

## **BIBLIOGRAPHY**

CORPUZ, BEATRIZ R. April 2006. Implications of Vegetable Importation for the Roles and Status of Women Farmers in Two Communities in Atok, Benguet. Benguet State University, La Trinidad, Benguet.

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## **ABSTRACT**

The study looked into the implications of vegetable importation to the roles and status of women farmers in Sayangan and Englandad, Paoay, Atok.

With the use of semi-structured interview schedule and document review, the study determined the socio-economic profile of the respondents; status of women respondents given the changing situation in the vegetable industry, and identified the problems encountered by the women farmers in the production level and heir solutions to these problems. It also determined the change in the roles and status of these women respondents.

Sixteen women farmer respondents from sitios Sayangan and Englandad, Paoay, Atok were selected in the basis of farmer-categories, willingness to be interviewed and residence in the community.

Findings show that respondents fall into the old-age group, which means that they have relatively long experience in farming. Most of the respondents are small owner-farmers who largely depend on family labor and sometimes who resort to hired labor when family labor is not enough.

The entry of imported vegetables have implications for the changing roles and status of women in terms of access and control, time resources, access to services, material resources and community involvement. The access and control over resources, however, depend on the economic status of women, that is, women who farm at the same time do trading as well as who own the farm and rent out other garden farms can access resources. On the other hand, women who are daily-paid farmers (por dia) cannot access “other” sources of income.

Women farmers are beset with problems that are within and out of their control nevertheless, these problems affect their status and roles as women farmers eventually their economic productivity and development. With the onset of vegetable importation they are bequeath with new challenges that will further marginalize their situation.

The solutions undertaken by the women farmers can help them survive their existing status. But these solutions cannot prepare them face the challenges brought by the entry of vegetable importation in the context of globalization. The implementation of WTO-AoA, women farmers are caught off-guard.

The study pointed out the need to legislate policies that are gender sensitive, especially to women farmers in the context of vegetable importation, and to provide them with agricultural support services and appropriate measures to prepare women farmers in line with trade liberalization.

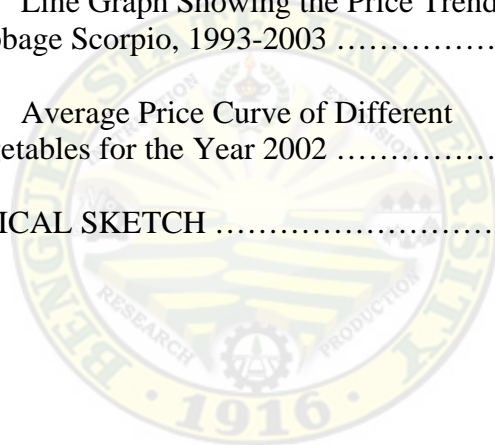
Once again, the thesis which forwards that women, in terms of prolonged crisis are the actual “coping mechanisms” has been proven in this study. There is therefore a need to conduct researches (qualitative and quantitative as well as comparative) to be able to understand the complexities of the effects of globalization to poor rural communities.

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## **INTRODUCTION**

### Background of the Study

Eleven years after the creation of the World Trade Organization (WTO), international trade has never been the same again. The WTO was established during the Uruguay Round in 1994; it set in a new world economic order, characterized by a free flow of trade and investments taking place across national boundaries.

What is new in WTO, compared to General Agreement on Tariff and Trade (GATT), is that it brought agriculture production and trade under multilateral trade regulations through WTO Agreement on Agriculture (AoA). This brings agriculture production into a new epoch of trade liberalization. Consequently, member countries including the Philippines agreed to launch a more free and market-oriented agriculture trading system.

Along with the implementation of WTO-AoA, the World Bank-International Monetary Fund enforced Structural Adjustment Program's (SAP's). Debt-ridden countries like the Philippines have been making adjustments since 1980's tailor-fitting it to this so-called, Structural Adjustment Program. Under SAP's, according to Madeley (2001), liberalization goes hand in hand with a decline in government support for farmers. Governments withdraw and leave their people to the free play of economic forces.

Integrated Set Information System (1995) defines the goals of SAP's as follows:

Structural adjustment measures are usually aimed at altering the long-run growth dynamics of an economy... the usual structural adjustment measures consist of allowing for greater "free-market" operations, greater privatization, delicensing, introduction of uniform tax and tariff structures, abolition of price and import controls, abolition of subsidies and promotion of what has come to known as labor-market flexibility, while the usual tools for stabilization consist of domestic credit squeeze, curtailment of budgetary deficits, reduction in money supply, and devaluation...

In short, both SAP's and AoA will direct developing countries like the Philippines to come up with major changes in their food and agriculture policy. They are compelled to open up their economies to cheap food imports and to reduce and severely limit support for their farmers (Madeley, 2001).

The translation of this AoA is seen in the vegetable industry in Benguet. At the start of 2004 alone, Bureau of Agricultural Statistics (BAS) in CAR reported figures that showed decline in the Cordillera's production of major vegetable crops that had to compete with large volume imports. It was reported also by BAS that the production of cabbage fell by 51.5 percent, potato by 48.4 percent, carrots by 47.7percent and tomato by 34.5 percent beans fell nearly 47 percent and mongo by more than 64 percent (Skyland News, 2004).

APWLD Task force on Rural and Indigenous Women (2002) revealed that in August 2002, hundreds of vegetables traders and farmers in Benguet lost

millions of pesos in earnings due to the importation of huge volumes of carrots, cucumber, and cabbage and potatoes from China and Taiwan. The imported vegetables flooded the Metro Manila market obstructing local products from Benguet in reaching the market. Due to this situation, prices of the local vegetables reached their lowest. This eventually resulted to losses and displacement of Benguet farmers. For a period of over three weeks alone (between July and August 2002) 107 traders and vegetable dealers at the trading post reported a total loss of 3.5 million while some 380 workers at the trading post were laid off. It was estimated that local farmers and traders lost at least P21 million in earnings within a week as a result of the importation of vegetables.

Atok, a municipality of Benguet, is one of the prime producers of vegetables (Appendix B). Thus, like any other municipalities of Benguet, it is likely to happen that the repercussion of vegetable importation is also felt in Atok. Paoay, one of the eight barangays of Atok, has the largest area devoted to agriculture (Appendix C). According to Paoay BNRMP, as of March 2001, 724 individuals are engaged in this activity. Moreover, the main products of the barangay are commercial vegetable crops (Appendix D) and its major crops are grown primarily for the market. With the full implementation of AoA, the main livelihood of the people of Paoay is being threatened.

On the other hand, vegetable production is one of the Filipinos major sources of income and food. Traditionally, agricultural production was very much



in the hands of women farmers who spent most of their time working in the field to produce for their family's consumption and other needs (Cariño, 2005). In Cordillera alone, 60 percent of the tasks involved in subsistence agriculture are performed by women (Tauli-Rovillos, 1999).

Women's participation in agriculture cannot be undermined from past to present, in fact, it is increasing. Food and Agriculture Organization (1998) described this phenomenon as the feminization of agriculture, which can be attributed to several factors like men migrating to cities to work. Women's contribution and participation vary depending on their country, the crop produce and task they perform. According to FAO (1998) more than half of the world food is produced by women. They play a very significant role in the production of staple and secondary crop. Aside from performing multiple tasks in agricultural production, women play various roles in life as well. But when impoverishment and economic crises occur, women's multiple burden becomes heavier, as they have to provide not only for themselves but for those under their care (Wee and Heyzer, 1995).

Though researches are insufficient, case studies show that globalization may further push women farmers into poverty and further complicates their existing problem as they assume their various roles in life. It is against this background that this study was formulated to investigate the implications of vegetable importation for the status and roles of women farmers in Sayangan and

Englanddad, Paoay, municipality of Atok. This is timely as more than five years of AoA implementation as shown in the vegetable importation would already surface realities besetting indigenous women. The real situation on indigenous women in relation to trade liberalization was looked with the aim to help in the policy making that will uplift the condition of women farmers.

### Statement of the Problem

This research aimed to find out the implications of vegetable importation for the roles and status of women farmers in two sitios of Paoay, Atok: Englanddad and Sayangan. Specifically, the research sought to answer the following questions:

1. What is the socio-economic profile of women farmers in Englanddad and Sayangan, Atok?
2. What is the present status and roles of women respondents given the changing trends in the vegetable industry?
3. What are the problems encountered by the women farmers in the production level?
4. What are the solutions women farmers undertake to cope with the problems encountered in the production level?

### Objectives of the Study

Primarily, the study aimed to determine the implications of vegetable importation for the roles and status of women farmers. Specifically, the research aimed:

1. To determine the socio-economic profile of women respondents in terms of the following: age, number of household members, educational attainment, number of years in farming, annual income, other sources of income, land tenure, crops being planted, adopted labor system, and source of capital.

2. To describe the present status and role of women respondents given the changing situation in the vegetable industry.

3. To identify the problems encountered by the respondents in the production level.

4. To find out the solutions undertaken by women farmers in coping with the problems encountered in the production level in relation to vegetable importation.

#### Importance of the Study

Benguet is known for its vegetable industry. It is the Philippines chief producer of temperate fruits and vegetable in Luzon for it is gifted with a temperate climate suited for semi-temperate crops. Benguet province remains a major source of semi-temperate vegetable. The supply of semi-temperate vegetables supply comes mainly from Benguet. In fact it is also known as the

“Salad Bowl of the Philippines.” But with the problems besetting the industry brought about by natural, internal and external forces at the production and marketing level, the collapse of the vegetable industry is likely to happen and the status of Benguet as the main producer of semi-temperate vegetables in the country will be a thing of the past.

With the Philippines joining globalization like the rest of the world, Benguet farmers specially women farmers are facing great challenges. In this regard, it is essential to understand and be acquainted with the effect of vegetable importation particularly on women involved in the vegetable industry in Paoay, Atok.

The research can provide information on the socio-economic profile of indigenous women in the study sites, which is normally absent in mainstream statistics on the country’s profile. For the reader, an understanding of the situation of women respondents in the context of vegetable importation will prove helpful. In the same manner, this research also serves as an additional literature along impacts of globalization to women. While there had been widespread skepticism about vegetable importation there has still been limited scientific researches done. Since it aims to reveal the impact of vegetable importation, the findings shall help policy makers both local and national level, in deciding and making laws and ordinances that will seek to address the situation of the vegetable industry, farmers particularly the women respondents. The awareness

brought will aid other researchers and people to determine and understand their plight.

Findings of this research will also serve as a steppingstone for other future researches along gender or women in agriculture.

Lastly, for the researcher, this research will help her understand the effects of trade liberalization on the aspect of agriculture and on women in agriculture. Since the researcher is a teacher by profession, the practical knowledge gained from this research will in many ways be of great use in the classroom setting.

#### Scope and Delimitation of the Study

The study primarily focused on the effects of vegetable importation with women farmers as respondents. Respondents were delimited only to women farmers who plant semi-temperate vegetables for sustenance and commercial purposes.

The study was delimited to the socio-economic profile of the respondents, their status and roles of women farmers in the production level, the problems they encountered in production and the solutions they employed.

To acquire the needed data and information needed in this study, the researcher used purposive sampling to identify the respondents. The following were the criteria used: residence at Englandad and Sayangan; availability during the time of interview; involvement in the vegetable industry for a minimum of at

least five years and representative of any of the following categories: farmer-trader; farmer-supplier; owner-farmer and oblangtes/por dia worker.



## **METHODOLOGY**

### Locale of the Study

This study covers barangay Paoay, one of the eight barangays of Atok. It is comprised of six sitios. It is bounded on the south by Abiang, on the west by Barangay Pasdong, on north by Barangay Cattubo and on the east by the municipality of Kabayan (Figure 2). It was created out of the division of the municipality of Atok into six barangays in 1956 under the leadership of Mayor Asingco Moltio, and in accordance with Republic Act 3950, otherwise known as the Revised Barrio Charter. Paoay was formerly a part of Barrio Abiang, one of the original settlements in Atok (Paoay, BNRMP). It is located 50 kilometers from Baguio City, 44 kilometers from the Benguet Provincial Capitol, and 35 kilometers from Barangay Poblacion. It is accessible via the Halsema Highway.

In the local dialect, “Paoay” refers to a barren flatland. This term was used by the original settlers to describe their community. In the past, the community’s land resources were largely left idle because of the virtual lack of irrigation.

Among the eight barangays of Atok, barangay Paoay is the second largest in area devoted to agriculture next to Cattubo (Appendix C). But lands are not maximally utilized according to Paoay Barangay Natural Resource Management Plan (BNRMP). Even though a great area of Paoay is devoted to agriculture, most of the farms are not irrigated, hence are planted only once a year. The pasturelands are not also fully utilized. Forestlands have also been denuded

causing many water sources to dry up during the dry season. During the wet season, occasional landslides occur.

Around 70.1 percent of the total land area of Paoay is being utilized for agriculture, 15.1 percent is forest, and 11.2 percent is grassland. Only 3.6 percent goes to residential lands, commercial, institutional, infra-utilities and idle land. But at present Paoay is manifesting limited agricultural land.

People. Parangay Paoay has the biggest population in the municipality of Atok (see Appendix H). Aside from this, it has also the biggest number of household and number of farmers compared to other barangays.

As of year 2000, barangay Paoay has a total population of 4,320. Barangay Paoay is consisting of six sitios. Distributed in the six sitios are 666 households. Among the six sitios, sitio Sayangan has the highest number of households (Paoay BNRMP). This can be attributed to its location since Sayangan is along the national high way and accessibility to transportation has been the pull-factor for settlers.

The people are mixture of Kankana-ey, Ilocano and Ibaloi. But the majority of the households in Paoay speak in Kankana-ey as their mother tongue (Paoay BNRMP).

It is apparent that there are lowlanders who have migrated into Paoay. Cruz (1994) census reveals that most of those who migrated into Paoay came from nearby barangays of Atok and municipalities of Benguet. The rest are



lowlanders mostly from Pangasinan and Ilocos. This explains why there are a lot of Ilocanos in Paoay.

The least spoken language is English. It is the medium of communication in one Filipino-German household.

Socio-economic situation. On the average, farmers plant from two to three cropping of these crops per year, depending on water and labor availability. The major crops being planted in Paoay are carrots, cabbages, potatoes and radish (see Appendix D). Compared to the census done by Cruz in 1992, sweet peas was one of the major crops of Paoay compared today, it is one of the minor crops being planted now.

Besides vegetables crops, the farmers also produce ornamentals or cutflowers such as calla lily, siesta daisy and chrysanthemum.

As of March 2001, there are 13 tractors, 12 water pumps and 43 power sprayers present in Paoay. Tractors are used for land preparation in the vegetable areas while carabaos are used to plow irrigated fields. These are privately owned and are usually for hire. Jeeps and truck are used in hauling vegetables from the farm to the market.

Gardening tools is commonly used by the farmers in the barangay (Appendix I). One negative effect of this is that work is slowly done and this is a proof that farmers are still engage in subsistence farming even with the onset of

globalization. It is also evident that the farming practices in Paoay are done manually though some are already mechanized. Manual activities include planting, transplanting, crop care which includes fertilizer and weed management, harvesting, hauling and storage of products. Water pumps and sprinkles are used in water management while power sprayers are used in the control of pests and diseases. Some also use small tractors in land preparation.

Organic and inorganic fertilizers are used in vegetable production. Chicken manure is the most common organic fertilizer for basal application for all kinds of vegetables and ornamental crops.

The farmers are very dependent on commercial farm inputs such as inorganic fertilizers and pesticides. This data was confirmed in the census done by Cruz (1994) and on the data presented by Paoay BNRMP. However, many of the farmers could not afford to buy the necessary inputs because of their prohibitive cost. Furthermore, because almost all of the farm activities are done manually, the farmers also spend much time on farm labor.

Appendix J shows the agricultural chemicals being used by the farmers. Since farmers rely heavily on chemicals, it is evident that both men and women farmers are exposed to these harmful chemicals that is detrimental to their health.

Agricultural support. Table 3 shows the type of agricultural support services present in the barangay.

Table 3. Type of agricultural support services

TYPE	LOCATION	SERVICE AREA	# OF HH	CONDITION
<b>Irrigation</b>				
*Open canal	Salat	250 has	500	Functional
* Hose sprinkler	Ampilet-	3	5	Functional
*CIS/CIP	Tuyongan	15	20	Functional
Tramlines				Functional
<b>Post Harvest Facilities</b>				
*MP Drying	Bonglo	10	35	Functional
Pavement	Englandad	15	35	
*Loading	Lower	15	20	
Platforms	Englandad			
*Seed Potato	Bonglo	30	20	
Storage	Central	10	15	
	Namegpegan	82	47	
	Bosleng	10	15	
	Sayangan	15	17	
	Bonglo Liang			
Nursery	Kayang-			
	Bosleng	35	47	

Source: Barangay Paoay BNRMP

The farmers use three types of irrigation facilities such as hoses, sprinklers and open canal. Hose and sprinklers are privately owned while the open canal which is located at Bekes is communally owned. The open canal services an area of 250 hectares with 500 household beneficiaries.

There are four tramlines in the area, all are owned by private individuals. The only post-harvest facilities are the two multi-purpose drying pavements

(MPDP) located at Bonglo and Englandad. These two MPDP's have a service area of 25 hectares and used by 70 households to dry potato tubers before storage.

The only loading platform in the barangay is located at Lower Englandad. This facility services approximately 15 hectares with 20 household beneficiaries.

Five seed potato storage (SPS) facilities are distributed in the five sitios especially Bonglo, Central Bonglo, Namegpegan, Bosleng and Sayangan. The only nursery is located at Kayang-Bosleng.

Social sector and infrastructure. The barangay has one district hospital and three barangay health centers providing health services to the community.

Sayangan (Figure 3) is the center of commerce in Atok where majority of the business establishments are located. Financial institutions that provide credit to farmers for the purchase of farm inputs are located in their community.

Infrastructure facilities in the barangay include 21 barangay roads, one municipal road, one national road, water systems and numerous foot trails and footbridges. The three water systems used are gravity, water pump and deep well. Aside from these, educational and health facilities also exist in the barangay. However, the existing barangay access roads and most of the buildings need to be repaired (Paoay BNRMP). The bad condition of the roads affects the flow of transportation of goods, e.g. farm inputs and vegetable products, to and from the barangay. In addition, most of the existing foot trails in the barangay, need to be

improved as they are potential hazards, especially during the rainy season when they become slippery.

Most of the households, especially those in elevated areas do not have potable water supply. On the other hand, out of the 666 total households, only 210 are energized. These are usually the houses situated very far from the BENEKO mainline.

Ecological sector. Of the barangay's total land area, 1,578.39 hectares are forestlands which constitute 65.45% of the total land area. This is followed by agricultural and A&D lands which cover an area of 803.45 Only 26.119 has are institutional lands.

Free patent is the only land tenure instrument issued to lot owners within the alienable and disposable areas. With the implementation of Republic act 6657 (CARP) Law that prohibits further classification of land, most or 805 of the residents who occupy the said area have availed of tax declarations. This is the only proof of ownership they have for the lands they occupy at present.

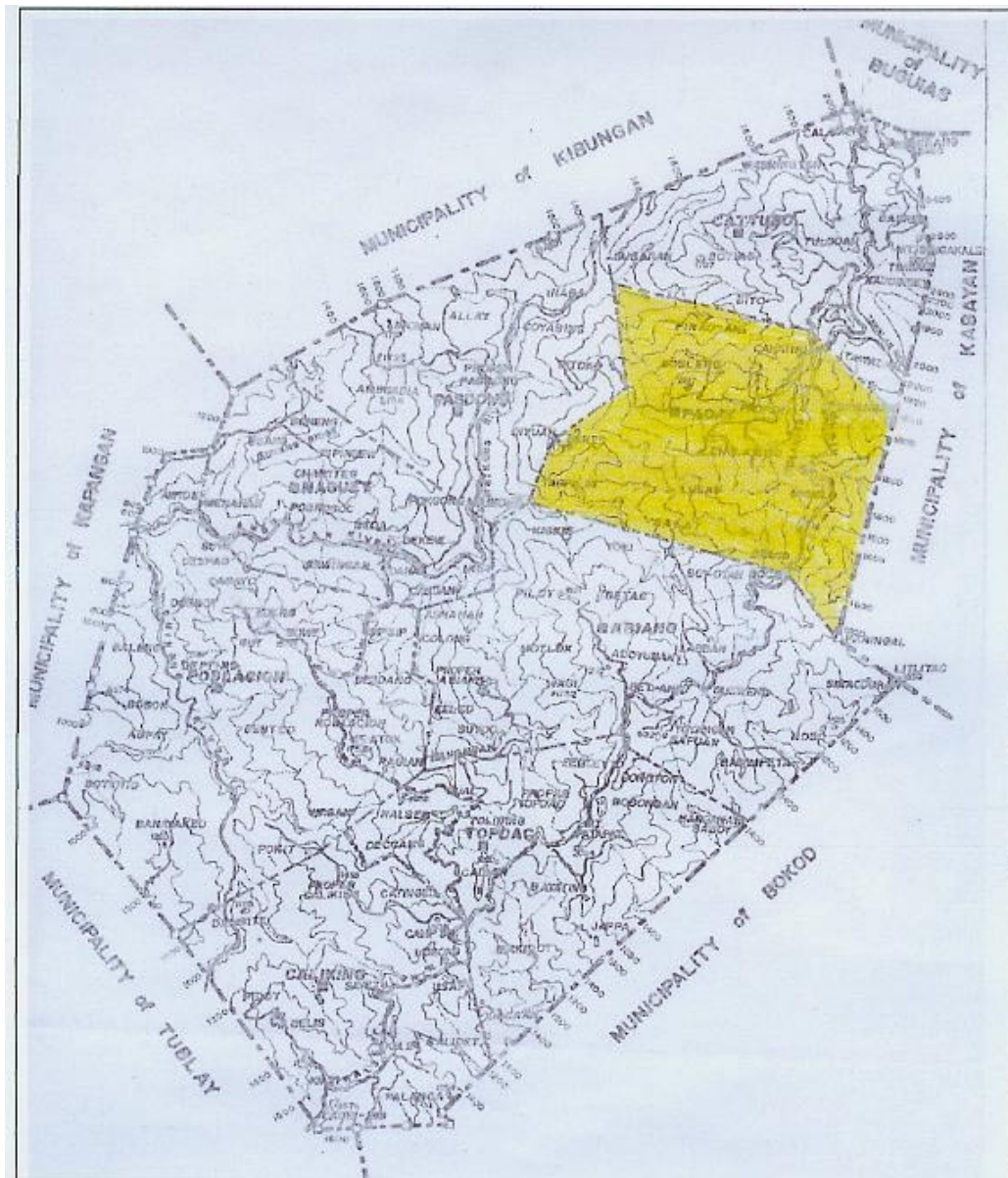


Figure 2 Map showing the site of the study



Figure 3 Site of the study

### Respondents of the Study

The respondents of this research were selected women farmers who are involved in the vegetable industry in Englandad and Sayangan, Paoay, Atok. Respondents who could provide the information needed were purposively selected. The criteria for the selection of the respondents are the following:

1. residents of Englandad and Sayangan, Atok
2. availability during the time of interview, and
3. involvement in the vegetable industry for a minimum of at least 5 years as either farmer-trader, farmer-supplier, farmer-operator, or an oblangtes/por dia worker.

### Instrumentation

This is a descriptive research to determine effect of vegetable importation to women involved in the vegetable industry as farmers in Englandad and Sayangan.

To answer the specific problems of the study, data were gathered by face-to-face interviews with the women farmers using a semi-structured interview schedule as guide. The interview schedule was constructed based on the objectives of the study. It composed of structured and unstructured questions. The interviewer asks the questions and records the answer by taking notes and using a



tape recorder. To get the needed data, the interviewer asked follow-up questions to clarify answers given by the respondents.

Document also forms part of the data gathering tool.

#### Data gathering procedure

Data needed and significant information was gathered by interviewing the respondents. The interview schedule provided the questions used in facilitating the interview. The researcher used dialects like Ilocano and Tagalog as media of communication to facilitate the gathering of data.

In the interview, interviewer asks the questions as they are written in the interview schedule and then records the respondent's answer by writing them down and by recording them with the use of a tape recorder.

In gathering other needed information, the Municipal Agriculture Office was conferred.

#### Statistical treatment of data

Data collected based from interviews was tallied, tabulated and analyzed. Percentages, frequencies and means were also used.

Percentage was used to determine the quantitative relation of the number to the whole. Frequency was used to ascertain the rate of prevailing option which most respondents selected as their answer. Qualitative data was content analyze.

## **REVIEW OF LITERATURE**

Globalization is not a new idea or occurrence. It aims to remove protectionist policies to pave the way for a more market-free system in trade and investments. At present, international financing institutes and multilateral trading bodies like International Monetary Fund-World Bank, World Trade Organization (WTO), and others are the main instruments used to carry its goals (Tauli-Corpuz, 1998). Member countries to these organizations ought to synchronize their national laws and adhere to WTO standard and IMF-WB instructions.

Between the developed and developing countries, the impact of globalization is more evident on the latter. Due to globalization, tariffs as well as non-tariff barriers are slowly being removed. According to Panlasique (1992), as quoted by Quitos (2000), with tariff as well as non-tariff barriers coming down, the whole world becomes a potential market. Competition is expected to intensify in the global market as a result of a much greater flow of export goods and services produced in various production centers; in fact, anywhere in the globe.

The WTO, successor of General Agreement on Tariff and Trade (GATT), provides the skeleton in the conduct of international trade. Compared to the latter, the former is wider in scope because it brought intellectual property rights, investments, services and agriculture into the global arena as matters of international trade (Shiva, 1995) which are not originally featured in GATT.

### WTO – AoA

The Philippines is basically an agricultural country. Agriculture is one of the major sources of livelihood of the Filipino people. It greatly contributes to the development of the country. It is also considered as the prime mover in the country's economy. But like other sector, it is beset with several challenges that may affect its role in the country's development. Gunnar Myrdal, a Nobel Laureate in economics stated:

It is in the agricultural sector that the battle for long-term economic development will be won or lost.

Historically, agriculture had been mainly exempted from the discipline of GATT. In 1980, the Philippines joined GATT, and the implementation of WTO – Agreement on Agriculture (WTO-AoA) for developing countries like the Philippines started in September 2000. With WTO agricultural policies, member countries are becoming market-oriented. But prior to this, the government had been implementing structural reforms in line with trade liberalization as mandated by IMF. The country had also been imposing programs and policies that carry the goals of trade liberalization due to its existing agreement with other countries under trade regionalization.

The WTO-AoA pushes countries to produce agricultural exports rather than food for subsistence. The creation of Medium-Term Agricultural Development Programme in the Philippines (MTDAP) ensures that the commitments of the government to the WTO are met. Under MTDAP, the lands

used for the production of crops for domestic food needs have been reduced (Tauli-Corpuz, 1998).

As cited by Batani et al (2002), the AoA contains three main categories of commitments as follows: conversion of all quantitative restrictions on agricultural products into tariff, reduction of tariffs on agricultural products, reduction of domestic subsidies, and reduction of export subsidy and the harmonization of sanitary/phytosanitary measure.

AoA has many imbalances. Khor (2002) explained the effect of agricultural subsidies in developed countries. Their farm production levels are kept artificially high and their producers dispose of their surplus in other countries. The surplus is often dumped on world markets at less than the production cost of the exporting countries. Farmers in developing countries can make losses in three ways: they lose export opportunities and revenues from having their market access blocked in the developed countries using the subsidies; they lose export opportunities in Third World countries, because the subsidizing country is exporting to these countries at artificially low prices; and they lose their market share in their own domestic market, or even lose their livelihoods, due to the inflow of artificially cheap subsidized products.

Globalization can give opportunity for the farmers for a wider market, but it also threatens their means of livelihood due to the flooding and unrestricted entry of cheap and quality products to fluctuate and compete with the domestic

product of the country. Due to this, domestic food production is at risk as the agricultural sector is placed in jeopardy, affecting Philippine development as a whole. Soriano (2000) describes the country as a developing country that is basically backward in agrarian economy with few economic enclaves. Furthermore, in the countryside, farmers toil in the most backward conditions to produce food and raw materials. With this situation at hand, it is unclear whether family farms in their present form can survive with the full implementation of trade liberalization.

Due to uncontrolled importation of vegetables, the country is now considered a dumping ground of imported vegetables from other countries. This condition has resulted in huge losses for the local vegetable farmers, dealers and workers in the vegetable industry, particularly in Benguet (APWLD, 2002). Chair Rafael Mariano of Kilusang Magbubukid ng Pilipinas mentioned that in 1999 alone the country exported agricultural product amounting to U.S \$ 1.76 billions and importing amounting to not less than \$2.87 billion. This situation signifies that in the Philippines there is unfavorable balance of trade wherein the country is not gaining, but is instead experiencing deficit in trade. He also mentioned that under GATT-WTO-AoA, the government is putting the people in jeopardy by making the Philippines highly dependent on imports of its staple food. However, he said that the Philippines alone can sustain the domestic need of its people.

One cannot underestimate the significance and role of agriculture in the country's growth and development and the benefit it gives to the people as well. According to Vivar et al (1998) the agricultural sector is a critical sector in the economy which deserves a more serious attention from the government since it provides the necessary human and natural resources that give potentials to development.

#### Women and Trade Liberalization

Women are first hit in economic changes or changes brought by trade because women are also directly and indirectly engaged in international trade and their lives are affected by this activity in many different ways (Joeke and Weston, 1994). Pineda-Ofreño (1999), as cited by Batani et al. (2002), pointed out that with globalization, risk and uncertainties especially to women is unavoidable whereas Tauli-Corpuz (1998) stated that indigenous women, by being indigenous and women are twice struck by globalization.

Due to globalization, indigenous women who are primarily involved in agriculture are unable to produce the food needed by their families and hence fall into the trap of commercialized agricultural production for export (Cariño, 2005).

With the challenges brought by globalization, women farmers perceive WTO-Uruguay round as a threat more than as an opportunity (IWDS-WHO, 1994 as cited in Batani et al. 2002).

Trade liberalization does not only widen the gap between the rich and poor. It also affects women in an agricultural country. Case studies suggest that trade liberalization in agricultural economies can disadvantage women or benefit them less than they do men, even when traditional export crop production increases (Galdwin, 1991; and Fontana et al., 1998 as cited by Çağatay, 2001). Taguiwalo (1998) cited also that majority of Filipino women are at a disadvantage position under the regime of liberalization, deregulation and privatization. An example of this is that when Filipino women are being eased out in the rural areas, agricultural lands are converted into industrial enclaves or into tourist areas.

According to Çağatay (2001), the system of rules and agreements that currently governs international trade is based on the widely accepted view that expanding global trade is beneficial to all countries and their citizens. But case studies show that trade liberalization in predominantly agricultural economies may disadvantage women, compared to men, even when traditional export crop product increase. The studies on Kenya, Ghana, Uganda, Zimbabwe, Mexico, and the Philippines all show how trade liberalization is impacting heavily on women and accentuating gender inequality. For instance, Too-Yego, as cited by Madeley, (2001) found that in Kenya, as a result of the liberalization of agricultural trade, many women cannot afford adequate chemicals and fertilizers, and that farm output has declined.

Any appraisal on the impact of trade liberalization on women must not only look on women's paid employment opportunities, including wages and working conditions but also on the unpaid care economy where women are involved. Mendoza (1998), as cited by Paunlagui (2002), noted that a close tie between farms and housework means that any disturbance in one area would have profound effects on the other. Being the key player in the house and in the farms, women feel the greater burden of any economic alteration.

Among indigenous peoples, Tauli-Corpuz (1998) summarized the impact of globalization on indigenous women into the following words: the rights of indigenous women to their ancestral lands further undermined; inability to compete with imported crops; the erosion of control over genetic resources and indigenous knowledge; threatened food security; destruction of indigenous economic and increased outmigration; increasing economic insecurity among indigenous women; erosion of small-scale home-based handicraft industries run by indigenous women; worsening poverty; increasing incidents of sexual abuse and violence against women; heavier unpaid women's reproduction work; and increasing social problems and family problems.

Çağatay (2001) stated that there are reasons to expect that trade liberalization in predominantly agricultural economies may jeopardize women's livelihood and well-being owing to the gender division of labor and gender-based differences. The impact of trade liberalization on gender inequalities specifically



women are as follows: first, the well-being of women and children may not improve even in case where household income increases with increased production for export. Second, import competition caused by trade liberalization also leads to loss of employment for some women, depending on the sectoral reallocation of work. Third, it also affects women's unpaid labor time through its impact on the environment. Women rely on the common property resources for their livelihoods and are also responsible for the collection of water and fuel wood from such sources. If trade liberalization results in environment degradation and a reduction of biodiversity, women will have to devote more time to this task. Lastly, trade liberalization is typically accompanied by reductions in government spending and increased privatization of services, including health care, obliging women to take care of these responsibilities and/or forego services.

Furthermore, Çağatay stated that feminist economists and social scientists have long observed that an increase in women's labor-force participation is not accompanied by a commensurate reduction in their unpaid domestic labor, as men have been reluctant to pick up the slack, resulting in the so-called "*double day*" for women. Two consequences can be seen with the increase in women's paid employment: either the provision of care is squeezed and/or women's leisure time is reduced.

In the study of Bangladesh, for example, Fontana and Wood (2000), as cited by Çağatay, found that the expansion of women's paid employment has

been accompanied by a reduction in their leisure time while the 1999 Human Development Report ties intensification of global trade competition to a squeeze in the provision of care.

Paunlagui (2002) on the other hand mentioned that the rural poor and women are bearing a large part of the brunt of the economic crisis. With the drying up of remittances from city-based family members, women cut their expenses and often have to produce the goods and services in the market. In addition, Illo (2002) cited that by feeding the unemployed from their produce and earnings, women provide the safety net for the unemployed family members.

Some of the effects of the economic crisis on women in the agricultural sector and in rural areas are as follows (Paunlagui, 2002): lower profitability of agricultural production; strong pressure on women to earn cash income; further inequality in wages; and deteriorating health and physical condition of women and children.

With the decline in real income and the increasing cost of living, there is a strong pressure on women to supplement the income of the family. Low profits compelled women with small farms to seek other augmenting activities to cope with life and supply the basic needs of the family.

Working women have long carried multiple burdens. Before going to work and upon coming home, they cook and wash and iron clothes, clean the house, and take care of the children. The bulk of responsibility lies with the

women though husband and children of working mothers share in these activities. Coupled with the deteriorating food, the health and physiological condition of mothers are at greater risk. Limited income has led to the adoption of various ways of meeting the family needs.

#### Import Liberalization and the Agricultural Sector of Benguet

The full implementation of the General Agreement on Tariffs and Trade (GATT) under the World Trade Organization really threatened the vegetable industry of Cordillera. Due to Philippines membership in the WTO-Aoa, the country's food security was sacrificed for export-promising crops. It is also feared that because of the entry of imported vegetable, the once-lucrative Cordillera vegetable farming will be a thing of the past.

The country's membership with the WTO has caused more than 50,000 garlic and onion farmers in the Ilocos and Central Luzon regions to be jobless. Almost an equal number of corn growers in Mindanao are clueless as to where to sell their crops and thousands of hectares of prime agricultural lands in the southern Tagalog region are being transformed into industrial states (Skyland News, 2004).

In the Cordillera the entry of imported vegetables has been a source of economic insecurity. Appendix E shows the total production of commodity in the province of Benguet from 1991 to 2001. It can be observed that there is a

tremendous decrease of the volume of production in vegetables from 2000 to 2001.

High value crops such as carrot, potato, asparagus, broccoli, cabbage, green onion, garden pea, lettuce, radish and cauliflower have always occupied the top priority list in the country's agriculture department. Yet with the liberalization policy, even the Department of Agriculture admitted that the same high value crops (potato, garlic, onion, and cabbage) are considered as threatened crops under this policy (Tauli-Corpuz, Maza and Batani, 2005).

According to the Department of Agriculture (DA) Secretary Leonardo Montemayor of the Bureau of Plant Industry (BPI) has permitted the importation of vegetables on a limited scale. For the first six months of the year 2002, the BPI permitted the importation of 302,000 kilos of dried carrots, 3,346 kilos of which came from Australia. For the months of July and August, 5,758 kilos of assorted vegetables from Taiwan, Australia and China were allowed into the country. The DA has also allowed the importation of diced vegetables from Australia, Holland and the United States for use in top hotel establishments. In addition, according to Tauli-Corpuz et al, (2005) the Philippines is importing around 40 kinds of fresh/chilled/diced vegetables and about 16 of these are vegetables produced in the Cordillera region particularly Benguet Province. Table 1 presents the list of imported vegetables

Based on Table 1, it is apparent that the volume of importations is enormous and far exceeds the total production of local producers. This condition means that there will be a stiff competition between the local vegetables and the imported ones because of globalization and market liberalization due to GATT.

Table 1. Philippine Fresh Vegetable Imports, 2001-2002 (volume in kilograms; value in CIF\$)

COMMODITY FRESH/CHILLED	2002		2001		% GROWTH RATE	
	Volume	Value	Volume	Value	Volume	Value
Onions, in quota	6,602,175	987,655	16,476,168	2,472,994	(59.9)	(60.1)
Other vegetables n.e.s.	1,814,076	454,953	129,579	132,296	1,300.0	243.9
Cauliflowers & Headed broccoli	609,724	213,556	309,590	222,168	96.9	(3.9)
Lettuce, other than Sub-item 0545401	215,333	201,034	369,197	453,179	(41.7)	(55.6)
Cabbage lettuce (head lettuce)	171,186	108,030	84,917	79,515	101.6	35.9
Cabbage, In quota	69,422	18,199	35,742	6,908	94.2	163.4
Onion, out-quota	50,000	5,861	1,163,750	138,704	(95.7)	(95.8)
Asparagus	3,030	1,349	8,093	5,852	(62.6)	(76.9)
Radishes	2,998	2,241	3,831	4,486	(21.7)	(50.0)
Spinach, New Zealand Spinach and orache (garden spinach)	2,647	1,463	1,074	7,948	146.5	(81.6)
Beans (vigna spp., Phaseolus spp.)	1,579	2,214	1,617	22,772	(2.4)	(90.3)

Source: Based on the study of Tauli-Corpuz et al, 2005

Aside from the legally imported vegetables that threaten the local market, another rising problem is the intrusion of illegal or smuggled vegetables. Due to the entry of smuggled vegetables, prices of carrots dropped to P6 as of July 3, 2002 at the La Trinidad Trading Post, from a previous price of P28 per kilo. The

average daily volume of vegetables assigned through the Trading Post is estimated at 80 tons per day with a value of 1.2 million. From the Trading Post, the vegetables are trucked to Metro Manila and to other markets. A dealer from Natubleng, Benguet attested that because of the importation of carrots, dealers' sale fell to 3 tons per day from a previous 10 tons per day, 50-70 ton drop in weekly sales. She revealed that her former customers from Bicol and Iloilo stopped buying her carrots. Though the DA had taken necessary action, still illegally imported vegetables continue to flow in from other ports of entry outside Manila.

In La Trinidad, the capital town of Benguet that also grows semi-tropical vegetables, the town mayor, Nestor Fongwan, issued an EO-02-2004 last July 12, 2004. This executive order prohibits the wholesale, retail and packaging of smuggled and/or illegally imported fresh vegetables at the La Trinidad Trading Post and in the public market.

The fight against legal or illegal entry of imported vegetables had not yet come to an end when the issue of the Bilateral Quarantine Agreement between China and Philippines triggered the situation. This agreement opens the doors for liberalized trade which includes the trade of fresh fruits and vegetables including carrots. The agreement also formalized the existing trade of fresh fruits and vegetables between the two countries such as banana, mango, papaya and fresh young coconut to Chinese markets and apples, oranges, lychees, longans, pears,

onions, garlic and chestnuts to Philippine markets. Included in the agreement as appendices are the formal protocols for the opening of Chinese market to Philippines fresh pineapple and Chinese carrots to the Philippine market. It is said that the agreement is an outrage to the threatened vegetable industry of the country, most especially to the carrot producers of Benguet because the signing would eventually kill the said industry.

It is apparent that prior to this agreement, the carrot producers of Benguet and other vegetable farmers have already suffered untold losses due to the influx into the country of carrots and other vegetables mostly through smuggling. The intrusion of smuggled vegetables would eventually kill the vegetable industry of Benguet.

#### Socio-economic Profile

Agriculture continues to provide substantial employment to women even though there are employment opportunities in the industrial and service sector of the Philippine economy. Size of the family, civil status, education and family income are several factors that were found significantly affect the women's participation in economic activity as reported by some researches while others claimed otherwise.

In most societies women are likely to work longer hours than men, have lower earnings, education, wealth and less access to credit, information and knowledge (Çağatay, 2001).

### Income

People work to gain income to support the needs of their family. Income, on the other hand, affects the status of women. Women receive, on the average, lower wages compared to men (Paunlagui, 2002).

In rural households, the husband is the principal provider of income for 45.3 percent of the cases. The wife is a contributing source of income for 43.8 percent of the households. The National Demographic Survey (1973) reported that 92 percent of rural housewives earned less than P1, 000 as cash income in 1972. Among those who received non-cash income, 51 percent received less than P500 and 12.4 percent received an equivalent of P500 – P3, 999. The contribution of rural women to household income may therefore be considered significant.

Mandac (1984 cited in Wongsuwan, 2004) explained that low income levels associated with low farm productivity limit the capability of farm households to invest in modern farm inputs such as fertilizers, insecticides and herbicides. Wongsuwan (2004) found that socio-economic characteristics such as educational attainment, experience in seed growing and farm size do not significantly relate to the productivity of seed growers. However, the experience



Table 2. Current mean income of families in Benguet and families whose main income comes from agriculture

	1991	1994	1997	2000
Benguet	62,471	85,496	108,277	139,918
Benguetr Agri	59,143	62,301	60,309	67,267
BA/B	94.67	72.87	55.70	48.08

Source: Villanueva & Ylanan, 2003. The Developmet of Vegetable Farming in Benguet (1991-2001)

in rice farming and annual income significantly relate to the productivity of the respondents.

A study conducted in 2003, revealed that the mean income of Benguet families depending for their livelihood on agriculture increased from 1991 to 1994 by 3,158 or 5.4 percent. However, a decrease in mean income by 3.2 percent was recorded in 1997. This event coincides with the Asian financial crisis that did not spare the Philippines. In 2000, mean income of farming families improved with an increase of 11.54 percent or equivalent to 6,957. However, despite the increase in the value of mean income of families depending for their livelihood on agriculture, its proportion over the mean income of Benguet families as a whole has been decreasing. This disappointing result may be explained by the growth in the income of families whose sources of income come from non-agricultural activities. Apparently in Benguet, the income from other sources, such as industry and services, is increasing faster than that from agriculture (Villanueva and Ylanan, 2003).

### Other Sources of Income

Due to economic problems faced by the Filipino family brought about by internal and external factors, the income of the husband is not sufficient to meet the needs of the family; women are engaged in various income-augmenting activities that are usually outside the formal economic structure.

Licuanan, the chairperson of the National Commission on Women (cited in Illo, 1991) stated that employment is not necessary for a Filipino woman because it is considered a man's domain but because of necessity, as a secondary breadwinner for additional income, the Filipino women had to work.

Among indigenous communities, the indigenous woman usually augment her income by other productive activities aside from such as foraging, fishing and handicrafts like weaving, knitting, basketry and embroidery (Cariño, 2005). Furthermore Paunlagui (2002) mentioned that women are also engaged in wage labor and that with the decline of real income and the increasing cost of living, there is a strong pressure on women to supplement the income of the family by, for instance, planting cash crops. Low profits from rice production compelled women with small farm lots to seek work in neighboring farms. Also, many women in their area have turned to retailing and washing clothes to earn additional income for their children's education and other household needs.

Tauli-Corpuz (1998), on the other hand, stated that women are the ones who get into the full range of economic activities in the informal economy more

than men. This range of economic activities include entering as domestic helpers, accepting laundering of clothes, rearing domestic animals for sale, vending of vegetables, fruits, fish and others. Furthermore since some women are located in communities near industrial sector, they are also the ones who accept the subcontractual jobs like crocheting, embroidery, placing buttons on garments, making paper mache, ceramics, and other side activities like washing the bottles for soft drinks corporation.

Batani et al, (2002) disclosed that Cordillera women in the interior area have also been noted to seek work outside their villages. They are now found in the vegetable farms of Benguet, where they sell their labor to farmer operators, or wash carrots or package vegetables at the trading post.

### Tenurial Status

Most women do not own the land they till. If they do, their plots are invariably small, dispersed, remote and less fertile compared to the farm plots owned by men. Women who do not own the land they till are less inclined to invest precious time and scarce resources in long-term land improvements such as irrigation or drainage systems, terracing, tree planting and other activities that maintain soil fertility. On the other hand, women who do not own the farm land are usually denied access to agricultural support services such as credit for purchasing inputs, training in land and water development and water supplies for

irrigation (FAO, 1998). Tauli-Corpuz (1998) stated that the majority of indigenous women in Asia-Pacific are still small owner-tillers engaged in subsistence agriculture. Unfortunately, subsistence farming has no place in the globalization agenda of agriculture.

Uddin (1988) as cited by Wongsuwan (2004) reported that tenurial status had a significant but negative relationship with productivity and that tenants produced more yields than the other groups of farmers because farming was their only source of income; therefore they tried their best to produce more in their limited land.

Land tenure in the province of Benguet is characterized by relatively small land areas and less than a hectare per farming household. There is a very limited income that can be derived from the cultivation of small parcels of land and that is not even enough to support the basic requirements of the farmers for subsistence (Benguet Province Main Report, 2003). In addition, Batani et al, (2002) revealed the conditions of women potato farmers in Paoay, Atok. Based on the study, most women farmers are small owner tillers, and the majority of them cultivate less than a hectare.

### Production System

Boquiren's (1989) study revealed that the production system of vegetable growers in Benguet is characterized by the following:

1. labor in the vegetable farm is supplied by family members and other relatives hired through existing farm of cooperatives/exchange labor within the community,

2. small and medium scale farms rely primarily on family labor while large scale farms use hired labor such as wage workers or *oblantes*, who constitute the work place in Benguet commercial agriculture.

*Oblantes* are classified as contract workers and *por dia* workers. Contract workers are those who are hired on the basis of an agreement to accomplish activities with an agreed period of time for specific fee while *por dia* workers are those who are hired on an emergency daily basis usually during harvest and post-harvest activities.

In addition, large-scale farms use family labor and exchange labor. Under family labor, family workers do not receive remuneration in cash for daily work on the farm since activity is construed as household enterprise. The practice of exchange labor persists in the community to provide labor assistance among members of the group.

This grouping of Boquiren is also appropriate and was used to illustrate the production system being adopted by the women farmers in Paoay, Atok.

### Women's Role and Status

For most Filipino farmers, their outlook with agriculture is not merely a source of income or occupation but it is a way of life. Their life and activities is shaped and being shaped by it. To be able to accurately describe women condition in the context of trade liberalization played during economic crisis, it is important that the roles of women on the farm and in household should be considered. These roles describe the real status of women.

Status is not a homogenous characteristic capable of simple measurement (Lootfi, 1982 as cited by Chavez, 1998) and defining women's status roles and status is tough since according to Karl (1996), gender roles are not static and it change overtime. Today, and especially over the last century, there have been considered radical changes in the types of work that have been considered typically women's or men's job.

Stafilios-Rothschild (1985), as stated by Chavez (1998), pointed out that women's status can be conceptualized at two levels: micro level and macro level. The former refers to women's status in the household while the latter refers to women's status in the society. Dixon (1978 as cited in Chavez, 1998) defines women's status as:

Women's status is the degree of women's access to and control over material resources (including food, income, land and other form of wealth) to social resources (including knowledge, power and prestige) within the family, community and society at large.

Dixon posited that women's control of productive resources and their involvement in certain economic sectors are important dimensions of status. But they are conditioned to think of themselves as housewives rather than as farmers or agricultural workers. This notion can be attributed several reasons: the society was conditioned and is still conditioned that when one speaks about farmers many people refer to men and this reference was accepted by women farmers. Second, it is because men and men's perspective are still the norm while women and women's perspective are often not taken into consideration, as stressed by Karl (1996). Lastly, women had already accepted this concept.

On the roles women play, literature has shown that in the agricultural sector women are visible from production to post production activities. This was ascertained by Japan International Cooperation Agency (JICA) Summary Report, which underscored the importance and need for the intensification of the participation and role of women in development. It pointed out that in developing countries; women play an important role especially in agricultural production and rural life. There is differentiation of roles in various farm activities among males and females, but women play important roles in agricultural production as well. The study of Loza gave a concrete example. Loza (1998 as cited in Dulos, 2003) found in her study that women were greatly involved in pineapple production and post-harvest operations. Productive activities include those that do not require much physical effort like procuring planting materials, clearing, furrowing,

planting, fertilizer application and harvesting. Post-harvest operations actively participated by women were on transporting, sorting, marketing and processing of produced products. However, women were regarded to have a limited access to and control of resources.

Toquero (1999) summarized women's role in most societies into three categories:

1. Productive – relating to production of goods for consumption or income through work in out outside the home
2. Reproductive – relating to domestic or household tasks associated with caring and sustaining children and family
3. Community Organization – relating to tasks and responsibilities carried out for the benefit of the community.

Based on the foregoing information, women, indeed, have multiple tasks to assume. Women, therefore, need to balance these tasks so as not to create a bigger problem. In carrying out their multiple roles from family to community, women usually do not generally receive an income.

According to Paunlagui (2002), women in the agricultural sector are heavily involved as unpaid family workers in agriculture and are about three times higher than that of men. But since much of women's agricultural activities are usually interspersed with their reproductive tasks, their work is often not considered productive by other household members, including the women



themselves. In most cases, only activities that are remunerated are considered as women's work. Hence, women economic contribution to the welfare of the household is often understated.

Appendix F presents the labor in agriculture by crop/livestock, activity and sex. It shows that women are actively involved in the agriculture doing simple to complex work on the farm.

In the family, each member is given roles to assume. The man is considered the head, the guardian, the breadwinner, and protector, while the mother is the keeper of the house, the treasurer, and manager of domestic affairs. But in a garden production, according to Wiber (1984), the men clear the field, turn the soil, and apply chemicals. The women, on the other hand, cultivate the soil, plant the weed and harvest. Wiber concluded that there is a general tendency for men to manage the commercial production of vegetables. However, as men leave their rural homes to look for other sources of income, the role of women in agricultural production becomes increasingly dominant, that is, the management of commercial farms is no longer the domain of men, but women as well (Batani et al, 2002).

### Problems Encountered By Women at the Production Level

Benguet Province continues to be predominantly an agricultural economy with vegetable industry taking the lead role. However, with the present situation, it is being beset with challenges which should be given top priority.

At present, according to the Benguet Province main report (2003), the vegetable in Benguet is deteriorating because of the existing problems such as high cost of production, allegedly high chemical residue of vegetables, unstable prices, poor quality and uncoordinated marketing practices.

Small farmers, both men and women, are confronted with many constraints on their agricultural production. Women farmers, however, face additional and/or more severe constraints that pose serious difficulties for the achievement of food security. Karl (1996) identified seven constraints on women in agricultural production as follows:

- Assumption about farmers being men. Despite evidence to the contrary, many development policy and decision makers still assume that men are still the principal farmers. The needs and perspectives of women farmers are, therefore, not given sufficient consideration in policies, programs and projects.
- Directing development policies and programs at cash crop export-oriented production rather than food production for domestic consumption. The predominant development model emphasizing cash crop production for export is

detrimental to food production for household, community and national consumption and for food security.

- Discriminatory legislation. Women farmers face discriminatory laws on land rights, agrarian reform and membership cooperatives. Women have benefited little from agrarian reform programs which frequently restrict land title and membership in cooperatives to men or male heads of households. Without secure land tenure or membership in cooperatives, women lack the collateral for loans and access to agricultural resources.

- Lack of access to agricultural resources. In addition to lack of access to credit, land and membership in agricultural cooperative and associations, women have less access than men to other agricultural inputs and to extension and training which are still mainly directed to men, ignoring the needs of women farmers. Even where legislation does not limit women's right to land titles and membership in cooperatives, tradition often does.

- Agricultural research misorientation. The emphasis on cash crops and on male farmers has also resulted in agricultural research being directed at the crops that men grow while the crops that women are responsible for are neglected.

- Environmental degradation. Environmental degradation increases the work load of women who have to walk farther and farther to collect fuel wood and water and who have lost, with the loss of forest, the source of many food items, medicinal products and products used in the household.

- Globalization and trade liberalization. . With globalization, the recognition and value of women's key roles in food security are further downplayed and degraded. Trade liberalization is displacing women from production. In addition, globalization of production, although to a large extent based on women's labor, has not brought commensurate benefits; on the contrary, and that in the developing countries like Philippines, working women have been particularly hit by the debt crisis and structural adjustment measures.

Even when women function effectively as heads of their household, they are often denied full legal status. Women therefore have no access to credit and capital required to increase productions. Farmers need short-term credit to buy improved seeds, fertilizers, insecticides and herbicides and to hire farm laborers to work the fields and help with post-harvest operations. They need long-term credit to invest in more efficient technologies—irrigation, labor-saving tools, implements and transport—and to set up new enterprises if conditions are favorable. Rural women's limited access to financial services therefore thwarts their efforts to improve or expand their farm activities so as to earn cash (FAO, 1998).

Valmayor (1998) enumerated some constraints in vegetable production as follows: seasonability that includes the typhoons, heavy rainfalls, high incidence of pest and diseases; unavailability of high-quality seeds, poor implementation of insect and disease; high marketing cost; high perishability of vegetables, the

absence of grading standards, improper handling and packaging and the lack of storage and transportation pose great problems in production.

These problems agree with Aquino's (1991) listing of some major problems about the farming system of Region 1 and the Cordillera Administrative Region (CAR) that include lack of technology, lack of capital and finance for projects and activities, and destruction caused by environmental conditions in relation to adaptation while Kranz (1976) stated that commercial vegetable production usually requires large capital and heavy labor inputs, refined skill and good marketing facilities.

Flamiano (1988) explicated that the problems of high inputs costs and limited sources of credit are endemic to vegetable production, and that in the Buguias case, Flamiano identified three major problems of Buguias farmers namely: fluctuating prices that is often brought on by periodic over production of specific vegetables and irrigation crop damage and road closure due to typhoons; inadequate infrastructure which hits the farmers the hardest and financial conditions. These problems are aggravated by the dominance of traders who do not only set the prices, but also, become the sole sources of seeds and other inputs, as well as production loans to farmers.

In Benguet, credit services such as banks are available though they could not be readily availed of due to some factors such as collaterals, high interest rates, improper information and attitudes of co-farmers. Farmers are sometimes

not informed of any loaning agencies due to lack of communications/information, inaccessibility/rugged, and most often farmers who are well informed do not disseminate the information. In some vegetable areas, supplier-financiers offer credit solely for crop production. Normally, credit is provided in kind, especially in the form of inputs such as seeds, fertilizers and pesticides. The supplier controls market transactions particularly prices thus, assuring the farmer of supply and credit payment.

The problems faced by the farmers had been confirmed in an assessment study by the Department of Agriculture Cordillera (1992). Interestingly, the study also revealed the following: land use constraints and climate disturbances; the committing of large tracts of land as protected areas; and lack of tenure among occupants of ancestral lands.

Aside from the existing problems brought by internal and natural factors, one of the major problems Benguet farmers are facing is the intrusion of vegetable importation due to the free trade system advocated by GATT-WTO. Trade liberalization means more imports that will eventually leads to the destruction of the local vegetable industry and the country's agricultural sector as a whole. On the other hand, trade liberalization had already affected the life of the Filipino farmers who are considered as the backbone of the economy since the majority of the Filipino people are engaged in the agricultural sector. The effect

brought by trade liberalization was described by Mankayan mayor, Manalo Galuten (2004):

*Idi awan ti importation, adu ti farmers ditoy ayan me nga agpa-Manila tapno gumtang ti elf da, santu adu ti agpapintas ken agpaaramid ti balballay da nga simento. Tatta ket nganngani awan payen ti pagpa-adal da* (Before imported vegetable came, farmers in our town used to go to Manila to buy elf truck and most of them renovated and built new houses with cement, but today, some of the farmers can no longer send their children to a school)

The experience of Mankayan farmers will likely happen to Benguet farmers if vegetable importation will not be put to halt. Worse, it can lead local producers to resort to illegal means of livelihood such as the planting of marijuana just to sustain the economic needs for their families.

Appendix G shows and compares the volume of legal and illegal importation from August to December 2002.

#### Responses at the Local Level

To achieve productivity, women are obliged to surmount a host of obstacles. The difficulty of gaining access to land, credit and agricultural inputs hampers their potential as producers who “feed the world”.

At the local level, legislations have been drafted which aims at the realization of the women’s potential as well as to address issues on technology.

Executive Order No. 2001-42 dated October 2, 2001 was issued by the Governor creating the Benguet Vegetable Commission to oversee the agricultural

concerns of the province in relation to GATT. It is a Commission similar to the task force composed of national government agencies, non-government organizations and private sectors. The commission's main functions are as follows: to study and recommend measures that will enable the province of Benguet to cope with the effects of full implementation of agricultural provision of GATT; to implement the Agriculture and Fisheries Modernization Act (AFMA), to develop of farmer's organizations and similar concerns; and to perform such other duties and functions as may be appropriate

Due to the problems brought by vegetable importation, the following are suggested solutions by the local government (Skyland News, 2004):

1. The need to standardize commodities of the agriculture sector. This will serve as guide to farmers in marketing their products.

2. The Crop Zoning Program. This program proposes that every farmer will follow a systematic schedule of planting different crops in different seasons to avoid overproduction of vegetables at certain times of the year

3. Better farming methods that are currently being understudied by the municipality to be able to cope with the imported vegetables entering the local market

On the other hand, the Local Government had passed several resolutions relative to the Benguet vegetable industry presented below:

1. Res. No. 04-178 dated September 13, 2004 - Requesting the director of



BPI not to issue importation permits on temperate vegetables similarly being produced in the Province of Benguet

2. Res. No. 04-210 dated Sept. 27, 2005 – Opposing the signing of the bilateral quarantine Agreement between the Republic of the Philippines and the Peoples Republic of China

3. Res. 04-262 dated Nov. 8, 2004 - Supporting PAFC Res. No. 04-20, entitled resolution requesting Pres. GMA to revive and reconstitute the National Anti-Smuggling Task Force and include a member representing the local farmers.

4. Res. No.05- 81 dated March 7, 2005 – Respectfully requesting Hon. Arthur C. Yap, Secretary of agriculture through Dir. Clarito m. Barron, OIC, BPI, Malate, Manila, to stop issuance of importation permits to local importers of potatoes who are non-processors.

5. Res. No.05-101 dated April 4, 2005 – Strongly supporting the opposition of the Benguet Farmers Federation Inc. to the signing of Bilateral trade Agreement between the Republic of the Philippines and the People’s Republic of China on the importation of vegetables into the country.

6. Res. No. 05-135 dated April 25, 2005 – Requesting Her Excellency Gloria Macapagal-Arroyo, President, Republic of the Philippines, to exclude carrots and other temperate vegetables similarly produced in the Cordillera to be imported from the Peoples Republic of China relative to the bilateral trade

agreement to be signed into by and between the Peoples Republic of China and the Republic of the Philippines

7. Res. No. 05-178 dated June 6, 2005 – Respectfully requesting Her Excellency Gloria Macapagal-Arroyo, President, Republic of the Philippines, through the Hon. Juan B. Santos, Secretary of Trade and Industry, to reconsider and exclude edible vegetables from the Memorandum of Understanding between the Philippines and China on the early Harvest program.

8. Res. No. 05-187 dated June 14, 2005 – Requesting the Bureau of Plant and Industry to stop the importation of Potatoes and other vegetables coming from Australia, China, Germany, Holland, Switzerland, and the Netherlands without the conduct of PRA.

On April 21-23, 2004, around 600 vegetable farmers and stakeholders joined the 2<sup>nd</sup> National Vegetable Congress held at Benguet State University enclosed gym. With the theme “Modernizing the Vegetable Industry Towards Globalization,” the activity aimed to secure specific commitment from the national and local government units to support the vegetable industry and strengthen farmer’s organizations to promote better cooperation and team building. The congress also discussed technical concerns affecting the production, post-harvest and marketing of vegetables as well as policy issues responsive to the development of the industry in order to determine strategic action plans in solving

industry problems and strengthen government and non-government collaboration in support of its modernization and development (SkylandNews, 2004).

Another congress was held last January 13 to 14, 2006 at Benguet State University closed gym. This was the 1st Cordillera Organic Agriculture Congress with a theme “Save the Environment, Go Organic.” The main objective of the congress is to prepare, position and institutionalize the region as the country’s leading producer and supplier of organically produced quality products, competitive in the global market.

Specifically, the congress aimed to encourage participants to appreciate, promote and enhance organic farming as a way of life; safeguard human health and development; protect and rehabilitate the environment especially in the farming areas; and have an understanding of the international principles and Philippines basic standards of organic agriculture and processing.

In the municipality of Atok, the Office of the Municipal Agriculture has a program and a project that will uplift and help the farmers. The Office of the Municipal Agriculture in Atok has four banner programs, namely, GMA - Grains, GMA – Livestock, GMA – HVCC and GMA – fisheries.

Moreover, researcher like Beta-a (1981) recommended the following: creating and opening of more marketing channels to reduce an oversupply of the same kind of vegetables in one area as well as to maintain better and stable selling price; putting cold storage in marketing centers; conducting lectures, seminars,

workshops and farm demonstrations; and government standardizing the selling prices of different vegetables in order to prevent abrupt fluctuations of prices.

### Conceptual Framework

In this study, the concepts and variables to be considered include the socio-economic profile, role and status of women in the context of vegetable importation. The socio-economic profile of women has to be looked into as this determines their roles and status. Women's status refers to the extent of their access and power in the aspect of social services, material resources and community involvement while role refers to the function of women in the societies in the aspect of family, community and in economic activity.

One of the pressing problems a Filipino family is facing is economic. As the government comes up with programs that are supposed to uplift the economic condition of the country, the Filipino family is in one way affected and shaped by it. The theory of Myrdal, "Theory of Circular Causation," is an example how trade liberalization being adopted by the government may affect the life and livelihood of women farmers in line with globalization. Myrdal views a country as a social system with conditions such as output and income, conditions of production, levels of living, attitudes towards life and work, and institutions and policies which are all causally interrelated and interdependent. Myrdal points out that a change in one category tends to cause a change in others in the same

direction either upward or downward. For example, a change in government policy will increase labor productivity or output, thus increasing individual income. This will in turn improve the conditions of production, savings, investments, labor efficiency, and production techniques. The cycle goes on and results to affecting the people. On the other hand, government policies may decrease labor productivity or output, thus decreasing individual income that eventually affects the level of living among the people.

The theory of Myrdal is an example how trade liberalization being adopted by the government may affect the life and livelihood of women farmers in line with globalization. One cannot deny the fact that trade liberalization has brought a big change in the situation of women farmers including their socio-economic conditions. The unfavorable terms brought by trade liberalization make indigenous women more economically vulnerable. The family suffers if income is lacking because needs are not being supplied. It is the women who try to augment the needs of the family by adopting adjustment measures in farming system and cropping pattern.

But literature speaks of transformation in the status and role of women as time goes by, their status and roles differs from one place to another. In the context of trade liberalization, changes can be felt and seen in the changing roles and status of women particularly the farmers. As government policies are being implemented, the women farmers are beset with several challenges and problems

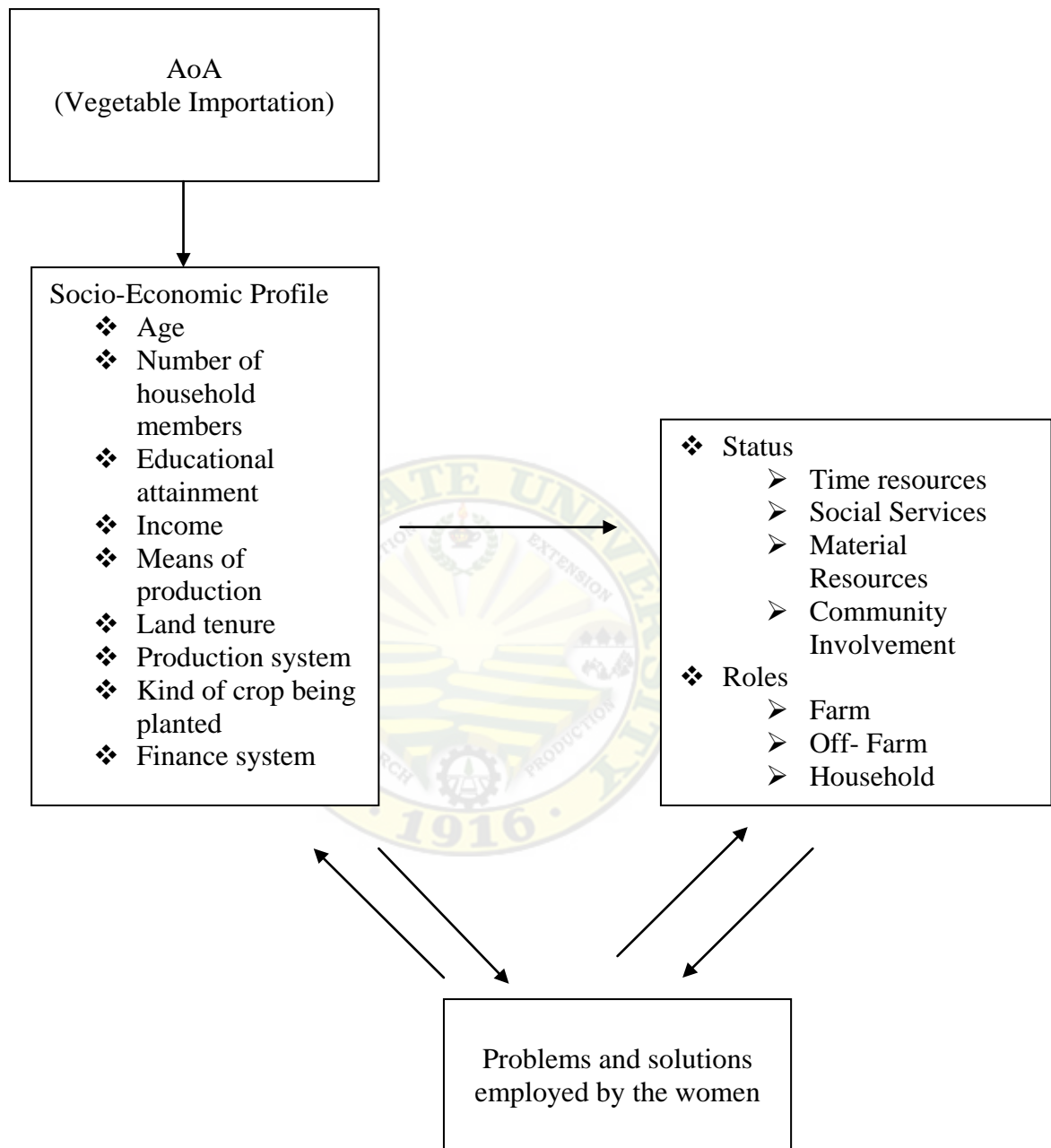


Figure 1 Paradigm of the study

related to the different roles they perform. These policies lead to changes in economic activity, working conditions, means of production and income. Coping mechanisms have to be employed. Solutions and alternatives may further alter the situation and further marginalizes the women farmers.

### Definition of Terms

The following terms are operationally defined in the study.

Implications – refer to the negative impacts of vegetable importation on the status and roles of women farmers. Negative impacts include adjustments on the roles and status of women farmers to cope up with the changing trends in the vegetable industry. Examples of these adjustments are reduced time or leisure, community involvement and time for household activities.

Socio-economic Profile –refer to the relative condition, rank and situation of a society, socially and economically. In this study, it refers to the age, number of household members, income, means of productions, land tenure, production system adopted and crops planted by the women farmers

Women Farmer – This refers to a person who cultivates land or crops or raises animals or fish. In this study, it refers to the women respondents who cultivates farmlands and engaged in the production of semi-temperate vegetables for sustenance and commercial purposes.

Vegetable importation – It refers to the activity of purchasing vegetable products from other countries. In this study, it refers to the activity of purchasing vegetable products from other countries as part of the policy of Agreement on Agriculture being imposed by World Trade Organization to its member countries in line with trade liberalization. Vegetable importation also includes the entry of legally or illegally imported vegetables into local farms and markets

Roles – refer to the expected work of women as perceived by the community in the farm, off-farm and in household communities. Farm activities refer to the work of women farmers in the production level. Off farm refers to the involvement of women in the community and farmers organization while household activities refer to the responsibility of women as wife, and mother to her family.

Status – This is the position of an individual in a group. In this study it refers to the condition of women farmers in the farm specifically in the farm, off-farm and in the household which includes socio-economic status and household status. It also refers to women's access and control over material and social resources within the family, community and society. These material and non-material resources includes income, time, community involvement, technologies and investments.



- ❖ Socio-Economic Status - refer to women condition in terms of their access and control over resources like time, credit, income, savings, investments as well as access to services and to community organizations
- ❖ Household Status –refer to the condition of women farmers as they assume their household task in relation with rearing and sustaining children and family

Owner-farmer – refer to women farmer who owns the land along with their husband who takes charge of the farming activities either directly or indirectly. She may have or may not have the capital to be used in the production and may also implement *pa-suplay* on her own.

Pa-suplay – This refers to the credit system that binds a financier/creditor and a farmer

Oblante –refer to a farm wage worker, agricultural laborer or a farmer who earns through *por dia*.

Por dia/daily wage worker – refer to hired worker who get paid on a daily basis. In this research, *por dia* refers to women farmer who do not own the land the land she tills and who gets paid on a daily basis. It also include women who are themselves farmers but due to limited resources, find time to work in neighboring farm.

Farmer-trader – This refers to a farmer who also markets produce, either from her own farm and/or those of other farmers

Farmer-supplier – refer to a farmer who finances the production cost and even the household needs of a farmer while waiting for the harvest



## **RESULTS AND DISCUSSION**

This section presents the data from the field as well as an analysis of such. The data are presented in tables using frequencies and percentages. Part one presents the profile of the respondents; part two discusses at length the roles of women which give a description of the status of women farmers given the changing situation in the vegetable industry. The last part presents the problems encountered by the respondents as well as the solutions employed in relation to the problems encountered and the recommendations given by the respondents.

### Socio-economic Profile of the Respondents.

The socio-economic profile of the respondents is described along the following variables: age, number of household members, number of years in farming, educational attainment, annual income, tenurial status, crops being planted, labor system and capital system.

Age. Table 4 presents the age profile of the women respondents. Of the 16 respondents, no one falls under the young age category. The great majority are considered old farmers since they range in from 40 and above, with a mean age of 47.75. Four respondents are in their middle life stage. On the other hand, it is observed that irregardless of age, five respondents aged 51 and above years are still engaged in vegetable production.

Table 4. Profile of the women-farmer respondents n=16

PROFILE	Young Women (15-25)		Middle-Age (26-39)		Old Women (40 & above)		TOTAL (%)
	(F)	(%)	(F)	(%)	(F)	(%)	
<u>Age</u>	0	0	4	25	12	75	100
<u>Number of Household Members</u>							
0-4	0	0	0	0	4	25	25
5-8	0	0	4	25	6	37.5	62.5
9-12	0	0	0	0	2	12.5	12.5
Total	0	0	4	25	12	75	100
<u>Number of Years in Farming</u>							
0-10	0	0	0	0	1	6.25	6.25
11-20	0	0	4	25	5	31.25	56.25
21 & above	0	0	0	0	6	37.5	37.5
Total	0	0	4	25	12	75	100
Mean	0		16.75		28.33		
<u>Educational Attainment</u>							
Elementary	0	0	1	6.25	3	18.75	25
High School	0	0	2	12.5	4	25	37.5
College	0	0	1	6.25	5	31.25	37.5
Total	0	0	4	25	12	75	100

Table 4 Continued...

PROFILE	Young Women		Middle-Aged Women		Old Women		TOTAL
	(F)	(%)	(F)	(%)	(F)	(%)	(%)
<u>Farmer Category</u>							
Farmer-trader	0	0	0	0	0	0	0
Farmer-supplier	0	0	0	0	1	6.25	6.25
Farmer –owner	0	0	3	18.75	11	68.75	87.5
Por dia/Oblante	0	0	1	6.25	0	0	6.25
Total	0	0	4	25	12	75	100
<u>Estimated Income (2005)</u>							
10,000 & below	0	0	2	12.50	1	6.25	18.75
10,001-15,000	0	0	1	6.25	1	6.25	12.50
15,001-20,000	0	0	0	0	2	12.50	12.50
20,001-25,000	0	0	0	0	1	6.25	6.25
25,001-30,000	0	0	0	0	0	0	0
30,001-35,000	0	0	0	0	1	6.25	6.25
35,001-40,000	0	0	1	6.25	0	0	6.25
40,001-45,000	0	0	0	0	1	6.25	6.25
45,001-50,000	0	0	0	0	0	0	0
50,001 & above	0	0	0	0	0	0	0
No specific figure given	0	0	0	0	5	31.25	31.25
Total	0	0	4	25	12	75	100



Table 13. Crops Being Planted\*

CROPS	2000	%	2001	%	2002	Y E A R				2004	%	2005	%
						%	2003	%					
Cabbage	15	93.75	14	87.50	15	93.75	13	81.25	13	81.25	13	81.25	
Potatoes	16	100	16	100	13	81.25	14	87.50	12	75	13	81.25	
Carrots	9	56.25	11	68.75	10	62.5	9	56.25	11	68.75	13	81.25	
Chayote	0	0	0	0	0	0	0	0	0	0	0	0	
Beans	0	0	0	0	0	0	0	0	0	0	0	0	
Peas	5	31.25	6	37.5	5	31.25	6	37.5	6	37.5	7	43.75	
Cauliflower	0	0	0	0	0	0	0	0	0	0	0	0	
Broccoli	0	0	0	0	0	0	0	0	0	0	0	0	
Others	5	31.25	4	25	4	25	4	25	4	25	9	56.25	

\*Multiple responses

Cruz (2005), in a study on the Economic Viability of the Labor Employed in Various Marketing Strategies, disclosed that highland farmers fall under 41 to 50 age bracket. This finding agrees with the 1992 census of barangay Paoay conducted by Cruz (1994) where it reveals that the majority or more than 56 percent of the population range in from age 15 to 64 years. Cruz (1994) classified this age range as working age. In addition, Cruz census also reveals that the population of working age predominates over the youth and elderly. These past studies of Cruz (2005) and Cruz (1994) confirm the finding of the present study as revealed from the data gathered from the respondents except that there is no young population in this study.

As of March 2001 Paoay has a total population of 4,320 consisting of 2,164 males and 2,156 females and about half of the population belongs to the working age group, which includes ages that range from 15 to 64. Based on the data of Cruz (1994) and from the latest barangay profile, there is no significant changes in the labor force of Paoay despite the increase of population from 2,723 persons belonging to 509 households to 4,320 with a total of 666 number of households (Barangay Paoay BNRMP).

Number of household members. Table 4 shows that 10 of the total respondents have five to eight members of the household, which is relatively big. This finding is supported by other literature that claims that in farming community the family is characterized as “big.” Sociologists explain this



occurrence as farming part of the Filipino culture that gives value to more children. This can be attributed to Filipino belief that “the more children they have, the more blessings the family will obtain, and the more hands to cultivate the field.”

Based on the figures presented by Cruz (1994) and the Paoay Barangay Natural Resource Management Plan (BNRMP), there is an increase of household size from 5.3 in 1992 to 6.5 in 2001. In the study, the average household size of the respondents is 5.9 which still fall within the observed figures. The present average household size is lower than the figure given by Paoay BNRMP

Number of years in farming. Table 4 reflects the number of years that the respondents have been in vegetable production. As shown in the table, 15 respondents have been in vegetable farming for more than ten years. Out of the 15, nine respondents have been farming for 11 to 20 years and six respondents for more than 20 years.

The long years of farming experience of the respondents signifies that respondents have been farming even at a young age based on the interviews. Working on the farm at a young age is a common situation in rural area. It further signifies that their experience in and knowledge of farming activities are rich. This finding corroborates the observation of Cruz (1994) that farmers are engage in farming activities at a young age and household member of school age are anticipated to help in the farm work. As a result of such practice, farming in

Paoay is generally a family enterprise (Cruz, 1994). As found in the study of Cruz and corroborated in this study, children are expected to help or carry out simple chores on the farm and their tasks become more complex and difficult as they grow older.

Respondents' early association with farming activities can be attributed to their parents' involvement in vegetable farming where labor utilized depends largely on family labor. Children are expected to help on the farm especially during weekends.

Women respondents recollected that at a young age they got involved in vegetable farming. Respondent Fely, for example, has farmer parents who oblige her to help the garden when she was in grade five. Her task included weeding and applying *abuno* (fertilizer) particularly during Saturdays and whenever there was no school. Respondent Vivian also works on the garden at the age of 13 helping her parents, thus, it eventually leads to acquisition of knowledge of farming

Educational attainment. As gleaned from the table, a great majority have either reached or finished high school or college. The pattern of educational attainment implies that farmer respondents give value to education. The practice valuing education is traced back to the American period when the public schools system was established, with specific interest in the Cordillera.

Category. Respondents in this study are classified into four categories: owner-farmer, farmer-trader, farmer-supplier and *por dia* or daily wage worker.

All respondents under the four categories hold a labor-intensive job. As gleaned from the table, 10 respondents are farmer-owner, that is, they own the land they till.

A farmer-supplier can also be a farmer-trader at the same time. The case of farmer-respondent Remedios who previously had a stall or *pwesto* at La Trinidad Trading Post typifies a farmer-supplier.

The four categories have varied access in resources such as financial institutions and/or cooperatives. Farmer supplier-trader, compared to those other categories, has an easier access to resources and has the cash capital needed for the production. They usually own their means of transportation like truck to transports their produce to the market outlet.

The plight of a *por dia*/daily wage worker is different from that of the other categories. Women under this category perform the task meant either for male or female on the farm. She does not enjoy the privilege that the women in other categories are enjoying since she does not own the land she tills. Five owner-farmer respondents also work under a *por dia* basis if they have free time to augment their income.

This finding corroborates with Batani et al, (2002) that to augment the income of owner-tillers, they work as hired hands of neighboring farms under a *por dia* basis whenever their time allows it.

Estimated annual income of the respondents. Table 4 discloses the income of the women respondents for the year 2005 and Table 5 the annual income of the respondents from their vegetable farms for the year 2000 to 2005.

Some respondents do not give specific figure about their annual income for a specific year. Their rationale is that they cannot recall their annual income for that year; thus they just answered that they have experienced loss particularly in the year 2005 due to typhoon Labuyo and the vegetable importation phenomenon.

No women respondent has an annual income for the year 2005 that has reached P45, 001 and above. The highest income for that year was 40,001-45,000; however, five respondents did not give specific figure. From the data reflected on the table, it is observed that for the past five years of farming, women respondents' experienced an unstable income. In interviews, the respondents revealed that there are several reasons that contributed to this situation. The reasons would include vegetable importation and natural calamities, specifically typhoon Labuyo that hit the country in the year 2005, and destroyed the plants of the farmers that leads to bankruptcy.



Farmer-respondent Vivian narrated:

*Diay presyo. Agtrabaho kami met. Nababa ti presyo ti nateng ket nangina diay magagatang nga usaren. Agasem diay abuno ngay ket 80 pesos iti maysa nga sako tapos agtransportasyon kami pay lang isu nga apan ti 100 pesos. Tapos gumatang kami pay ti fertilizer... manu ti fertilizer one thousand ti maysa nga kaban. Gumatang kami pay lang ti fungicide kas da insecticide. Nangina da met. Into nu rumuar diay nateng uray kunam nga nagmayat ti nateng me nababa met ti presyo. Diay dadduma, nadadael lang garud ken nakissayan ta dinadael ti bagyo nu aglako ket nababa pay lang diay presyo. Isu nga lugi kami. (Our income had been decreasing because of price. The price of farm inputs is expensive while the price of vegetable is low. Example, the price of “abuno” is 80 pesos per sack and transportation is 100 pesos. Aside from fungicide and insecticide, we are going to buy fertilizer which cost 1,000. These are expensive and though we have quality vegetable but the price is low. Some farmers were affected by typhoon and when they sell their good, the price is low. Due to these, farmers had encountered deficits.)*

On the other hand, farmer -respondent Remedios explains the reason why her income had decrease.

*Idi adda ti mabingay mi ngem tatta nga nababa ti nateng nalugi met ti farmer tatta nga year (2005). Tatta nga 2005 nag loss ti farmer gamin nababa ti presyo ti nateng. Timmama ti garden ngem presyo ti nakaabakan mi ta naglako kami ti 3,4 5 pesos ti repolyo. So han nga rimuar ti capital (In the past we have our share but this year (2005) farmers had experienced loss due to the low price of vegetables. We sold our cabbage at 3, 4, 5 pesos. Because of this, we are not able to regain our capital).*

Vegetable importation affects all the incomes of all categories. The effect of vegetable importation to *por dia*/daily wage worker was explained by one respondent. Respondent Andrea explained that because of vegetable importation

the price of vegetable was low. As vegetable importation affects the owner of the land, the effect is also felt by the daily wage worker like respondent Andrea.

All respondents claim that one reason of the decrease of their income is the lowering of farm gate price of the products. This trend can be attributed to the law of supply and demand along with the entry of legal or illegal imported vegetables resulting to an oversupply of vegetables. When asked the cause of this oversupply, respondents identified vegetable importation. Oversupply signifies that prices would fall since there is a direct relationship between price and quantity of goods that producers are willing to supply. On her experience on vegetable importation farmer-respondent Harriet says:

*Idi 2000 tummama kami ngem tatta garud nga naapektuhan ti importasyon ket isu nga bimmaba ti income me. (In the year 2000, we experience “jackpot” but at present due to vegetable importation, our income had decreased.)*

Women respondents correctly identified vegetable importation as the cause of the low price of their product. Respondent Fely recalls selling her cabbage at a price of one peso or two pesos due to the entry of imported vegetable. Vegetable importation, according to respondent Remedios, affects the decrease price of their vegetable that leads to bankruptcy. Certainly, this is detrimental to their means of income and existing condition.

Another problem compounding their situation are the presence of pests and diseases, occurrence of calamities, increase cost of inputs and the existence of diminished soil fertility.

Income, on the other hand, is related to other factors like acquisition of new technologies and tools and having savings. Because of low income, acquisition of new technologies and materials is not the priority of the respondents. The relationship of income and acquiring new technologies was explained by Mandac (1989, as cited by Wongsuwan, 2004) that low income level was associated with low farm productivity since it limits the capacity of farm households to purchase modern farm inputs so as to lift their income. Since farmers have inadequate income, savings are also highly limited; hence the acquisition of technologies and tools and having a savings become secondary.

The testimonies of all respondents indicate that farming is a “game of chance.” This “game” can be attributed to the market conditions that are outside the influence of the farmers. With the increasing price of farm inputs and the entry of vegetable importation, vegetable growing becomes more risky for the farmers whose main income depends on farming. Women farmers are unsure whether to gain or not since some farming factors are beyond their control like the changing price of vegetables, the weather, the increasing price of farm inputs and the like. Farmer-respondent Lily said that farmers do not stop when they encounter deficit but continue to plant with the hope that the next cropping will give them better yields. There are times they experience deficits and deepening indebtedness but there are times when farmers hit a “jackpot” price. This will likely happen if they have quality vegetables and the farm gate price is high thus



they experience an increase in their income and will likely to invest on other material resources. Like farmer-respondent Lily, other farmers consider the crop to be a “suicide crop” as cited by Cruz (1994), and if the weather cooperates, the gamble pays off and the farmers can to market their produce at very favorable prices.

Closer examination shows that of the P50, 000 incomes is allocated as capital for the next cropping, current expenses on food, loan payments, education, health and other expenses. But more often than not, income from farming is mostly set aside for financing the next cropping.

With the increasing cost of living and decreasing income, “who controls the income” is an issue. Crisologo-Mendoza (1998), for instance, found in a study on the decision making on the household budget in three Cordillera communities, of which barangay Paoay is one of the areas, that the executive management of the budget is the wife’s domain and the Cordillera women share decision-making power with their husbands. The finding of Crisologo-Mendoza was partly supported in the study of Batani et al, (2002) and by the present study, which finds that some respondents who claimed that decision-making is shared by both of wife and husband since they consult with each other. But in the case of respondent Lily, who is a widow, the authority to decide is put into her shoulder. This situation, as by Crisologo-Mendoza relates to the significant number of

households in Paoay that are headed by women who are either abandoned/divorced or separated or are widowed.

On the other hand, respondents, when asked how much their gain or loss is, cannot give a specific figure. They simply say “There is an increase” or “I experience loss in my profits this year.” The reason for their general statement is that most of them, including some men, do not keep a record on the outflows and inflows of money. This practice of not keeping a record is viewed by the researcher as risky because without it, one cannot examine the financial status in a business. Recording the inflows and outflows in a business will give a person an unambiguous situation of one’s finances.

Table 6. Household income

INCOME BRACKET PER MONTH	NUMBER OF HOUSEHOLD	PERCENTAGE
1,000 & below	3	.45
1,001-2,000	16	2.40
2,001- 3,000	43	6.46
3,001-4,000	39	5.86
4,001-5,000	41	6.16
5,001-6,000	49	7.36
6,001-7,000	47	7.06
7,001-8,000	60	9.01
8,001-9,000	23	3.45
9,001-10,000	19	2.85
10,001 & above	326	48.94
No Answer	5	.75
<b>Total</b>	<b>666</b>	<b>100</b>

Source: As of March 2001 Barangay Paoay Atok Municipality BNRMP

Table 7. Source of income

SOURCE	HH HEAD	SPOUSE	OTHER MEMBERS	TOTAL
Farm	474	172	78	724
Off-Farm (Industry)	106	72	21	199
Non-Farm (Prof.)	41	65	15	121
Total	621	309	114	1044

Source: As of March 2001 Baragay Paoay Atok Municipality BNRMP

About 48.94 percent or 326 of the total households in Paoay receive a monthly income of more than P10, 000 and only three households below P1,000 (Table 6). Farming is the major source of income of the majority of the households in Paoay, nevertheless, some augment their income by engaging in off-farm and non-farm activities while a few derive their livelihood from either off-farm or non-farm activities (Table 7). Those who belong to the upper income bracket are usually involved in both off-farm and non-farm activities.

Studies show that women are not only universally responsible for food preparation for their families; they are frequently responsible for supplying it, if not by production, then by earning extra income to purchase. With the increasing cost of living, the farmers try to augment their income by engaging in other income-generating activities (Table 8) to raise their income and provide the daily needs of the family.

Table 8. Other sources of income of the women respondents

RESPONDENT	SOURCES
1	none
2	none
3	comboy, por dia if time permits
4	por dia during her free time
5	cacti production, house to house selling of bread
6	por dia
7	-
8	being rented out
9	manage the women coop, por dia (husband)
10	maki-suplay
11	por dia
12	none
13	none
14	none
15	piggery, car for hire
16	none

As gleaned on Table 8, six respondents are totally dependent on farming. Thus, with the entry of vegetable importation their only source of income is threatened and so they adopt any coping mechanism for survival. The problem of accessing and controlling sources of income however depends on the status – i.e women who are owner-tiller usually have access compared to daily wage workers (*por dia*).

This situation suggests that some women are better off (trader-supplier, farmer-operator) and who have the capacity to look for other sources of income. Respondents number 3, 8, 9 and 15 are ‘able to access other sources of income.’

A look into their background shows that they are all farmer operators who own the land they till.

Land tenure of the respondents. Access and control of land resources is a major indicator of the “status” of women. Equally important is the question of “how much area” one “owns.” Table 18 reveals the respondents’ tenurial status in relation to land. Thirteen respondents are owner-farmers and two are either tenants or users of the land for free. Since a great majority owns the land, it may be inferred that the land is either inherited from their parents and was divided among siblings, is owned by their husbands or is considered as a conjugal property. Respondents who consider themselves “tenants” are either real tenants or users of the land for free. Probing reveals that these lands are owned by relatives.

Table 9. Respondents Land Tenure

STATUS	NUMBER (F)	PERCENTAGE (%)
	n=16	
Owner-farmer	13	81.25
Tenant	1	6.25
CLT Holder	0	0
Using for free	1	6.25
Share tenant	0	0
Supplier’s land	0	0
CADT applicant/Holder	0	0
Other	1	6.25
Total	16	100

Table 9 shows that the farmer-respondents can own land or inherit it from their parents. This finding is interesting as other indigenous women in many parts of the world cannot inherit nor own land. The women respondents can accumulate tracks of land because of the inheritance rules being practiced in Paoay (Cruz, 1994). According to the practice, all children have the right to inherit lands from their parents. Even children who no longer reside in the community are entitled to property. They, however, have the option to rent the land out or let relatives use it in their absence. In any case, the women-respondents have relatively small areas to till. This is one reason why women farmers have relatively small income, a situation that can be attributed to internal, external and natural factors.

Small land or plots being tilled by women can yield a limited income. Farmers in Benguet particularly those in Paoay, Atok according to Batani et al, (2000) are classified as small land owners. Table 10 shows the farm classification of Paoay, Atok.

Table 10. Farm classification in Paoay, Atok, Benguet

DESCRIPTION	SMALL	MEDIUM	LARGE
Average farm Size (ha)	Less than ha.	One hectare to Five hectares	Five hectare to 24 hectare

Source: Batani et al, 2000

Women farmers are still engaged in subsistence farming considering the topography of Paoay. Paoay is a mountainous area and forest land has the widest area with 868 hectares. Thus, farmers can adopt only equipment applicable to their place; using farm machinery like tractor is impossible considering the location of their garden. This is the reason why women respondents claimed that gardening is done manually using equipment like *gabyon* (grub hoe).

According to Tauli-Corpuz (1998), such type of farming has no room in the era of globalization. One of the consequences of globalization on indigenous women is the remarkable transformation from subsistence production to the production of cash crops. The conventional production method and resource care system they had depended upon for decades are considered “inefficient and backward by the global economy” market, which advocate global competitiveness and comparative advantage. The global competitiveness being faced by women suggest that women farmers need to discard the traditional practices of farming and adopt modernization policy in farming to be able to compete with the imported vegetables (Tauli-Corpuz, 1998).

Although women respondents would like to upgrade their equipments, they could not because they lack the capital to purchase it. As respondent Fely said, “*Uray kayat mo gumatang ti water pump nu awan ti paggatang mo e di awan met laeng*” (Even though you want to have a water pump, you cannot but it if you do not have the money).

Since three respondents do not own the land they till they cannot decide what to do with it without the consent of the land owner. This situation eventually results to having a negative output. Most of the time, decision making, rests on the sole authority of the landowner since resources belong and come from the land-owner. Compared to the owner-farmer, the landowner has more advantages since she can decide what is best, what to plant and can implement innovations immediately that will uplift her situation and prepare them in line with vegetable importation.

Labor being utilized in the farm. One of the factors of production aside from capital and land is labor. Shown on Table 18 are the kinds of labor employed on the farm as narrated by the women respondents. As shown, the leading kind utilized by the respondents is family labor

Table 11. Labor being utilized in the farm\*

LABOR	NUMBER (F)	PERCENTAGE (%)
	n=16	
Family Labor	13	81.25
Hired labor	7	43.73
Bayanihan System	0	0
Contract Basis	1	6.26
Combination of family and contract labor	1	6.26
Others	0	0
Total	22	

\*Multiple responses



As gleaned on Table 11, 13 depend on family labor. It is apparent that the family is still a very important source of labor. Farm works are shared among the different members of the household irregardless of age and gender.

However, since cash crop production is very labor intensive, rarely is the family endeavor sufficient particularly. This is particularly true during the planting and harvesting season where work is at its peak, hence, farmers resort to hired labor or contract labor.

Even a farmer- supplier also depends on farm laborers. A farmer-supplier, as mentioned earlier, provides financial assistance to other farmers under the *pa-suplay system*. To the respondents, who are under the pa-suplay scheme, they feel that their 'labor' is being exploited because the farmer being supplied also works on the farm of the supplier. The burden of work is easily passed on to the farm laborers.

On the other hand, the status of a *por dia*/daily wage worker can be attributed to the following: limited resources, and lack of capital or no capital at all. Being a daily wage farmer can be more difficult compared to those with other categories. Respondent Andrea mentioned that the life of a *por dia*/daily wage worker is hard. She works from seven in the morning to five in the afternoon and there are times that her "boss" requires her to do overtime work along with other *por dia* workers. Though having overtime is seasonal, they do not have an

influence over this matter since they are always under the bidding of the owner-farmer. Management of time, therefore, is one of the differences between *por dia*/daily wage worker and one who owns the land.

Sources of capital. Table 12 presents the sources of capital of the farmer respondents. The table shows that women respondents have several sources of capital. A great majority of women respondents either finance their production personally, or through middlemen, or a combination of both sources.

Most of the women respondents personally finance their production. The rationale of this observable fact, as explained in the study conducted by the Cordillera Studies Center (1994) is that cash receipts of farming household from sales of produce have to meet both production/marketing costs and consumption expenditures.

In an informal discussion, a group of women farmers mentioned that when capital is not enough for the next cropping or that a farmer has experienced bankruptcy, they adopt a *pa-suplay* system. According to them, the mode of sharing agreement between the supplier and the person being supplied depends on the “connection” between the farmer and supplier. An example of the agreement is after deducting all the expenses, the supplier either gets 40 or 50 percent share and the remaining 60 or 50 percent goes to the farmer. Such scheme still has negative implication for the farmer who does the heavy and bulk of work, one of

Table 12. Sources of capital of the women respondents\*

SOURCE	NUMBER (F)	PERCENTAGE (%)
	n=16	
Individually/ Family financed	11	68.75
Finance through Loan	4	25
Finance by Middlemen	10	62.5
Total	25	

\*Multiple Responses

is that the women are silently complaining about. This goes on to show that vegetable farming is capital intensive and *pa-suplay* system which is the common source of capital being adopted by women, can also be a fertile ground for unethical lender-borrower relationship.

The large capital needed for each cropping likewise leads women respondents to other financiers like middlemen at the La Trinidad Trading Post which can be another form of *pa-suplay* scheme. The supplier- financier bears the cost of production such as fertilizer. At harvest time all or a quantity of the produce will be sold to suppliers/middlemen and the cost of production is deducted from the proceeds. From this situation, the farmers do not have a choice

as to whom to sell the product, thus, savings from income, if any, are severely limited. Hariet, one woman respondent, said “*Diay pwesto diay trading post. Isuda met lang to pangitedan me ti nateng me*” (We borrow money from our *suki* -one who buys regularly her product. We also give them our vegetable after the harvest.) When asked if she can sell the vegetable to other traders, she answered “*Haanen tapnu nu agkurang kami ti mausar idiy garden, agited da*” (No, so that if we lack the needed materials they can lend us). Her answer implies that if a farmer wants to establish social network, then must to regularly supply the trader with her farm products.

Almost all women respondents claimed that they run to the middlemen, to their *suki* in the Trading Post or to their supplier when they experience a shortage of capital. Aside from this, some farmer and trader are bounded by relationship whether being a relative, friend or neighbor. One attractive offer in this scheme is that the supplier automatically takes charge of disposing the product. This is especially true for suppliers who are also traders, however, limiting the bargaining power of the farmer when it comes to price.

Aside from middlemen and their “*suki*”, respondents also claimed that when they lack the needed capital, they borrow either from their friends, neighbors, loans through banks and cooperatives or from someone they know has the resources. This corroborates the data of Paoay BNRMP.

Farmers need long-term and short-term credit but women's limited access to financial services may prevent their efforts to improve or expand their farm activities. Paoay farmers borrow money from various credit sources like suppliers, banks, cooperatives, associations, relatives, friends and stores to buy farm inputs, to pay for school fees or for everyday needs (Paoay BNRMP).

Crops being planted. Table 13 shows the crops being planted by the respondents for the past five years of farming. It shows that cabbage, potato and carrot are the major crops being planted. Aside from these crops, women farmers also plant radish, celery and even cutflowers. Some respondents claim to plant patchay but for home consumption only.

All the women respondents claimed that they practice crop rotation or alternate cropping in a year but based on the interview, women respondents do not really practice crop rotation since crops are concentrated only to three yielding crops: potato, carrot and cabbage.

Women respondents claimed that they typically have two to three croppings in a year. However, the second and third croppings are still dependent on the availability of water. Women farmers can have the second or if water is abundant but to those women who depend on rain, they have one or two croppings. Crops are planted in February and October (Appendix K).

The planting for the first crop starts from the months of February to March and harvesting is done in early June to late July while the second cropping starts



in October and harvesting time in December. There is no particular crop planted in the first or second cropping season because crop depends on the availability of seeds as well as the preferences of farmers but, still, concentrated on the three crops: potato, cabbage and carrot mixed with other crops like radish or sweet peas. According to respondent Dominga “*depende diay kaima-an ti farmer.*” Some respondents alter the vegetable they plant in a cropping while some practice mixed crop.

In an informal interview, women farmer claimed that the reason they practice crop rotation is to minimize club root and other diseases with a hope to improve and gain more money. Such practice is based on women-innovated knowledge on farming that is integral in farming system. In addition, they plant one or two kinds of vegetable in one cropping because of the desire to gain more income and maximize the land that they have since land is limited. One women farmer says that if she plants carrots and potatoes for the first cropping, she will plant cabbage for the second cropping or the other way around. Cruz (1994) found out that by planting potatoes or carrots to a parcel previously planted to cabbage the two most serious problems associated with cabbage cultivation, clubroot and diamond backmoth may be controlled.

The vegetable products of the women farmers are generally sold in La Trinidad Trading Post where they will be given their product to a certain middleman who also supplies their needs like capital or farm inputs.

## Women's Role in the Production of Crops

### Before and After the Implementation of WTO - AoA

In the Cordillera, women farmers have always played a major role in food production. In this study, the women respondents have been involved in farming activities since they were young doing simple to complex tasks. Thus, any changes in the economic sector will eventually bring a shift role on the aspect of women as they adopt their own coping mechanism to be able to withstand the impact brought particularly in relation to vegetable importation.

The roles of the women farmers in the production of crops before and after the implementation of WTO –AoA are presented in Table 14.

Gender roles are those assigned in any given society to men and women, hence this is culturally defined. Tradition has dictated predominant roles for men and women. The husband's role in the Filipino home is mainly economic. The

Table 14. Roles of Women Farmers in Crop Production\*

ACTIVITIES	<u>BEFORE WTO-AoA</u>		<u>AFTER WTO- AoA</u>	
	Male	Female n=16	Male	Female
Preparing the Land	/	/	/	/
Planting	/	/	/	/
Applying fertilizers/ Chemicals	/	/	/	/
Weeding	/	/	/	/
Plowing/digging	/	/	/	/
Others				

\*Multiple Responses



typical role for women is that of housekeeper. Her duties are to keep the house in order, attend to the needs of her husband and children and to take care of domestic activities (Rojas-Aleta, 1977). However, gender roles are not fixed; they change over time. For the past years there have been drastic transformation in the types of work that have been considered typically women's or men's job (Karl 1996 and Wiber,1984, Batani et al, 2002); for instance, women farmers are taking on what used to be men's jobs as males migrate to cities to find better-paying jobs. The claim of other author like Batani et al, 2002, and Karl (1996) corroborates with the present study.

The findings show that there is no difference between the work of men and that of women on the farm. Women respondents claimed that what the men can do in the field the women can also do as well, from preparing the land, planting, weeding, applying fertilizers and chemicals harvesting and even till the products are brought to the market. On the other hand, literature has shown that in agriculture sector, women are visible from production to post production activities as corroborated in this study. However, this is not the case before though. Before, spraying and applying fertilizers were the work of men (Batani et al, 2002). Interestingly some women respondents say they are "as competent as the men." On the other hand, womens participation in the production level could pose health risks. But women themselves, apparently, do not give much attention on this situation.

When asked what specifically her job in the field is, respondent Janet answered:

*Ditoy gamin highland, no anya ti ar-aramiden ti lallaki diay farm, ar-armiden met dagiti babai.* (Here in the highlands, what the man can do in the field, women farmers can do also.)

This is reinforced by respondent Leticia who stated:

*Gamin parehas ti trabaho din babbae ken lallaki ditoy ta nu agbomba ti lalaki kasyay met lng ti babbai. Parehas met. Ag-gabyon kami... aglugam... parehas. Awan ti para babae dayay para lallaki daytoy ta agtinnulong gamin.* (The works of men and women farmers are the same. Both, men and women, spray the plants, prepare the land. There is no such thing as women's work or men's work.)

Apparently, Atok women would take pride in performing similar roles on the farm. This is typical among strong and level-headed Cordillera women. However, implications would be varied. Perhaps what could explain for this attitude is the resource poor setting that these women are into. In the meantime, it is generally established that male members of the household used to dominate the management of commercial farms. This has been also the conclusion of Wiber (1984). However, presently, the management of commercial farms is no longer the domain of men but also of women as well as claimed by the women respondents of this study. This finding then disagrees with the conclusion of Wiber (1984) that male members of the household used to dominate the management of commercial farms. Women respondents agree that the only difference between the labor of men and women is the weight of the load because

men carry loads heavier than women. This was well articulated in an informal interview with some community members. But the case of respondent Dominga is different from that claimed by most respondents.

*Kadagiti dadduma, trabaho ti lalaki trabaho da. Ngem siak diay nalaka nga trabahoen isu ti trabahoek. Diay nalaka bagik diay narigat bagi ni lakay ko. Haanak nga aggabyon ken ag spray. Tumulongak nga agdalos, agmula ken agharvest ngem bagi na ti agbunag. (For some women farmer, the work of the men is also their work. But in my case, I do light and easy work. I help in weeding, planting and harvesting but not applying fertilizers and *aggabyon*. My husband does the heavier task like carrying.)*

From the story of the women respondent, the role of each woman respondent varies depending upon the situation they are into. For example, in the case of respondent Lily being a widow, she has become the head of the household. As the head of the household she shoulders all decision-making related to field and home management and assumes the roles in the garden formerly assumed by his husband.

For Karl (1996), the assumption that farmers are men is usually where policy making and legislation fail.

It can be inferred that with the advent of trade liberalization and the implementation of the Agreement of Agriculture, it is not only the men farmers who will be affected but also the roles of women in the crop production. That is women fulfill their task in the field, the implementation of AoA will further complicate their situation.

These tasks however will have health implication on their part. Both Cariño (2005) and Cheng and Bersamira (1994) claimed that Benguet farmers are a major consumers of fertilizers and pesticides. Since it was observed that there is an increasing participation of women farmers in the cash crop production, women are exposed to hazardous chemicals being used on the farm (Appendix F). The study of Batani et al (2002) in Paoay, Atok revealed that almost all of the ailments of the respondents were related to using chemicals and treated by self-help remedies, which are commonly adopted by the respondents. The labor intensiveness vegetable production is a factor why women work as hard as men.

#### Status of Women Farmers Given the Changing Situation in the Vegetable Industry

To accurately describe the status and condition of women farmer respondents given the changing status in the vegetable industry of Benguet, one must reflect on their existing status. Status in this research refers to the condition of women in the crop production, at the household level and in the community, as well as the access and control to resources like income, time, community involvement, investment and involvement. The women respondents have been actively participating in the cash crops production by assuming the roles once dominated by men (Wiber, 1994). Along with their task in the vegetable production they are not excuse from assuming other functions at home and in the community. This section of the research looks into the status of farmer respondent

given the changing condition in the vegetable industry in relation to the entry of vegetables and the implementation of the WTO-AoA.

Compared to the vegetable industry five years ago, a great majority of the respondents articulate that vegetable industry five years ago was better compared today in terms of the changes they have observed and experienced.

One of the changes observed and felt by the women respondents presently is the soaring price of farm inputs like fertilizers and chemicals. All agreed that the farm inputs are having almost prohibitive prices. Some women respondents attribute this increase in price of farm inputs to the increasing price of crude oil. Second, harvest is low and this can be attributed to natural calamities and pest and diseases. Third, the price of their vegetable has decreased. Almost all women respondents claimed that the lowering of vegetable price is due to oversupply and the entry of vegetables coming since vegetable importation is related to oversupply of vegetables in the market. However, probing revealed that local farmers felt that what they produce is enough to meet the needed semi-temperate vegetables in the country. But with the intrusion of imported vegetables the price of local vegetables was left behind. Oversupply of vegetable resulting from importation results to low price since there are a lot of vegetables competing in the market. It is interesting to note that women respondents claim that their produce is of good quality and they feel that it should correspondingly command better price. Remedios, a trader-supplier, said that she, together with several

farmers, opted to leave their vegetables get rotten in the field rather than transporting them to the market as this surely would mean additional loss of income. This will be further elaborated under the problems faced by the women respondents.

These policy shifts expressed in WTO-AoA negatively affect women respondents as shown in their changing roles and status discussed in the ensuing paragraphs.

Access to and control of time as a resource. This refers to how the women farmers manage their time resources as they assume their different roles at home, in garden and in the community. When the women respondents were asked to describe their status now, ten respondents answer that they have longer working hours.

For these women, they say life is more difficult and its difficulty is brought about by prices of commodities that keep on increasing and are aggravated by the entry of legal or illegal vegetable importation. This puts more pressure for these women to finish their task so they can take on other paid work. Moreover, they need to finish work to be in time with the harvest time and eventually catch up with at least “good market” price of vegetables. These women also claim that increasingly husband and wife and even children are staying late in their vegetable gardens.

At the same time, 11 respondents claim they have limited time in assuming their household and family responsibilities because of vegetable farming. Women respondents carry multiple burdens as they assume their roles at home and in the garden. Most of the respondents claim that before going to the field, they have simultaneously assumed their role as mothers. This role involves preparing the daily needs of their children as well as performing house chores. The following is the typical day of a woman farmer. As she assumes her task, shifts from one role to another. After preparing the food and cleaning the house in the morning, she joins her husband in the field. At eleven o'clock she goes home to cook and returns to the field at one o'clock to continue her work. At the end of the day, she continues to assume her task doing the work of a mother and as a wife. Though the husband and children share in this responsibility, the bulk of the responsibility is still in the hands of the women.

Such schedule of farm activities was also the scenario in the study of Cheng and Bersamira (1994): Monday to Saturday, farmers work from sunrise to sunset in whatever type of weather condition. This is exactly the claim and situation that present day women vegetable farmers confront.

A case in point is the woman farmer Vivian. She gets up at 4:30 or five early in the morning to cook for her children and afterwards clean the house. She goes to her vegetable garden around 7:30 or 8:00 in the morning. But if there are works to be done in the garden, cleaning the house is set aside. Respondent

Sioning, on the other hand, claimed that after preparing the needs of her children going to school and feeding her pets, she immediately goes to the farm to work. In the case of respondent Susan, she goes to the farm to work with her little child. But like other women respondents she admitted that her responsibilities at home like cleaning was sacrificed particularly if there are a lot of tasks to finish. Upon hearing the different stories of the women farmers, it is apparent that women farmers share a common plight. The women respondents assume roles that requires sacrifice on their part: as mother, as wife, as farmer and as a member of the society.

Interestingly, this shift in roles and status go against the finding of an earlier study in Buguias by Calugan et.al. (2002) that Buguias farmers, between a mother and wife, their maternal instinct overshadows everything else. It can be drawn that a mother should be able to do everything to serve as model to their children.

Twelve respondents claim that they have limited time for leisure and socialization with other women. Between work and socialization, women farmers are willing to give up their time with other women for the sake of their work especially if they need to finish it. The majority claim that they can socialize with other women only during Sundays, holidays, and special occasions or if there is no work to be done in the garden. But if they need to finish the task, some of the respondents claim that they even neglect to attend church services and prefer to



work in their vegetable plots because like in their own houses, work on the farm seems endless. This shows that cash crops farming is really labor intensive. A case in point is Leticia, who used to farm but now leases her garden. Similarly, three respondents, when asked how much time they devote in their garden, they answered six in the morning till six in the evening. Leticia reminisces those times, she said:

*Six to six ah uray rabii pay lalo nu nagmula kan tattan tapos nu han nga nagtudo ket kasapulam nga sibugan ket nasipnet ten, agflash light kan ah. Ag-overtime ka pay diay garden. (Six in the morning till six in the afternoon. If there's no rain and you had just planted and there is a need to water the plant you will be staying late in the garden using a flashlight.)*

In the case of respondent Dominga, who is a farmer and a canteen manager at the women's coop, when asked about accessing health care,said:

*Awan ah talaga nga limitado ti oras ta syempre umayak ditoy canteen nga agrabaho, agawidak bassit lang ti oras ko. Nu agsapa umsyek manen ditoy rabiin ton manen nga agawidak diay balay. Isunga awanen diay tiempok nga apan agpa check-up. (None because my time is limited. In the mornig I work here at the canteen by the time I will go home its already dark. The next morning I have the same routine and I will be going home late again. I don't have time to have my check-up.)*

From this situation and from the interviews conducted, it may be inferred that as women farmers devote more of their time in the field, while their time for the household and family responsibility; time to socialize with other women, leisure time, and even their time for themselves has been limited. The above

situation of women corroborates with the conclusions of Cağatay (2001) that women are likely to work longer hours than men.

Moreover, as women work inside and outside the home the end result is an increased workload that leads to a “double burden” Other terms have been used by Cagatay to refer to this situation like “double day”. This women status results when there is an increase in the labor force participation of women but is not accompanied by a commensurate reduction in their unpaid domestic labor.

Contreras (1998) describing this scarcity of time resources as an opportunity loss, stated that reproductive functions such as household chores that women undertake, if translated into economic terms, reveal its invaluable economic value.

Two of the respondents claimed that their time in working is the same while four respondents like respondent Remedios and respondent Lily claimed that it depends on the person since as farmers they handle their time.

As discussed earlier, women are highly put under pressure in the context of globalization.

Social services. Women’s endeavor to enhance the quantity of their income-generating activities are thwarted by their limited access to social services such as credit to name a few. Women have limited access to credit and capital required to increase their production. In this study social service refers to

women's access to credit, capital, transportation, land ownership and agricultural facilities and organization.

*Gender differential in accessing credit.* Capital has always been the perennial problem confronted by vegetable farmers. Although the difficulty of accessing credit for small farmers both affect men and women, the plight of women is worse for many reasons. Women lack acceptable collaterals which are the primary requirements in accessing loans. Another is that men are the legally recognized heads of the family. Recognized as landowner are male members of the household. This means that men with collaterals can have access to credit. Such situation was reiterated by respondent Dominga when asked who can apply for credit:

*Ni lakay ko ngem uray siak ti mangi-process ngem nagan na met lang... nu idia outside mabalin nga uray siak ti agloan ngem nu kua ket isuna latta ta nagan na tapos nu collateral ket nakanagan kanyana diay lote. (It is my husband although I process it but it was named after him. If it is outside, it can be me but it is still him because of collateral and he was recognized as the land owner).*

In the case of respondent Vivian when asked if she had experience applying for loans from banks, she mentioned that she tried but due to insufficient collateral her papers were not approved. As articulated by these women that a woman who does not own the lands have a usually limited access to agricultural support services such as credit for purchasing inputs.

The case of respondent Rose and Sioning is different from that of the other respondents. Respondent Rose is a tenant, meaning, she tills a land she does not

own while respondent Sioning up to the present continues to till the land of her father. The land was not yet given to her as an inheritance signifying there is no formal transfer of property.

“Who owns the resources” is very important because this will determine who has the access to credit. As mentioned earlier, some women respondents own the land they till and owning it gives them a better status compared to those women respondents who do not own the land they till because their access to services like credit is very limited. On the other hand, some women owning the land they till may not guarantee their having a full access in loaning institutions. This was further explained by respondents Vivian.

*Padasen koma nga agloan ngem han met nga maaprobaran diay loan ta kurang ti collateral* (We tried to but it was not approves since our collateral is not enough).

Women are not a “homogenous entity” meaning, while all are women farmers, still there are women who are categorized differently—i.e. women supplier, women trader, *por dia* women and owner farmer. Each category differs in their status in relation to accessing credit.

Karl’s conclusion sums up the above scenario. Discriminatory legislation is seen when women farmers are involved as evidence by the existence of discriminatory laws on land acts, agrarian reform and even on membership cooperatives. Even when legislation does not limit women’s right to land titles and membership in cooperatives, tradition often does.

Because of inadequate capital and for easier access, the farmers have resorted to accepting financing under arduous circumstances. One way is for a vegetable dealer to finance a crop, on the condition that the farmer will bring her harvest to the dealer financier on provisions which are not good to the farmer. This is advantageous as the farmer has already her control in terms of prices. If the existing income is inadequate to cover the farmer's expenditure for the next cropping she seeks additional financing from the supplier. This puts women farmers into deeper indebtedness. Aside from the dealer financier, women respondents claim that they resort to borrowing from those people whom they know have the capital such as their relatives, neighbors, or friends.

As reiterated by the women respondents, it is not only the collateral that hinders them in accessing capital to different organizations or lending institutions. Some respondents say that they have not tried to loan in cooperatives or association like in the case of respondent Fely. One reason that 'holds her back' is some "not so good issues" confronting any borrower. Another reason is the many "paper works" to process as well as too long waiting periods which defeat the purpose of the loan. As experienced by some women respondents, loans are approved only after the time they do not need the cash anymore. In relation to the "paper works", according to the adviser of womens organization, Yolinda Beliano, if a women farmer wants to be a member of the Association she goes to her sitio to apply and process the requirement she needs. There are bureaucratic

processes to be followed. A woman who wants to join the women's organization will apply at her sitio and has to hurdle bureaucratic requirements at the barangay level before she is entertained at the womens association.

Respondent Dominga says:

*Idi awan pay ti vegetable importation, mabalin nga maka-invest kami pay, makagatang kami ti kayat mi tatta ngay ket as in nga awan. Idi ah ket mabalin nga han kami nga ag-utang ken agloan. Tatta nga adda ti importation ket ni rimmigat ti biag min. (When there was no vegetable importation we an still invest, we can buy the things that we want but now its different. Way back then, it is possible for us not to borrow money but since we have this vegetable importation life is more difficult).*

Thus, with the full implementation of WTO AoA and with the existing condition of women respondents in terms of capital and credit resources signifies that women respondents cannot cope with the threat brought by global shift particularly with the entry of imported vegetable since they lack the resources to strengthen their farming activities.

Material Resources. Material resources in this study refer to income, savings, and accumulation of new technologies.

As mentioned earlier, women perform multiple tasks in the sphere of agriculture. If they are considered and viewed as cultivators as well as producers of food then women farmers need to increase and improve their productivity and this entails improvement of technology too. But this will not likely happen since all the respondents claim that they have limited income, savings, investment, and

accumulation of new technologies. Income, savings, investments and accumulation of new technologies are related to each other in the sense that having a low income means limited possibility to save and invest. It also indicates that a farmer has a limited opportunity to improve technology being used in the garden.

All respondents agree that they do not have savings since their income goes to garden, payment of credit, school fees, and daily needs. As respondent Dominga says:

*Mostly met gamin ket awan ti ma-isavings ta kasla nga agrotate lang met. Nu awan ti eskwela apan diay makan. i-roll mon to manen idia garden. (Most of the women farmers don't have extra income to save since their money revolves to school fees, food in the garden).*

In terms of accumulation of new technologies, some women respondents do not consider this as a problem because they claim they still have their existing tools to use like *gabyon*. Aside from that, they wait for a tool to be worn out and destroyed before they buy a new one. Some respondents say that as long as they can still use it, some remedy measures is being adopted like fixing the tool. If the tool cannot be used anymore and no money has been allotted for this, the farmers borrow money to purchase it. It is apparently seen that one of the related problems brought by limited capital is the access of suitable technology that can help uplift their level of productivity.

From the foregoing testimonies of women respondents, it may be inferred that having low income can limit the productivity of the farmers; farmers cannot invest or save because of lack income and income goes back to the garden as mentioned earlier.

Based on the inventory of farm machine and equipment by CHARM through the BNRMP, Paoay farmers used the following: *gabion*, *sangkhap*, bolos, rakes and sickles. These tools are mostly used in land preparation, seedbed preparation, fertilizer application, and harvesting. Work is done manually by the farmer respondents and this can be attributed to the topography of the place.

Probing, however, show that this seemingly “resigned” attitude of women results to having limited resources. Women respondents for instance say that when their tools get destroyed, they themselves repair them. Still, another would say that destroyed tools do not automatically mean buying a new one as cash resources have to be saved for more important matter like capital for the next cropping.

Community involvement. In this study community involvement refers to women’s access to women’s organization, and ability to attend trainings, seminars and barangay meetings.

From the interview and the data gathered, women farmer respondents claim that it is not only their family and household responsibility that has been limited but also their community involvement. A great majority agreed that



attending seminars, trainings and meetings are sometimes postponed because of their work in the field. Respondents claim that if time permits and if meetings, seminars and trainings are short, important and helpful, they attend them. Few respondents claim that attending seminars depend on the person involved.

Some of the respondents are members of the women's organization located in Sayangan. According to the respondents, joining such organization does not only benefit them but also their husband since this organization can lend capital. The women organization sponsors seminars and training and according to respondent Dominga, the vice-president of the women's organization, such seminars can help women uplift their knowledge and betterment of their farming activities. Among those women respondents who claimed to be a member of the women organization, some say that they are not active members at present because of the nature of their work and the roles they assume at home.

It is apparent that some women respondents like the case of respondent Leticia, president of the women's organization, and Dominga, who assumed a significant position in the organization, can assume leadership positions. But on the other hand, assuming such position will eventually leads to taking on responsibilities that extend their working hours.

### Problems Encountered by Women Farmers

The 16 farmer respondents have experienced several problems since they started farming and these problems can be limiting the output and productivity of farmer respondents. Among the problems encountered by the farmer respondents: absence of water supply and irrigation; inadequate supply of materials like seeds, pesticides, and insecticides; inadequate capital; insufficient technology and tools; high cost of inputs; destruction of plants due to calamities, typhoons and frost; different pest and diseases and diminishing soil fertility. Compounding these problems is the problem of low farm price.

Lack of water source particularly during summer limits the cropping of the farmer respondents and this may result to limited income. According to these women, there are some areas in Atok municipality that totally depend on rain. This is supported by the data from the BNRMP that only 30 percent of the total agricultural area is irrigated that is, water is available all year round.

All respondents claim that lack of capital is one of the major problems faced by the farmer. Cash crops farming is considered as capital intensive. Having a limited capital is related to other problems being encountered by the farmers. First, it is related to having insufficient supply of materials like farm inputs and tools as mentioned earlier. Kranz (1976) stated that commercial vegetable production usually requires large capital and heavy labor inputs, refined skill and good marketing facilities. As highlighted by the women respondents, the capital

intensiveness of vegetable farming can be crippling. Lack of capital would mean inability to plant. Inadequate capital would also mean lack of farm inputs and farm tools. The absence of support to marketing their produce is another problem. One can say that with vegetable importation, the future of the women farmers all the more is made uncertain. Second, if women farmers have insufficient capital and their income is fluctuating, they fall under further indebtedness to informal and formal lenders. Third, limited capital also results to limited income.

According to respondent Vivian:

*Before 2000 atleast han kami la unay nga ag-utang tatta ngay ket ag-utang kami metten.* (Before 2000, atleast we don't often borrow money, borrowing money use in the farm is not uncommon.)

All farmer respondents observe and agree that the prices of farm inputs are high and sometimes not affordable compared five years ago. When asked what could be the perceived cause, some farmer respondents attribute this to increasing price of commodities especially crude oil. Respondent Julie says that prices of farm inputs are high yet the price of vegetables is low even though they have a high quality, thus the women have a low income. This problem is aggravated by a low farm gate price and income is not sufficient to provide both household and farm needs.

The issue of low farm gate price is also related to vegetable importation. The vegetables of farmers cannot compete with the low price of the imported

vegetables considering that if women will allow the price of their vegetables to be lowered, their capital is at stake.

The structural limitation in relation to prices has been a perennial issue. The vegetable farmers are in no position to dictate the prices of their crops. Prices of commodities are unpredictable and vary from time to time (Appendix L). In the case of carrot and cabbage alone, the table shows that in the month of January alone this year, the price is not stable (Appendix L). In just a span of three weeks the price decreased and such decrease is beyond the farmer's control.

Appendix M shows the rise and fall of price of cabbage from the year 1999-2003. It is evident from the graph that there is a steep and continuous decline of price in the year 2000 to 2003. This can be attributed to the entry of imported vegetable that had swept the vegetable industry of Benguet. This has a great impact on the income of the farmers because during the times that the prices fall the farmers just allow their vegetables to rot in their garden and be used as fertilizers. The production costs, which include the cost of chemical inputs, seeds, transporting the vegetable from the garden to the market, far exceed whatever they can earn.

Aside from the problems mentioned above, some women respondents include health as one of their problems. Farmer respondents rely on chemicals and insecticides for disease and pest control thus they expose themselves to hazardous chemicals and pesticides that may threaten their health. Aside from that, as a

farmer, whatever the weather condition, they are expected to tend to their crops. Three respondents say that even if they are not in good health condition, suffering from slight fever or cold, and whatever the weather condition they still visit their crops. This is because of the big sum invested on their gardens and even a single day of absence in the farm could pose great risks. Due to this situation, the health of the respondent is at risk. As a result they resort to cost-cutting and one of the things that will be sacrificed is the money allotted for the health of the family.

As mentioned earlier, in cash crop production, farmers rely heavily on pesticides, fungicides and other chemicals used in farming. But using too much chemicals can affect also the fertility of the soil that can change the total production of vegetable farmers. All respondents claim that diminishing soil fertility is one of the problems they are facing. This is due to acidity brought about by the use of chemicals and as claimed by the respondents, to soil being too old. The relationship yield to soil fertility is explained by economist in the Law of Diminishing Returns.

#### Solutions Employed by Women Farmers

The problems adversely affecting the production and income of the farmer respondents needs immediate measures from the government as well as from the farmers itself. From the interviews with the farmer respondents shown in Table 27 are the solutions being adopted and practice at present by the women farmers.

Based on Table 15, farmer respondents usually resort to borrowing money to be able to solve their problems. Farmers either borrow from someone they know or ask help from their supplier in the Trading Post who will supply them the needed farm inputs or capital they needed. The finding supports the observation made by the Department of Agriculture-Bureau of Agricultural Research (1989) that farmer were trapped into a cycle of borrowing. The practice of farmers in resorting to borrowing capital from private lenders to finance their crop is like a cycle. They borrow to finance, repaying it after the harvest and borrowing again if income is insufficient to finance the next cropping.

In other problems like the lack of irrigation/water, the women cope by limiting the number of cropping. They also resort to self-help remedies like crop rotation, application of greater volume of pesticide and insecticide. Women who are “better-off” also participate in the provincial level organizing in response to the issue of vegetable importation. Concrete actions like joining petitions and congress- were also facilitated since one respondent is the president of womens organization.

When the farmer respondents were asked about government program being implemented, some of them said that they are not aware of the programs and laws being implemented by the government. Others mentioned the following: training and seminars like organic farming and crop programming. To be able to

Table 15. Solutions employed by the women farmers

PROBLEM	SOLUTION
❖ No water supply	- wait for the rain - resort to one or two cropping instead of three cropping in a year - Deep well - limit the size of land to be planted
❖ Lack of materials Like seeds and fertilizers	- Borrow money - Supplier
❖ Lack of capital	- Borrow money a. friends b. neighbors c. relatives d. middlemen/suki at the Trading Post - Loan a. private b. banks - pa-suplay
❖ Insufficient tools/ Technology	- do some remedy (fixing the tools) -Borrow money to be able to buy
❖ Cost of inputs	- Borrow money - go to their supplier
❖ Destruction of plants due to typhoons and calamities	- replant with another crop
❖ Pest and diseases	- apply chemicals, insecticides
❖ Diminishing soil Fertility	- crop rotation - try organic farming
❖ Others o Clubroot	- apply lime -crop rotation

help the affected farmers due to the destruction of plant brought about by the frost, the Department of Agriculture launched the Plant Now, Pay Later (PNPL)

Though the DA tried to help the farmers' through these measures, it is not enough to prepare the women farmers in line with the entry of vegetable importation. This can only solve and help the women farmers in a short while.

When asked what the government should do to help them in line with vegetable importation, the following recommendations are given by the farmer respondents.

Table 16. Recommendations

RECOMMENDATION
<ul style="list-style-type: none"> <li>❖ Financial Assistance</li> <li>❖ Market outlet aside from Trading Post in la Trinidad</li> <li>❖ Price of oil should be lowered in relation to the increasing price of transportation and farm inputs</li> <li>❖ Trainings</li> <li>❖ Stop GATT/ importation of vegetable</li> <li>❖ Patronize our own product</li> </ul>

Capital plays an important role in farming. It is the aspiration of women farmers that the government will be able to extend help in terms of finance. There are constraint to women farmer in borrowing money (informal or formal), which includes collateral and cash capital aside from having high interest.



Generally, the vegetable products of the farmers are sold to La Trinidad Trading Post. What happens here is that when there are a lot of products being sold, the tendency is the oversupply of products that leads to lowering of prices that affects the income of the farmer but it is the middlemen who usually benefited. It is the desire of women to have another market outlet where their products can directly reach the consumers and break the long chain of middlemen.

Another problem of the farmers is the increasing price of farm inputs and the women correctly related this to the increasing price of crude oil. Since the government cannot control and dictate the price of oil at least necessary measures should be undertaken by the government to help the plight of the people especially the farmers. Women and other farmers should be equipped and empowered to be ready to face trade liberalization. The role of trainings and seminar could not be undermined. Proper communication should be done as to reach the concerned people.

Farmer respondents are aware of the issue of vegetable importation and the effects it brings to them. Their desire is the government to stop the entry of vegetable importation since it really affects the price of their crops that affects their income that will also affect their situation not only as producers but also as consumers and being as secondary earners as others view them. According to them, if the government will not be able to stop the intrusion of imported vegetable, at least the government should do something so that their means of

livelihood will not be affected and that they will be able to compete with the imported vegetables.

One woman respondent had mentioned that despite the intrusion of imported vegetable in the local economy, Filipino people should learn to patronize the local products to help not only the local industry but also the local farmers.



## **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

### Summary

The main objective of this study was to determine the impact of vegetable importation to the roles and status of women farmers in Sayangan and Englandad, Paoay, Atok. The specific objectives were to determine the socio-economic profile of the respondents; describe their present status given the changing situation in the vegetable industry; and to identify their problems in the production level in relation to vegetable importation as well as the solutions employed.

The respondents were 16 women farmers from Sayangan and Englandad, Paoay, Atok. An interview schedule was used to gather relevant data from the respondents. The data were tabulated and analyzed. Frequency and percentage were used.

The salient findings are the following:

1. The level of participation of women in the cash crop economy is increasing. Because of this, women's role in farming activities is adjusted to mainly getting involved in economic activities that try to cope with pressing economic needs. This adjustment, however, carries implications on the women's control of their time, capital (if any) and community involvement. In terms of labor division, the majority of the farmer respondents claim that there is no

significant difference between the work of men and that of women in the production system.

Women farmers are not a homogenous entity, that is many are poor and a few are much better off. In this study, the categories (farmer-trader, farmer-supplier, farmer-owner and women farmers involved in por dia basis) indicate differential access and control to resources.

2. Women respondents claim that the present vegetable industry has become a far cry from that of the past. With the changing situation of the vegetable industry, the status of women is affected.

In terms of time resources, the majority of the women respondents claimed that much of their time is spent on the farm. Thus their time for their family, for leisure and for socialization with other women is affected. They claim that they can only have time for leisure and socialization after their work on the farm.

Women respondents have a limited income that eventually leads to highly limited savings, investments and opportunity to adopt new technologies and own tools used on the farm.

In terms of community involvement, women respondents can only attend to activities like seminars, trainings and meeting based on their available time.

3. There are problems besetting women farmer that had been existing since they started faming. Problems that are within and out of their control and

further negate their status and roles as women farmers and eventually their economic productivity and development.

4. The solutions undertaken by the women farmers can help them survive their existing status. But these solutions were not able to prepare the women in line with the entry of vegetable importation and in the context of globalization

### Conclusions

Based on the findings, the following conclusions are drawn:

1. Farmer respondents are categorized as old women who range in age from 40 years and above. Women who are into farming are relatively old, that is about middle ages to post middle age. A great majority of the respondents started farming when they were young and have either reached or finished high school or college.

Thirteen respondents are owner-farmer. The income of women respondents since 2000 is erratic due to internal, external and natural factors. Affecting their source of income are the existence pest and diseases, low farm gate price, and occurrence of calamities and typhoon. Compounding these problems is the intrusion of legal or illegal imported vegetables. Since having a limited income and being responsible in preparing the food, the women farmers augment their income through other means. Most respondents are owner-farmers who depend on family labor or hired labor when family labor is not enough.

In terms of capital source, a great majority depend on their limited capital and on *pa-suplay* system particularly on middlemen, if they lack the needed capital or farm input. *Pa-suplay* scheme varies depending on the agreement between the supplier and the farmer. A great majority plant cash crops such as potato, carrot and cabbage.

2. The roles women respondents demonstrate that they are involved in a capital and labor intensive work on the farm. With their assumed multiple roles, their health is eventually affected. The status of women is aggravated as they try to cope with new policies being implemented and with the changing situation in the vegetable industry. The rising importance of the women's economic involvement to the family and the additional demand upon her time and endeavor are having intense upshot on the family and her role in the community as well.

With the implementation, of WTO-Agreement on Agriculture and the intrusion of imported vegetables situations which they are now experiencing, women farmers are caught off guard. And with the limited capital and income they have, adopting innovations and improving their productivity are impossible.

Their income insufficient to meet the basic needs of their families especially if they have five to eight household members and children going to schooling.

3. Women farmers are beset with different problems such as lack of irrigation, materials, capital tools/technology; increasing cost of inputs;

destruction of plants due to calamities, pest and diseases; and diminishing soil fertility. With the onset of vegetable importation they are bequeathed with new challenges that will further marginalize their situation as women farmers.

Trade liberalization, particularly WTO-AoA, has an indirect effect on the production activities of women respondents and a direct effect on their income. Due to limited income, it affects the purchasing power of the respondents in farm inputs and their production as a whole since it limits their capacity to improve farming activities. Their involvement in the production activities will eventually affects their roles and status.

4. Although trying to solve their existing problem, the women farmers have problems beyond their control. Most of the solutions employed are self-help remedies.

Recommendation:

On the basis of the foregoing findings and conclusions, the following recommendations are forwarded:

1. Since women farmers assume a major role as producers, the local and national government should reconsider the plight of women farmers in the context of vegetable importation particularly in the policy making. Having policies lead that eventually prepares women farmers in facing the challenges brought by

vegetable importation. The government can prepare and help women farmers in the form of the following;

a. With vegetable importation, the “name of the game today” is globalization, one should play by the rule as to not to be eased out or left behind by the other competitor involved, thus the government and non-government organizations should look into packaging and marketing of local products.

b. The Government, spearheaded by the Department of Agriculture and concerned institutions like farmers organization and women cooperatives, should provide proper programs that will improve the condition of women farmers since they carry multiple burdens. The programs can be in the forms of income-generating or skills training or programs that will change the status of women in agricultural production. Changing their status will bring comparative benefits that will help them in line with the full implementation of trade liberalization.

c. The Department of Agriculture should sponsor seminars in relation to WTO-AoA since many Benguet farmers are not aware of it. The Department of Agriculture and non-government institutions that have the desire to uplift the status of women farmers should sponsor trainings in relation to agricultural production appropriate for women that will help equip their skills.

## 2. Research-related recommendations:

a. There should be further study about the implications of WTO - AoA in the marketing level that look into the implication of vegetable importation.



b. Statistical researches on the effect of vegetable importation to women's status and roles shall also be important.

3. Training-education recommendation along:

a. Information-drive on GATT-AoA with special focus on vegetable importation

b. Education on organizing a cooperative building tht focus on capital sourcing and sharing

c. Information drive on marketing and networking building



## LITERATURE CITED

- ARO, S. 2004. "Standards for Veggies and Cutflowers to be Set Soon." Skyland News. Year VIII No. 27 December 5 p. 7
- AQUINO, M. 1991. Farming System in Region 1 and the Cordillera Administrative Region (CAR): Their Contributions to Agricultural Development. Unpublished dissertation, Benguet State University, La Trinidad, Benguet.
- Barangay Natural Resources Management Plan (BNRMP). Paoay Atok, Benguet Province Planning Period 2000-200006.
- BATANI, R., CADIOGAN, A., AND ROVILLOS, R. 2002. The Impact of Globalization of Indigenous People's of the Philippines. A paper presented at the National Dialogues of the World Commission on the Social Dimensions of Globalization. Dusit Hotel, Makati City, Philippines.
- BATANI, R. ET.AL. 2002. Obtaining Conditions of Women Potato Farmers in Barangay Paoay, Atok, Benguet in the Cordillera Northern Philippines in the Context of the Agreement on Agriculture. Tebtebba Incorporated Asian Indigenous Women's Network.
- BATANI, R., CALUGAN, M., SINGA, E. AND LAKING, A. 2002. Obtaining Conditions of Women and their Households Engaged in Potato Production in Two Communities of Buguias, Benguet, in the Context of Liberalization Policy in Agriculture. DSS-CAS-IHPSSERD, Benguet State University.
- BETA-A, H. 1981. Marketing System of Vegetable Farmers in Mt. Trail. Unpublished master of science thesis. MSAC, La Trinidad, Benguet.
- BOQUIREN, R. 1989. The History and Political Economy of the Vegetable Industry in Benguet: A working paper 14. Cordillera Studies Center U.P College, Baguio City
- CAGATAY, N. 2001. Trade, Gender and Poverty. United Nation's Development Programme New York, New York.
- CARIÑO, J. 2005. Putting Together a Picture of Asian Indigenous Women. <http://www.tebtebba.org/tebtebba.files/gender/aisit.htm>

- CHAVEZ, C. 1998. A paper presented at De La Salle University. Photocopied.
- CHENG, C. AND BERSAMIRA, K. 1994. Pesticides: Its Hazardous Effects on the Benguet Farmers and the Environment. Baguio City.
- CONTRERAS, 1998 as cited in the study of Batani et al in Obtaining Conditions of Women and their Households Engaged in Potato Production in Two Communities of Buguias Benguet, in the context of Liberalization Policy in Agriculture, 2002.
- Cordillera Administrative Regional Agriculture Development Framework 1992-1995, Department of Agriculture (January 1992 p. 1-6
- CRISOLOGO-MENDOZA, L. 1998. Decision Making on the Household Budget: The Case of Farm Households in Three Cordillera Villages Cordillera Studies Center. UP College Baguio
- CRUZ, B. 2005. The Economic Viability of the Labor Employed in Various Marketing Strategies. Unpublished thesis. Benguet State University, La Trinidad, Benguet
- CRUZ, G. 1994. Paoay, Atok, Benguet Barangay Profile. Cordillera Studies Center, Baguio City.
- CRUZ, M. 2004. "2nd Veggie Congress Encourages to Fix Industry Problems." Skyland News. Year VII No. 47 April 25 p.7
- Department of Agriculture-Bureau of Agricultural .1989. Agricultural Research and Extension Overview and Objectives
- DULOS, C. 2003. Women Entrepreneurship in Pangasinan: Their Motivations and Gains. Unpublished doctoral dissertation, Benguet State University, La Trinidad, Benguet.
- FLAMIANO, D. 1988. Vegetable Marketing in the Philippine Highlands: An Analysis of Trader Control and Search for Alternatives. Philippine Peasant Institute.
- FOOD AND AGRICULTURE ORGANIZATION, 1998.

- HEYZER, N. AND WEE, V 1995. Gender, Poverty and Sustainable Development: Towards a Holistic Framework of Understanding and Action. Engender-Center for Environment, Gender and Development, Singapore
- ILLO, J. 1991. Gender Analysis and Planning. Institute of Philippine Culture, Ateneo de Manila University, Quezon City.
- Integrated Set Information System – International. 1995. Remaking the Economy: Some Reading on Women’s Economic Perspective.
- JICA, 1992. Summary Report on Upgrading Women’s Techniques Level. The Improvement of Rural Life, Volume 1
- JOEKES, S. AND WESTON, A. 1994. Women and the New Trade Agenda. United Nations Development Fund for Women.
- KALINANGAN, A. 1992. Marketing Practice of Vegetable Farmers in Benguet. Unpublished master thesis in business administration, University of Baguio, Baguio City.
- KARL, M. 1996. Inseparable: The Crucial Role of Women in Food Security. ISIS International Manila, Philippines
- KHOR, M. 2005. The WTO Agriculture Agreement: Features, Effects, Negotiations and What is at Stake. A paper presented at the FAO Regional Workshop on the WTO and Agriculture held in Bangkok
- KRANZ, (1976) as cited in the Benguet Province Main Report.
- MADELEY, J. 2001. Trade and Hunger: An Overview of Case Studies on the Impact of Trade Liberalization on Food Security. Second Edition. Forum Syd, Stockholm, Sweden.
- OSIS, R. 2004. “Benguet Mayors Call for Veggie Importation Safeguard.” Skyland News. Year VIII No.1 June 6 p.5
- \_\_\_\_\_ “BPI Told to Stop Issuance of Vegetable Importation Permit.” Skyland News. Sept 19 p.6
- \_\_\_\_\_ “Traders Deny Presence of Veggie Cartel.” Year VIII No. 16 September 19 p.13.

- PAUNLAGUI, M. 2002. The Effects of the Economic and Financial Crisis on Women in the Agricultural and Rural Sector in Carrying the Burden of the World by Illo and Pineda-Ofreneo (eds) UP Center for Integrative and Development Stud. Philippines.
- QUITOS, L. 2000. Commercialized Technologies for Rural Development; Utilization, Impact and Problems: a disseration. Doctor of Philosophy, Benguet State University.
- SALES, T. 2004. "Smuggled Imported Vegetables Prohibited in Trading Post." Skyland News. Year VIII No.7 July 18 p4.
- SHIVA, V. 1995. WTO, Women and the Environment: An Ecological and Gender Analysis of Free Trade," in Haxton, et. al., eds. Women in Development: Trade Aspects on Women in the Development Process. Sweden: United Nations Youth and Student Association of Sweden (UFFN).
- SORIANO, Z. 2000. The Cost of Globalization on the Working Women in the Philippines. A paper presented at the Pan Asia and the Pacific. Task Force on Women in Agriculture. PAN ASIA and the Pacific Penang, Malaysia
- TAULI-CORPUZ, V. 1997. Globalization and Indigenous Women: The Philippine Experience," Tebtebba Foundation Incorporated, Baguio City.
- TAULI-CORPUZ, V. AND ROVILLOS, R. 1999. Gender Issues in Trade and Sustainable Development. Tebtebba Foundation Incorporated, Baguio City.
- TAULI-CORPUZ, V., MAZA, J., AND BATANI, R. 2006 The Impact of Globalization and Liberalization on Poor Rural Producers: Evidence from the Field. Tebtebba Foundation Incorporated. Baguio City.
- TOQUERO, Z. 1990. The Impact of Globalization in rural Women in Sustainable Agriculture. SEARCA Report, College Los Baños Manila
- UPDATING HIGHLAND VEGETABLE DATA BANK: A main report of Vegetable Commission in the Province of Benguet. 2003.
- VALMAYOR, et. al. 1988. Vegetable Production and Research Policy in the Philippines. Los Baños, Laguna: Philippine Council for agriculture, Forestry and National Resources and Development.

- VEGETABLE RESEARCH AND DEVELOPMENT IN THE 1990's. 1991. A Strategic Plan (AVRDS, P.O Box 205 Taipei: Asian Vegetable Research and Development Center
- VICKERS, J. 1994. Women and the World Economic Crisis. London and New Jersey: Zed Books.
- VIVAR, T., 1998. Economics: Theories and Principles. Vival Publishing House, Inc. Quezon City.
- YLANAN, D. AND VILLANUEVA, F. 2003. The Development of Vegetable Farming in Benguet, 1991-2001. Unpublished Thesis. UP College, Baguio City
- WIBER, M. 1984. Corporate Groups in the Productive Technology of the Ibaloi: A Preliminary Report." Folio 2 Series 4 Social Science Edition Cordillera Studies Center.
- Workshop Organized by APWLD Task Force on Rural and Indigenous Women. Published by Asia Pacific Forum on Women, Law and Development. Thailand. 25-27 October.
- WONGSUWAN, A. 2004. Factors Influencing the Productivity of Rice Seed Growing in the Cordillera Administrative Region. A Dissertation. Doctor of Philosophy, Benguet State University, La Trinidad, Benguet



APPENDIX B

**TOTAL INFLOW VOLUME (IN TONS) OF SELECTED HIGHLAND VEGETABLES IN BAGUIO IN BAGUIO PER SOURCE (JANUARY-DECEMBER 2001)**

COMMODITY	BUGUIAS	ATOK	MANKAYAN	MT. PROV	KIBUNGAN	BAKUN	TUBLAY	KAPANGAN	KABAYAN	LA TRINIDAD	TUBA	ITOGON	BOKOD	TOTAL
Cabbage	8799	5440	5480	3840	3927	3712	1661	2033	3120	1899	747	206	582	41446
Potatoes	6238	3398	4396	5124	3618	2991	1663	1449	1893	148		5	10	30933
C. Cabbage	5157	2525	3048	3495	2094	1912	1699	1193	1551	257	4	37	22	22994
Carrots	3630	2190	3133	3030	2207	2154	1062	1094	2172	1459	234	105	62	22532
Chayote		3427		2	2237	111	2860	2902	128	1380	1793	1579	341	17660
Beans	154	218	202	401	125	122	192	443	134	118	399	155	54	2717
<b>TOTAL</b>	<b>23978</b>	<b>17198</b>	<b>16259</b>	<b>15208</b>	<b>14208</b>	<b>11002</b>	<b>9137</b>	<b>9114</b>	<b>8998</b>	<b>5261</b>	<b>3177</b>	<b>2087</b>	<b>1071</b>	<b>137382</b>
%	17	12	12	11	10	8	7	7	7	4	2	2	1	100



APENDIX C

**AREA PER BARANGAY IN ATOK**

Barangay	Total Landholding (Has)	Area Devoted to Agriculture (Has.)
Abiang	3,332.8679	597.9205
Caliking	2,902.9082	495.0723
Cattubo	2,063.2959	826.6715
Paoay	2,573.6494	803.4537
Poblacion	4,426.5159	567.296
Pasdong	2,534.6872	433.002
Topdac	2,442.4344	346.1736
Naguey	1,635.8274	218.6974
<b>TOTAL</b>	<b>21,912.1863</b>	<b>4,288.2852</b>

Source: Department of Agriculture, Atok

APPENDIX D

**CROPS GROWN IN THE DIFFERENT BARANGAYS OF ATOK**

<b>CROPS</b>	<b>ABIANG</b>	<b>CALIKING</b>	<b>CATTUBO</b>	<b>PAOAY</b>	<b>POBLACION</b>	<b>PASDONG</b>	<b>TOPDAC</b>	<b>NAGUEY</b>
Major Crops	Potato	Chayote	Cabbage	Cabbage	Rice	Rice	Chayote	Rice
	Cabbage	Coffee	Potato	Potato	Chayote	Potato	Cabbage	Gabi
	Carrot		Carrots	Carrots	Gabi	Cabbage	Potatoes	Pipino
	Rice		Radish	Radish	Beans	Tomatoes		
					Garden Pea	Bell Pepper		
					Pipino			
Minor Crops	Garden Pea	Potatoes	Celery	Celery	Cabbage	Beans	Garden Pea	Peanut
	Beans	Bell Pepper	Garden Pea	Garden Pea	Otato	Garden Pea	Radish	Corn
	Radish	Garden Pea	Chinese Cabbage	Chinese Cabbage	Chinese Cabbage	Chinese Cabbage	Chinese Cabbage	Garden Pea
	Celery	Beans	Lettuce	Beans	Camote	Chayote	Beans	Chayote
	Coffee	Chinese Cabbage	Cauliflower	Lettuce	Onions	Carrots	Squash	Beans
	Camote	Citrus	Broccoli	Coffee	Coffee	Camote	Bell Pepper	Onions
	Chayote	Passion fruit	Coffee	Cutflower	Passion fruit	Gabi	Carrots	Coffee
	Gabi		Cutflower		Banana	Corn	Passion fruit	Pineapple
	Corn				Citrus	Peanut	Coffee	Banana
	Peanut					Banana		Star apple
					Coffee		Citrus	

Other Crops	Banana	Rice	Chinese cabbage	Lettuce	Corn	Onions	Broccoli	Tomatoes
	Passion fruit	Camote	Chayote	Rice	Peanut	Radish	Onions	Onions
	Citrus	Gabi	Citrus	Cauliflower	Onions	Pechay	Pechay	Bell Pepper
	Spanish tomato	Lettuce	Pechay	Broccoli	Bell pepper	Squash	Citrus	Pechay
	Star apple	Pechay	Onions	Bell pepper	Pipino	Water crest	Spanish Tomato	Water crest
	Sugar Cane	Onions	Beans	Tomatoes	Radish	Cassava	Cutflower	Squash
	Pineapple		Gabi	Chayote	Carrots	Pineapple		Eggplant
	Chesa			Camote	Pechay	Papaya		Cassava
	Papaya			Banana	Squash	Sugar cane		Chesa
	Squash			Papaya	Water crest	Jackfruit		Papaya
	Water crest			Pineapple	Cassava	Spanish Tomato		Jackfruit
	Pechay			Passion fruit	Pineapple	Star apple		Sugar cane
	Cassava			Pechay	Papaya	Passion fruit		Spanish Tomato
	Cutflower			Water crest	Sugar cane	Chesa		
	Strawberry			Gabi	Jackfruit			
			Spanish Tomato	Spanish tomato				
			Strawberry	Tomatoes				

Source: Department of Agriculture, Municipality of Atok

APPENDIX E

**TOTAL PRODUCTION OF COMMODITY, PROVINCE OF BENGUET (1991-2001)**

<b>COMMODITY</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>
Vegetables						
Area planted (has)	32,557.63	35,553.35	32,200.49	33,518.00	26,603.40	31,503.05
Production (mt)	479,432.97	480,402.62	445,259.47	471,061.66	376,380.26	447,130.90
Productivity (mt/ha)	14.73	13.51	13.83	14.05	14.15	14.19
a. Leafy Vegetables						
Area planted (has)	15,361.43	15,612.05	14,369.70	14,418.90	10,875.40	13,116.45
Production (mt)	243,625.17	337,522.30	204,306.52	224,355.95	157,089.25	193,002.85
Productivity (mt/ha)	15.86	21.62	14.22	14.55	14.44	14.71
a.1 Cabbage						
Area planted (has)	7,520.90	6,386.50	5,572.30	6,724.50	4,431.90	4,371.90
Production (mt)	136,831.60	113,628.60	101,043.32	118,921.70	82,537.95	114,024.40
Productivity (mt/ha)	18.19	17.79	18.13	17.68	18.88	18.90
a.2 Chinese Cabbage						
Area planted (has)	5,173.20	4,690.00	4,554.60	4,721.00	2,517.00	2,763.50
Production (mt)	81,617.40	69,965.50	65,287.80	69,11.40	36,511.00	37,798.45
Productivity (mt/ha)	15.78	14.92	14.33	14.64	14.51	13.68
b. Fruit Vegetables						
Area planted (has)	6,698.50	8,989.80	8,196.15	8,115.70	7,465.00	8,686.50
Production (mt)	69,496.60	86,896.72	91,231.30	95,062.61	80,199.11	99,369.95
Productivity (mt/ha)	10.37	9.67	11.13	11.71	10.74	11.44
b.1 Garden Pea						
Area planted (has)	1,656.70	2,176.70	1,793.80	1,683.50	1,419.50	1,994.50
Production (mt)	6,247.20	8,323.47	6,532.70	6,248.40	5,319.70	8,855.25
Productivity (mt/ha)	3.77	3.82	3.64	3.71	3.75	4.44

c. Root Vegetables						
Area planted (has)	10,497.70	10,951.50	9,634.64	9,983.40	8,263.00	9,745.10
Production (mt)	166,311.20	169,019.60	149,721.65	151,643.10	139,091.90	154,758.10
Productivity (mt/ha)	15.84	15.43	15.54	15.19	16.83	15.88
c.1 White Potato						
Area planted (has)	7,868.80	8,611.00	7,525.39	8,199.00	6,197.00	7,043.00
Production (mt)	128,324.60	134,370.00	118,053.40	123,476.70	106,927.50	112,457.00
Productivity (mt/ha)	16.31	15.60	15.69	15.06	17.25	15.97
c.2 Carrots						
Area planted (has)	2,352.50	1,886.50	1,813.30	1,603.00	1,742.50	2,175.40
Production (mt)	34,442.50	29,496.50	28,286.40	26,024.40	28,034.40	36,140.70
Productivity (mt/ha)	14.64	15.64	15.60	16.23	16.09	16.61
c.3 Radish						
Area planted (has)	155.40	412.50	225.95	99.40	112.50	132.70
Production (mt)	1,741.60	4,591.60	2,497.85	1,168.00	1,350.00	1,451.40
Productivity (mt/ha)	11.21	11.13	11.05	11.75	12.00	10.94

COMMODITY	1997	1998	1999	2000	2001
Vegetables					
Area planted (has)	31,969.75	28,016.15	33,642.27	32,040.93	31,332.30
Production (mt)	465,680.91	412,229.88	537,134.64	513,899.77	445,422.49
Productivity (mt/ha)	14.57	14.71	16.05	16.03	14.22
a. Leafy Vegetables					
Area planted (has)	13,551.55	10,876.20	15,103.57	14,364.18	12,797.15
Production (mt)	205,297.98	163,602.41	235,328.19	228,254.69	190,107.05
Productivity (my/ha)	15.15	15.04	15.58	15.89	14.86
a.1 Cabbage					
Area planted (has)	5,032.90	4,507.40	7,603.43	7,937.05	6,922.79
Production (mt)	102,104.20	89,014.00	141,115.27	149,380.30	119,413.53
Productivity (my/ha)	20.29	19.75	18.56	18.82	17.25
a.2 Chinese Cabbage					
Area planted (has)	2,758.00	2,258.90	3,728.45	3,257.80	2,879.52
Production (mt)	43,980.50	34,866.00	59,011.10	49,181.55	43,631.28
Productivity (mt/ha)	15.95	15.43	15.83	15.10	15.15
b. Fruit Vegetables					
Area planted (has)	8,903.50	7,774.5	7,490.86	5,509.99	4,935.62
Production (mt)	101,303.11	91,442.52	118,820.35	87,596.80	49,511.80
Productivity (mt/ha)	11.38	11.76	15.86	15.90	10.03
b.1 Garden Pea					
Area planted (has)	2,051.50	1,643.00	1,238.55	1,090.74	878.80
Production (mt)	8,794.61	6,613.40	4,987.03	4,633.04	3,574.20
Productivity (mt/ha)	4.29	4.03	4.03	4.25	4.07
c. Root Vegetables					
Area planted (has)	9,513.70	9,365.90	10,867.84	12,166.76	13,599.53
Production (mt)	156,686.50	157,184.95	182,986.10	197,777.34	205,803.64

Productivity (mt/ha)	16.47	16.78	16.84	16.26	15.13
c.1 White Potato					
Area planted (has)	6,726.00	5,703.40	8,156.96	8,565.25	10,031.83
Production (mt)	111,832.00	100,958.30	141,585.00	141,463.65	151,450.68
Productivity (mt/ha)	16.63	17.70	17.36	16.52	15.10
c.2 Carrots					
Area planted (has)	2,341.70	2,909.50	1,540.18	1,604.15	1,590.64
Production (mt)	39,257.00	46,657.40	25,173.10	27,436.29	26,683.12
Productivity (mt/ha)	16.76	16.04	16.34	17.10	16.78
c.3 Radish					
Area planted (has)	17.00	245.00	90.71	63.60	38.31
Production (mt)	2,005.50	2,555.25	1,108.00	1,034.40	549.32
Productivity (mt/ha)	11.33	10.43	12.21	16.26	14.34

Source: 2001 Commodity Data, Province of Benguet, Department of Agriculture

## APPENDIX F

### DIVISION OF LABOR IN AGRICULTURE BY CROP/LIVESTOCK, ACTIVITY AND SEX

Activity	Predominantly Female Adults	Predominantly Male Adults
<b>CROP FARMING</b>		
Rice (Camarines Sur, 1985 and 1994)	Selecting and preserving seeds, transplanting/planting, weeding, harvesting, nonmechanized threshing, selling the harvest, and contracting hired workers	Preparing land, preparing seedbeds, spraying chemicals and fertilizers, doing mechanized farm tasks, hauling and transporting palay from the field, repairing irrigation banks and canals
Corn (Bukidnon, 1993)	Planting, applying fertilizer, weeding, harvesting, and selling the produce in the market	Preparing land, bagging corn
Coconut (Camarines Norte, 1987; Quezon, 1993)	Weeding area around trees, gathering harvested nuts, slicing copra meat, contracting buyers	Harvesting, hauling nuts to copra shed, dehusking, extracting fresh meat, smoking and drying copra, bagging
Sugarcane (Negros Occidental, 1993)	Cutting and planting cane points, loading cane points in machines, applying fertilizer	Clearing fields, weeding through sifting, raking, burning or transplanting, driving planting machine, repair and maintenance of roads, drainage and irrigation canals; cutting and hauling of canes
Cassava (Bukidnon, 1993)	Planting, harvesting, weeding, cutting the stalks, chopping tuber into chips and drying	Preparing land, bagging, contracting buyers
Sweet potato (Quezon 1993)	Washing, sorting, vending	Clearing and preparing land, pitting, collecting seedlings, planting, applying fertilizer, mounding, weeding, harvesting, gathering, hauling, packing, weighing

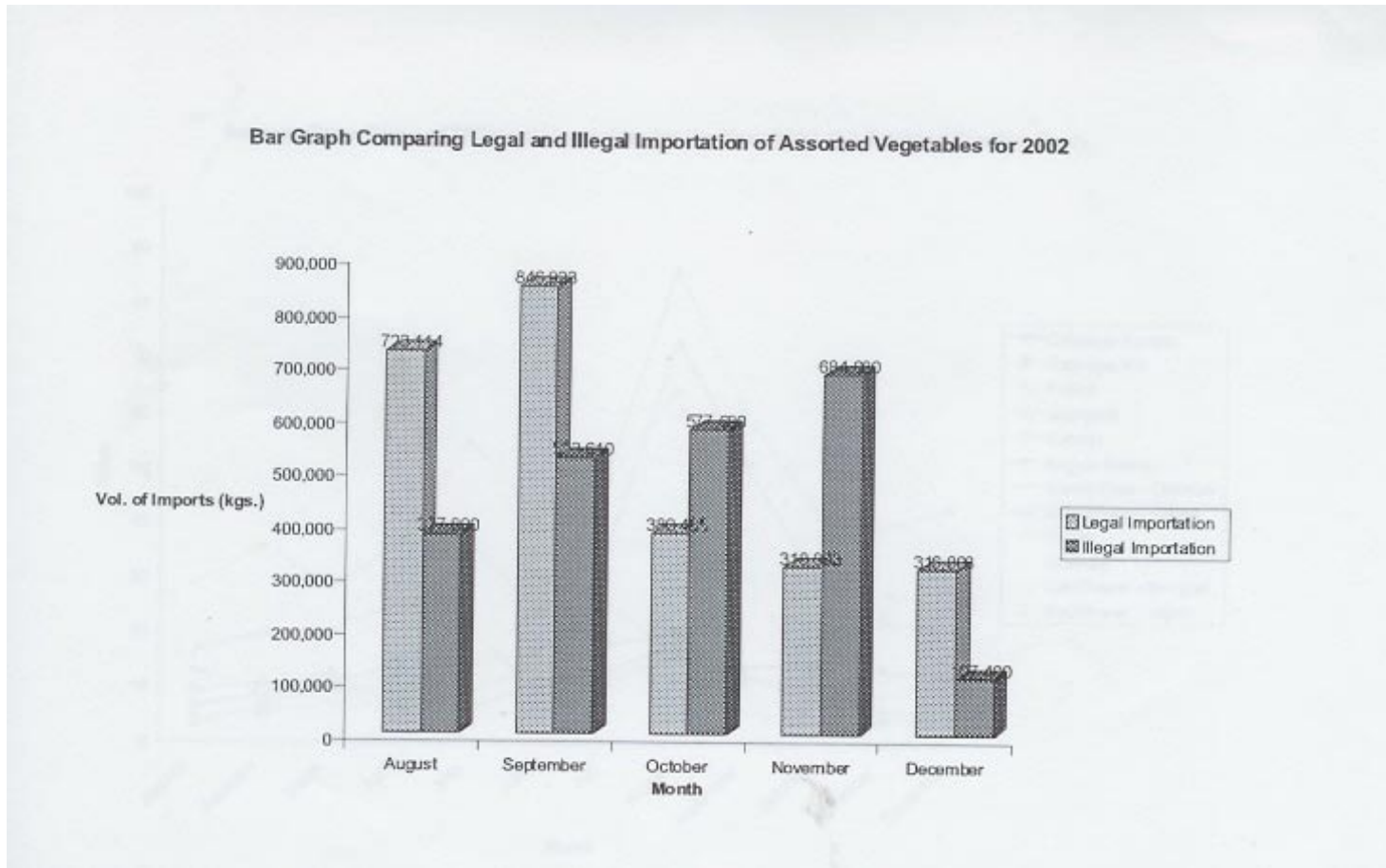


Fruit trees (Quezon 1993)	Planting or establishing fruit trees, weeding, care of trees, contracting hired workers and/or buyers, selling fruits	Pruning, fertilizing, spraying of chemicals, smoking (mango), picking fruits
CARE OF LIVESTOCK		
Hogs (Camarines Sur 1994)	Feeding, preparing feeds, purchasing and selling stock	Bringing in water for the hogs, watering down and cleaning pigpens
Poultry (mostly backyard broods) (Camarines Sur 1994)	Purchasing commercial feeds and medicine, purchasing and trading stock, feeding, marketing	
CAPTURE FISHING (QUEZON 1986)	Processing fishery products (salting or smoking), vending fishery catch, financing spear fishers and other boatless fishermen	Fishing, mending nets and boats, building and maintenance of fish corrals, selection of nets and fishing technology
AGROFORESTRY PRODUCTION (Cebu 1986)	Vegetative contouring, tree planting, selling produce	Constructing rockwall, clearing land, cultivating and caring for crops, transporting crop and forestry products to the market

Illo (1988) and updated during group interview (GI/L 1994)  
 IPC (1993b)  
 IPC (1993a) for Quezon; Illo and Veneracion (1988) for Camarines Norte  
 IPC (1993)  
 Velasco (1993)  
 Illo and Veneracion (1988)  
 Group interview conducted in Camarines Sur (March 1994) \*GI/L 1994  
 Illo and Polo (1990)  
 Rivas, Uy, and Borlagdan (1991)

Source: Illo (1995) as cited by Paunlagui (2002)

## APPENDIX G



Source: Based on the study of Tauli-Corpuz et al, 2006

## APPENDIX H

### POPULATION AND HOUSEHOLD DISTRIBUTION PER BARANGAY

	Abiang	Caliking	Cattubo	Paoay	Pasdong	Poblacion	Naguey	Topdac	TOTAL
No. of Population	1,551	2,470	2,440	3,763	834	1,718	1,628	2,011	16,415
No. of Household	330	498	476	713	172	386	305	379	3,259
No. of Farming Household	293	438	409	620	151	332	268	329	2,840
No. of Farmers	604	880	824	1,316	306	674	568	666	5,838

Source: Department of Agriculture, Sayangan, Atok

**APPENDIX I**  
**INVENTORY OF FARM EQUIPMENTS, TOOLS AND MACHINERY**

SPECIFICATION	NUMBER	OWNERSHIP	STATUS
Work Animals ❖ Carabao	7		
Farm machinery ❖ Tractor ❖ H2O pump ❖ Power Sprayer	13 13 43	Private and for hire Private Private	Functional Functional Functional
Equipment ❖ Gardening Tools	500	Private	
Vehicle ❖ Jeep ❖ Truck	427 50	Private Private	

Source: As of 2001, Barangay Paoay, BNRMP

**APPENDIX J**  
**AGRICULTURAL CHEMICALS APPLIED**

Plant/Crop	Type of Pest and Diseases	Period of Occurrence	Fungicide or Insecticide Used/ Farmer Strategies	Frequency of Application
Potato	Blight Koyus (BW)	Rainy Season Wet and Dry	Dithane Uproot Cartp/Dimotrin Yellow trapping FP-sugar mixed with demotria/cartrap	2x a week/rainy season 3-5 days Interval
Cabbage	Clubroot Leaf spot/latek Soft Root DBM	Wet and Dry Wet  Rainy Season Dry	Crop rotation lime Dithane/curzate  Dithane/Curzate Green level insecticides	1x a year 1x a week  1x a week Spray when necessary
Carrot	Cutworms		Furadan Diagran Diadegma Green level insecticides Karate Sumiciden Dithane/vondozeb	Spray when necessary Spray when necessary
Chinese Cabbage	Club root Soft Root Leaf Spot		Lime Dithane/vondozeb Dithane Vondozeb	Before Planting (once)

Source: MAO, March 2000

APPENDIX K

**CROP PRODUCTION (MAIN AGRICULTURAL CROPS PRODUCED)**

CROP	AREA PLANTED In hectares	YIELD/VOLUME (T/ha)			TOTAL (Harvest)
		1 <sup>st</sup> Cropping	2 <sup>nd</sup> Cropping	3 <sup>rd</sup> Cropping	
Commercial Crops					
Palay	1.709	2.2	1.2		7.519581
❖ Sweet Potato	1.240	15			18.6
❖ Gabi/Ubi	.381	10			3.81 kgs.
Legumes					
❖ Beans	1	12		10	121
Leafy Vegetables					
❖ Cabbage	900	20	17		3330t
❖ Chinese Cabbage	13.00	20	17		260t
❖ Celery	6		18	18	216t
❖ Pechay	2		6		12t
Fruit Vegetables					
❖ Garden Pea	5		4		20t
Root Vegetables					
❖ White Potato	1000	13	10		23000
❖ Carrot	500	20	10		150t
❖ Radish	5		10		50t
Ornamentals					
❖ Chrysanthemum	2	800 bundles			1600 bundles
❖ Siesta Daisy	6		1000 doz		6000 doz
❖ Calla-lily	8	520 doz			4,160 doz

Source: MAO's Office. As of 2000

APPENDIX L

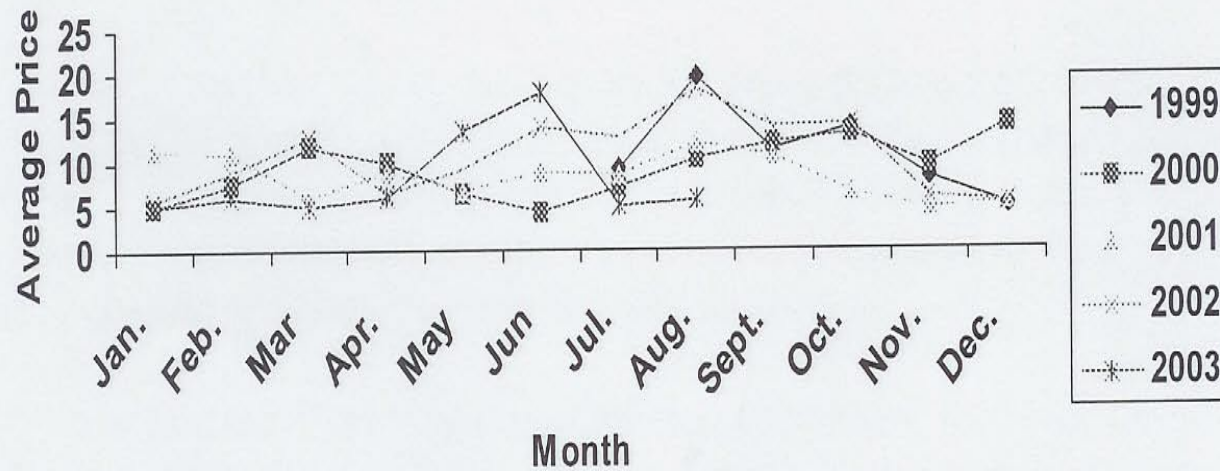
**WHOLESALE BUYING-PRICE FOR THE MONTH OF JANUARY (2006)  
(La Trinidad Trading Post)**

Commodity	WEEKLY AVERAGE							
	Week 1 (January 3-6)		Week 2 (January 10-11)		Week 3 (January 16-20)		Week 4 (January 25-31)	
	Low	High	Low	High	Low	High	Low	High
Beans –snap	6.00	6.00	13.50	15.50	14.25	16.25	14.00	21.67
Bellpepper-Baguio								
▪ California-green	45.00	47.50	35.00	37.50	20.67	25.00	29.00	31.00
▪ Chinese-red	40.00	42.50	30.00	30.00	35.00	40.00	29.00	33.50
Bellpepper-Ilocos (Red)	47.50	47.50	35.00	35.00	40.00	40.00		
Broccoli	3.73	5.75	7.50	10.00	7.67	10.00	8.50	12.00
Cabbage-Scorpio	12.50	13.00	9.50	10.50	13.00	14.25	8.33	10.33
Cabbage-rareball	10.75	12.00	9.25	10.00	10.50	12.15	7.33	8.5
Carrots	24.75	26.00	16.00	21.00	22.33	22.25	10.33	13.0
Cauliflower-Benguet	3.25	4.00	8.00	9.00	8.33	9.00	6.67	8.67
Cauliflower-Ilocos	5.00	5.00	8.00	8.00	5.50	5.50		
Chayote	1.03	1.35	2.25	2.50	3.33	3.88	2.83	3.4
Celery	11.75	12.50	12.50	13.00	15.67	16.00	16.00	20.67
Chinese Cabbage	2.50	3.00	3.00	3.25	2.63	3.63	3.35	4.33
Cucumber	9.00	9.50	9.00	10.00	13.50	17.00	14.67	18.33
Garden Pea								
▪ Chinese	17.50	23.75	47.50	62.50	35.00	47.50	27.33	34.67
▪ Lapad	12.50	15.00	22.50	27.50	19.33	27.50	15.00	18.00
Leeks	10.75	11.50	15.00	15.00	12.67	13.25	12.33	5.33
Lettuce	5.75	6.50	6.50	8.00	6.00	6.75	6.33	7.67
Potato-Super XL	13.25	15.00	17.50	19.50	16.00	18.75	19.83	22.0
Raddish	2.25	2.63	5.00	5.50	2.25	3.13	2.83	3.83
Tomato American (green)	8.75	9.00	9.50	10.50	15.67	17.25	8.33	12.0

Source: Department of Agriculture, 2006

APPENDIX M

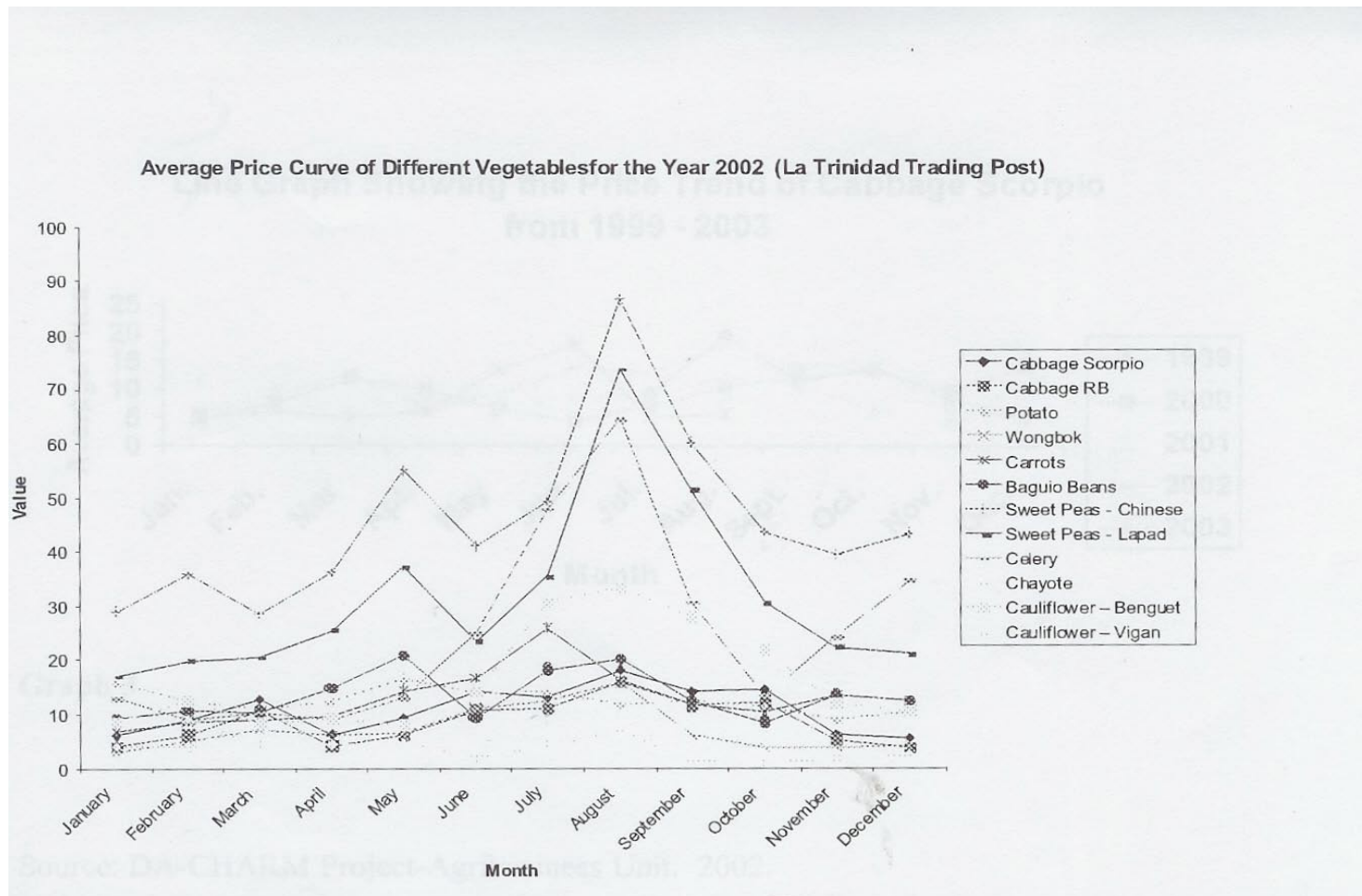
Line Graph Showing the Price Trend of Cabbage Scorpio from 1999 - 2003



Source: Based on the study of Tauli-Corpuz et al, 2006



## APPENDIX N



Source: Based on the study of Tauli-Corpuz et al, 2006

APPENDIX A

**INTERVIEW SCHEDULE**  
**Selected Women Respondents**  
**Englandad and Sayangan, Paoay,**  
**Atok, Benguet**

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I. Socio-economic Profile

1. Name (optional) \_\_\_\_\_
2. Age: \_\_\_\_\_
3. Number of Household members: \_\_\_\_\_
4. Number of Years in Farming: \_\_\_\_\_
5. Educational Attainment: \_\_\_\_\_
6. Category:
  - \_\_\_\_ Farmer-trader
  - \_\_\_\_ Farmer –supplier
  - \_\_\_\_ Farmer- owner
  - \_\_\_\_ Por dia/oblante

7. Please check your estimated income per cropping in the following years

Estimated Income	2000	2001	2002	2003	2004	2005
10,000 and below						
10,001 – 15,000						
15,001 – 20,000						
20,001 - 25,000						
25,001 – 30,000						
30,001 – 35,000						
35,001 – 40,000						
40,001 – 45,000						
45,001 – 50,000						
50,001 and above						

- Based on the above chart, what could be the possible reason/s for an increase or decline of your income? Why?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

8. What are your other sources of income aside from farming?

- weaving
- embroidery/knitting
- construction workers
- laundry women
- selling/vending
- others (pls. specify)

9. Tenurial Status

- owner-farmer
- tenant
- CLT Holder
- using for free
- share tenant
- suppliers' land
- CADT applicant/holder
- others (pls. specify)

10. Which of the following crops have you planted and are you planting at present?

Crops	Y		E		R	
	2000	2001	2002	2003	2004	2005
Cabbage						
Chinese cabbage						
Potatoes						
Carrots						
Sayote						
Beans						
Peas						
Cauliflower						
Broccoli						
Petchay						
Others (pls. specify)						

- Aside from the above vegetables, what other commodities do you plant? Why?

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- If you have shifted to the kinds of crop you planted, what are your reasons for doing this?

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- Does it help you to uplift your income?

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11. Which of the following labor system are you adopting?

- family endeavor
- hired labor
- bayanihan system
- contract basis
- combination of family and contract labor
- others (pls. specify)

12. Which of the following describes your finance system?

- individually/family financed
- financed through loan
- financed by friends/neighbor
- financed by relatives
- financed by middle men
- others (pls, specify)

II. A. Which of the following is your role in the production of crops before and after the implementation of the WTO-AoA?

Activities	Before the implementation of WTO-AoA		After the implementation of WTO-AoA	
	Male	Female	Male	Female
Preparing the land				
Planting				
Applying fertilizers/chemicals				
Weeding				
Plowing/Digging				
Others (pls. specify)				

II.B Which of the following describes your present status given the changing situation in the vegetable industry?

Time Resources		Yes	No	Reasons
	a. longer hour in working			
	b. limited time for the family and household responsibility			
	c. limited leisure time			
	d. limited time to socialize with other women			
	e. others (pls. specify)			
		Yes	No	Reasons
Social Services	a. greater access to services <ul style="list-style-type: none"> <li>• Credit and capital</li> <li>• Production facilities like irrigation /water supply</li> <li>• Transportation</li> </ul>			
	b. greater opportunities to own land			
	c. highly limited to rent land			
	d. highly limited access to agricultural cooperatives			
	d. others (pls. specify)			
		Yes	No	Reasons
Material Resources	a. highly limited income			
	b. highly limited saving			
	c. highly limited investment			
	d. highly limited accumulation of new technologies			
	e. others (pls. specify)			
		Yes	No	Reasons
Community Involvement	a. highly limited in attending trainings/seminars			
	b. highly limited time to attend barangay meetings			
	c. highly limited access to women organization			
	d. others (pls. specify)			

III. A. Which of the following are the problems you have encountered at the production level?

Problems	Yes	No	Since when	What could be the perceived causes
a. no water supply /irrigation				
b. inadequate supply of materials like seeds and pesticides				
c. inadequate capital				
d. lack of technology/lack of tools				
e. high cost of inputs				
f. destruction of plants due to calamities and typhoons				
g. pest/diseases				
h. diminishing soil fertility				
i. others (pls. specify)				

- Compare your vegetable production five years ago from now?

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- Are there any changes you had observed or experience? Give examples of these changes.

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- What do you think are the causes of these changes?

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- What can you say about the prices of your inputs (like fertilizers, seeds) at present?

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- What can you say about the issue of vegetable importation today?

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III.B. What are the solutions you have undertaken in coping with the problems you have encountered?

Problems	Solutions	Since when
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a. no water supply /irrigation		
b. inadequate supply of materials like seeds and pesticides		
c. inadequate capital		
d. lack of technology/lack of tools		
e. high cost of inputs		
f. destruction of plants due to calamities and typhoons		
g. pest/diseases		
h. diminishing soil fertility		
i. others (pls. specify)		

- In your own opinion, what should the government do to be able to help the women farmers like you in line with vegetable importation?

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- At present, what are the programs/government laws that you know being implemented?

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## BIOGRAPHICAL SKETCH

The researcher was born at the dawn of February 2, 1979. She is the fifth child among the six children of Pedro Corpuz Jr. and Elena Corpuz. She was born in Bauang, La Union but grew up in Baguio City, where she is presently residing with her family.

She spent her elementary years in Bonifacio Elementary School; her high school in Baguio City National High School. She pursued her college degree in Benguet State University, where she graduated in the year 2000 with the degree Bachelor of Secondary Education major in Social Studies.

From June 2001 to March 2005, she was employed in one of the private schools in La Trinidad where she gained valuable experiences and lessons in life that equip her with skills and additional knowledge to be a better teacher as she continues to minister to students through the profession she had chosen.

After working in a private school, God had called her into a school ministry through the Visionworks International Ministries Incorporated, an organization that desire to reach the young of this generation with the love of Jesus Christ.