

Progress of the Villarica AFDP

The progress of the Villarica AFDP is discussed here in terms of observed environmental changes, participation in agro-forestation activities, and achievement according to the project implementors' initial scheme. Some of the important progress indicators discussed under the section on project processes and impacts are excluded in the present section.

a. Environmental changes

A most notable effect of agro-forestation in Villarica concerns the frequency and extent of burning in the farms. In the past, fire always occurred in the summer. However, SAMABUN members have since then minimized burning; they built firebreaks around their farms before the advent of the dry season. They also came up with improved, labor-saving methods for building firebreaks. To build wider and more effective firebreaks with less labor, they cut grass on both sides of the width of the firebreak, resulting in two parallel lines of cut grass and a line of uncut grass in the middle of these lines. Instead of expending labor to cut the middle line of uncut grass, farmers just piled the cut grass on the middle line and burned the whole thing, thereby preventing the spread of fire from surrounding areas into the farms due to the presence of fire lines.

In addition, each farmer devised his own unique strategy of putting fire out through practical experience. Fire prevention may be the farmers' response to the presence of forestry crops in the area, which they now want to protect. Such is not the case when only agricultural crops are grown (by the traditional upland farmer).

Another noteworthy indicator of the project's progress is the extent of terracing and contouring of farms. During the first two years of the project (1979-80), only two farmers constructed bench terraces (for rice) and practiced contour planting. More recently, however, during a visit to the project site in February 1982, a visual inspection of the cooperators' farms gave us a rough count of *at least* 9 bench terraces and/or vegetatively contoured farms. One explanation offered by the implementors for the spread of technology from the demonstration area is that most farmers noticed the differences in soil erosion and farm landslides during typhoon *Kading* between their farms and the demonstration farms. Also,

higher yields were said to be observed in the barangay captain's (demonstration) farm compared to yields in the past.

One can also note the women who were on their way to nearby creeks to fetch water for the farm.

In terms of seedling survival rates, conditions in the uplands provided important insights to the project implementors. For instance, they found out that citrus seedlings did not grow well in uplands. This was attributed to the inhospitable climatic conditions in the area and to transplantation shock, causing very high mortality in the bare root seedling of citrus. Hence, it was decided that in the future, these seedlings, rather than being uprooted and transported from Los Baños, shall be raised in the nursery.

When planted during the rainy season (around August) the citrus seedlings had about 20 percent survival in the grasslands and about 70 percent survival in the cultivated fields. During summer, even potted seedlings maintained in home nurseries died.

The performance of mangoes and coconuts was better than expected, however. Coconut seedling survival rate was as high as 90 percent; this was, in fact, one of the criteria for the award given by the SAMABUN to its "best farmer" in 1981.

Project implementors also noted that the mangoes and coconuts did very well despite the widespread attack of "powdery mildew" which came after typhoon Kading.

Pole *sitao*, bush *sitao*, and mongo seeds were among the agricultural crop inputs distributed to the farmers. Rat infestation, however, was widespread in the area. The young shoots of the mango and citrus seedlings were eaten by rats especially at the height of the dry season. This situation was expected as the rats, seeing no other green forage in the dry area, found a source of food in the farmers' seedlings. Luckily, many of the seedlings survived by producing new shoots. The damage, however, was enough to send the BFD personnel looking for chemical poisons to deal with the rats attacking their reforestation plantations. The destruction of the original forest vegetation of the area and the subsequent substitution of a grassland ecosystem have destroyed the original homeostatic mechanisms (i.e., predator-prey relationships), resulting in high pest infestations. It can then be expected that any increase in productivity which the farmer will be able to develop

in the area will be offset by a subsequent increase in pest (rats, insects, weeds, etc.) infestations. However, the presence of diverse crops over time and space is expected to minimize if not prevent these infestations. Most farmers still planted these crops.

The summer months are particularly hard on the farmers and their crops. The SAMABUN members divided themselves into teams and each team followed a certain schedule so that there would be a team to water and take care of the nursery seedlings *everyday*. Since the source of the water is on a gulley and the nursery is above this gulley, they had to form human chains to pass buckets of water from the source to the nursery. Now, though, a water pump in the nursery has been put up.

One of the early strategies that was tried to solve the water problem was to dig "farm ponds" on lower sloping areas of farms so as to catch and store rainwater during the wet season. Though water in the pond may dry out by the middle or end of the season, it would at least lessen the water stress of the farmer's crops as well as extend his cropping season. The pond was also envisioned to serve as a source of water for fire control, as a fishpond, and also for monitoring sedimentation.

Problems related to the digging of the pond, however, were quite substantial. For one, the loose structure of the soil necessitated the use of plastic or cement to seal the pond from water seepage. Farmers lacked the financial and material resources for building the pond, and the heavy manual labor (which competed with the labor needs of other farms) needed to dig and build the pond made this feasible. Approximately 90 man-days of work were measured for pond building. At present, the farm pond in the demonstration farm is being used for composting.

Water supply in the demonstration farm is no longer a problem, however, because of a deep well pump whose establishment was partly financed by donations of students of U.P. at Los Baños. Having seen the feasibility of a deep well pump, the SAMABUN members are currently considering obtaining funds for this through the KKK Program.

Some of the activities initially planned for the project have yet to be realized. For instance, though the Bureau of Animal Industry had already committed its support of the SAMABUN through its animal dispersion program, this has yet to be realized. Perhaps, this is just as well, since the envisioned use of *stylosanthes guya-*

nensis as cover crop to aid in suppressing further cogon growth as well as to provide forage for animal has not materialized. The "stylos" planted was attacked by a disease named "antrachose." Project implementors are thus currently improving on the planting schemes, including that of stylos and other cover crops.

b. Participation

An important indicator of the progress of the AFDP in Villarica might be the continued participation of the original farmer-cooperators. As of 1982, the following cases of dropping out from the SAMABUN were notable: (a) the resignation of a member-couple (husband and wife) from the SAMABUN and their subsequent migration to Isabela; (b) the selling of kaingin rights of one farmer-cooperator to another SAMABUN member; (c) the neglect of the farms by two members who each became employees of BFD and the local municipal office; and (d) the SAMABUN secretary's participation in a tree/monoculture type of reforestation scheme being tried out in Pantabangan.

The tree monoculture type of reforestation is being implemented by the Nueva Ecija Electric Cooperatives Organization (NEECO) for the establishment of ipil-ipil dendro-energy farms. Inputs worth ₱2,000 were provided as a loan along with one cavan of rice. The SAMABUN secretary stressed his consumption needs as the main reason for having joined the NEECO scheme.

In the cases of the out-migrants and the farmer who sold his kaingin right, the project implementors noted that these were farmers who used to be tenants in the old Pantabangan farm. A hypothesis suggested for testing by the project implementor is therefore one which explains farmer performance in terms of his former land tenure/farm labor status, among others. For those who became employed, the other family members (wives and children) are now the main workers on the farm.

In general, however, the SAMABUN seems to have a good degree of control over its members. This may be gleaned from Table 15 which is based on the organization's records. The discussion on attendance and tardiness during meetings, and on absences from work supposed to be contributed by all in the demonstration farm and nursery, indicates several aspects of participation.

TABLE 15
CONTENT ANALYSIS OF VILLARICA-SAMABUN MEETINGS

| Date | Type of meeting | Topic discussed/action taken | Agency/ Person concerned | Attendance* |
|-----------------|--------------------------------------|--|---|-------------------|
| April 1, 1979 | general | Formal request for seedlings of grapes, lemon, etc., from Mr. Bernardo Dison of Bongabong, Nueva Ecija | private | 65 members |
| April 8, 1979 | general | Formal request for 20,000 coconut seedlings for SAMABUN members | PHILCOA | 65 members |
| | general | Formal request for seedlings of ginger, mongo, beans, peanuts, etc. | UPLB-UHP | 65 members |
| May 6, 1979 | planning committee | Formal request for borrowing tractor or plow for levelling land before planting cash crops | NIA | 13 members |
| May 13, 1979 | general | Formalizing request for individual forest occupancy management permits to be granted to all members; as of this date, only 15 members were granted such permit | BFD | 65 members |
| June 13, 1979 | general | Formal request for 5,000 cashew and 5,000 giant ipil-ipil seedlings. | UPLB-UHP | 62 members |
| June 14, 1979 | general | Request for action on encroachment of cows owned by a certain Dr. Mario Virgel on the farm areas, in accordance with BFD information that all pasture permits have already been cancelled for the area | President Marcos, thru BFD Dir. Ardieta | 62 members |
| August 12, 1979 | general | Resignation of Mr. Sadaba as Chairman of the Samabun, due to his having to attend to his duties as pastor; election of Mr. Dullas as chairman | | 62 members |
| August 19, 1979 | planning and implementing committees | Acceptance of new member, Ms. Virginia Dullas, done after an assessment of the applicant's farm practice was made | | committee members |
| August 26, 1979 | planning and implementing committees | Conversion of the farm of Mr. R. Fernandez into a common nursery; all members take turns working in the nursery on Sat. or Wed.; fines were imposed on those who did not render service without justifiable reasons. | | committee members |

Table 15 (Continued)

| Date | Type of meeting | Topic discussed/action taken | Agency/ Person concerned | Attendance* |
|--------------------|---|---|--|--|
| September 2, 1979 | planning and implementing committees | Request for grant of additional land for the SAMABUN, presently located between individual members' farms. Allowing children of women-members to represent the latter in case of absences due to maternity or health problems and the inability of the husband to attend due to being employed or working elsewhere. | BFD District Office | committee members |
| September 9, 1979 | executive committee | Allowing proxies for Samabun members working the nursery; once a month only, with proper notification and approval of the team leader. | | Executive committee members |
| September 26, 1979 | letter sent to PC-INP | Informing the authorities on the watch teams formed by the Samabun to guard the nursery from theft; schedule of watch teams and names of team members submitted. | PC-INP | |
| September 22, 1979 | executive, implementing & planning committee | Communication on animals raising Additional land needed; work for 25-year lease Measurement/mapping of nursery and demonstration farm | BAI BFD District Office UHP-UPLB | members of committee (14/26-54%) three out of four women com. members were present |
| December 3, 1979 | general | minutes not available | UPLB | total, 43/65 (=66%) women, 13/21 (=62%) |
| December 13, 1979 | executive, implementing & planning committees | Distribution of citrus, coconut seedlings; elevation of request for land lease to the President; study groups to be sent to UPLB; firebreaks; problems — maternity leave, members who did not want to pay fines; | UPLB | total, 20/21 (=95%) women, 3/3 (=100%) |

Table 15 (Continued)

| Date | Type of meeting | Topic discussed/action taken | Agency/ Person concerned | Attendance* |
|-------------------|---|---|--------------------------------|--|
| December 29, 1979 | executive, planning & implementing committees | Stopping of the distribution and bringing in of coconut seedlings; fines on those who would not contribute their labor share in the nursery/demonstration farms; guarding of the nursery; establishment of firebreaks | | total, 17/21 (=81%); women, 1/3 (=33%); three noncommittee members one of whom was male and two female also attended |
| March 2, 1980 | executive, planning & implementing committees | Plans for establishment of firebreaks, discussion of proposed NEECO dendro-plantation; benefits, and effects on Samabun activities | NEA | total, 11/21 (=57%); four noncommittee members attend- ed, three of whom were women; none of the women committee mem- bers attended |
| June 29, 1980 | general | minutes of meeting not available | | total, 57/65 (=88%); women, 16/21 (=81%); one wife substi- tuted for her husband |
| October 5, 1980 | executive, planning & implementing committees | minutes of meeting not available | | total, 11/21 (=52%); women, 1/3 (=33%); three nonmembers attended, two of whom were women |
| October 7, 1980 | general | minutes of meeting not available | | total, 44/65 (=68); female, 12/21 (=57%); two nonmembers attended, one of whom was the wife of a member |
| October 26, 1980 | general | Fines on tardiness during meetings; better scheduling of meetings | | total, 34/65 (=52%); women, 13/21 (=62%); two women substituted for husbands; two nonmembers also attended |

*Records on attendance are discernible only starting November 22, 1979.

The Villarica SAMABUN has a relatively good record-keeping system compared to the organizations of the other barangays of Pantabangan.

Table 15 shows that the type of organization building of the UHP in Villarica seeks to develop self-reliance of the organization; thus, it is the farmers themselves who try to secure their farming requirements from the different bureaus. This means that the farmers get to relate with numerous agencies/persons, including the President himself, by way of a letter on the need to cancel the permit of an encroaching and illegal pasture-manager.

In terms of women's participation, 21 out of the 65 members of the organization are female, representing 32 percent of total membership. The organization has also made arrangements for the consequences of women's involvement in work and meetings. For instance, in cases of maternity leave, an adolescent may take over work at the farm and other organization-related duties. Also, during absences of women members from meetings held by the executive/planning/implementation committees (of whom three out of 21 members are women) other female noncommittee members are present, implying that they may be pinch-hitting for the absentee women members. This is not observed among the male committee members.

Women's participation in the SAMABUN may have been encouraged by certain SAMABUN rules on the distribution of benefits of the organization. Whenever a husband and wife become members of the organization, they each get their respective allocations of seedlings for the total membership; thus, their family benefits doubly from the organization. This also implies that the family is more involved in organizational work as well as in agro-forestation.

An effort to involve other Pantabangan residents in agro-forestation was attempted in early 1981. Through the suggestion of the UHP and the SAMABUN, a committee on agro-forestry was created at the newly elected mayor's office. Training on AFDP concepts was conducted at UPLB. The interest in AFDP, however, did not immediately produce concrete manifestations. This was explained by project implementors and other observers in terms of the following: most task forces were not formally chosen by the barangay members to be official representatives to the Committee.

More recently, however, the Villarica barangay captain was chosen to head the newly formed Federation of Barangays in Pantabangan. Such a development would provide more possibilities for facilitating the spread of AFDP schemes.

Moreover, the BFD Communal Tree Program (CTF) which has developed along a parallel time scheme, and which involves some of the SAMABUN participants as well, has also been progressing. In fact, the Villarica CTF won the first prize national award of ₱16,000 in 1979 and ₱4,000 from the recent regional competition among CTF farmers. The progress of the CTF is presented in Table 16 in terms of farmer cooperation and area planted.

TABLE 16
COVERAGE OF THE BFD COMMUNAL TREE FARMING
PROJECT IN PANTABANGAN

| | |
|---|------------|
| A. PHASE Villarica, Pantabangan, Nueva Ecija (December 1978) | |
| No. of participant families | 21 |
| Total area | 48 ha. |
| Area planted with trees | 46.31 ha. |
| Area planted with agri-crops | 23.5 ha. |
| B. PHASE II (Parcel 1) Km. 6, Pantabangan, Nueva Ecija (January 1980) | |
| No. of participant families | 48 |
| Total area | 28.47 ha. |
| Area planted with trees | 121.79 ha. |
| Area planted with agri-crops | 64.35 ha. |
| C. PHASE II (Parcel 2) Km. 8, Pantabangan, Nueva Ecija (January 1980) | |
| No. of participant families | 19 |
| Total area | 50 ha. |
| Area planted | 31.87 ha. |
| D. Total Number of Participant Families | |
| | 88 |
| Total area covered | |
| | 226.47 ha. |

Source: BFD Pantabangan District Office.