

WOMEN IN AGRICULTURAL PRODUCTION: CASE STUDIES IN THE CORDILLERA

Geraldine L. Fjagoy

Introduction

The role of women in agricultural production is an important aspect in the study of economic development. This has been undermined because of the myth relegating woman to the care of home and children and because the economic value of this activity is not given importance. Furthermore, although women spend a considerable part of their time working in the fields and doing other chores related to food production, this contribution is not recognized statistically. The lack of statistical data on women labor force results in development programs that are male-oriented and at the same time, that run contrary to women's interests (Fong:29).

Studies regarding division of labor in traditional societies reveal that women held a vital role in the survival of the group since they were active participants in food gathering and subsistence farming. As a result, in some societies, women wielded authority equal to men as shown in their role as celebrants in quasi-religious functions. As an example, the high status of the Iroquois Indian woman of North America before the onslaught of the white man's civilization is attributed to her considerable contribution to the tribe's economic subsistence (Brown:236). Among the Bontoks, the woman plays a vital ceremonial role in agriculture. An old woman must first plant a few seedling in her field and talk to the spirits for a bountiful harvest before the community can start planting.

Problem and Significance of the Study

This paper is an exploratory study of Cordillera women's role in production, especially agricultural, which show that the woman is the chief food producer. The study includes data on irrigated rice cultivation, swidden and dry-plow agriculture, together with other subsistence activities such as food gathering and hog raising – all of which are not included in the statistics of production.

In the Philippines, as in many parts of the Third World, the majority of the women are dependent on agriculture, with many communities still engaged in subsistence agriculture. However, even with their function as chief producer for the essential needs of the family or working together with men on the land, they are still statistically invisible. They are therefore

invisible factors in development plans. Reforms and innovations offered exclude them and at the same time no alternatives are offered to women to continue being productive after technology will have taken over their place in agriculture.

Despite apprehensions that this topic is too obvious to merit research, there is a need to document the extent of women's participation in order to justify the argument for the statistical recognition of women's labor. The recognition of this hidden contribution to the economy may, in turn, lead to the inclusion of women in plans for development. There is also a need to study how tribal women are affected by the so-called progress since it is their communities that are being marked for development.

In the Philippine setting, there is little research done on the importance of women labor force especially in the agricultural sector and among the tribal peoples. In his study of Bontok rice cultivation, Drucker described the women work groups in Sadanga, Mountain Province which he recognized as a major force in the success of agricultural activities in the area. He further predicted that these work groups would eventually disappear as a result of the government's industrialization programs in the Cordillera.

The Area

The Cordillera was chosen on several grounds. First, as previously mentioned, many communities in the country are still engaged in subsistence agriculture. There will then be notable similarities in highland and lowland traditional agricultural activities. In this study 'traditional' involves farming systems which are not based on scientific methods and with no modern industrial input (Boserup:17). Second, many communities all over the country are affected by the government's ambitious plans to industrialize. The self-sufficient agricultural pattern nurtured in the Cordillera will be affected by these development plans not only in terms of transforming subsistence agriculture into a capital intensive one but also these plans will change or eradicate many significant cultural patterns which have provided for the existence of these communities.

For this study two communities in the Mountain Province were selected for ethnographic and comparative purposes. Besao, in the western part of the province, is a wet-rice terracing area. On the other hand, the Parasilis is both swidden and dry-plow agricultural area.

Wet-rice agriculture: Besao, Mountain Province

Physical Profile and Situationer: The municipality of Besao is located on the western portion of Mountain Province with Abra and Ilocos Sur bounding

it. The municipality has an area of 91.6 sq. kms. and a population of 9,085 (1980). Besao is characterized by high mountains nurturing pines and other hardwoods. The area of study is the barrio of Besao West which has a population of 570 consisting of 127 households. Like the other barrios, Besao West is characterized by clusters of houses dotting the mountainside. Most of the houses are one or two-storey structures made of wood and galvanized iron sheets. The traditional cogon and wooden huts are few. Around each house is a garden planted with vegetables, fruit and coffee trees, and kamote. Near the house is the *gungo* or pig pen which is a shallow pit lined with smooth river stones.

Besao is one of the Mountain Province municipalities included in the 200,000 hectare logging concession granted by the Bureau of Forest Development to the Cellophil Resources Corporation, a paper pulp company belonging to the Herdis group. At present, Cellophil is operating in Barrio Agawa where the people are already objecting to the entry of the firm.

Two agencies involved in agriculture are the Bureau of Agricultural Extension (BAEx) and Farms System Development Corporation (FSDC). The BAEx seminars on food production and the use of modern techniques in rice cultivation have been sporadic. The women interviewed said they heard about the programs but did not attend. Meanwhile, FSDC had a pilot area in the neighboring barrio where it intends to help the people set up an irrigation system.

The preparation of the seedbed is usually done by the woman. The seedbed is usually the smallest rice paddy of the farmer. This is sometimes plowed, but more often the soil is turned up and loosened with the use of a hoe or *gabyon*. Palay or rice seeds are broadcast on the prepared seedbed. After three weeks, the seedlings are pulled out and the roots washed at which time the rice paddies are also ready for planting.

An important feature in traditional agricultural activities is the work group or *ug-ugbu* composed of individuals of both sexes. To facilitate planting and harvesting, this group works in one field and then moves to another. The field owner serves the workers lunch and sometimes invites the men after work to his house to drink *tapuy* or rice wine. When the field owner's fields have been planted or harvested, he joins the others in working in another field. The advantage of the work group is that the tasks are done on time. In Besao, however, the *ug-ugbu* is fast declining with hired labor taking its place. A field owner at present pays a male worker P100 for three days to have his field plowed. This system is contractual and locally called *pakyaw*. If paid on a daily basis, the hired laborer is given P15 a day to plow the field while another P15 is given to the carabao owner. During harvest, the female

worker gets fifteen bundles of palay a day with lunch. The male worker gets twenty bundles a day while a child worker's fee is not fixed since he is supposed to give lesser input. During the planting season, the female worker is paid P8 a day including lunch and sometimes snacks. Weeding is usually a task given to old women and those who have few paddies. The payment is P6 a day including lunch.

Concerning the use of organic fertilizer, the people utilize the sunflower plants and other grasses growing on uncultivated patches of land in between the rice terraces. These are gathered and buried under the soft paddy soil just before planting. Another organic fertilizer utilized is *lumeng* or pig manure which is mixed with rice bran and staw. According to informants, the effect of *lumeng* is the same as that of commercial fertilizers or even better. However, each household cannot produce large quantities of *lumeng* since they raise only an average of three to four pigs. The *lumeng* is then used to fertilize only their backyard gardens.

For years, the people have been using a reddish-brown and yellowish soil as organic fertilizer. Used in Besao and also in the neighboring municipality of Bauko, this soil is called *lamud*. Before the planting season, the people in Besao used to bring sacks and baskets to the two sources of this soil which are the mountains above the barrio. With the use of hand tools, they dug pieces of this rock-like soil and brought these home to be pounded. Later, they scattered the pulverized soil over the plowed or loosened rice paddies. Informants say that the yield is the same or sometimes even better than when commercial fertilizer is used. Analysis made by the provincial soil technician shows that this soil contains nitrogen, phosphorous and potassium which add to the richness of the paddy soil. However, when ammonia and other commercial fertilizers were produced, the majority of the people shifted to the latter for the reason that it took much longer to produce *lamud* than commercial fertilizer which could be easily bought in the stores. At present, the people are heavily burdened with the rising cost of commercial fertilizer and it is hoped that they will revert to the traditional ones. Presently, the people try to save by applying lesser amounts of fertilizer instead of the required quantity. This results in decreased yield. An effect of commercial fertilizer, introduced sometime around 1935, and which is like ammonia, is that their continued application makes the soil hard and brittle so that much time is spent trying to break up the soil. Another effect is that the farmer must continue using it in order to have sufficient yield.

Analysis of work task allocation: Activities such as plowing, repairing terraces and building granaries clearly belong to the male domain. If hired labor is used for the task, compensation is pegged at P15 a day. Such activities do not entail as much time as the field preparation done by women, which is done on a regular basis while granary making and repairing terraces are done

only when necessary. Similarly, plowing the fields can be accomplished in a day or so. On the other hand, activities such as loosening the soil with hand tools after plowing, applying organic material and levelling the paddy soil take longer time to finish. A woman who does these tasks on a three hundred square meter paddy, which a man plowed for less than a day, will spend the whole day turning up the soil with a hoe. Another half day will be spent in crumbling the soil with her bare hands. The rest of the day is spent in cutting sunflower stems and leaves growing near the paddies and then kicking these under the soft earth with the bare feet. The woman then levels the paddy soil by passing a flat board or *kali* over the soil.

Other activities are engaged in while waiting for the harvest. The men go to the forest to cut their firewood. Others earn cash by cutting lumber, but this is rarely done now because of strict logging regulations that allow only big concessionaires like Celophyl to cut down trees. This, of course, causes greater and irreparable forest devastation because of the great quantity of trees felled indiscriminately.

Meanwhile the women continue to care for the family livestock and poultry and the vegetable gardens both in the backyard and in the mountains which may be four or five kilometers away. They leave the house in the morning, as early as five o'clock, after cooking the pigs' food and leaving this for the younger members to give later to the pigs. The field activities include weeding and cleaning the fields, planting kamote tubers and other cultigens and gathering mature fruits and vegetables. On their way home in the late afternoon, they bring back bunches of kamote leaves for the pigs and whatever fruits and vegetables they harvested. As soon as they reach home, they feed the pigs and then chop the newly harvested kamote leaves to be cooked either that evening or in the early morning. The children help by feeding the pigs and calling the chickens to roost for the night.

Traditionally, only males are supposed to bring the harvest to the granaries. If there are no male members in the household, male relatives are asked to do the job. At present, the custom is slowly changing and some women participate in this activity. As far as planting is concerned, this is women's activity because it is believed that men's participation will result in poor harvest. Also, rituals such as the symbolic planting of the seedbed before anybody is allowed to plant his seedlings in the paddies are performed by women only. At the start of the planting season, a woman chosen to perform the ritual must plant a few seedlings in her field and ask the gods to bless the people with a bountiful harvest. After this ritual, the people can go to their fields.

After the planting season, the responsibility of caring for the fields still lies heavily on the women. Weeding is done by the female members of the household or by female hired labor. The weeders clean the paddies of

aquatic plants like the *saksakong* which is brought home as food for the family and their livestock. The guarding of irrigation canals is a responsibility shared by all members of the family although the data show that men predominate at night to prevent others from diverting their water. During the day, the women guard the irrigation dikes and clean these in order that water could freely pass. In households where there are no males, the mother and/or daughter take turns going out to the fields and even spend the night there.

Commercial fertilizer has been in use for over forty-six years. Application may be done by both sexes. However, the woman appears to apply fertilizer more often since she is the one who takes care of the vegetable gardens, which need periodic fertilizing. Since she takes over the paddy after the male has plowed the field, more often, she helps the husband apply chemical fertilizer. In other cases, she does it herself, since traditionally this fertilizer is applied on the paddies ten days after the planting season, during which time the man rarely goes to the field at daytime and spends his time cutting firewood.

The use of the plow and carabao is a recent introduction which dates back to a little more than a decade. The people started buying ricelands in Tabuk, Kalinga-Apayao where fields were tilled with the use of draft animals. Some brought carabaos to Besao and used these in their paddies. At present, only a few can afford to own or rent a carabao so tilling of the paddies by hand is still done and mostly by women.

Although it shows that it is the women who do most of the field work both in the rice paddies and in the vegetable gardens, this effort is not recognized since it is the men who are usually approached by agencies involved in agricultural production. Female informants say they are aware of seminars conducted by such agencies but they do not attend. It is the men who take advantage of these seminars and who articulate the problems of the people since they have more time to spend to other activities and the women are tied down to routinary tasks.

Except for *diket* or glutinous rice, the majority of the people keep their rice harvest for home consumption. Sometimes a few sacks of rice are sent to their children studying in Baguio. On the other hand, vegetables, fruits and coffee are raised for cash. In this area, it is the woman who decides when and where to sell. Usually she carries the fruits and/or vegetables in a basket on her head and goes around the community. Sometimes she sits around the area near the municipal hall where her goods can be seen by more people who go to the municipal hall or to the hospital behind it. If she has plenty of produce, she brings these to the town of Bontok to sell to the storeowners in the market. Some women bring their goods to Baguio especially if a previous arrangement with a storeowner in Baguio has been made.

Social Activities of Women: There are several women's organizations in the area: the Episcopal Church Women (ECW) and the Balikatan, a women's group organized by the government and usually headed by wives of government officials. The majority of the people in Besao are Episcopalians and therefore practically all the women are supposedly ECW members. At the time of research, there were several projects envisioned by the group. One was the setting up of a mother's craft school where women would be taught hand loom weaving and other income generating crafts. However, only one expressed interest. The rest said they had no time. The other project was the selection of representative to be sent to Bontok for the women's annual convention on church activities. On the other hand, the Balikatan organization is raising funds for day care centers. Members of the Balikatan have the opportunity of going out of the barrio when some of them are sent as delegates to annual conventions held either in Bontok or Manila.

Parasilis, Mountain Province: Swidden and Plow Agriculture

Physical Profile and Situationer: Parasilis is the largest municipality in the Mountain Province and the least populated. This is located in the easternmost portion of the province and is bounded by Isabela, Ifugao and Kalinga-Apayao. Parasilis is adjacent to the Mountain Province municipality of Natonin, a wet-rice terracing area.

The place is characterized by plains and rolling hills on the Isabela-Ifugao border and steep mountains on the Kalinga side. Rivers cutting across the municipality are the Siffu and the meandering Mallig. The Siffu River will be affected by the on-going Magat River Dam Project. Rainy season starts in June and lasts till January.

There are several routes leading to the area. On the Isabela side, one can cross the Magat River from Oscariz into Potia, Ifugao and then enter the barrio of Butigui, Parasilis. The distance from Potia to Butigui is about twenty-six kilometers of stone and gravel road through pasturelands dotted with cultivated areas planted to corn, tobacco and pineapple. The road becomes impassable during the rainy season, and only heavy duty trucks can go through when the muddy road hardens a little with the help of the sun.

Another route is the Roxas, Isabela-Butigui way which is a two-hour bumpy ride up and down steep mountains and through pasturelands. This dirt road was built by an oil exploration company but was later abandoned when the company transferred its operations to another area. However, jeepneys and weapon carriers still ply this route during the dry season. Travelers who prefer to go by water may start from the dam site in Roxas

and go by banca upstream along the Siffu River. On a motorized boat the trip takes about two hours; by car, about seven hours.

From the Kalinga-Apayao side, one takes a public vehicle from Dagan Tabuk to barrio Alinanag or Cudal. During the rainy season when the river is swollen, the traveler must go on foot crossing the meandering Mallig River ten to fifteen times depending on where the vehicle can reach. During the summer when the water lessens, the vehicle can cross the river and reach Parasilis.

Population stands at approximately 9,000. Ethnic groups occupying the area are the following: Ilokano, Bontok, Gaddang, Balangao and Likuy. Original settlers seem to have been the nomadic Gaddang who crossed over from Isabela and Nueva Viscaya. Meanwhile, the rice terracing Balangao of the nearby municipality of Natonin claim that the thickly forested Parasilis used to be their hunting grounds.

The area of study is concentrated in Poblacion which consists of six sitios scattered over the mountains with only sitio Marat located on level area. The municipal hall, barrio high school and military headquarters are located in this area. The Roman Catholic chapel is located on top of a hill above the center. Majority of the people in this barrio belong to the Gaddang, Likuy and Bontok groups.

A government project which will affect part of the municipality is the on-going Magat River Development Project wherein the Magat and Siffu Rivers will be dammed to provide energy and irrigation. [However, the area of study will not be affected by this project.] On the other hand, the government's food production program involves the whole municipality. The agency handling this program is the Bureau of Agricultural Extension (BAEx). Last March 1981, it launched the increased food production program which would last up to November 1982. Objectives of this program are to increase rice production from twenty cavans of palay per hectare to thirty cavans in the swiddens. Meanwhile in the dry-plow fields, the aim is to increase production from twenty-five cavans to fifty. Corn is also supposed to be increased from thirty cavans to forty. Implementing activities include farmers classes in each sitio concerning the use of weed killers, commercial fertilizer, new techniques and the introduction of high yielding variety rice and corn. At the time of the research, no farmers' classes have been held. Some informants expressed disinterest since they were aware of the additional expense entailed with the use of commercial fertilizer. They were also aware of the fact that continued use of such fertilizer would later deplete the soil. Most of them are also satisfied with their present rice production since this is not used as a cash crop. In extreme cases when harvest is poor, rice is bought from Natonin.

Economic Organization: The people engage in both swidden and/or dry-plow agriculture. Field preparation such as burning the brush for the swiddens and plowing the fields are done in April and May. Planting starts in late May and ends in July. The rice crop is harvested from September to November. After the harvest, the fields may be planted with beans, corn and peanuts, some of which will be sold or exchanged.

Agricultural activities in swiddens are as follows: The forest is burned and left for a week after which the unburned trees and branches are removed with the use of a *kara-id*, a rake made out of rattan strips. After the first rain, upland palay is planted through the dibble stick method. A man walks in a straight line holding two long wooden poles or *asad* in both hands. As he moves along, he pushes the poles on the ground to make small apertures. Several women follow him and drop a few grains in the holes after which they push dirt over to cover the grains and keep these from being eaten by birds. Sometimes when no male is available, a woman may take over.

A few weeks after planting, when the rice stalks are several inches tall, the fields must be rid of weeds so as not to compete with the grain. The weeder uses a *landok* — a tool with a wooden handle and curved metal blade — to dig into the soft earth and remove the weeds.

The area between the forest and the swidden is the habitat of wild animals, especially wild pigs which steal into the swiddens and destroy the crop. When the rice grains start to shoot up, the farmer begins to build traps to catch the game. Sometimes, he uses a shotgun although bullets are not readily available. Birds are repelled with the use of the *ayay* — a contraption made up of thin strips of bamboo tied with rattan tied to a wooden pole. When left standing in the field, the bamboo strips sway with the wind and keep birds away. Scarecrows or *antalaw* are set up to scare monkeys. A hut or *bawi* is constructed near the field and used as a resting and eating place for the farmer.

During harvest, everyone in the family leaves for the field before sun-up. Almost always a family is helped by another family or two whose fields are not yet ready for harvesting. The fieldowner may or may not feed the workers. Sometimes he butchers a small pig or chicken for the workers' viand. The latter usually bring their own rice. Later the fieldowner reciprocates by working together with members of the family, in the fields of those who previously helped him. After one has finished harvesting, custom among the natives of Cordillera dictates that the family butchers a chicken or pig to mark the end of the harvest and to thank the spirits for a successful crop. Among some of the groups, the feathers of the butchered chicken are tied to rice stalks in the field. After the harvest, some fields are again prepared for planting of corn, beans and some for sugar cane which is later made into wine or *basi*. Plowing the fields for these crops is done by the

males, with the females and children helping in the planting. Field care is shared by both although not much attention is needed for these crops.

Other activities engaged in especially before harvest time are basket weaving for the males and cloth weaving for the females. The finished products find a ready market among the people since not everyone produces these articles. Orders are given several months before the object is finished. Among the women, there are several good weavers in the community who complain that they never have enough thread to work with since this has to be purchased in distant places like Baguio and Bontok. Meanwhile, in sitio Cayang, there are the women who engage in pottery during the dry season. Again, they have a ready market among the neighboring areas since the latter do not have the clay nor the dexterity to make pots. Pots are rarely sold for cash but are most often exchanged for foodstuff.

Starting February, the people are busily engaged in harvesting their coffee beans. Both men, women and children pick the ripe coffee beans and spread these in the sun to dry. The beans are measured by means of an empty kerosene can and then poured into nylon sacks and kept ready for a buyer. This year's buying price (1981) was fifty five pesos per kerosene can of dried coffee beans. Since the care of coffee usually falls on the male, it is he who also takes charge of the marketing. Sometimes he brings his coffee to Tabuk or Santiago hoping to get a better price. Otherwise, he waits for the middlemen who go around the community buying coffee. Most farmers prefer to exchange their product for goods such as salt, sugar, aluminum and iron pots and blankets. Middlemen also prefer this arrangement since they can dictate the price of the goods. A few years ago, members of the religious sect Iglesia ni Kristo (Church of Christ) formed a cooperative in order to assist farmers from remote barrios who usually acquiesce to the middlemen's low buying price. The members pooled their coffee produce and kept these in a storehouse in sitio Marat where appointed members took charge of selling these at a reasonable price.

The care of chickens and pigs belong to the women. Although most pigs are allowed to roam around freely so they can forage for food, these animals are still given leftover food and vegetable peelings by the women. In the afternoon, it is the women and children who call the chickens to their nests and who feed these with grain. In most families, the men and male children take care of the carabaos. In the morning, the man brings the carabao to the pasture and leaves it there. After school, the son brings the animal to the river to wash and then leads it home for the night.

Women's Social Activities: In Poblacion, there is a Women's Club which is affiliated with the Women's Federation of the Philippines. As far back as

1977, the club was already raising funds for a multi-purpose building to be constructed near the municipal hall. After acquiring a few pieces of lumber, the club launched another fund raising affair in the summer of 1977 where the organization, with the help of student volunteers from Manila, raised about five thousand pesos. The money was lent to some members who never returned it, and so the building project was shelved. The club has been dormant until 1979 when the high school district superintendent came to reside in the area. He mobilized the women for another fund raising activity, a popularity contest where tickets were sold, and they were able to raise about six thousand pesos. As to March 1981, however, no books have been purchased, and the money allegedly is with the district superintendent for safekeeping. In 1981, again another fund raising project was launched with the help of the lady mayor. This time the mayor and the district superintendent were interested in raising funds for a museum.

Conclusion

There is yet no indication that, in the areas studied, woman's role as chief producer will be affected if the government will seriously implement its program in the area. Most field activities will still be done by the women. If policies regarding women remain the same, opportunities to participate in paraprofessional and professional training programs and access to information will be concentrated on the men. The women should be included in programs involving a wider range of economic activities like participation in agricultural and marketing training, membership in cooperatives and other income-generating activities.

The Cordillera, having been a market for development projects due to its natural resources, is presently experiencing an unsettling situation. In many areas, the people face an uncertain future because these projects will either displace thousands or radically change their lifeways. Drucker's study of women work groups among the Bontoks is a prediction of the fate of the Cordillera people. The area of study in Parasilis is too remote from the Magat River Development Dam to be affected. However, with roads being laid all over the municipality, more people are encouraged to settle in the area. This will bring about a change in shifting cultivation as more and more people will opt for permanent fields. Moreover, the original settlers, the Gaddang have already been victims of landgrabbing by the immigrants.

Meanwhile, in Besao, the logging activities of Cellophil pose a threat to the people's economic life. A considerable portion of the municipality

is within the logging concession and the people are prohibited from gathering forest products in the area. The people also fear that their water sources will be affected by large scale cutting of trees and this, in turn, will affect their fields. The family will then lose a vital food source and with it the important role of woman as chief food producer.

In the event that industrialization of the Cordillera will take place, various changes in the people's economic life will definitely occur. From self-sufficient farmers they will turn into wage laborers. In communities where land is available, the woman will be doubly burdened with agricultural work if the man is lured to go into wage labor. In areas where the people have been dispossessed, not only will the man be forced into wage labor but also the woman who will be reduced to doing odd jobs like cleaning and laundering for the employees of the industrial concerns in the area.