7.2	6.1
1998	131.5	1.4	0.9	2.3	5.0	8.0	5.9
1999 (E)	134.5	1.4	0.9	2.3	5.0	8.0	5.9
2000 (E)	137.5	1.4	1.0	2.4	5.0	8.0	5.9
2001 (E)	140.5	1.4	1.0	2.4	5.0	8.0	5.9

Source: Labor Force Surveys 1992-93 to 1996-97.

Table 8. Rural-Urban Labor Force, 1995-2001

Year	Population (mid-year)	Rural		Urban		Labor Force	
		Million	Percent Share	Million	Percent Share	Million	Annual Percent Change
1995	122.4	23.4	69.6	10.2	30.4	33.6	-
1996	125.4	23.8	69.2	10.6	30.8	34.4	2.4
1997	128.4	25.6	69.4	11.3	30.6	36.9	7.3
1998	131.5	27.1	70.2	11.5	29.8	38.6	4.6
1999	134.5	27.6	69.7	12.0	30.3	39.6	2.6
2000	137.5	28.0	69.3	12.4	30.7	40.4	2.0
2001	140.5	28.4	68.9	12.8	31.1	41.2	2.0

Source: Planning and Development Division, Labor Force Surveys, 1996-97.

Table 9. Distribution of Rural Non-agricultural Employment by Industry

	(Unit: Percent)				
	1969-70	1974-75	1978-79	1986-87	1996-97
Mining and quarrying	0.46	0.47	0.67	0.63	0.22
Manufacturing	39.86	33.38	31.72	26.03	17.31
Electricity and gas	0.53	0.82	1.45	1.10	1.61
Construction	10.90	12.21	14.19	16.90	17.35
Trade	19.12	20.81	20.94	20.90	24.30
Transport	10.16	10.57	8.81	10.21	10.50
Services	18.26	20.74	19.80	24.00	28.62
Undefined	0.71	1.04	2.74	0.54	0.37

Source: Labor Force Surveys.

Information pertaining to employment is reflective of a shift from agriculture to non-agriculture in the rural areas. The share of agriculture in total employment declined from 74 percent in 1961 to 68 percent in 1981 according to population census. The data contained in LFSs point to the same trend. A number of questions pertaining to this shift in the employment structure have to be addressed: the foremost being the assessment of the very nature of this transformation from farm to non-farm employment.

Major trends, which emerge from the inter-temporal comparison of LFS data, are suggestive of an upsurge in services sector and an increasingly important role of the construction and trade sectors. The share of manufacturing in total non-agricultural employment had been drastically reduced from 40 percent in 1969-70 to 17 percent in 1996-97. In contrast, the relative share of services experienced a gain from 18 percent to 29 percent during the same period. Similarly, construction and trade have registered an escalation in their relative shares in total employment. Overall, the rural employment structure represents a shift away from commodity production to service orientation or the rural non-agricultural economy.

RURAL DEVELOPMENT POLICY IN PAKISTAN

If we examine the overall policies for rural development in Pakistan, we notice a lack of consistency and homogeneity in policies over the past years. Various policy initiatives have been taken in recent past such as:

- Prime Minister's Five Point Program in 1985-88.
- People's Works Program from 1988 to 1990.
- Tameer-a-Watan Program 1990-1993.
- People's Works Program from 1993 to 1997.
- Tameer-a-Watan Program 1997-1999.
- Khushhal Pakistan Program, 2000 to date.

All these programs were aimed at social and infrastructure development of the country. However, close review of these policies reveals that they lack an organized effort on the part of policymakers to promote non-farm rural set-up with these policy initiatives. Pakistan achieved impressive agricultural growth in the past decade, yet this growth is unsustainable because it has been achieved mainly through an increase in area of cultivated land rather than improvement in productivity levels. By and large, agricultural growth has lowered food insecurity in rural areas. However, it has not led to wide spread increase in income levels. Large landholders benefitted more than small landholders and the landless. The growth in total income has not resulted in better access to health and social services for the poor in rural areas. Poverty is continuously increasing in Pakistan. More than 50 million people are living below the poverty line. The incidence is higher in rural areas of the country where one among three households is poor. There is an urgent need for such a policy from the government to alleviate poverty and improve the living conditions.

Economists have viewed development as a means of improving standards of living and quality of life. Therefore, the ultimate goal of development should be to improve human well-being in a substantial and sustainable way. Human capital development which is the product of education and improvements in health and nutrition is both a part of and a means of achieving this goal. Human capital is critical in raising the living standards of the poor. Healthcare and good nutrition reduce sickness and mortality and improve labor productivity. Literacy, on the other hand, widens horizons, making it easier for people to learn new skills throughout their working lives, thus, ensuring full participation in social and economic life. By raising productivity, investing in education and opening economic opportunities, the problem of income inequality will be reduced.

Pakistan presents a unique picture of experiencing a relatively strong economic growth but with poor social indicators. In other words, Pakistan's growth performance and the state of social indicators appear to be incongruous. In most cases, Pakistan's social indicators are not comparable with those of other developing countries (Table 10). Pakistan must, therefore, improve its social indicators for both economic and equity grounds. The Social Action Program (SAP) was launched for a 3-year period (1993-96) to address four key elements of social development; namely, primary education, basic healthcare, family planning and rural water supply and sanitation.

Table 10. Pakistan's Social Indicators

	Unit	1992-93 (benchmarks)	1999-2000 (SAP achievements)	All Developing Countries
Population growth rate	Percent	3.0	2.2	1.8 (1990-98)
Adult literacy rate	Percent	35.0	49.0	26.5 (1995)
Primary school enrolment	Percent	69.0	81.0	85.7 (1997)
Life expectancy at birth	Years		63.0	65.0 (1997)
Infant mortality rate	Per 1,000	101.0	90.0	60.0 (1997)
Total fertility rate	Percent		4.9	2.9 (1997)
Contraceptive prevalence rate	Percent	14.0	32.1	56.0 (1995)
Rural population's access to: Safe water	Percent of population	38.7	50.0	71.0 (1995)
Rural sanitation	Percent of population	11.0	25.0	42.0 (1995)

Sources: Federal SAP Secretariat, Planning and Development Division, Islamabad; and *World Development Report 1999-2000*.

Under the SAP, the government has initiated a large number of projects. Rural development is a multi-sectoral approach for the development of physical and social infrastructure with a view to realizing full productive potential of rural areas. It attempts to spread the benefits of the development to the rural population, which currently forms about 68 percent of the total population. The objectives of the rural development strategy is to provide infrastructure and social amenities like construction of roads, supply of

drinkable water, village electrification and provision of education and health facilities. In the fiscal year 2000-01, Rs.1,849.8 million was provided for the development of rural areas.

To alleviate poverty, the government has launched Khushhal Pakistan Program (formerly known as Integrated Rural and Urban Development Program) in March 2001. A total of 9,899 development schemes have been approved all over the country, out of which 4,746 schemes have been completed. The remaining schemes are at different stages of completion. This program will not only create employment opportunities but also help in improving the living conditions of millions of the poor in the country. The Khushhal Pakistan Program basically covers small public works both in urban and rural areas. The program includes: (i) farm to market roads; (ii) water supply schemes; (iii) lining of water channels and desilting of canals; (iv) repair and resurfacing of small rural roads; (v) ponds; (vi) pavement of streets, drains and storm channels in villages; (vii) improvement of schools; (viii) small soil conservation structures and spurs; (ix) sewerage and garbage collection; (x) provision and renovation of civic amenities; (xi) equipment/machinery for vocational centers; and (xii) village electrification.

In the private sector, NGOs are playing a vital role in rural development and poverty alleviation. At the national level, an NGO-led program "National Rural Support Program" (NRSP) has been initiated. It has branches in all four provinces of Pakistan. The main objectives of the program are to foster a country-wide network of community organization at the grassroots level and enable them to plan, manage and implement their development plans on their own. This program has five major areas of operation: (i) human resource development; (ii) rural credit and enterprise development; (iii) natural resources management; (iv) physical infrastructure and technological development; and (v) social sector services. As of January 2001, the NRSP has facilitated a formation of 12,155 community organizations, and 264,058 households have been organized. The total credit disbursed up to January 2001 amounted to Rs.2,504 million. The cumulative recovery rate was 93.0 percent during 1999-2000. A total of 81,240 persons (including 23,281 females) had been trained. Some 2,394 infrastructure development schemes had been completed benefiting 57,926 households. Almost 5.2 million animals had been vaccinated. Nearly 6,499 thousand trees had been planted through the NRSP which provided Rs.3,992 million for purchase of pesticides.

The Agha Khan Rural Support Program (AKRSP) is a private organization established in 1992 by Agha Khan Foundation funded by bilateral and multilateral donors. This organization was set up in northern areas of Pakistan, with a mandate to focus on economic and institutional development. The main goal of this organization is to raise the income level of the northern areas villages and to develop a replicable model for rural development. The AKRSP works in various directions such as organizing village level institutions, promoting natural resources management in agriculture, livestock and forestry, providing training to increase employment, marketing and providing funding for infrastructure development. The AKRSP lays special emphasis on poverty alleviation programs for women. It acts as a catalyst for rural development, organizing resources so that local institutional structures are gradually developed to sustain the process of development. The program is spread over 74,200 km² and its rural development approach has seven major components: (i) institutional development and social organization; (ii) women and development; (iii) mountain infrastructure and engineering services; (iv) natural resources management; (v) human resource development; (vi) credit and saving; and (vii) enterprise development. During the past 18 years under the AKRSP, various significant changes and improvements in the economic and social lives of people of northern areas and Chitral have been witnessed. Per capita incomes have more than doubled in this period with an appreciable reduction in the level of absolute poverty. Increased economic growth is accompanied by a structural transformation of the economy, resulting in increasing non-farm income in the program area. AKRSP also provides opportunities to women to improve their managerial capacities and other necessary skills to increase their participation in community development. By the end of 2000, a total of 2,219 infrastructure projects had been initiated, out of which 1,917 projects were completed. These projects have collectively benefited more than 166,735 households.

SOME POSSIBILITIES/SUGGESTIONS TO STRENGTHEN NON-FARM ACTIVITIES IN PAKISTAN

Government policies aimed at rural sector must be oriented toward such income generation activities that stimulate households to participate in rural non-agricultural jobs. The majority of rural development policies and projects should be aimed at generating non-agricultural farm income. In this area, cottage

industry and tourism can be the major areas of interest. The competitiveness of the agriculture sector cannot be increased without the development of productivity in primary production and the industrial, commercial and service sectors that characterize modern agriculture. The selection of policies – technology promotion policies (research, technical assistance, transfer of technology, etc.), human capacity building, land and agrarian reforms, and credit provision – should increasingly depend on their capacity to generate impacts and to help reach the goal.

At present agricultural activity or agriculture profitability is at high risk. Prices of modern agriculture inputs are so high that poor and landless people could not afford them. It is very difficult to determine the profitability ratio in farm cultivation with the profitability in rural non-farm activities by the price of the product produced or the wages received in the sector. It is suggested that government policies focus on price control of primary products and minimum wage fixation.

Rural non-farm income, usually reduces the income inequality between the poor and landless *haris*. The poor and landless are getting a higher percentage of income from non-farm occupations. It reduces the unemployment and underemployment. Therefore rural non-farm income can be one of the tools to alleviate poverty.

In developing countries, the ability of women to work outside their homes is limited. *World Bank Report* on women in Pakistan (1989) argues that a major obstacle to Pakistan's transformation into a dynamic middle class income economy is an underdevelopment of its people, particularly women. Although in informal sector or postharvesting season, participation rate is high, there is a need to improve their participation as an organized labor force. In non-rural activity, women participation as organized labor force can help increase rural household income.

An extensive and adequate physical and social infrastructure is a prerequisite to sustainable economic growth. It is a fact that Pakistani infrastructure is quite underdeveloped in rural areas. Infrastructure investment policies can strengthen linkages between the rural non-farm sector and agriculture, and thus create rural non-farm multipliers from the growth of agriculture. It is very important to improve both hard infrastructure (e.g., roads, electrification) and soft infrastructure (e.g., banking systems, market information systems) as a means of reducing the transaction costs for business start-ups and subcontracting in rural areas, and of improving the productivity of rural non-farm entrepreneurs.

Rural areas are frequently at a disadvantage in terms of education facilities and skilled labor. Education is a strong determinant of household participation and of the level of wage earned in rural non-farm activities. In Pakistan more specific skills and training are necessary to promote non-farm activities in today's competitive environment of liberalized trade.

The non-farm sector in Pakistan is already of great importance to rural economies for its productive and employment effects. It offers agricultural services and products to the food and fiber system. These products are critical to the dynamics of agriculture. The income non-farm sector provides farm households represents a substantial and growing share of rural incomes, including those of the rural poor. These sectoral contributions will become increasingly significant for food security, poverty alleviation, farm sector competitiveness and productivity in the years to come.

11. PHILIPPINES (1)

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INTRODUCTION

The Philippines has always been a labor-surplus economy. To a large extent, this is attributed to the relatively rapid growth of population and labor force. The labor force (persons aged 15 and above) increased by 1.3 million from 47.8 million in July 2000 to 49.1 million in July 2001. Labor force participation rate for the same period, likewise increased from 63.8 percent to 66.3 percent (National Statistics Office [NSO]). The employment rate from July 1999 to July 2001 had a negative growth rate of -2 percent. The lingering effects of the Asian currency crisis and the present political instability are among the reasons that have disrupted the country's growth momentum. While the growth in employment from 1999 to 2001 was not impressive, the quality of employment remained at the same level during the period as evidenced by the percentage of wage and salary workers and share of unpaid family workers to total employment. Salary workers remained at 49 percent from 1999 to 2001, while the unpaid family workers at 13 percent over the period of two years (NSO).

Of the three major industry groups, the services sector remains the biggest employer accounting for 46.4 percent of the total employment. The agriculture sector closely followed, absorbing about 37.5 percent, while the industry covers the remaining 16.5 percent of the total employment (NSO).

Meanwhile, the country's unemployment rate has been increasing, again due to the economic slowdown brought about primarily by the financial crisis. From the unemployment rate of 8.5 percent in 1999, it climbed up to 10.1 percent in July 2001, registering a -2 percent growth rate.

RURAL EMPLOYMENT IN THE PHILIPPINES

Rural population accounts for 49 percent (24.3 million) of the total population while the urban covers the remaining 51 percent (24.8 million). Previous studies attributed an increase in urban population to rural-to-urban migration (NSO). Although urban population is a little higher compared to rural population, the total rural labor force continues to dominate the total urban labor force by 6 percent. The number of employed persons in rural areas totals 15.4 million while in urban areas it is 13.8 million (NSO). Unemployment is prominent in rural areas at 3.2 million, compared to 2.4 million in urban areas (NSO).

The increase in labor force participation rate in the rural areas has been attributed to the rise in the participation of women. There was a considerable rise in the labor force participation rate since 1983 suggesting that the economic crisis and the corresponding reduction in per capita income forced more women to seek employment to help out in meeting the needs of their households. Unproductive business establishments also force out the workers to the countryside.

The following are the emerging trends in rural labor:

1. ***On Class of Workers***

- C Based on verifiable data from 1975 to 1990, the own-account or self-employed comprise 4.3 percent of total employment in the rural areas. The increase was especially significant in 1985, suggesting the response to the crisis that year.
- C The proportion of unpaid family labor declined from 28.7 to 21.6 percent during the same period. This can be attributed to the shift towards non-agricultural pursuits and the rise in the use of hired or contractual workers in the farms.

2. *On Share in the Sub-sectors*

Labor share in rural manufacturing (e.g., wood products, food, beverages and tobacco) has been declining. The rest of the manufacturing sector has little presence in the rural sector.

3. *On Occupation Types*

A decline in the professional, clerical, administrative, executive and managerial workers was posted, from 38,000 in 1996 to 37,000 in 1997. The trend is expected to continue as the rural sector obviously offers few opportunities for work that requires higher educational qualifications.

4. *The Gender Composition*

Over the years, female workers consistently increase their participation in total labor force in three major industry groups; namely, manufacturing, wholesale and retail trade, and community, social and personal services. They are also more involved in rural manufacturing activities like handicraft making and food processing.

5. *On Regional Unemployment*

From 2000 to 2001, the highest unemployment was recorded in the National Capital Region (NCR), and Regions III and IV (NSO). This reflects in part the difficulties of finding jobs. The NCR and Region IV, the most industrialized regions, always suffer during economic crisis. The lowest employment had been posted in the Cordillera Administrative Region, Autonomous Region for Muslim Mindanao (ARMM) and Region XIII.

PROBLEMS IN RURAL EMPLOYMENT

The share of non-agriculture employment to total employment was close to 36 percent in 1988 (Reyes, 1988), with the majority of rural non-farm workers engaged in trade, services, and manufacturing. The rise in rural non-farm activities has been attributed to the state of development in the agriculture sector. Further growth of non-farm employment activities in the rural areas is hampered by the limited number of industries within the locality, inadequate infrastructure and the lack of capital to start the operation of a business. Likewise, non-farm employment offers very limited opportunity for professionals who ended up moving to the urban areas.

MEASURES UNDERTAKEN TO ADDRESS THE ISSUES

The government sector aimed to address the limited wage employment opportunities available in the rural areas by promoting rural employment through self-employment and entrepreneurship development. The government launched programs in micro-enterprise development and livelihood programs. These programs were adopted as national strategies to generate alternative productive employment and enhance earning capacities of those outside the labor force.

Among the government agencies involved in the implementation of National Livelihood Program are the Departments of Agriculture, Agrarian Reform, Education Culture and Sports, Environment and Natural Resources, Interior and Local Government, Labor and Employment, Social Welfare and Development, and Trade and Industry; government financial institutions like the Development Bank of the Philippines and the Land Bank of the Philippines; government and controlled corporations like the Government Service Insurance System, the Social Security System, the Livelihood Corporation, the Technology and Livelihood Resource Center, and the National Program for Unification and Development Council.

The main livelihood interventions range from the provision of livelihood credit to training and entrepreneurship development.

1. *Enterprise Development as an Approach to Promote Non-farm Employment*

Increasing employment including those non-farm opportunities in rural areas can be attained by means of promoting small- and medium-sized enterprises (SMEs). SMEs have been noted as an essential factor in the rural development process. They play an important role in mobilizing resources and allocating them amongst productive activities.

The Philippines' SMEs have been defined as a business activity or an enterprise engaged in industry, agribusiness and/or services, whether single proprietorship, partnership, cooperative or corporation whose

total assets, inclusive of those arising from loans but exclusive of the land on which the particular business entity's office, plant and equipment are situated, and must have value falling under the following categories:

- C Micro – less than PhP1,500,000 (Philippine peso)
- C Small – PhP1,500,001-15,000,000
- C Medium – PhP15,000,001-100,000,000.

In a generic sense, all enterprises with a total asset of PhP15,000,000 and below shall be called small enterprises (Republic Act [RA]8289 – Magna Carta for Small Enterprises and Small and Medium Enterprise Development [SMED] Council).

Enterprise development is a strategy advocated and being used by the government to generate employment in the countryside. The Department of Trade and Industry is implementing various programs for enterprise development, among which is the Countryside Entrepreneurship Development Program (CEDP). The program aims to support business people with small-scale service or production enterprises in various economic sectors. CEDP promotes entrepreneurship by offering training programs to potential and existing entrepreneurs in the countryside. The program impact studies revealed that most of the trained graduates venture into either manufacturing, services or trading business.

2. *Strengthening the Philippines' Non-farm Employment*

Considering the major contributions of SMEs in generating rural non-farm employment, there should be continued efforts in creating an environment that maximizes SMEs' economic provision and where SMEs can thrive.

The access to financing, market and information and improving productivity are among the identified needs of the SMEs that need to be addressed. Thus, focus on improving business environment, access to financing, business infrastructure, and in strengthening SMEs business and workers skills should be advocated by the government sector to help businesses specifically those engaged in non-farm activities to operate in a global environment.

a) *Improving the Business Environment*

- C Review of all SMEs laws, policies and programs to make them more responsive to the present needs of SMEs.

b) *Improving Access to financing*

i) For the banks

- C Reducing and relaxing borrowing requirements
- C Improving the banks' capability to understand and service the special needs of small-scale borrowers.

ii) For the borrowers/SMEs

- C Upgrading their management skills, keeping financial records and learning how to prepare a business plan.

c) *Improving the Business Infrastructure*

- C Strengthening of business development services to SMEs
- C Promoting IT and electronic commerce.

d) *Strengthening SME Business and Worker Skills*

- C Improving business access to training programs by encouraging trainers to offer them distance-learning mode such as correspondence, videotape, CD ROM, computer-based training, and on-line training.

REFERENCES

National Statistics Office. Labor Force Survey.

Republic Act 8289. Magna Carta for Small and Medium Enterprise Development (SMED) Council.

Reyes, Edna, 1988. "The Role of Rural Non-farm Employment in Philippine Development", Philippine Institute for Development Studies (PIDS).

Torres, Josefino. *Bureau of Rural Workers*, Department of Labor and Employment of the Republic of the Philippines.

12. PHILIPPINES (2)

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INTRODUCTION

The Philippines is strategically situated in the Asia-Pacific, one of the fastest growing regions in the world today. From its location in the southeastern coast of the Asian mainland, one can reach within 2- to 4-hour flight current and emerging economic powers like China, Japan, Rep. of Korea, Taiwan, Hong Kong, Thailand, Malaysia, Singapore and Indonesia. The Philippines' capital and main port of entry is Manila. Cebu, which is about 562 km south of Manila, is the country's second international gateway. This archipelago of 7,100 islands is divided into three major island groups: Luzon in the north, Visayas in the middle and Mindanao farther down in the south.

The Philippines has a land area of approximately 300,000 km² and a coastline stretching 18,411 km where 60 natural harbors are located. Its climate is generally tropical, with distinct seasons ranging from dry (between November and May) to wet (rainy – June to October). The population is approximately 75.3 millions which grows at an average rate of 2.32 percent a year. Around 55 percent of the country's population live in the rural areas and are dependent on agriculture for livelihood and employment.

RECENT TRENDS IN RURAL EMPLOYMENT AND ECONOMIC GROWTH

Rural employment and economic growth in recent years may be summarized as follows:

On Rural Employment

- i) Around 55 percent of the country's population live in the rural areas.
- ii) Two-thirds of the rural population primarily depend on agriculture, fisheries and forestry for livelihood.
- iii) The agriculture/rural sector produces one-third of the country's goods and services.
- iv) It employs half of the country's workers and earns 36 percent of the country's total export income.
- v) For the year 2001, the latest Philippine Labor Force Survey shows that the Labor Force Participation Rate (LFPR) rose from 66.5 percent in April 2001 to 69.0 percent in April 2001, which corresponds to a 2-million increase in labor force.

On Economic Growth

In 1999, the Philippine's GDP rebounded, growing by 3.3 percent from -0.55 percent in 1998, slowly recovering from the combined blows of the Asian financial crisis and El Niño phenomenon. The strong comeback of the agriculture sector (6.0 percent), as well as of the services sector (4.1 percent), helped revive the economy. Consequently, employment grew by 3.82 percent in 1999, from 0.71 percent in 1998. Much of this growth was attributed to an expansion in agricultural employment (6.5 percent), as well as by the services sector employment (3.5 percent). While unemployment rate remained high at 9.8 percent, the number of unemployed persons nonetheless declined by at least 40,000 from its 1998 level. As of April 2001, from a 2.5-percent GDP during the first quarter of the year, employment rate rose by 7.2 percent as the net number of persons absorbed into employment increased by 1.951 millions compared to the same period last

year. Of this number, 45 percent (878,000) were unpaid family workers, 40.3 percent (786,000) were own-account workers, and 14.7 percent (289,000) were wage and salary workers.

Growth was observed in all sectors, with agriculture posting the highest employment growth rate of 10.9 percent (1.070 million). Industry sector employment expanded by 5.4 percent (244,000), basically from manufacturing and construction. Services employment grew by 5.0 percent (642,000), led by wholesale and retail trade and followed by transportation, storage and communication. It is noted that the increase in the own-account and unpaid family workers can be traced from agriculture, which posted a gross value-added (GVA) of 2.3 percent during the first quarter of the year, compared to the 0.4-percent it posted during the same period a year ago. Normally, the head of an agricultural family would be an own-account worker while other family members were unpaid family workers.

While the direct impact of the May 2001 elections has yet to be measured, there is no doubt that the employment situation benefitted from campaign-related spending activities, including the production of campaign posters and leaflets throughout the country. Catering services and suppliers likewise enjoyed abundant sales as politicians fed campaign workers and rallied participants during the entire campaign period.

ISSUES/PROBLEMS OF THE AGRICULTURE/RURAL SECTOR

The following are the issues/problems affecting the agriculture sector:

- i) The increasing urbanization pressure in Cavite, Laguna, Batangas, Rizal and Quezon has resulted in less land available for agricultural production. A total of 4,618 ha of agricultural land in the CALABARZON (Cavite, Laguna, Batangas, Rizal and Quezon) area have been converted to special economic zones resulting in the displacement of farmers and a considerable decrease in food production supply. Land conversion intensifies the problem of rural-to-urban migration due to massive unemployment.
- ii) Limited access to credit by farmers and fishermen caused by high interest rates and stringent credit policies especially now with the prevailing unstable monetary valuation in Asia.
- iii) Low productivity and profitability of farming and fishing industry caused by lack of support in transport, infrastructure and postharvest facilities.
- iv) No implementation of reforestation projects which resulted in forest degradation and indiscriminate discharge of industrial wastes and chemical residues. Mine rolling considerably causes siltation, floods and erosion. Furthermore, destructive methods of fishing have resulted in the destruction of about 75 percent of the country's coral reefs.
- v) Negative impact of certain laws on the agriculture sector (e.g., Carabao Slaughter Ban of local government code).
- vi) Insufficient marketing distribution system.
- vii) The agriculture sector is prone to natural calamities.
- viii) Inadequate technology for agri-aqua marine products.

Considering that around 55 percent of the country's population live in the rural areas and are dependent on agriculture for livelihood, the country's agriculture sector is faced with the need to modernize and diversify its production structure and foundation, develop appropriate technology to enhance land productivity, and increase production and income especially of small-scale farmers, fishermen and landless agricultural workers among others. There is a need to identify critical coastal and forest areas or zones for proper environmental management.

GOVERNMENT PROGRAMS TO PROMOTE NON-FARM EMPLOYMENT OPPORTUNITIES IN RURAL AREAS

The government has adopted a Medium Term Development Plan from 1987 to 1992 which aims to reduce poverty, increase employment opportunities and promote equity and social justice. This plan puts emphasis on the development of the rural areas. Furthermore, the government launched the Comprehensive

Agrarian Reform Program (CARP) in 1988, seeking the distribution of some 10 million ha of agricultural lands to farmers and regular workers. The government also directed specific agencies to provide the required support services and other factors needed to ensure socio-economic upliftment in the lives of the beneficiaries.

The Department of Trade and Industry (DTI)'s participation in the CARP was mandated under Republic Act No. 6657 and Executive Order No. 229 was formalized through the establishment of the Small and Medium Industrial Technology Transfer Development Program (SMITTDTP) for CARP farmer-beneficiaries and landowners. SMITTDTP is primarily supportive of the government's focus on countryside development through the setting-up of rural industries which correspondingly will generate employment opportunities. More specifically, SMITTDTP promotes entrepreneurship and enterprise development among the farmers and affected landowners and provides services necessary to ensure success of their projects. The program ensures DTI's role in providing support services to farmer beneficiaries with technical assistance, extension services, marketing assistance, and infrastructure support through the provision of common service facilities and other agro-industrial prototypes. The DTI's role also includes providing CARP-affected landowners with investment information, financial counseling assistance and other services designed to productively utilize the proceeds from the sales of their lands.

Program Components

The program provides a comprehensive package of support services to stimulate agro-industrial activities in rural areas. These services are in the form of:

- i) *training/seminars* – provision of basic and managerial skills as well as the right values/attitude toward entrepreneurship.
- ii) *studies* – preparation of pre-investment studies, feasibility studies and other relevant studies for the establishment of income-generating projects.
- iii) *market development assistance* – market linkage through trade fairs, market matching, providing relevant market information and upgrading the quality of products through product development.
- iv) *consultant services* – expert advice related to planning, development, management and operation of Common Service Facilities (CSFs).
- v) *financing of CSFs* – a financing scheme to enable the beneficiaries to acquire tools, machinery and equipment necessary to improve their level of efficiency, productivity and profitability.

The program as a whole primarily supports the government's thrust towards economic development of the countryside through rural industrialization. The program beneficiaries are cooperatives/associations of farmers, landowners, women and youths who are capable of managing small business enterprises.

Program Accomplishments

DTI, in coordination with other CARP implementing agencies, continuously undertakes strategic interventions that lead to the development of relevant industrial skills resulting in the creation of craft villages and identification and promotion of non-farm employment opportunities in rural areas. To date, the program has served 805,700 Agrarian Reform Beneficiaries (ARBs) through the provision of training, studies and other technical services. It has developed and implemented 373 projects. As a result, it generated PhP447.7 million (Philippine peso) worth of investments that led to the creation of employment for more than 42,800 people since 1995. It has also helped farmers market their products locally as well as abroad generating PhP412.3 million in sales revenue (Table 1).

Table 1. Number of Beneficiaries, 1989-99

Item	Number
Training	373,651
Studies	156,471
Marketing	124,234
CSF center	12,010
Income-generating project	58,466

Source: The flyer of the Department of Trade and Industry, Comprehensive Agrarian Reform Program, Philippines.

STRATEGIES TO ENHANCE EMPLOYMENT GENERATION IN RURAL AREAS

At this stage of the country's development, agriculture plays a dominant role in the economy. Therefore, placing the well-being of the farmers and the rural populace at the center of the development is the sound and logical path to the country's industrialization and economic recovery.

The farmers' productive potential can be developed to serve the nation's interests if they can work within an environment that is hospitable and suits their interests, and if they are provided equitable access to land and services needed to make the land productive. Therefore, the government should allocate more funds for rural services and infrastructure to support higher agricultural productivity and increase the trading of goods and services. Because of higher farm productivity, rural families, particularly families of farmers and fishermen will earn more. Higher rural incomes will then raise the demand for manufactured goods along with other goods, including agricultural products. Likewise, there will be an increase in non-farm activities such as food processing, transport, input supply services and other manufactured products in response to an increase in rural purchasing power. More industrial activities create more jobs in the rural areas. As industrialization progresses, improved productivity will allow labor to be released from agriculture and will result in sufficient supply of food and regulated prices of basic commodities as well as minimize excessive importation of food products. A steady increase in agricultural productivity will result in the production of more local raw materials for manufacturing activities. Therefore, higher farm income from increased agricultural productivity will enable rural families to save more. These savings can be used to finance investments in industry.

Further, the government can facilitate the growth of the rural sector by improving the delivery of government services through the following:

- i) Establishment of strong coordination within and among government agencies whose activities are directed to the welfare of rural sector such as Department of Agriculture (DA), Department of Environment and Natural Resources (DENR), Department of Agrarian Reform (DAR), Department of Trade and Industry (DTI), Department of Public Work and Highways (DPWH), Department of Transportation and Communication (DOTC) and Land Bank of the Philippines (LBP).
- ii) Simplify the procedures for project approval and funding.
- iii) Decentralize the authority down to the provincial and municipal levels.
- iv) Encourage the rural populace to participate in the decision-making and development process of the government.

MAJOR ELEMENTS OF RURAL DEVELOPMENT STRATEGIES

The following are the major elements that comprise rural development strategies appropriate for the Philippines prepared by the Planning and Monitoring Service of the DA with contributions from the planning staff of the DENR and the DAR.

- i) Remove the remaining economic policy and public investment biases that work against agriculture.
- ii) Speed up the pace of the CARP to achieve equitable contribution of land and to give more incentives to agricultural producers.
- iii) Adopt policies and programs that give the underprivileged in the rural sector fair access to the benefits from the use of the country's resources.
- iv) Enforce conservation laws that protect the country's land, water and marine resources in order to ensure the long-term sustainability of these resources.
- v) Improve support services and enhance the infrastructure that promote rural productivity and expand markets, specifically research and extension services, irrigation and drainage systems as well as transport and communication infrastructure.
- vi) Adopt a population control program to reduce the strain on land availability and other fixed resources.
- vii) Strengthen social services such as education, health and nutrition services to enrich and sustain the work force.

- viii) Improve the efficiency and effectiveness of government agencies that provide rural development support services.
- ix) Involve the public or their representatives in the government's decision-making process.

Regarding strategies to enhance non-farm employment opportunities both in rural and urban areas, the following are suggested.

- i) Give more attention to the Agriculture and Fisheries Modernization Program.
- ii) Revitalize the manufacturing and construction sectors and develop globally competitive industries to enhance employment in industry and services sectors.
- iii) Promote the Philippines as a good investment site. The necessary policy reforms and infrastructure shall be put in place in order to reduce the cost of conducting business in the country.
- iv) Promote self-employment as an important generation strategy.
- v) Provide full support for the development of SMEs. Enhance the entrepreneurial capability of SMEs through the provision of entrepreneurship development seminars.

13. SRI LANKA

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INTRODUCTION

The Economy

The economy of Sri Lanka is predominantly agriculture and heavily dependent on a few export crops. Manufacturing and other modern industries play a relatively minor role. As in many Asian nations, industrial development is hindered by lack of capital. The need for increased agricultural productivity to provide sufficient food and other consumer items for a rapidly growing population is the country's main concern. Limited natural resources poses as a hurdle.

GDP is estimated to have increased by 4.8 percent following the growth of 6.2 percent recorded in the previous year. An average inflation rate is measured by the changes in the Colombo Consumers Price Index.

In the lowland of the Island of Sri Lanka, the climate is typically tropical with temperature averaging 27°C in Colombo. In higher elevations it can be quite cool with temperature reaching as low as 11°C in Nuwara Eliya at an altitude of 1,900 m. Throughout the year there is very little seasonal variations in temperature. Concerning the economy, the leading growth sectors in the past few years have been services, mining and quarrying, manufacturing particularly the export-oriented garment industry, paddy construction and tourism.

More than half of the employed persons are engaged in agriculture which accounts for nearly 20 percent of the GNP. The main agricultural crops are paddy, tea, rubber, and coconut.

Demography and Population

Sri Lanka had a population of 14.8 million reported in the Census 1981. According to the most recent census, the number reached 18.7 million. The birth rate at 21 per thousand was one of the lowest among the countries in Asia. The demographic phenomenon of falling birth rates over the years has been observed in most countries since 1960. Sri Lanka's birth rate fell from 37 per thousand in 1960 to 21 in 2000.

In 2000, Sri Lanka's death rate of five per thousand persons was also low compared with other Asian countries. A low birth rate and a low death rate signifies that Sri Lanka is at an advanced stage of demographic development. Decreasing death rates over the years with economic development is a phenomenon witnessed worldwide.

With regard to infant mortality, Sri Lanka also fared well reflecting the effectiveness of the prenatal and postnatal healthcare programs in the country as well as the satisfactory health and educational status of females in Sri Lanka.

On life expectancy, infant mortality and literacy rate are the factors taken into consideration in the calculation of the physical quality of life index. Sri Lankans' life expectancy at 75 for females and 70 for males is impressive for the region.

Population density in Sri Lanka varies considerably across districts. The highest density is recorded in the district of Colombo which is around 3,100 persons/km² indicating a severe congestion in the metropolitan district.

Finally, on literacy rate, Sri Lanka ranks high in terms of literacy when compared with other countries in Asia. In 1999 literacy rate of 91 percent was reported.

EMPLOYMENT SITUATION

Of the total population, 39 percent are in the labor force; that is, they are either employed or unemployed but willing to supply labor. The labor force participation rate for males is 52 percent while the participation rate for females is less than half this rate (25.4 percent).

Between 1995-2000, the structure of the employment status underwent a notable change. The proportion classified as “employees” dropped from 56 percent to 49 percent while the proportion classified as “self-employment” increased to 20 percent. This is a reflection of the increased opportunities for self-employment and its profitability, as well as the increase in facilities made available to the self-employed in terms of loans at concessionary interest rate, etc. A shift in the traditional line of thinking in respect of employment has occurred as a result of the profitability of self-employment.

The unemployment rate declined over the years from 24 percent in 1973 to 14 percent in 2000. Slightly higher unemployment rates were recorded in the urban sector when composed with the rural sector. Female unemployment rate is higher than that of male. This could be attributed to limitations in the fields of employment for females and their employment preferences.

Non-farm rural employment is important to rural employment as agriculture alone will not be sufficient to raise incomes in the rural areas. Poor rural families report that close to half of all income derives from non-farm employment. There is already substantial evidence that those rural families which earn extra income from non-farm employment are able to work their way out of poverty. Rural employment is in the process of structural change with non-farm employment playing a more significant role. It has a potential to lift the rural poor out of absolute poverty. In the future, increased non-farm rural employment – the sort that will reduce poverty – can be promoted by expanding rural electrification, improving water supply, increasing access to relevant vocational training and market information, and facilitating every effort to upgrade handicraft making.

MICRO-FINANCE AND RURAL ENTERPRISES DEVELOPMENT

A vast number of financial institutions and government and non-governmental agencies provide micro-credit as a way of encouraging poor rural households to commercialize agriculture, start small business and create savings groups. Micro-credit schemes with an emphasis on group-based collateral and lending, local savings mobilization and the use of a range of financial intermediaries have evolved as a preferred alternative to subsidy and bank lending. Micro-credit programs in Sri Lanka have played a positive role in enhancing access to financing for the rural poor and the landless as well as contributing to village savings and group formation, particularly amongst poor rural women.

Many micro-credit programs do not have a success story. The main obstacle is the entrepreneur’s lack of knowledge, awareness, skills and ability to bear risks that come with enterprise start-ups. In addition, micro-credit progress continues to be plagued by high costs and weak administrative controls.

DEVELOPMENT OF HANDICRAFTS INDUSTRY IN SRI LANKA

People of Sri Lanka enjoy great culture and civilization. Archeological evidence exists to prove that Sri Lanka has been populated for over 30,000 years. There is also confirmed evidence that around 800 BC, the Sinhalese people had settled down in the citadel area in Anuradhapura with a highly developed culture. With the advent of Buddhism, the Sinhala’s culture and the lives of the people were molded with the influence of Buddhist doctrine. The ancestors built sky-scraping Stupas, multistoried structures, palaces, reservoirs and irrigation channels which have amazed whole world.

A country’s folk crafts usually reveal a historical process of evolution in relation to concept, quality, techniques and materials used. Sri Lanka is no exception. Its craftsmen are guided by a collective ethos. They exhibit an ingrained sense of balance, talent and virtuosity and have earned international reputation for quality, originality and variety of designs and motifs. Sri Lanka’s craftsmen were influenced by mythology, religious beliefs and rituals as well as by their social backgrounds. All these are reflected in their handicrafts.

Sri Lanka’s handicraft making is a deep-rooted tradition. The techniques and methods were usually kept as secrets.

1. *Metal-based Handicrafts*

A wide range of metal ware, in both traditional and contemporary design is available in the market. Different techniques and a variety of intricate designs and styles are used. Brass, copper and silver are commonly used.

2. *Silver- and Gem-studded Jewelry*

Sri Lanka is famous for its variety of precious and semi-precious stones and the skills of its craftsmen in engraving precious metals, such as silver and gold, and in setting gems. The country produces beautiful gem-studded jewelry.

3. *Wood Carvings*

In Sri Lanka wood is a popular medium for handcrafting. The process displays a unique style. Woodcarving is always associated with the carpenter's craft. In Sri Lanka the entire handicraft is made of wood. The style and the techniques involved are truly Sinhala in origin. Masks of Sri Lanka are extraordinary cultural phenomena. They represent vivid and dramatic expressions, reflecting the hopes and the fears of the people or rural of Sri Lanka.

4. *Lacquer Wares and Drums*

Lacquer wares are made in villages. A variety of aesthetically satisfying articles are used. Basic musical instruments which help preserve the traditional music of Sri Lanka come in the form of a variety of drums made of different types of wood and hides. Very few remain today.

5. *Rush and Reed Ware*

Various types of baskets, mats, sun hats, etc. are made out of primary materials such as the leaves of the wild date palm, talipot and palmyra. Rush such as pun and reed such as bamboo are used to make mats, baskets and other items for domestic use.

6. *Clay-based Handicrafts*

The antiquity of pottery as a craft needs no elaboration. In Sri Lanka, earthenware discovered through archeological excavation reveal a long history of the art. Although the production process is time-consuming and laborious, pottery is still widely produced and considered an aesthetic and at the same time functional object.

7. *Yarn, Thread and Textile-based Handicrafts*

The Pali Chronicle, the Mahawansa records that spinning was practiced in Sri Lanka since the time of Prince Vijaya's arrival in the Island. Although the process of textile weaving was not recorded in the early history of Sri Lanka, except for a few literary references, it is very likely that weaving was a craft practiced in the distant past.

Constraints Faced by the Handicraft Industry

1. *Raw Materials*

Raw materials used in the industry such as wood, brass, silver, rattan, rush and reed, yarn, etc. are not readily available to the craftsmen. Government machinery should be organized to provide them with these materials at provincial and rural level, not at a subsidized rate but at a reasonable price that could contest the market price.

Cultivation of raw materials that are fast depleting such as rush and reed, rattan and timber are not currently done in a systematic way. Programs on a national level should be launched to cultivate such raw materials.

2. *Training*

Sri Lanka is equipped with ample training institutions to provide training at both national and provincial levels. Institutions such as National Crafts Council, Sri Lanka Handicrafts Board and National Design Center serve this purpose at many levels. Basic training and master inputs must be added to the programs to improve the quality of the training.

3. *Technology Improvements*

In order to minimize waste and to maximize productivity and efficiency, introduction of appropriate technology to the relevant production processes will immensely benefit the sector. For example, by introducing some automation through the use of machinery, a craftsman's production time could be reduced and productivity improved in the wood-based products.

4. *Designs*

Sri Lanka National Design Center provides new design trends to the craftsmen as well as improves their design abilities. However, more craftsmen should be involved. Training and informing them further on export market requirements and demand will enable them to market their crafts in the international market.

5. *Market*

Marketing facilities are mainly provided by the Sri Lanka Handicrafts Board through its “LAKSALA” sales outlet chain. Private sector sales organizations also provide a number of marketing facilities. In spite of these available facilities, craftsmen still face marketing problems. Thus there is a need to expand the market. Since it is not easy to expand the local market, every effort must be made to sell the products to the international market.

14. THAILAND

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INTRODUCTION

Thailand is divided into four natural regions: the North, the Central Plain or the Chao Phraya River Basin, the Northeast or the Korat Plateau, and the South or the Southern Peninsula. The North is a mountainous region comprising natural forests, ridges, and deep, narrow alluvial valleys. The leading city of this region is Chiang Mai. Central Thailand, the basin of the Chao Phraya River, is a lush, fertile valley. It is the richest and most extensive rice-producing area in the country. Bangkok, the capital of Thailand, is located in this region.

The Northeast region, or the Korat Plateau, is an arid region characterized by a rolling surface and undulating hills. This region is often affected by harsh climate conditions and is subject to floods and droughts. The Southern region is hilly to mountainous, with thick virgin forests and rich deposits of minerals and ores. This region is the center of the production of rubber and the cultivation of other tropical crops.

Climate

Thailand is a warm and rather humid tropical country. The climate is monsoonal, marked by a pronounced rainy season lasting from around May to September and a relatively dry season for the remainder of the year. The average temperature is between 23.7°C to 37.5°C.

Population and Religion

The population of Thailand is approximately 61.47 million (1999), with an annual growth rate of about 1.3 percent. The population includes descendants of ethnic Chinese, Malays, Khmer, Lao, Vietnamese, Indians and others. Regarding population distribution, it was found that most people or 68.9 percent lived in non-municipal areas and the other 31.1 percent lived in the municipalities (for those living in municipal areas, 33.6 percent lived in Bangkok). Comparison among regions reveals that the Northeast had the largest population (34.2 percent), followed by the Central Region (23.3 percent), the North (18.8 percent), the South (13.3 percent) and Bangkok (10.4 percent), respectively.

The proportion of the young group and the elderly group in non-municipal areas were higher than those in municipal areas while the proportion of working-age group in the non-municipal areas was lower than that in the municipal areas.

The average year of education is an index used in measuring the educational development of Thai population. The results of the 2000 Population and Housing Census indicated that the population aged 15 years and older had an average of 7.8 years of education. In other words, this population group on average received almost two years more than primary school level. When sex was considered, males were found to have a higher average than females (8.1 and 7.6 years, respectively). The average years of schooling in municipal areas were much higher than that in non-municipal areas, 10.2 years as opposed to 6.6 years. Comparison among all regions showed Bangkok had the highest average years of schooling (11.9), followed by the Central region (8.0), the South (7.7), the Northeast (7.0) and the North (6.6), respectively.

Buddhism, the national religion, is the professed faith of 95 percent of the population. Islam, Christianity, Hinduism and others are embraced by the rest of the population. There is absolute religious freedom.

The Land and Its People

In the far north, bordered by Myanmar and Laos, forest-clad granitic mountains rise to heights of more than 2,000 m, towering over fertile valleys watered by a number of rivers and streams. Teak and other hardwood trees are indigenous to the region, and have provided basic building material for centuries. During the winter months, temperatures can drop to nearly freezing point at higher altitudes, a climate that allows the cultivation of such temperate-zone crops as coffee, lychees, strawberries, and macadamia nuts which, thanks to modern methods of transportation, now regularly appear in Bangkok supermarkets.

The rolling Northeastern Plateau, by contrast, stretching to the Mekong River and sharing borders with both Laos and Cambodia, suffers from frequent droughts and thin, sandy soil. Conditions in this traditional “problem area”, however, are rapidly improving through the building of reservoirs and other man-made water facilities, as well as the introduction of new crops and the construction of new roads for more efficient movement of goods.

Most of the great events of Thai history took place in the Central Plains. Watered by the winding Chao Phraya River, this vast basin is one of the most fertile rice-growing areas in the world. It is protected from climatic extremes by mountains to the north and west and by the lofty Korat Plateau to the east.

Southern Thailand is a long peninsula, reaching like a probing elephant’s trunk down to Malaysia and bordered for most of its length by the Gulf of Thailand on one side and the Indian Ocean on the other, with a ridge of jungled mountains in between in many areas. Some of the world’s most beautiful beaches and underwater lives can be found along this coastline and on islands that lie just offshore.

The country is blessed with a wide range of natural resources. While logging is now restricted in the forests of the north, the region contains rich deposits of fluoride, wolfram, and tungsten, and its riverine valleys support a large number of orchards and farms. Potash is plentiful in the Northeast, and mulberry plantations have traditionally sustained the cultivation of silkworms; the world’s largest facility for producing hand-woven silk is located near Korat (Nakhon Ratchasima). Both fluoride and gems are mined in the west, and some of the finest sapphires come from the southeast. The Chao Phraya valley has a network of irrigation canals supplying water not only to its countless rice fields but also to vegetable farms and fruit orchards. Natural gas deposits in the Gulf of Thailand are supplying energy for many development projects, particularly along the eastern seaboard. Though the great majority of the population are ethnically Thai and Buddhist, there are a substantial number of minority groups, most of whom have either been assimilated or live together in harmony. Of these the Chinese are perhaps the most numerous, especially in urban areas, though because of intermarriage and long years of residence it is difficult to isolate them as a distinct group. The Muslims are mainly concentrated in the southern provinces.

The Family

Perhaps the best way to comprehend Thai social values is to focus on the basic unit, the family, and not in an urban setting but in a rural village, which is where most Thais live. Generally this will be an extended family, consisting of several generations living under one roof, or perhaps several roofs within the same compound.

Even in large cities, several generations are likely to share the same compound. The father is regarded as the leader, but the mother also plays a significant role, particularly in the family’s finances and education and rearing of the children.

Village Organization and Leadership

Beyond the family, the next largest unit of the society is the village. A typical village contains around 100-150 households, or an average of 500-700 inhabitants. Most villages now have electricity, but water for washing and cooking comes from canals, rivers, or ponds, or, in the arid Northeast, from communal wells.

The village is self-governed, led by an elected headman, or *phu-yai-ban*, who until 1983 was always a man. Since that year, however, women have also been elected to the position. Neighboring villages are organized into groups known as *tambon*.

During the last decade, the government has made strong efforts to decentralize government and administrative power to the people. Not surprisingly, the Sub-district Council has been a prime target in these efforts, which led to the promulgation of the Sub-district Council and Sub-district Administration Organization Act in 1994. All sub-district councils were made legal bodies as of March 1995. By 1999,

almost all the sub-districts were expected to have been transformed into Sub-district Administrative Organizations (SAO).

The SAO is responsible for the economic, social, and cultural development within its jurisdiction as indicated by law. These activities include construction and maintenance of roads and waterways, garbage disposal and wastewater treatment, prevention and relief of public disasters, promotion of local education, religion, and culture, promotion of development activities relating to women, children, the elderly, and disabled persons, support of natural resources, and other duties as assigned by higher level government units. Moreover, the SAO may assume other duties such as providing clean water, providing and maintaining public electricity, building recreation centers, public parks, and sports centers, promoting family industries, and creating jobs. The SAO has three main sources of revenue: (1) sources collected by the SAO itself, including land and building taxes, fees from licenses, fines, and those generated from the management of public utilities and commerce of the SAO; (2) sources collected by other bodies of which a certain percentage is passed on to the SAO, such as value-added tax, specific business tax, liquor tax, excise tax, and fees from motor vehicles; and (3) grants in aid from the central government. In 1999, the SAO with the highest revenue was Koo Kot in Pathum Thani province; its revenue, excluding grants, was B74.51 million. The SAO with the lowest revenue was Kranon in Khon Kaen province, which had B50,779.

The Thai Economy and Its Performance

GDP (1999) at current price was approximately B4,500 billion or US\$120.5 billion. Total merchandise exports for 1999 amounted to approximately B56.8 billion or US\$1.5 billion and merchandise imports were approximately B47.8 billion or US\$1.26 billion. Prior to the 1997 economic meltdown, the Thai economy has an impressive record of growth. Several important factors contributed to the country's impressive growth. Its principal comparative advantage has been the abundance and diversity of its natural resources. Blessed with large expanses of fertile land and ideal growing conditions, Thailand not only enjoys agricultural self-sufficiency but is also the only net food exporter in Asia and one of the largest food exporters in the world.

Growth and diversification into new industrial areas have to a large extent been initiated by the dynamic private sector. Innovative private enterprise broadened the nation's agrarian base by exploiting the value-added potential of basic staple crops, and at the same time expanded into new product areas in response to world demand. With the government providing infrastructure support and exerting relatively limited control over private industry, a free enterprise system has emerged which has allowed development to take place at a rapid rate consistent with the needs and resources available.

With its agrarian base as the bedrock, the economy has experienced steady growth. The introduction of improved technology and marketing expertise has made Thailand a world leader in the sales of staple commodities. It has also transformed the country into a fast-growing manufacturer of sophisticated products built to international standards which find ready acceptance in world markets.

Thailand's primary money earners in the late 1970s were the crops grown in its rich land. Today agricultural products are produced in such quantities that in many commodities the country ranks as the world's number one supplier. Thus besides being the world's foremost exporter of tapioca and rice, it is a leader in the production of frozen shrimp, canned pineapple, natural rubber and sugar. Moreover, Thailand's industrial sector produces a wide range of goods from textiles, Thai silk and ready-made garments to integrated circuits, plastics, jewelry, footwear, knocked-down furniture and fiber glass yachts. In recent years, manufacturing has surpassed agricultural products in Thailand's GNP, while tourism has replaced agricultural products as Thailand's largest source of foreign exchange. The country's rich reserves of minerals are eagerly sought by the world's industries. Local factories have been established to manufacture industrial goods from the ores and thereby enhance their value.

With regard to economics, over the past two decades (from late 1980s to mid-1990s), national income has increased by approximately 8 percent per year. Moreover, growth has been broadly based, with all economic sectors participating in the development process. Historically, the fabric of the Thai economy remained virtually unchanged up to the late 1950s. In the early 1960s, the industrial and service sectors began supplementing agriculture as significant income and employment generators. Today, Thailand is still predominantly an agrarian country, with about 48.58 percent of its working population engaged in agricultural production and earning about 11.76 percent of the national income. Over the years, however, the industrial and service sectors have been increasing their shares of the total GDP.

Significant structural changes in the Thai economy have taken place since the early 1960s. Agriculture's share of the national income declined steadily from about 40 percent in 1960 to 11.76 percent in 1998. At the same time, the manufacturing sector expanded very rapidly, increasing its portion of the national income from 13 percent in 1960 to 32 percent in 1998. Such a structural change does not, however, imply that agricultural output failed to rise during the period. On the contrary, it increased by about 5 percent per year. Moreover, a high degree of diversification took place, enabling Thailand to boost its export items from only three major commodities; namely, rice, teak and rubber in the early 1950s to more than 11 main agricultural products in 1998.

The industrialization process initiated during the 1960s was geared towards import substitution. It was succeeded in the 1970s by a drive to produce export-oriented items. By the mid-1970s Thailand was exporting manufactured goods ranging from cement, chemical products, television sets, watch parts to canned fruit, garments, and transport equipment. In 1998 manufactured exports accounted for B1,624,659.6 million or about 723 percent of total export earnings.

International trade is vital to the Thai economy. Thailand's entry into foreign markets in the mid-19th century enabled its economy to expand rapidly. Today, export and import transactions together account for about half of the national income. Although there were annual deficits in the balance of trade, the balance of payments recorded continuous surpluses throughout the 1960s and early 1970s. Sharp increases in oil prices since 1970, however, affected the balance of payments.

Despite the steady increase in population, real per capital income has doubled over the past two decades. At current prices, it increased from B4,000 per head in 1970 to B74,909 per head in 1998. The proportion of those living at the subsistence level has declined from around half in the early 1960s to less than a quarter in recent years.

In short, the performance of the Thai economy over the past two decades has ranked high among developing countries. However, some basic economic problems such as income disparity, natural resources conservation, the uncertainty of export markets, and inefficient administrative procedure, remain to be solved.

TRENDS IN RURAL EMPLOYMENT

The population aged 15 years and over who were employed last year (1 April 1999-31 March 2000) was 34.1 million males (51.6 percent) and 16.5 million females (48.4 percent). When the type of work was considered, it was found that 56.5 percent were engaged in the agriculture sector and 43.5 percent in the non-agriculture sector. Most of the industries in the non-agriculture sector were wholesale and retail trade; repair of motor vehicles, motorcycles, and personal and household goods (11.9 percent), followed by manufacturing (9.2 percent). Most working people in municipal areas worked in the non-agriculture sector (85.7 percent), while most of those in non-municipal areas were mainly engaged in the agriculture sector (73.0 percent).

Regarding regional differences, Bangkok and the Central region were found to be different from other regions; that is, most people in the areas worked in the non-agriculture sector. The highest proportion of people in Bangkok were engaged in wholesale and retail trade (26.5 percent) followed by wholesale and retail trade (14.9 percent). Most people in the North, the Northeast and the South were engaged in agriculture. After agriculture, those in the North and the South were most engaged in wholesale and retail trade (10.7 percent for the North and 14.2 percent for the South), followed by manufacturing (4.9 percent for the North, 6.6 percent for the South). In the Northeast, people who were not engaged in agriculture were engaged in wholesale and retail trade (6.2 percent), followed by the educational sector (3.2 percent).

Work Status

Employees make up the highest proportion of the employed work force (34.6 percent), two-thirds work for the private sector. The next highest work status is own-account workers (32.8 percent), followed by unpaid family workers (30.9 percent), and employers (1.6 percent). Only 0.1 percent constitutes members of producers cooperatives (37.0 percent). The majority of females were unpaid family workers (45.5 percent) followed by employees (31.9 percent).

Concerning area differences, the majority of the employed in municipal areas were employees (57.6 percent), mostly working in the private sector (39.8 percent). On the contrary, most of the employed in non-

municipal areas were unpaid family workers (37.8 percent). The second highest proportion of work status for both municipal and non-municipal areas was own-account workers (25.0 percent for municipal areas and 36.0 percent for non-municipal areas).

Regarding regional differences, most of the employed in Bangkok and the Central region were employees (67.9 and 50.95 percent, respectively). Most of the employed in the North and the South were own-account workers (35.7 and 39.0 percent, respectively), while most of those in the Northeast were unpaid family workers (45.2 percent).

The 2000 Population and Housing Census by the National Statistical Office indicated that the ratio of the non-farm employment in rural area to the agro-sector employment is 27:73 whereas in the urban area is 85.7:14.3. The whole country's ratio is 43.5:56.5. This shows that the ratio of non-farm employment to the agro-sector in the countryside is very low at 1:3. However, we cannot make comparison with the 1990 Population and Housing Census because the data were not analyzed.

FACTORS AFFECTING NON-FARM EMPLOYMENT OPPORTUNITIES

There are some factors that help promote non-farm employment opportunities. They include the following:

- i) As mentioned earlier, Thai economy expanded very rapidly for over two decades before it experienced a crisis in 1997. This has increased non-farm employment opportunities in rural areas as the demand for non-farm goods and services increase. In addition, another major factor is the increased government budget for rural development and infrastructure all over the country.
- ii) In 1995, a new official organization called Sub-district Administration Organization (SAO) was established as part of the government's decentralization policy. As a result, government budgets for development have been allocated to this new organization, increased from 8 percent of the annual expenditure budget to 21.6 percent in 2001. This budget has contributed positively to rural non-farm employment opportunities.
- iii) There are promotion schemes for non-farm enterprises, especially silk and cotton weaving and handicrafts, especially during the off-farm seasons.
- iv) There are a lot of attractive tourist destinations in Thailand. The tourism promotion has been quite effective and hence has helped increase non-farm employment in rural areas.

Despite those favorable factors, there are some factors which hamper the growth of rural non-farm employment. They include the following:

- i) The negative impact of the 1997 economic crisis on the demand for non-farm products. Workers returning to their home villages have to depend mostly on farm activities for employment.
- ii) Because of the economic crisis, non-farm employment in certain sectors like construction and real estate has been adversely affected. This has negative effect the demand for non-farm products in rural areas.
- iii) Rural workers/people still lack necessary skills for non-farm employment.
- iv) There is also a lack of capital for investment in non-farm enterprises. The rural savings are small as many rural people are poor.

The next section will briefly discuss a special program aiming at promoting rural non-farm enterprises.

THE POVERTY ALLEVIATION PROJECT

Launched in 1993, the Poverty Alleviation Project (PAP) has an objective of promoting employment opportunities (both farm and non-farm) in rural areas. It was implemented during 1993-97 and was proved to be quite successful. The government therefore decided to extend the project from 1998 to 2001.

The project covered 33,000 villages from a total of 70,000 villages in Thailand. The amount of B280,000 was provided as revolving fund to each target village so that the rural households could borrow without interest. The loan could be used to finance all kinds of rural enterprises including non-farm. The

project has helped increase non-farm employment in rural areas over the country. This has been very important to rural development especially during the difficult time after the economic crisis in 1997.

In addition to this project, the current government has decided to support rural employment and income by initiating a new project which has been widely implemented in all regions. Under this new scheme, every village is allocated B1 million as development fund (administered by the village committee). The fund can be used for all kinds of income and employment generating activities. Among its related programs is the so-called “one village, one product” which focuses on the promotion of rural non-farm enterprises, especially agro-processing and handicrafts.

REFERENCES

Ministry of Interior, 2000. *The Poverty Alleviation Project*, Community Development Department (CDD). *The Poverty Alleviation Project (PAP)*. Ministry of Interior, Thailand, 2000.

The National Identity Board, 2000. *Thailand Into the 2000s*, Office of the Prime Minister, Bangkok, Thailand.

National Statistical Office, 2000. *The 2000 Population and Housing Census*, Office of the Prime Minister, Bangkok, Thailand.

15. REPUBLIC OF MALDIVES

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INTRODUCTION

The Republic of Maldives consists of 1,190 coral islands, which form a chain 820 km in length with the widest point stretching 130 km. Maldives occupies an area of some 90,000 km² in the Indian Ocean. Geographically, the chain forms part of the Laccadive-Chargos submarine ridge, which extends into the central Indian Ocean from the southwest coast of India. Hence, India and Sri Lanka are the nearest neighbors.

The islands form 26 natural atolls which, for the purpose of administration, are grouped into 19 units, also administratively known as atolls. Most of the islands are very small, few with a land area exceeding 3 km². The islands are low-lying with an average elevation of 1.6 m above sea level (Table 1).

Table 1. The Distribution of Inhabited Islands and Island of Special Use

Numbering of Atolls/ Administrative Atoll	Alternative Atoll Name	Inhabited Islands	Special Use
A	Haa Alif	North Thiladunmathi	
B	Haa Dhaalu	South Thiladunmathi	
C	Shaviyani	North Miladhunmadulu	
D	Noonu	South Miladhunmadulu	
E	Raa	North Malhosmadulu	1
F	Baa	South Malhosmadulu	
G	Lhaviyani	Faadhippolhu	
H	Kaafu	Male Atol	9
Lu	Ari Atholhu	Ari Atoll (North)	
Ld	Ari Atholhu	Ari Atoll (South)	2
J	Vaavu	Felidhu	
K	Meemu	Mulaku Atoll	1
L	Faafu	North Nilandhe	
M	Dhaalu	South Nilandhe	1
N	Thaa	Kolhumadulu	
O	Laamu	Hadhdhunmathi	1
P	Gaaf Alif	North Huvadhu	
Q	Gaafu Dhaalu	South Huvadhu	1
R	Gnaviyani	Foahmulaku	
S	Seenu	Addu	1

The population of the Maldives is estimated at 280,000 scattering over 200 inhabited islands. The remainder of the islands is uninhabited, but some 70 islands have been developed as resorts. Ninety percent of the inhabited islands have a population of less than 1,000 and only four islands have a population more than 4,000. Twenty-six percent of the population live in Male, the capital island. The population of Male has almost doubled in the past decade, and is currently growing at 5 percent per annum. The Maldives population is young, with 45 percent under 15 years of age and 17 percent under the age of five. The population growth rate is about 3.2 percent. The provincial units are headed by an Atoll Chief who is assisted by an Island Chief in running the islands.

DEVELOPMENT CONSTRAINTS

The fact that the islands are widely dispersed increases the cost of services and infrastructure developments in the Maldives. Transportation within Maldives is expensive. The small number of cargo and people wishing to travel makes scheduled transport uneconomic. The dispersed population and the lack of natural resources do not support economy of scale.

There are no lakes nor rivers and the groundwater which is about 3 ft below the ground and is undrinkable and unsuitable for irrigation. Cultivable land is limited: only about 10 percent of the land are suitable for agriculture. The soils are porous, highly alkaline, and deficient in most nutrients. The organic composition of the soil is also of a low proportion.

Furthermore, Maldives is without a land base: building materials such as rocks and clay are imported. Recently the reefs have been used as building material. The islands occasionally experience high tidal waves especially in areas that reefs are heavily harvested.

RURAL EMPLOYMENT

The rural economy of the Maldives is based on five major activities; namely, fisheries, shipping, tourism, services, and agriculture. With an average annual growth rate of 9 percent in the past six years, the country is rapidly changing from a traditional to a modern society.

Unemployment is not yet a serious problem; however, it should be pointed out that the employment in Male has already reached the saturation point, indicating that the modernization process may not provide enough employment opportunities in the long term (Tables 2, 3, 4, and 5). Agriculture is still in the primary stage of development. The main crops are coconuts, though some vegetables such as chilies (pungent bell varieties), cucurbits, citrus, and other tropical fruits and vegetables are grown. The agriculture sector is an important sector providing employment to the rural people. It has been experiencing very slow growth and development. The main limitations are imposed by the physical and climatic conditions causing high alkalinity in soil, and the lack of inputs such as planting materials, fertilizers, and pest and disease control measures. The soil in Maldives is being formed from the broken particles of the reefs and marine corals.

Table 2. Employment Conditions, 1985, 1990 and 1995

Item	1985 ^a	1990	1995
Economically active Maldivian population	52,263	56,435	65,887
Foreign national employment	3,000	8,689	18,510
Foreign national as a percent of the total	5.4	13.3	21.9
Annual growth rate of economically active Maldivians (percent)		1.5	3.1
Annual growth rate of foreign national employment (percent)		23.7	16.3
Annual growth rate of total employment (percent)		3.3	5.3
Total participation rate for male ^b (percent)	46.8	45.5	44.3
Total participation rate for the Atolls ^b (percent)	46.7	43.3	44.3
Percent of female of total employment in Male	14.6	18.8	27.7
Percent of female of total employment in the Atolls	24.5	20.3	26.8

Notes: ^a 1985 figure for foreign national is an estimate; and ^b population 12 years and above.

Table 3. Labor Force, 1985 and 1990

Economically Active Population (15+)	1985	1990	Percent Change	Total Population	
				1985	1990
Male	14,895	17,438	17.07	45,874	55,130
Male	12,777	14,163	10.85	25,897	30,150
Female	2,118	3,275	54.63	19,977	24,980
Atolls	36,583	38,580	5.46	134,214	158,085
Male	27,541	30,738	11.61	67,585	79,186
Female	9,042	7,842	-13.27	66,629	78,899
National	51,478	56,018	8.82	180,088	213,215
Male	40,318	44,901	11.37	93,482	109,336
Female	11,160	11,117	-0.39	86,606	103,879

Source: Population and Housing Census Maldives, Vol. 1, 1985-90.

Table 4. Some Indicators of the Labor Force, 1985 and 1990

Economically Active Population	1985	1990
Percent of national total population	28.58	26.27
Male	43.13	41.07
Female	12.89	10.70
Percent of total population in Male	32.47	31.63
Male	49.34	46.98
Female	10.60	13.11
Percent of total population in Atolls	27.26	24.40
Male	40.75	38.82
Female	13.57	9.94

Source: Population and Housing Census Maldives, Vol. 1, 1985-90.

Table 5. Composition of Employment, 1985 and 1990

Sector	(Unit: Percent)					
	1985			1990		
	Male	Female	Total	Male	Female	Total
Agriculture	4.2	12.0	5.8	3.2	10.6	4.7
Fishing	30.2	2.4	24.2	24.9	2.9	20.6
Quarry	1.5	0.4	1.3	1.1	0.1	0.9
Manufacturing	12.7	58.0	22.5	9.5	37.7	15.1
Electricity, gas and water	1.2	0.0	0.9	1.0	0.3	0.7
Construction	6.3	0.3	4.9	6.9	0.4	5.6
Wholesale/retail	12.7	2.7	10.6	18.6	5.0	15.9
Transport/communications	8.0	1.0	6.5	11.2	2.7	9.5
Financial services	0.9	0.5	0.8	1.9	1.7	1.9
Comm./social/personal	20.2	20.5	20.3	18.1	33.5	21.2
Sector not stated	2.1	2.2	2.2	3.6	5.1	3.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Population and Housing Census Maldives, Vol. 1, 1985-90.

THE AGRICULTURE SECTOR AND THE GDP

The GDP has been growing steadily since 1987 (Tables 6, 7 and 8). The agricultural output continued to grow at an average annual rate of 4.1 percent. The agriculture share of the GDP had fallen to 3.8 percent in 1992, reflecting its steady decline in importance in recent years. However, the importance of agriculture in the rural economy may be underestimated, as the home consumption of several kinds of agricultural and forestry products such as coconuts, fruits, firewood is not included in the GDP figures.

Table 6. GDP, 1994-96

(Unit: Rf [rufiya] million at 1985 constant prices)						
Sector	1994		1995		1996	
		Growth* (percent)		Growth* (percent)		Growth* (percent)
GDP	1,268.6	6.6	1,359.4	7.2	1,447.7	6.5
Primary sector	273.0	2.6	277.4	1.6	287.7	3.7
Secondary sector	194.5	6.3	211.3	8.6	230.0	8.8
Tertiary sector	801.1	8.1	870.7	8.7	930.0	6.8
GDP (current prices)	2,789.8		3,138.6		3,537.1	

Note: * Growth over last year.

Table 7. GDP, 1987-93

(Unit: Rf [rufiya] million at 1985 constant prices)							
Sector	1987	1988	1989	1990	1991	1992	1993
GDP	709.7	771.6	843.2	980.1	1,054.8	1,121.1	1,190.2
Agriculture	77.9	79.9	82.2	87.1	90.4	93.8	97.5
Fisheries	116.5	124.1	132.7	147.6	159.1	151.9	147.3
Coral and sand mining	13.2	14.0	14.9	17.9	19.3	20.3	21.3
Construction	58.1	63.9	70.5	83.9	92.4	101.7	110.2
Manufacturing and electricity	39.7	43.6	48.2	55.6	61.2	66.5	72.8
Distribution	115.5	128.8	144.1	166.8	183.5	202.8	226.8
Transport	37.1	40.8	45.0	57.0	66.3	71.7	77.5
Tourism	122.4	133.9	147.3	177.8	183.5	198.2	204.1
Real estate	30.9	33.7	36.9	40.6	43.8	47.1	50.0
Services	37.9	42.9	49.2	55.6	61.2	67.3	73.4
Government administration	60.5	66.0	72.2	90.1	94.1	99.8	109.3

Note: * Growth over last year.

Table 8. GDP by Sector of Origin, 1987-93

(Unit: Percent)								
Sector		1987	1988	1989	1990	1991	1992	1993
GDP		100.0	100.0	100.0	100.0	100.0	100.0	100.0
Primary sector:	Agriculture	11.0	10.4	9.7	8.9	8.6	8.4	8.2
	Fisheries	16.4	16.1	15.7	15.1	15.1	13.5	12.4
	Coral and sand mining	1.9	1.8	1.8	1.8	1.8	1.8	1.8
Secondary sector:	Construction	8.2	8.3	8.4	8.5	8.8	9.1	9.2
	Manufacturing and electricity	5.6	5.6	5.7	5.7	5.8	5.9	6.1
Service sector:	Distribution	16.3	16.7	17.1	17.0	17.4	18.1	19.1
	Transport	5.2	5.3	5.3	5.8	6.2	6.3	6.5
	Tourism	17.2	17.3	17.5	18.1	17.4	17.7	17.1
	Real estate	4.4	4.4	4.4	4.1	4.1	4.2	4.2
	Services	5.3	5.5	5.8	5.7	5.8	6.0	6.2
	Government administration	8.5	8.5	8.6	9.2	8.9	8.9	9.2

Source: Ministry of Planning, Human Resources and Environment.

Regarding the fisheries sector, this is where most of the rural Maldivian population is actively employed. It is a means of earning a living besides the non-farming activities and provides the mainstay of life in most of the islands. The sector has grown steadily (Table 9). Rapid modernization of the sector has brought positive changes to the standard of living of the fishermen.

Table 9. Maldives: Fish Production and Exports, 1987-92

	(Unit: 000 mt)					
Sector	1987	1988	1989	1990	1991	1992
Fish catch:	56.9	71.5	71.2	76.4	80.7	82.0
Skipjack tuna	42.1	58.6	58.1	59.9	58.9	58.6
Yellow fin tuna	6.6	6.5	6.1	5.3	7.7	8.7
Other tuna	3.2	3.0	3.6	5.2	4.5	6.1
Reef and bottom fish	5.0	3.4	3.4	6.0	9.6	8.6
Exports of fresh/frozen fish:	13.7	19.4	19.7	17.1	10.1	5.5
Island enterprise	4.2	4.6	-	-	-	-
State Trading Organization	9.5	14.8	-	-	-	-
Exports of other tuna/fish:	25.8	17.3	32.1	41.5	48.9	45.2
Dry skipjack tuna (Maldives fish)	6.1	6.1	9.9	12.1	16.4	15.5
Dry salted skipjack tuna	8.5	1.3	3.7	6.3	6.9	4.0
Dry salted reef tuna	4.3	1.7	1.9	2.3	4.0	3.3
Canned fish	6.9	8.2	16.6	20.8	21.6	22.4
Total fish exports	39.5	37.0	51.8	58.6	59.0	50.7
(US\$/million)	(17.3)	(24.2)	(30.9)	(31.1)	(39.9)	(31.6)
Local consumption and changes stock	17.4	31.5	19.4	17.8	21.7	31.3

There has been some diversification of fishing recently, both in the type of fishery and the method of fishing. The per capita consumption of fish is very high in the Maldives. The importance of fish is beyond imagination from the socio-economic point of view. Fish is also the main source of animal protein in the Maldivian diet. The local economic well-being is very much tied to the amount of fish caught, as this is one of the few sources of direct income for the rural Maldives.

With regard to the type of fishery activities, the main type is the tuna fishery using pole and line. Live baits are collected the day before fishing. Baits are thrown into the school of fish with an empty hook to catch the skipjack tunas. In the Islands, the tuna is boiled and sun-dried. This is a long process of smoking and continuous drying in the sun. This product is known as Maldives dried tuna. The drying and cooking process is mostly done by women.

NON-FARM ENTERPRISES

Tourism

Maldives has a reasonably well-developed tourist trade, which is one of the major growth sectors of the economy. Each tourist resort or hotel is located on an island of its own promising privacy for visitors. These resorts create a large number of job opportunities and are very attractive to the rural youth and the economically active labor force.

The development of tourism complements the other sectors as well. Tourist resorts are mostly concentrated around the islands in Male Atoll. The islands in the next few atolls have also been converted to resorts, as there are no islands left in Male Atoll for further development. Islands in farther atolls have not been converted to resorts, which would otherwise create employment opportunities in the rural area.

The transport between islands is a major problem. Local food items and other products and produce are brought to Male for sale. The money generated from the sale of such items is used for the purchase food items, building materials, and fishing gears. The transport sector has grown recently due to the fact that fast and bigger boats are required to transport food and other products to resorts and other islands.

Manufacturing and Handicrafts

There is no major manufacturing industry in the Maldives. However, recently a few garment factories have sprung up in a few localities. Four garment factories are being operated in the South Atoll creating jobs for the rural female. After about 10 years of operation in the South, with frequent change of management, a

new garment factory has opened in the North just a year ago. These factories have a high potential of creating jobs, but most of them prefer to employ cheap imported labor from nearby countries.

The local handicrafts are mainly targeted for tourists. The handicrafts include small model dhoonees, mats, miniature domestic utensils, etc. The Maldives are particularly good at making jewelry and bangles from turtles' shells or seals. However, these communities have to find alternative activities to make a living since the ban on the trade of turtles and related items has recently been imposed.

The merchants of local handicrafts have started importing similar looking items from abroad to sell to tourists. Though this gives a better margin for the dealer who runs small outlets selling these items, it has resulted in the decline of local handicraft industry which would otherwise be a very lucrative enterprise and a strong industry.

Coconut Products

Several products are made from the byproducts of coconut palm including processing nuts and making sweets from the processed nuts. Coconut toddy is collected and made into thick paste or sweets. The leaves are thatched for roofing the houses and the fiber is made into ropes. The coconut palm is useful in boat-making and house-building as well. The very old palms are cut down and buried in the shallow area of the sea for sometime before being used in boat-making. The wood is cut in a special way to get the shape of the dhoonees.

Coconut leaf thatching and rope-making are the two most important occupations of the rural women. The activities generate good income for the rural families. For some, thatching the leaves is their main source of income. It is a simple job which can be done in their free time, at any place they prefer. Although coconut thatched leaves are no longer used for roofing, they are still used in making roofs for bungalows on the resort islands to create an exotic, tropical island feel.

Construction

The construction sector is very active in Maldives. The houses in the islands are one story made out of locally-made lime with broken corals instead of bricks giving very strong walls. Burning corals in earthen pits makes the lime. The corals are collected from the reefs around the island. The sand is collected from the beach to mix with lime or cement. Nowadays people prefer cement to lime because of the hard work that has to be done in making lime and the relatively low cost and the ease of using the cement.

CONCLUSION

The economy of the Republic of Maldives is growing steadily over the past few decades. There are many types of rural non-arm enterprises, including tourism which has good potential for further growth. Other types of non-farm enterprises still require further developments if their growth is to be accelerated.

16. MYANMAR

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INTRODUCTION

Myanmar is geographically located between 9°58' to 28°31' North and 92°9' to 101°10' East and situated in Southeast Asia, sharing borders with Thailand, Laos, China, India and Bangladesh. The total area of the country is approximately 676,578 km², stretching about 2,090 km from north to south and 925 km from east to west at its widest points.

Topography

The western, northern and eastern parts of the country are mountainous regions with altitudes varying from 915 to 2,134 m. Myanmar is a forest-clad mountainous country with plateaus, valleys and plains. The general slope of the country is from north to south. Ayeyarwady, Chindwin, Sittaung and Thanlwin, the main rivers, flow in the same direction. There are narrow plains in Rakhine and Taninthayi coastal regions. Chin, Kachin and Shan states are mountainous regions. A plain makes up the central part.

Climate

Tropical and subtropical climates with three seasons; namely, rainy, dry-cold and hot season are found in Myanmar. The average annual rainfall varies over the country, ranging from 2,540 to 5,080 mm in the coastal and mountainous regions and 762-1,016 mm in the central part of Myanmar. In the Dry Zone of central plain, seasonal temperature varies in the magnitude of 40.6-43.3°C in hot season and 10-15.6°C in cold season. In the northern and eastern part of the country, the highest temperature can reach up to 29.4°C and the minimum temperature can drop as low as 7°C because of the higher altitude.

Population

Population of Myanmar is increasing with an annual growth rate of 1.84 percent, and estimated total for 2001 is approximately 50 million. Out of this total, about 75 percent live in the rural areas where agriculture is the main livelihood. Total labor force is estimated to be 17 million out of which 63 percent are engaged in agriculture sector. Table 1 shows population, area and density by states and divisions.

PRESENT STATUS OF AGRICULTURE SECTOR

Myanmar, traditionally an agricultural country, is rich in land resources for agriculture. With different agro-climatic conditions, a large variety of crops can be grown not only for food but also for industrial raw materials. Although Myanmar has cultivable land areas of 17.7 million ha, only about half or 9.67 million ha are being utilized for agriculture. The remaining 8.03 million ha of cultivable land are classified as fallow and cultivable wasteland. The present status of land utilization in Myanmar is mentioned in Table 2.

Under the Land Nationalization Act 1953 and the Tenancy Act and Regulation 1963, the number of farms with large holding is substantially low. Table 3 shows the landholding area in each group.

Table 1. Population, Area and Density by State and Division, 1999

State/Division	Male (000)	Female (000)	Total (000)	Area (000 km ²)	Density (person/km ²)
Kachin	617	631	1,248	89,042	14
Kayah	132	127	259	11,732	22
Kayin	722	738	1,460	30,383	48
Chin	230	243	473	36,019	13
Mon	1,227	1,219	2,446	12,297	199
Rakhine	1,343	1,355	2,698	36,778	73
Shan	2,393	2,309	4,702	155,801	30
Yangon	2,719	2,751	5,470	10,171	538
Mandalay	3,180	3,262	6,442	37,023	174
Bago	2,469	2,461	4,930	39,404	125
Magway	2,192	2,272	4,464	44,821	100
Sagaing	2,586	2,694	5,280	94,625	56
Ayeyarwady	3,334	3,329	6,663	35,137	190
Taninthayi	648	650	1,298	43,345	30
Total	23,792	24,041	47,833	676,578	71

Source: Department of Labour/UN Population Fund (UNFPA), *Handbook on Human Resources Development Indicators, 2000*.

Table 2. Present Status of Land Utilization, 1999-2000

Type of Land	Area (million ha)	Percent
Net sown area of crop	9.67	14.3
Fallow land	0.78	1.2
Cultivable wasteland	7.25	10.7
Reserved forests	12.57	18.6
Other forests	20.24	29.9
Others	17.15	25.3
Total	67.66	100.0

Source: Soe Win Maung, "Overview of Agriculture Sector in Myanmar", paper presented at the National Seminar on the System of Food and Agriculture Statistics in Myanmar, 29-30 January 2000, Yangon.

Table 3. Size of Landholding, 1999/2000

Size of Holding (acre)	Number		Percentage	
	Peasant Families and Societies (000)	Area (000 ha)	Peasant Families and Societies	Area
Under 5	2,840	2,872	61.58	26.68
5-10	1,164	3,433	25.24	31.90
10-20	497	2,855	10.78	26.53
20-50	107	1,185	2.32	11.01
50-100	2	64	0.04	0.59
Over 100	2	354	0.04	3.29
Total	4,612	10,763	100.00	100.00

Source: Settlement and Land Records Department (SLRD).

Note: Area includes both agricultural land and fallow land.

Being an agricultural country, the national economy relies on the development of agriculture sector. It is clearly stated in four economic objectives of the country as "development of agriculture as the base and all-round development of other sectors of the economy as well". Reform measures in macro-economic

initiated since 1988-89 lead to market economic system comprising liberalization of trade and expansion of private sector role, upgrading existing infrastructures and encouraging foreign trade and investment, among others.

The Ministry of Agriculture and Irrigation (MOAI) has laid down the following agricultural policies conducive to the improvement of agriculture sector, aiming to uplift the national economy.

- a) Production of food crops and industrial crops according to the market demand;
- b) Permit commercially viable production of industrial and plantation crops;
- c) Allow private investors and farmers to expand cultivable wasteland for agricultural production;
- d) Encourage participation of private sector in the distribution of farm inputs; and
- e) Release unproductive agricultural land to other productive programs.

In 1997-98, total employment was estimated at 18.36 million, 11.51 million or 62.68 percent of which were engaged in agriculture sector representing the largest work force among the production sectors (Table 4).

The diverse agro-ecological conditions prevailing in the country have allowed Myanmar to grow over 60 different crop species of economic importance. These crops may be grouped into seven different categories (Table 5).

Table 4. Estimated Employment in Various Sectors, 1997-98

Sector	Number (000)	Ratio (percent)
Agriculture	11,507	62.68
Livestock and fishery	397	2.16
Forestry	189	1.03
Energy	26	0.14
Processing and manufacturing	1,666	9.07
Trade	1,781	9.70
Mining	121	0.66
Power	22	0.12
Construction	400	2.18
Transport and communication	495	2.70
Social services	597	3.25
Administration and other services	888	4.84
Workers	270	1.47
Total	18,359	100.00

Source: Department of Labour.

Table 5. Crop Groups and Their Sown Area, 1998-99

Crop Group	Major Crops	Sown Area (million ha)	Percent of Sown Area
Cereals	Rice, maize, wheat, sorghum	6.53	49.5
Oilseed crops	Sesame, groundnut, sunflower	2.02	15.3
Food legume	Different kinds of peas and beans	2.46	18.6
Industrial crops	Cotton, jute, sugarcane, rubber	0.75	5.7
Culinary/vegetable	Potato, onion, vegetable	0.34	2.6
Plantation crops	Coffee, tea, oil palm, fruit	0.43	3.3
Miscellaneous	Medicinal plant, non-edible plant	0.66	5.0
Total		13.19	100.0

Source: SLRD.

To be able to supply sufficient food for the growing population in the future and to promote agriculture sector, entrepreneurs are permitted to cultivate on cultivable wasteland, wetland and lowland. Because of the encouragement of the state, private entrepreneurs capable of making an investment are cultivating on these lands in some states and divisions. Table 6 shows land reclamation by the private entrepreneurs.

Table 6. Land Reclamation under the Management of Private Entrepreneurs

State/Division	Vacant/ Virgin Acreage	No.	Private Entrepreneurs (acre)	
			Allotted	Reclaimed
Ayeyarwady	503,053	29	240,366	117,035
Yangon	91,936	7	62,391	39,836
Bago	391,897	20	166,709	34,254
Magway	288,039	11	244,733	31,350
Taninthayi	904,725	16	516,561	27,159
Mandalay	528,291	2	1,608	415
Shan (south)	2,241,233	7	6,903	7,086
Kachin	4,990,132	3	31,800	1,100
Kayin	461,876	3	13,000	863
Total	10,401,182	98	1,284,071	259,098

Source: *The New Light of Myanmar*, Sunday, 24 June 2001.

The Agriculture Mechanization Department of the MOAI rendered assistance in site clearing, reclamation and land leveling works. Necessary technical assistance and support are given by the state to private investors in order to facilitate the implementation of field activities. Allocation of cultivable wasteland to investors are also being undertaken throughout the country wherever feasible.

RURAL DEVELOPMENT PROGRAMS

Rural development programs are being carried out in rural areas aiming to lay a foundation for achieving an equitable and sustainable economic growth by focusing on developing the existing rural economy.

Specific programs and projects currently being implemented in Myanmar are as follow:

<u>Programs/Projects</u>	<u>Implementing Ministry/Agency</u>
a) The Development of Border Area and National Races	Ministry for Progress of Border Area and National Races and Development Affairs
b) National Program for Nine Districts Greening	Ministry of Forest
c) National Program for Development of Irrigation Rural Water Supply	MOAI
d) Model Mechanized Farming Village Project	MOAI
e) Contract Farming System in Livestock and Fisheries	Ministry of Livestock and Fisheries
f) Rural Credit Scheme	MOAI
g) Environmentally sustainable food security and micro-income opportunities in some deteriorating ecosystems	UNDP/FAO, MOAI, Ministry of Forestry, Ministry of Livestock and Fisheries, Ministry of Cooperatives
h) Capacity Building and Empowerment of Women Self-help Groups through Micro-credit and Social Mobilization	CIRDAP*/MOAI funded by the Government of Japan

Note: * CIRDAP = Centre on Integrated Rural Development for Asia and the Pacific.

Development of Border Areas and National Races

In order to improve the social and economic situation of the border area, the Ministry for Progress of Border Area and National Races and Development Affairs was established in 1992. Border Area and

National Races Law was enacted in 1993. So as to meet the specific objectives of the area, a master plan for developing border area and national races was drawn in 1994.

There are two main components in the plan; namely, infrastructure and socio-economic development, which may further be broken down as follows:

- a) Infrastructure development
 - * Road and transportation
 - * Energy
 - * Housing
 - * Communication
- b) Socio-economic development
 - * Education
 - * Health
 - * Public relation
 - * Trade and cooperation
 - * Mineral exploration and exploitation
 - * Eradication of poppy cultivation and income distribution
 - * Agriculture
 - * Livestock breeding
 - * Forestry

Each of the sub-component has to be implemented by the concerned ministry in close coordination and cooperation of the Ministry for Progress of Border Areas and National Races and Development Affairs and with the participation of local populace.

Model Village Project

In anticipation of population growth in next 20 years (that is to say in 2020), the Ministry for Progress of Border Area and National Races and Development Affairs has drawn up long-, medium- and short-term village development programs.

Each financial year is designated as model village year. Upholding the motto that villages must rapidly develop and become modernized so as to set up model villages.

Model village projects aim to set up four model villages in each township within the First Four-Year Plan. In order to achieve that objective, 1999-2000 financial year has been designated as a model village year.

The following activities are given priority to set up model villages:

1. Improvement of rural roads, bridges and drains
2. Rural water supply
3. Public health and sanitation
4. Establishment, maintenance and supervision of public markets, cattle markets and slaughterhouses
5. Establishment and maintenance of garden parks, playgrounds, public baths and recreation grounds
6. Management of pawn shops and ferry businesses
7. Demarcation and supervision of cemeteries.

These development activities create lots of non-farm employment opportunities such as construction works, commerce, services and transport in rural areas.

National Program: The Greening of Nine Districts

The Dry Zone is a resource-poor area, where water is scarce, vegetation cover is thin and soil erosion is severe. The region is characterized by low annual rainfall that ranges between 20-40 inches with high variability and uneven distribution. The undulating land composes mainly of sandy loams with low fertility and is subject to severe erosion under rain and strong winds. Twenty-two townships in Mandalay Division, 18 townships each in Magway and Sagaing Divisions are classified as constituents of the Dry Zone.

The renewable national resources of the Dry Zone are being depleted more rapidly than nature can renew itself. Dryland environment (and its natural limiting factors) is not the only one to blame. Increasing population pressure with subsequent demands for agriculture, fuel wood and forestry products, leading to land clearing and repeated cropping on inherently poor soil, is another factor.

In order to improve the present environment degradation and socio-economic status of farmers and landless rural families, National Program for Nine Districts Greening was initiated in 1994-95, and aimed at establishing woodlands on degraded soils. Under the guidance of the Ministry of Forestry, the program

covers critical areas of nine districts of the Dry Zone. With the participation of rural communities the program is focusing on reforestation, distribution of seedlings, education and extension activities for protecting the environment and introduction of fuel efficient wood stoves.

In 1997, the Dry Zone Greening Department was formed, and the greening of the Dry Zone, originally demarcated in nine districts, was extended to 13, with the goal of covering/greening the areas, once dry and barren, with forests.

National Program for Development of Irrigation Rural Water Supply

Water is crucial for improving crop performance and increasing cropping intensity as well as for implementation of regional greening and sanitation program. Therefore, various irrigation projects are being implemented to further increase the irrigated area. Table 7 shows an increase in irrigated area.

Apart from Irrigation Department which is responsible for irrigation projects, Water Resources Utilization Department was formed under the MOAI to focus its efforts on pumping water from the rivers and extracting underground water.

Table 7. Status of Progress in Irrigated Areas
(Unit: Million ha)

Year	Irrigated Area	Increased Irrigated Area
1900	0.337	-
1948-	0.545	0.208
1988-	1.018	0.473
1999-	1.748	0.730

Source: MOAI, *Myanmar Agriculture in Brief*, March 2001.

Model Mechanized Farming Village Project

Agricultural mechanization is the main element to increase cropping intensity and expand crop areas with the ultimate goal of escalating overall crop production. Thus 23 villages of different states and divisions, which are familiar with farm machineries and financially capable to purchase them, are selected to be established as model villages (Table 8).

Table 8. Selected Villages for the Establishment of Model Agricultural Mechanization Villages

State/Division	Township	Village	State/Division	Township	Village
Kachin	Monyin	Pinhae	Magwe	Magwe	Kanpya
Kayah	Logkkaw	Htayhanahlya		Aunglan	Nanzupin
Kayin	Pa-an	Zarthapyin		Aunglan	Kyiyartkone
Mon	Kyeikhto	Kawttin	Mandalay	Pyinmana	Alyinloe
Rakhine	Myauk-U	Nankyar		Sintakaing	Tawma
Shan	Kyinton	Yanlaw		Patheingyi	Kweyegone
Sagaing	Wetlet	Hladaw		Myingyan	Thabaung
Taninthayi	Htarwae	Maungma Shaung	Yangon	Taikgyi	Yindaikkwin
Bago	Kyaukdager	Khingyi		Hlegu	Wanetkone
	Taungoo	Ooyindaw		Thongwa	Thiktukan
	Okpo	Ayamyathaya	Ayeyarwady	Nyaungdon	Toochaung
				Hinthada	Duya

Source: MOAI, *Myanmar Agriculture in Brief*, 1998.

This program will also create job opportunity and generate more income for rural families, by having the mills, sale centers for fuel and agro-chemicals, machinery workshops and cottage industries. Rural youths are given training on how to operate and repair farm machinery.

Contract Farming in Livestock and Fisheries

Livestock farming is a valuable source of income for rural people, as the demand for chicken and pork are on the rise. It will also serve as a source of their food. At present, livestock farming is being done only at smaller scale. In order to increase livestock production and generate more income for rural families, it is imperative that a contract farming system is introduced.

The state is giving high priority to provide adequate support for further development of fishery giving special attention to the production of low-cost freshwater fish as it contributes to food security for local people. With the assistance and encouragement of the state, freshwater fish ponds have increased. Necessary inputs, such as fingerlings, feed and technical services are made readily available by the state.

The state is giving encouragement and all-round assistance to the private sector for prawn breeding to fulfill domestic consumption demand as well as to export the surplus for foreign exchange. While the price of rice is US\$150/mt in the world market, the price of prawn even at the breeding pond is US\$5,000. Private entrepreneurs are therefore urged and encouraged to extend the prawn breeding works. The Ministry of Livestock Breeding and Fisheries is rendering assistance in allocating lands for prawn breeding, disseminating prawn-breeding techniques, and supplying prawn fries.

Myanmar Agriculture Development Bank

The Myanmar Agriculture Development Bank (MADB), previously known as the Myanmar Agricultural and Rural Development Bank, is under the MOAI aiming to provide financial and banking services to the farming communities, state-owned organizations, livestock organizations, cooperatives, private entrepreneurs and village banks.

Loans are classified as:

- C annual crop loan;
- C short-term loans (2-4 years); and
- C long-term loans (five years and above) which are mainly for the purchase of farm implements, draught cattle, bullock carts, pump sets, power tillers, etc. as well as for integrated farming projects.

Starting from 1991-92 more loans were provided for the development of agriculture. The MADB has also launched a rural saving program since 1993 in order to encourage the farmers and rural population to deposit the surplus of their income at the bank. In return they will get reasonable interest from their savings. The rural savers are allowed to borrow farm development loans up to 4-5 times of their deposits at 15 percent interest rate. In order to facilitate the rural population to save their money, mobile services are provided by the MADB.

Environmentally Sustainable Food Security and Micro-income Opportunities Project

Several projects are being implemented in different ecosystems which are fragile, vulnerable and already severely deteriorated, under the Human Development Initiative (HDI) program by the UNDP with the cooperation of concerned ministry of Union of Myanmar, such as MOAI, the Ministry of Livestock and Fisheries, and the Ministry of Cooperatives. The concept and strategy of these projects are to address poverty and environmental issues. The emphasis is on providing the poor segment of the population in those townships with environmentally sustainable income-earning opportunities in agriculture, forestry, fishery, aquaculture and livestock.

HDI program was started in 1994-95 as a pilot project which was terminated in 1996-97. The second phase of these projects lasted from 1996-97 to 1998-99. With a view to widen the scope and intensify the activities of these projects, they were further extended for another two years, until 2001.

These projects are located in three ecologically distinct regions; namely, Shan state, Dry Zone and Ayeyarwady delta and in certain townships as follows:

Region	Division/State	Township
Dry Zone	Magway	Kyaukpadaung, Magway
	Sagaing	Chaung Oo
Watershed	Shan	Nyaung Shwe, Ywangan
		Pindaya, Kalaw, Pinlaung
Delta mangrove	Ayeyarwady	Bogalay, Mawlamyinegyun
		Labutta

Objectives of these programs are:

- i) to improve living condition of rural community;
- ii) to establish income-generating activities of rural community;
- iii) to reduce environmental degradation and improve resource management;
- iv) to promote sustainable agricultural development for food security;
- v) to encourage locally managed self-sustaining micro-finance institutions to serve the needs of poor rural households; and
- vi) to upgrade productive skills through training and improved technology.

Capacity Building and Empowerment of Women Self-help Groups through Micro-credit and Social Mobilization

The project was funded by the Japanese Government through CIRDAP, with the goals to promote women self-help groups under social mobilization process, to provide access to credit and encourage savings, to provide opportunities to generate additional income and to provide women groups access to basic social services. The program initiated in July 1999 lasted for three years. It was jointly implemented by the Department of Agricultural Planning (DAP) and CIRDAP.

PRESENT STATUS OF INDUSTRIES

The existing industries in Myanmar can be divided into three sectors; namely, state-owned industries, cooperative industries and private industries (Table 9).

Table 9. State, Cooperative and Private-owned Industries, 1997-98

Type of Industry	State	Cooperative	Private	Total
Food and beverages	209	220	28,816	29,245
Clothing and apparel	33	183	3,733	3,949
Construction materials	126	79	3,535	3,740
Personal goods	14	23	1,358	1,395
Household goods	15	29	198	242
Printing and publishing	28	13	354	395
Industrial raw materials	821	7	1,803	2,631
Minerals and petroleum products	22	12	2,708	2,742
Agricultural equipment	3	-	83	86
Machinery and equipment	7	-	331	338
Transport vehicles	5	7	194	206
Workshops and dockyards	305	-	-	305
Miscellaneous	12	64	7,988	8,064
Total	1,600	637	51,101	53,338

Source: Cottage Industries Department (CID), Ministry of Cooperatives.

State-owned Industries

State-owned industries are managed by different ministries according to their suitability.

Agro-based industries such as cotton gins, cotton seed oil mills, sugar mills, jute factories, jute carpet factories, palm oil and other vegetable oil mills, fruit and vegetable canning factories, coffee production and silk yarn factories are controlled by the MOAI. Rice mills and rice bran oil mills are under the control of the Ministry of Trade which is responsible for purchasing paddy, milling and exporting of rice.

Under the Ministry of Industry, there are six organizations; namely, Myanmar Textile Industries, Food Stuff Industries, Pharmaceutical Industries, Paper and Chemical Industries, Ceramic Industries, and General and Maintenance Industries. The Ministry of Industry is responsible for heavy industries.

The Ministry of Livestock and Fisheries controls milk plants, fish and meat canning factories and animal feed mills. The Ministry of Forestry is responsible for saw mills, plywood factories, wood furniture factories, manufacture of parquet and other wood-based industries.

The Ministry of Mines is concerned with the concentration of minerals and production of lead, zinc, silver, gold and tin metals. The No. 1 mining industry is in charge of mines which produce metallic lead and zinc concentrate as well as copper. The No. 2 mining industry controls tin smelting plants, and the No. 3 mining industry operates the iron and steel mills. Finally, the Ministry of Energy controls electricity generation plants, petroleum refineries, the fertilizer plants and methanol plants.

The Cooperative Sector

The Ministry of Cooperatives looks after the affairs of all cooperative societies. Some of the industries run by the cooperatives are condensed milk factory, rice mills, edible oil mills, mechanical and engineering workshops, textile industry and plastics and chemicals production.

The Private Sector

The private industries are scattered all over the country especially the rural handicraft industries. To supervise and regulate the growth of private industries, the Private Industrial Enterprise Law was enacted in 1990, followed by the Promotion of Cottage Industries Law in 1991. The latter act was meant only for the promotion of cottage industries which employ under three horsepower. The registration is voluntary unlike the larger private industries which come under the Private Industries Law.

The private industries which are required to register compulsorily under the Private Industries Law are classified into three groups as follows:

Size	Small	Medium	Large
Power installed (HP)	Up to 25	26-50	Over 50
Investment (million Kyat)	1	More than 1 up to 5	Over 5
Labor (number)	50	51-100	Over 100
Annual production value (million Kyat)	2.5	More than 2.5 up to 10	Over 10

The registered private industries can apply for the following privileges if they comply with the requirements under the law:

- (a) Land, power, raw materials, machinery, etc., from government departments concerned;
- (b) Tax and duties relief and exemption for a limited period;
- (c) Bank loans; and
- (d) Foreign experts and technicians assistance.

Development of Cottage Industries

In order to promote cottage industries, CID is formed under the Ministry of Cooperatives with the objective of helping the private sector to register cottage industries of their own accord with the department.

1. Formation of Regional Cottage Industries Associations

CID helps entrepreneurs from industries associations with the aim of solving the problems in cottage industries.

2. Helping the Cottage Industries to Produce Standard Quality Goods

Research and Development Section of CID takes charge of assessing the quality and analyzing the compositions of food products from the hygienic point of view. Moreover, entrepreneurs of cottage industries are accorded the right to take part in occasionally-held exhibitions of goods from cottage industries. Through these exhibitions, the public learned about good-quality local products.

3. Promoting Cottage Industries by Providing Technical Know-how

Technical know-how is important for cottage industries promotion. It is impossible to disseminate ideas to an individual industry. Holding industrial shows is an effective strategy. For instance, in 1993 Packaging

Show was held in Yangon and helped entrepreneurs realize how to add value to their products by changing their packaging system. Technical seminars were also held to explore issues concerning promotion activities that need to be tackled.

4. *Preventing the Obsolescence of Traditional Handicrafts and Developing Them*

Multifarious items of traditional handicrafts can be found in Myanmar. CID is responsible for upgrading two craft fields which are weaving and lacquer ware. Under the guidance of CID there are 14 weaving schools in some states and divisions and one lacquer ware institute in Bagan.

5. *Constraints on the Development of Cottage Industries*

There are inevitable constraints in the process of CID.

6. *Electricity*

Electricity is vital for some industries. Myanmar's electrical enterprises have its own law, which does not allow just any one to use lighting source for industrial use. For industrial purpose, power meter is needed, and it is difficult to get permission. Most cottage industries use part of the space in the house for operation and have neither single phase nor three-phase power meter. Shortage of electricity is also one factor.

7. *Raw Materials*

It is necessary to obtain adequate raw materials at reasonable price for cottage industries.

8. *Finance*

State banks and private banks are financial sources exclusively for those who own valuable fixed assets, not for cottage industries which are not rich enough to present anything as collateral. CID cannot help these cottage industries access the banks.

POLICIES FOR PROMOTING RURAL NON-FARM EMPLOYMENT OPPORTUNITIES

Policies are important for the development of rural non-farm activities. Some policies encourage rural entrepreneurs to promote small business in rural areas. Policies on liberalization of trade and expansion of private sector role upgrade the existing infrastructure and encourage entrepreneurs to invest in rural areas in many enterprises such as agro-based industry, cottage industry and tourism industry, etc.

Before 1988, procurement and distribution of supplies to the small-scale sector was done by the state. One of the agricultural policies encouraged the participation of private sector in the distribution of farm machinery and other farm inputs thus promoting non-farm activities such as production and trading of farm equipment, farm machinery, fertilizer, insecticide and water pump, etc.

Major policies for the promotion of rural non-farm employment opportunities include the following:

Micro-credit and Social Mobilization Programs

The majority of the rural population has to rely on informal source of credit for their survival. They need credit to conduct income-generating activities to earn enough money for food, shelter, clothing and to gain access to education and health facilities.

Micro-credit project helps rural people to seek new opportunities by borrowing without collateral and by paying back in small installments. By providing initial capital, the poor can seek income-earning activities that benefit their families and their communities as a whole. Female-headed households, landless laborers, subsistence farmers and fishermen, the aged and disabled who are the poorest of the poor are chosen and provided with micro-credit to seek income-generating activities.

Under the micro-credit program, 51 beneficiaries from Tuchaung village, Yangon Division and 64 in Yin-taik-kwin village, Ayeyarwady Division were given small loan for various income-generating activities. The amount of seed money disbursed to each beneficiary ranged from 10,000 kyats to 15,000 kyats with monthly interest rate of 2 percent, arrived at by the beneficiaries themselves. The period of loan is for one year. With the loan, borrowers invested in different kinds of income-generating activities including non-farm as well as farm such as trading, making hats, operating small shops, battery recharging services, tailoring, buying and selling pigs, buying draught cattle to keep for hiring purpose, small-scale livestock such as chicken and duck, and plantation of betel leaf and papaya. As part of the project, communities development programs such as construction of school buildings and ponds, provision of fly-proof latrine facilities, electrification, and construction of village roads were carried out in the project areas.

Infrastructure Development

Infrastructure plays a vital role in the process of economic development as it facilitates trade and transportation, encourages entrepreneurs to set up new business, and supports industrial activities as well as tourism.

It is necessary to improve infrastructure especially transportation to help move local products such as preserved food, handicrafts, cane and bamboo furniture, etc. produced by non-farm workers. Improved infrastructure, availability of raw materials and low labor cost give an incentive to entrepreneurs to establish small industry in rural areas contributing to additional employment and earning opportunities for the rural people. Village roads should be upgraded for smooth and speedy delivery of rural goods to town. Priority is needed for projects to renovate rural roads which will lead to economic, education and health progress of the rural people. Transport plays a crucial role in developing a region.

At present special priority has been given to the development of the transport sector at national level in order to promote the trade and economy of the citizens, production sector and relations between different races. Strategic plans have been laid down and implemented to build a network of motor ways and railroads linking all parts of the nation from east to west and from north to south. More roads are under construction to be added to the network. River crossing bridges have been built wherever necessary. For these development projects, more labor are required thus providing employment and earning opportunities for local rural people. As a result, non-farm activities become increasingly concentrated in rural areas as infrastructure improves and markets grow.

Tourism Industry

Improved infrastructure in rural areas promotes tourism. Myanmar is rich in natural resources. Some parts of the country offer pleasant and interesting places worth visiting. Tourism industry can be promoted in areas where there are pleasant, clean and pristine beaches and resorts, and where ancient pagodas, religious buildings and beautiful surroundings can be found.

Tourists spend their vacation in different ways. Some prefer activities such as jungle trekking, bird watching, scuba diving and cultural tours which can be done mostly in rural areas. Some tourists prefer to visit natural areas: eco-tourism. As a result, there is a need for proper arrangement to handle such type of tourist activity. Improving infrastructure especially roads and buildings in some coastal and mountainous regions, and some historical places, tourism industry will thrive benefitting local rural people. Tourism brings about income/employment. Economic returns aside, the development activities also have an impact on social and cultural environment in the areas where tourism is promoted. When tourism thrives, service jobs such as guide for jungle trekking and bird watching, bellboy, receptionist and watchman, etc. are available. Apart from this, restaurants, souvenir shops, snack shops and shops for renting things such as bicycle, shops for natural local products, etc. can be opened and rural people will benefit from non-farm employment in these rural areas.

Market Accessibility and Market Information

Infrastructure improvements in rural areas and towns increasingly enable local small-scale enterprises to compete successfully with others. Market is important for selling products from rural areas so establishment and maintenance of public markets are needed. Most of the rural villages are located in remote areas and far from markets causing difficulties in distribution and transportation. By providing market accessibility, non-farm products such as pottery products, preserved food, cane and bamboo furniture, brooms and mats, etc. as well as farm products can be sold easily. Market accessibility persuades rural people to produce more products. Market information is also important to rural people. It helps them make well-informed decisions regarding where, when and at what price to sell their products and enables them to better plan their production in accordance with market demand.

SOCIO-ECONOMIC DEVELOPMENT AND HUMAN RESOURCE DEVELOPMENT

The task to improve socio-economic life includes education, public health, clean surroundings, secure transport business and recreation. Everyone should have access to basic education, primary healthcare and other essential services. Without such access, the poor and their children will have little opportunity to

improve their economic status or even to participate fully in the society. There is a need to increase the level of necessary knowledge and skills, so individuals are able to improve their quality of life.

To enhance the capacity of human resources in rural area, new assets and employment opportunities are needed. Conducting training program on some of the following areas will create an increase in non-farm employment opportunities which helps rural people earn extra income.

The training subjects include:

- 1) food preservation;
- 2) handicrafts making;
- 3) tailoring and knitting;
- 4) mushroom cultivation; and
- 5) beekeeping.

In addition, to keep landless and near landless people from poverty, useful information on new employment opportunities are provided.

For the villagers who are not involved in farm activities and plan to find work in urban area, they should be made aware of and provided technical information on the production of goods using available local raw materials, for example, information on making paper from straw, making charcoal from rice hull, etc. Be certain that raw materials are readily available before promoting a new enterprise. The use of raw materials from forest for making finished goods can cause serious damage to and depletion of forests. This issue should be considered for the sustainable global environment. It is necessary to encourage rural people to replace the plants for the prevention of forest loss (reforestation) after being used as raw materials.

1. *Food Preservation*

Some perishable farm products have to be sold shortly after harvest. If there are plenty of fruits, and market accessibility are not available, food preservation is needed before the products are shipped to the markets in order to prevent it from perishing. By conducting one- or two-day training on the preservation of food in remote area where transportation and market accessibility is difficult, the cause of perishable crops can be reduced. In addition, food preservation helps rural people earn extra income.

Preservation of food is one of the types of non-farm employment activities in rural areas. Some fruits such as tomato, pineapple, lemon, banana, strawberry, pear, etc. can be made into fruit jam, fruit juice and dried preserved food. For example, villagers grow banana and mango trees in their compound for home consumption. Banana can be dried and preserved with little or no extra cost where as pickling mango requires cash to purchase ingredients. Usually, preservation of food is a seasonal activity which can be done only when the fruits are in season. Thus this kind of non-farm employment will generate income for only a short period of time.

2. *Handicrafts Making*

Handicrafts can be made from local natural resources such as cane, bamboo, sea shells, coconut husks and leaves. Some rural people have latent skills to make handicrafts. Handicrafts making also creates income for rural people. This type of non-farm activity will be more profitable if it is conducted in the areas where tourism is promoted.

3. *Tailoring, Knitting and Weaving*

This activity presents income opportunity especially for women/housewives who are not involved in farm activities. Some of them sew and weave for family members in their spare time to save money.

4. *Mushroom Cultivation*

Mushroom cultivation can be done in a small area and generate income within two weeks. At the harvest time of rice, there is plenty of straw which is a basic need for mushroom cultivation. Rural people who are not engaged in farm activities should be encouraged to cultivate mushroom, and provided with information, technology and other necessary requirements.

5. *Beekeeping*

Beekeeping can be assumed one of the kinds of non-farm employment for it does not require a large piece of land. It can be done without much effort except for the time involved in processing honey. Beehives can be kept near the farm in the blooming season of crops such as sunflower, sesame, cotton, peas and beans,

maize and fruit trees such as lichee, plum, orange, lime, peas and apple. At the end of the flowering season, the nectar becomes scarce so it is necessary to remove beehives to a place where there is plenty of nectar.

Rural people will have extra income by selling products from beekeeping such as honey, bee wax and pollen.

To promote beekeeping, Bee Keeping Department, under the Ministry of Livestock and Fisheries, provides materials and technical know-how as follows:

- i) Beehives with other necessary materials as well as a queen and a swarm of worker bees (about 3,000-6,000);
- ii) Conduct training on beekeeping;
- iii) Assist on how to handle beehives (to avoid being stung);
- iv) Help rural people who are willing to do beekeeping obtain credit from state and division; and
- v) Buy back the products with suitable fix prices.

Although the government has been promoting beekeeping, few people are interested in this activity because plenty of natural honey can be obtained from the forest and the lack of knowledge on beekeeping. Patience and the know-how of handling bees are needed. It is necessary to encourage rural people such as resource-poor farmers, landless farmers and women to get involved in this activity by means of mass media. The greatest value of the beekeeping industry is concerned with the honeybees' activities which aid the pollination of agricultural crops.

17. LAO PEOPLE'S DEMOCRATIC REPUBLIC

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INTRODUCTION

Lao People's Democratic Republic (Lao PDR) has a total area of 236,800 km² and a total population of approximately five million (1999) with an annual growth rate of 2.6 percent. About two-thirds of its total population live in rural areas and mostly engage in subsistence agriculture using traditional tools and techniques.

In 1986, the Lao Government launched the New Economic Mechanism (NEM), marking a transition from central planning to a mixed system, and a gradual reliance on market mechanisms to allocate domestic resources. Managerial and financial autonomy was progressively granted to State-owned enterprises, while the government pursued its policies of price decontrol and extended incentives to private sector development. Since the introduction of reforms under the NEM, the economy performed well with GDP growing strongly at about 7 percent per annum. However, during 1995, the country experienced macro-economic instability due to the rapid expansion of money and credit and the balance of payments of current deficit.

ECONOMIC STRUCTURE

In 1998, agriculture is the backbone of the economy, accounting for about 51.3 percent of the country's GDP, although this number has fallen from 61 percent in 1990. Industry contributed 22 percent, compared with 11.5 percent in 1990 while services contributed 26.7 percent. Wholesale and retail trade, the largest component of the services sector, has been particularly buoyant in recent years, as have hotel and restaurant services.

Table 1. GDP and Growth Rates, 1993-98

	(Unit: Million Kip, 1990)				
	1994	1995	1996	1997	1998*
Agriculture	439,980	453,684	466,206	498,683	517,067
Industry	138,635	156,829	183,996	198,848	215,739
Services	185,374	204,345	221,615	238,296	249,708
Indirect, net taxes	16,668	20,832	21,439	19,183	10,412
GDP at market prices	780,657	835,690	893,256	955,010	992,926
Real GDP growth (percent)	7.5	6.6	6.4	6.5	3.8
Real per capita GDP	246,716	308,498	366,388	455,633	860,645

Sources: Bank of the Lao PDR, 1999; and ADB, 1999.

Note: * Estimate.

TRENDS IN RURAL EMPLOYMENT

The rural economy is dominated by agriculture; paddy rice production is the main economic activity of most farmers in Lao PDR. The rural people live in villages in which traditional social structures continue

to play an important role in such matters as the allocation and use of common property resources. In recent years, due to population growth, expansion of cities and encroachment of agricultural lands by residential, commercial and industrial sectors, rural people are forced to seek employment in other sectors besides agriculture in order to survive.

Although the agriculture sector employs more than 80 percent of the total labor force, as a percentage it has decreased in comparison to the number of labor force employed in other sectors. It is obvious that non-farm employments have increased in the last decade in both urban and rural areas. For instance, in 1995, 56,635 persons worked in industrial sector, in 1999 the number increased to 78,531 persons (3.7 percent of the total labor force) of which 54 percent were female and 46 percent were male. Out of the total labor force in industrial sector, 76.38 percent are employed in medium and large industries in big cities, such as Vientiane Municipality, Luangprabang, Khammoune, Savannakhet and Champasak, the rest are employed in small-scale industries and handicraft establishments in urban as well as rural areas of the country.

Although the manufacturing sector is characterized by small-scale processing and assembly plants, and predominantly concentrated in and around Vientiane, it provides employment opportunity to urban people as well as people from rural areas. Industry's share has risen in the 1990s, largely due to the inflows of foreign direct investment (FDI) and an increase in the number of small enterprises. Labor-intensive industry such as textiles and garments provides employment opportunity for people in both urban and rural areas. This is very common for most developing countries like Lao PDR. In 1990, there were only two garment factories in Lao employing 800 people. With the liberalization of the economy, only three years later, there were 43 factories with 12,000 employees. In 1999, the textile and garment sector was made up of three small textile mills and 52 garment manufacturers employing some 19,000 people.

Recently, handicrafts have been promoted because handicraft items of different ethnic groups are very popular among tourists, particularly during the Visit Laos Year 1999-2000 that encourages rural people to produce handicrafts besides engaging in farm activities. Apart from handicrafts and garments, other fast-growing areas are wood products and construction materials. However, most manufacturing output is generated by rice milling, beer and soft drink production.

The same growth of labor force can be seen in other non-farm sectors such as construction, transport and communications, services and administration and commerce. The construction sector's contribution to the GDP is small – at around 3 percent of constant price GDP – but has increased since 1980s. Prior to the Asian financial crisis, the construction industry underwent a mini-boom because of increased demand for hotels and housing. The sector has also benefitted from the development of light industry and hydroelectric power dams.

Table 2. Distribution of Labor Force

	1985	1990	1992
Labor force (000)	1,511	1,752	1,859
Employed labor force (000)	1,466	1,699	1,803
Percent share:			
Agriculture	89.2	88.7	87.0
Manufacturing	1.8	2.0	2.5
Construction	0.7	0.9	1.1
Transport and communications	0.9	1.0	1.2
Commerce	1.7	1.8	2.1
Services and administration	5.7	5.6	6.1
Annual growth (percent)	2.8	3.0	3.0

Source: World Bank, *Lao PDR Country Economic Memorandum*, 1994.

NON-FARM INCOME GENERATION ACTIVITIES IN THE RURAL AREAS

The followings are non-farm income generation activities commonly practiced in rural areas of Lao PDR:

- C **Trade:** ranging from local shops with food, non-timber forest products and textiles to traders who buy from farmers and sell in border towns. These activities are popular among women.
- C **Handicrafts:** including traditional textiles and natural dyeing, such as hand-woven fabrics, mostly sins and pabieng and other handicraft items such as baskets, jewelry, traditional clothes, blacksmiths and embroidery that have proven a major source of income for many rural people. Lao PDR has a particularly strong potential in this sector. The raw material sources are usually reliable and these are mostly based on traditional skills. These activities, when operated full time and in relation to regular demand and reliable markets, provide the largest income.
- C **Transport:** both river and road transports offer considerable potential as income generation activities.
- C **Services:** ranging from basic services, such as bakeries, shoe repairs, communication, hairdressers, tailors to tourist services. Although there has been little development in this sector, the growth potential is good, and the possibility is high that there will be a big demand for the development of this sector due to increasing number of tourists.

GOVERNMENT STRATEGY AND APPROACHES

Creation of farm as well as non-farm employments has always been the main concern of the Lao Government in order to give people of all ethnic groups an opportunity to work and earn income to improve their living standards and to alleviate poverty. Together with other development objectives, the creation and promotion of non-farm employment has been included in the government policy and strategy as well as in development plans and programs of line ministries and mass organizations.

The Lao Government launched the National Socio-economic Development Programme 1996-2000 to pursue an overall policy of growth with equity, focusing on eight national priority programs; namely, food production, stabilization/reduction of shifting cultivation, commercial production, infrastructure development, improving socio-economic management and foreign relations, rural development, human resource development, and services development.

The Public Investment Programme (PIP) reports an increase in public investment from US\$147 million in 1995 to US\$290 million in 2000, doubling in real terms in five years. In order to create non-farm employment, investment in industry and handicrafts sector was boosted. The sector was second only to communication sector which enjoyed the highest investment. The proportion of public investment in agriculture over two periods declined from 15.4 percent to 11.3 percent. However, in real terms PIP allocation for agriculture doubled. The proportion allocated to rural development increased from 1.2 percent in the 1990-95 PIP to 10.3 percent in the 1996-2000 PIP, which represented the most significant change between the two periods.

Table 3. Comparison between the 1991-95 PIP and the 1996-2000 PIP

Sectors	1991-95		1996-2000	
	Billion Kip	Percent	Billion	Percent
Agriculture, forestry and irrigation	82.2	15.4	168.9	11.3
Industry and handicrafts	92.9	17.4	217.7	14.5
Communication	273.5	51.2	513.5	34.2
Education	35.4	6.6	145.3	9.7
Public health	18.8	3.5	120.9	8.1
Information and culture	9.4	1.8	30.4	2.0
Social welfare	2.3	0.4	102.0	6.8
Housing and offices	13.5	2.5	47.1	3.1
Rural development	6.4	1.2	154.0	10.3
Total	534.4	100.0	1,499.8	100.0

In order to speed up the development of rural areas, in March 1994, the Lao People's Revolutionary Party, Lao PDR, adopted a resolution on rural development that highlights the strategic importance of rural

development and emphasizes the need to establish development focal sites. A leading committee for rural development was established in November 1994 to oversee the implementation of the resolution.

The Central Rural Development Committee's functions include studying and compiling plans, projects and rural development situations, and leading, monitoring and promoting the implementation of central level resolutions. In coordination with the State Planning Committee and the sectors concerned, it establishes global strategic rural development plans as guidelines for the localities to develop detailed plans and projects specifically for their location.

The Provincial Rural Development Committee's functions are to coordinate the work of line ministries and the activities of provincial services at the grassroots level, while encouraging and monitoring the activities of districts at the grassroots level, and to report on a permanent (quarterly and annually) basis to the Central Rural Development Committee.

During 1995, provincial leading committees – assisted by newly established provincial rural development offices – began identifying focal sites and preparing focal site development plans for the year 2000. These focal site plans are the basis for the National Rural Development Programme for the year 2000.

The broad development strategy underlining focal sites is to bring together development efforts in an integrated or focused manner within geographical areas. There is a wide range of development activities, such as the improvement of infrastructure, healthcare facilities, and creation and expansion of farm and non-farm employments. The essence of focal sites is to increase food and commodities production, to create employment opportunities and to enhance the conditions for improved living standards. The budget of about 112 billion Kip was allocated for the implementation of focal site plans during 1996-2000.

Table 4. Sectoral Analysis of Focal Site Budgets

Sectors	1996		1997	1998	1999	2000
	Amount	Percent				
Agriculture	31,413	28.1	2,065	5,582	9,783	8,256
Income generation	3,486	3.1	199	1,033	1,274	529
Health	6,224	5.6	307	1,029	1,845	1,637
Education	9,657	8.7	379	1,586	2,844	2,749
Infrastructure	46,371	41.5	2,612	9,183	12,918	11,975
Village consolidation	6,750	6.0	482	2,521	1,501	1,296
Community development	1,602	1.4	233	272	322	425
Management	6,286	5.6	674	1,519	1,478	1,426
Total	111,789	100.0	6,951	22,725	31,965	28,293

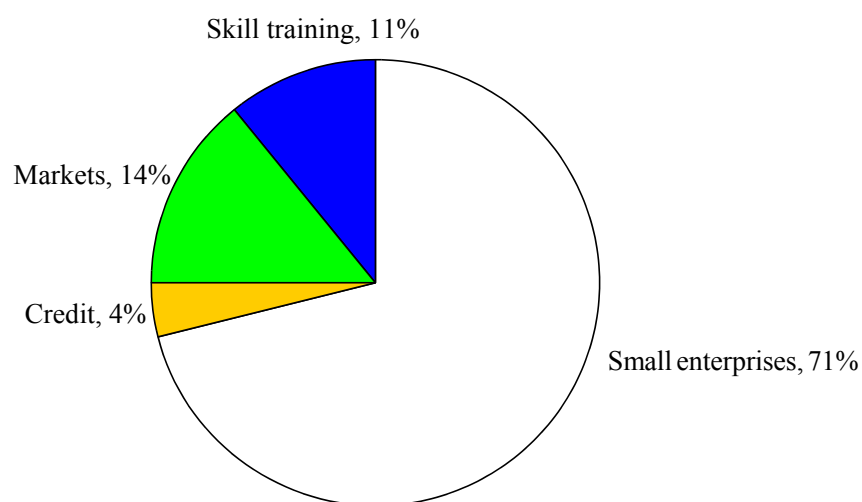
Out of the budget of 112 billion Kip, about 3.5 billion Kip was allocated for different activities of the income generation sub-sector.

Table 5. Income Generation Sub-sector

	Total		No. of Projects	Capital		Training	
	Amount	Percent		Amount	Percent	Amount	Percent
Credit	136	3.9	6			0	0.0
Markets	482	13.8	23	310	64.3	0	0.0
Skill training	380	10.9	18	50	13.2	321	84.5
Small business	2,488	71.4	37	11	0.5	17	0.7
Total	3,486	100.0	84	371	10.7	338	9.7

The proposed expenditure for income generation is for small enterprises such as the promotion of local handicrafts. Different approaches are being adopted to support the development of small enterprises.

The sector budget is for providing skill training in farm income enhancing activities. Skill training for non-farm income enhancing activities is likely to be an area where demand is strong, and support for developing appropriate quality training is required. Expenditure for markets goes to the construction of a covered market structure to attract small businesses and local trade.



The creation and promotion of non-farm employments is a responsibility of different ministries such as Ministry of Industry and Handicrafts, Ministry of Communication, Transport, Post and Construction, and Ministry of Commerce. The Ministry of Industry and Handicrafts plays an important role in the creation of non-farm employment in rural areas. It has four technical departments; namely, Department of Industry, Department of Handicrafts, Department of Electricity and Department of Geology and Mining. Particularly important are the Department of Industry and the Department of Handicrafts whose functions are to promote small and medium industries and handicrafts establishments in rural areas based on human and natural resources, traditions and other conditions of each region. The objectives, besides providing work opportunities for the rural people, are to encourage them to produce consumer goods for local consumption as well as for export.

Along with line ministries, mass organizations such as Lao People's Revolutionary Youth Organization, Lao Women's Union and Lao Trade Union play an important role in creating non-farm income generation activities. Lao Women's Union which has access to women of all ethnic groups encourages women to engage in different non-farm income generation activities such as traditional textiles and handicrafts by giving credits and technical assistance to women in rural areas through different programs and projects. In addition, Lao Women's Union sets up training and handicrafts promotion centers to provide skills training and information on access to credit and markets.

PROBLEMS AND CONSTRAINTS OF NON-FARM EMPLOYMENT CREATION

The rural areas in the Lao PDR are defined as areas where: (1) there is no district or provincial administration center; (2) most households have no access to electricity; (3) most households have no access to water supply/safe drinking water; (4) there are no permanent markets; and (5) the area cannot be reached by trucks throughout the year. Any area that meets three out of the above five criteria can be considered rural area.

According to the above-mentioned conditions, it is very difficult to promote non-farm employment, particularly the promotion of industries in rural areas. The followings can be considered the main constraints of rural industrialization in the Lao PDR:

- C Geographical conditions – mountainous rural areas pose difficulty to the development of infrastructure, such as access roads, electricity and water supply, telecommunications;
- C Low population density and insufficient labor supply will lead to high investment cost for setting up industries;

- C Unskilled rural labor will lead to increased expenses on training;
- C Small local markets, and difficulty to penetrate external markets due to low quality of products, except handicrafts; and
- C Lack of fund.

CONCLUSION

People living in rural areas of the Lao PDR depend very much on agriculture, particularly on paddy rice production and livestock, on which weather conditions have significant effects. Non-farm income generation activities are very limited. The Lao Government has made great efforts to promote farm and non-farm employment in rural areas in order to improve the living standard of people of all ethnic groups and to achieve the government's development goals for the year 2020 which include a tripling of per capita GDP, the eradication of poverty, and the elimination of Lao PDR from the United Nation's list of the least developed countries.

The approach that has worked successfully in promoting rural non-farm employment in Lao PDR is the development of focal sites under the rural development program of the government and a close cooperation and coordination of sectoral ministries and mass organizations. International technical and financial assistance coupled with experiences of APO member countries would be of great benefit for Lao PDR.

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2. PROGRAM OF ACTIVITIES

(24-29 September 2001)

Date/Time	Activity
<i>Mon., 24 Sept.</i>	
Forenoon	Opening Ceremony
Afternoon	Presentation and Discussion on Topic I: <i>Policies and Measures for Promoting Rural Non-farm Employment</i> by Dr. Jung-Sup Choi Presentation and Discussion on Topic II: <i>Development of Agro-Industries and Rural-Urban Linkages in Developing Countries</i> by Dr. Nerlita M. Manalili
<i>Tue., 25 Sept.</i>	
Forenoon	Presentation of Country Papers by Participants Presentation and Discussion on Topic III: <i>Problems and Constraints of Rural Industrialization</i> by Ms. Zenaida Cuison Maglaya
Afternoon	Presentation and Discussion on Topic IV: <i>Promoting Rural Non-farm Enterprises for Employment Generation</i> by Prof. Dr. Tongroj Onchan Presentation of Country Reports by Participants
<i>Wed., 26 Sept.</i>	
Forenoon	Presentation of Country Reports by Participants
Afternoon	Presentation of Country Reports by Participants Workshop
<i>Thurs., 27 Sept.</i>	
Forenoon	Visit Paete Associated Enterprises for Trading, Export and Manufacturing, Inc. (PAETE), Laguna
Afternoon	Visit University of the Philippines, Los Baños
<i>Fri., 28 Sept.</i>	
Forenoon	Visit Farmtec Inc., Silang Cavite
Afternoon	Visit Ilog ni Maria Honey Bee-based Products, Sabutan, Cavite
<i>Sat., 29 Sept.</i>	
Forenoon	Exposure Gains from Field Visits and Evaluation of Seminar Summing-up Session Closing Ceremony