

## 15. IMPROVING INFORMATION FLOW ON TREE FARMING POLICIES ON PRIVATE LAND THROUGH THE RADIO SCHOOL ON THE AIR PROGRAM

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Improving information flow in a particular knowledge system helps a project achieve its goals and objectives. Inevitably, information could make the participation of all project stakeholders possible. One of the research projects of ACIAR on smallholder tree farming in Leyte, the Philippines, is the Radio DYAC's School on the Air (SOA) program on tree farming policies on private land. This program seeks to improve people's knowledge and awareness – particularly the smallholder farmers – on government policies related to tree registration, harvesting, transport and marketing. It also aims to inform private landowners and other stakeholders on tree growing, educate them to improve their understanding on tree farming policies, and motivate the tree farmers to register their trees and adopt related tree farming policies. Since this was a collaborative project, the local government units in the three purposively chosen project sites of ACIAR (Hindang, Bato and Isabel) provided the transportation expenses of their farmer-graduates during the SOA graduation. The Development Communication students of the Visayas State University (VSU) also produced the SOA's dramatized spots and jingle. For the research component using paired samples test on means, a highly significant difference ( $p < 0.00$ ) was found between their post-test and pre-test scores. This provides strong evidence that the SOA farmer-graduates have increased their awareness on tree farming policies after participating in the SOA. About 69% of the SOA graduates were female and their ages ranged from 22 to 71 years with a mean of 48.6 years. Slightly over 80% were married and 65.6% engaged in tree farming as their form of livelihood, with a mean income of PHP3068 per month. Nearly two-fifths owned at least 0.5 ha of plantation, 50% with *Gmelina arborea*. In focus group discussions, tree farmers commented that the topics were useful, relevant and interesting to them because they learned a lot from the program, particularly on the importance of registering their tree farms, the benefits from having registered trees (including technical assistance from CENRO) and the process of harvesting and marketing their tree products. They added that: the format adopted in the SOA was unique and entertaining especially with the jingle, dramatized spots and intermission portions; the resource persons discussed the lessons well even if they sometimes talked fast; the program host made a clear recapitulation of all topics; and the replay of the lessons from 5:30–6:00 pm gave them a better opportunity not to miss their lessons every day for two weeks. The SOA on tree farming policies on private land seems to have had an effect on the lives of the tree farmer-graduates based on their testimonies given during the SOA graduation. They said that they were impressed by the valuable information they received from the SOA and they were able to resolve the problems which in the past had arisen with DENR officers. With this, they would like to share their knowledge with other tree farmers in their locality. They even suggested that another SOA be presented on tree seedling production and growing of fruit trees. The SOA has not only benefited the SOA farmer-graduates but also those other DYAC listeners from some parts of Masbate, Cebu, Bohol, Camotes, Surigao City and Southern Leyte as shown in the compiled text messages that were received by the station.

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### INTRODUCTION

Communication links people with one another and with their social environment. It provides an opportunity for entertainment, education, socialization, and mobilization (De Fossard 1993). One medium that has conquered millions of people and is still considered the most pervasive tool to carry out these functions despite the television boom in the countryside, is radio.

People in the uplands of the Philippines commonly use radio because they are hardly ever reached by any other media. This broadcast medium is able to reach a large mass and varied types of audiences simultaneously at the lowest cost in a given time. The aim of a community radio is to address social issues at a community level so as to reduce poverty and social exclusion, empower

marginalized rural groups and catalyze democratic processes and development efforts (Tabing 2002).

Visayas State University (VSU) Radio Station DYAC is an excellent example of a community radio. It is owned and managed by the Visayas State University in Visca, Baybay, Leyte, the Philippines. Because radio carries the function of educating its audiences, VSU Radio Station DYAC has been conducting School-on-the-Air programs for the last 15 years in response to the demands and needs of its listeners. It has demonstrated the effectiveness of using this kind of radio program format to effectively convey information, especially among its farmer-listeners.

The School-on-the-Air has a series of lectures from experts on a specific topic that contains various segments to make the presentation of information more entertaining and educational. It presents the subject matter systematically and in progressive manner similar to the classroom teaching-learning situation. Several studies (Caintic 1995, Galano 2000) have proven the effectiveness of using the School-on-the-Air as a tool to acquire correct information on swine production and also to compare the SOA formats of reforestation farming and new rice farming technology. The SOA program has now produced thousands of graduates on agro-entrepreneurship and life-skills for out-of-school youth and also on topics such as the production of dairy buffaloes, goats, native chickens, abaca, sweet potatoes, rice and corn, and coconut, container gardening, tilapia culture, coastal resource management, and adolescent reproductive health.

It was noteworthy for DYAC to have conducted an SOA on tree farming policies for private landowners since nothing had been done previously on this topic. With the growing demand for timber products in the Philippines today, more farmers are now engaged in tree farming as an enterprise (LSU *et al.* 2006). According to LSU *et al.* (2006), one of the major problems in tree farming as experienced by the tree smallholders, has been their lack of awareness and understanding of policies related to tree registration, harvesting, transport and marketing. The SOA on tree farming would therefore help the project achieve its goal of improving the financial returns of existing and potential smallholder tree farmers in the long run.

Generally, the School-on-the-Air program on tree farming on private land was implemented to improve knowledge and awareness – especially of the smallholder farmers – about the government policies related to tree registration, harvesting, transport and marketing. Specifically, the study was designed to:

- Inform private landowners and other stakeholders about DENR's tree farming policies on tree registration, harvesting, transport and marketing.
- Educate smallholder tree farmers and other stakeholders to improve their understanding about tree farming policies.
- Motivate tree farmers to register their trees and adopt related tree farming policies.

## RESEARCH METHOD

School on the Air activities (pre-broadcast, broadcast proper and post-broadcast) were conducted to educate 32 out of 60 tree farmers who enrolled and continued to attend their classes on air from the three municipalities of Hindang, Bato and Isabel, Leyte. These areas were purposively chosen because they were part of the socio-economic study conducted by the ACIAR Smallholder Tree Farmer Project.

It used descriptive statistics to describe respondents' demographic and socio-economic profile as well as a paired samples test on means to measure changes in farmer-students' knowledge on tree farming policies. The research followed a one-shot survey design and used focus group discussions with all participants in their respective municipal halls to validate their feedback and complement its quantitative data.

Data gathered were then encoded and analyzed using the Statistical Package for Social Sciences (SPSS) Version 10. Results were presented in graphical, pictorial, tabular and narrative form.

### Pre-Broadcast Activities

This started with the project team meeting and deciding on the three municipalities among six ACIAR project sites. They discussed the preparations and scheduling of the briefing about the SOA project which was also the launching activity of the school on the air on tree farming policies. Several meetings were conducted to discuss the logistics, enrolment, pre-test and feedback forms and LGU commitment form prior to the field work.

The SOA orientation and launching was attended by the ACIAR-Forestry country project leader, DYAC station manager, municipal mayors, municipal agriculture officers and technicians, and

potential farmer-students of the SOA in the municipalities of Isabel, Hindang, and Bato, Leyte. It included a short briefing on ACIAR-Forestry, the rationale of the SOA project and an open forum. This was followed by the enrolment, pre-testing and designation of a field coordinator in each municipality.

The field team also conducted an information needs assessment among prospective SOA farmer-students in the three different municipalities to determine their demographic characteristics, communication behaviour and broadcast time preferences. Results were analyzed and used as the basis for the development of the program script. A thorough planning of the implementation of the SOA was also done. Project implementers established a close contact with the field coordinators and SOA enrollees.

The project team considered using the ACIAR Primer on Tree Farming Policies which comprised the nine-module lessons of the SOA with some additional information on the last part of it. Topics included were: 1) definitions of terms, (2) benefits of tree registration and plantations to be registered, (3) when to register your trees and requirements for registration, (4) steps in tree registration, (5) harvesting, (6) SPLTP and PLTP clarified and transport of tree products, (7) penalties of illegal cutting of trees and marketing of tree products, (8) the DENR structure, and (9) other sources of information on tree farming policies.

The four resource persons for the nine modules pre-recorded the lessons for a week. This provided ample time for the recording technician to polish and edit the broadcast material prior to the actual airing of the SOA on tree farming policies.

Promotional spots and teasers such as the SOA jingle and dramatized plugs on tree farming policies were aired for two weeks prior to the broadcast of the SOA lessons. Several follow-up visits were made to the three sites to confirm that everything was ready for the lesson proper and that the talents from the enrollees could be recorded ahead. However, it was discovered that DYAC's signal was nil in Bato, Leyte due to its mountain ranges. Because of the request and willingness of the tree farmers to participate in the SOA, the project team tapped the services of Radyo Ng Bayan Sogod, a station in Southern Leyte which could be heard in Bato where they live, for the airing of the SOA lessons.

### Broadcast Proper

The SOA on tree farming policies started with a broadcast orientation among the enrollees on the mechanics of the SOA for the students to follow during the entire conduct of the school-on-the-air. This included the time slot: 5:30 to 6:00 in the morning with a replay in the evening, weekdays (Mondays through to Fridays) for a two-week airing. There was also a roll call of the different municipalities by the program host.

The 30-minute SOA program on tree farming policies consisted of nine modules that were recorded, edited and aired together with other prepared broadcast materials using the following format:

1. SOA jingle
2. Standard introduction
3. Roll call by municipality
4. Dramatized spot to introduce the topic
5. Host introducing the resource person
6. Lesson proper and recapitulation of the host
7. Music and or poem excerpt of requested talents
8. Quiz
9. Words to ponder
10. Standard closing
11. Credits

After they listened to the SOA over their radio sets, the SOA students then submitted their answer or feedback sheets to the assigned field coordinator when a quiz was given. They also added some comments and suggestions on the sheets for the host to read.

### Post-Broadcast Activities

During this phase, the final written exam was conducted to determine the top five highest scores. An oral exam was also done to obtain the final rank of the top five SOA graduates. A post-test was conducted to measure the changes in students' knowledge on tree farming policies. The SOA graduation day took place two days from the oral exam. The graduation ceremony was

attended by the 32 SOA graduates who received their certificates of completion and the top five graduates were awarded medals. All of them were provided with SOA T-shirts. The VSU Vice-President for Research and Academic Affairs welcomed the graduates and other guests. The main resource person of the SOA acted as the guest speaker. Some high ranking DENR officials and representatives from the Philippine Associated Smelting and Refining Corporation in Isabel, Leyte witnessed the graduation rites. All of the graduates (Figure 1) were handed tree seedlings for free.



Figure 1. Tree farmer-graduates, resource persons, and guests during the SOA graduation

## RESEARCH FINDINGS

### SOA Students' Knowledge on the SOA on TFP

After being exposed to the SOA lessons, their pre-test and post-test scores were measured. Using the *t*-test paired samples, a highly significant difference ( $p < 0.00$ ) was found between their post-test and pre-test scores. This provides strong evidence that the SOA farmer-students have increased their knowledge and awareness on tree farming policies after having listened to the nine-module lessons.

### SOA Students' Demographic and Socio-Economic Profile

Exactly one-half (50%) of the SOA farmer-students came from the municipality of Hindang, Leyte (Figure 3), 6% were from Isabel and 10% from Bato. Sixty nine percent of the SOA graduates were male. Ages of SOA farmer graduates ranged from 22 to 71 years old with the mean age of 48.59. The majority of the farmer-graduates (68.8%) fell into the 41–60 age class, 21.9% fell into the 22–40 age class, and 9.4% fell into the 61–71 age class. A little over 81% of the farmer-graduates were married, the rest single (15.6%) or widowed (3.1%).

The majority of SOA farmer-graduates listed farming as their main source of livelihood. Three agricultural technicians took part in the SOA while the rest had occupations listed in Figure 2. One-half of the farmer-graduates had an estimated monthly income of less than PhP2000. The rest of the respondents fell into the PhP2000 to PhP3000 income class (25%) and PhP3000 and above income class (25%), respectively.

Almost three-fifths (59.4%) of the graduates owned less than 1 ha of land followed by 15.6% who tilled 2–3 ha, 9.4% had 3–4 ha, another 9.4% tilled 4–5 ha, while only 6.3% owned more than 5 ha of land. The most common tree species planted on the farmer-graduates' farms is gmelina (50%), followed by a mix of mahogany and gmelina (34.4%), and acacia, teak, and narra (15.6%).

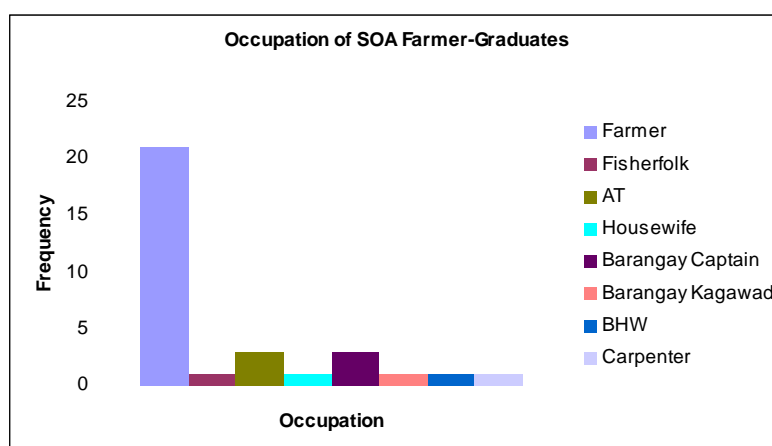


Figure 2. Occupation of SOA tree farmer-graduates

### Farmer-Graduates' Feedback on the Conduct and Format of the SOA on Tree Farming Policies

Focus group discussions (FGDs) were done among the enrollees in the three municipalities to assess the implementation and presentation of the School-on-the-Air on Tree Farming Policies on Private Land. Another purpose of FGDs was to determine the importance and implication of the radio program in relation to tree farming and other related activities that were expected to create an impact on the way information was delivered to and understood by the tree farmers. Results of FGDs are presented according to the answers given to questions raised with the tree farmers.

*Jingle of the SOA Radio Program.* The participants mentioned that although they were not able to memorize the lyrics of the jingle for the radio program they felt that the jingle was important to them because they were encouraged to listen to the program and urged to plant more trees. The jingle, according to them, provided an overview of the subject matter of the SOA which was on tree farming and policies related to it.

*Roll call.* Participants suggested that if time was not a constraint, it would have been better if the roll call was done not only by calling the different municipalities but also the names of all farmer-students.

*Dramatized spot.* The participants felt that the spot was important to the program because it provided them an overview of the topic. Others commented that they were able to better understand the topic because of the spot.

*Standard introduction.* They said that it was the correct procedure for the host to introduce the resource person before the lesson proper started.

*Lessons/topic for the day.* They felt that all the lessons were relevant and interesting to them because they learned a lot from it. They appreciated the recapitulation of the lessons by the host because it facilitated their understanding and retention of their memory.

*Intermission portion.* The participants commented that the songs played were not in tune with the topic but they accepted that it was hard to find songs that would fit to the topics presented. They also felt that it provided them a breathing space from the discussions given although they did not feel that the lessons were that boring but thought that if these discussions were done without any intermission or songs/poem, they might have lost interest. They also added that they would find it more difficult to remember all the information given during the lessons if the whole 30 minutes was devoted to straight lecturing only. They used the time during the intermission portion to write notes about the lesson of the day.

*Quiz.* The participants believed that the questions asked during the quiz were appropriate since these were related to the topics under discussion. They enjoyed the short quizzes but felt that the final written exam was quite long.

*Words to ponder.* Some commented that they were not able to understand the verses for the words to ponder portion since it was delivered in English and it would be appreciated if it was delivered in their own dialect. However, others said that they were able to recall this part of the SOA.

*Standard closing.* The standard closing of the SOA program contained the credits or acknowledgment of the sponsors and persons/agencies responsible for the airing of the program. All of the participants said that it was an important part of the SOA.

*Resource persons.* They commented that the SOA's main resource person's (Tomol) voice would sometimes fade on air but he really is an expert of his craft in forestry and is a good resource person. They felt that the second resource person (Germano) delivered the information too fast. The other two (Managaoang and Nasayao) who gave the introduction and background of the SOA program, was well understood by them.

*The program host.* All of the participants commented that the host's delivery was good and her voice was clear. They asserted that it might be the host's wide experience in radio that made her a good host.

*Over-all SOA program.* They said that the radio program has made them more aware and knowledgeable about tree farming policies related to tree registration, harvest, transport and market of their tree products. In doing so, they already knew the penalties if they were to violate those tree policies. They also revealed that the immediate impact of the SOA could not be felt right away as trees have long gestation periods. However, there were some who mentioned that they have an edge over those who were not able to enrol in the SOA because if they would register their trees they could get some technical support from DENR-CENRO. Others said that they were interested to participate in the SOA program because they are growing trees on their farms.

Based on their testimonies given during the SOA graduation, they felt that words of thanks were not enough to express their gratitude towards ACIAR and the organizers of the SOA program. They added that they were deeply touched by the sincerity of the sponsors to help them with registering their trees and they were impressed by the valuable information they got from the radio program. They mentioned that through the program, they were able to clarify matters and resolve some problems they had in the past with the DENR people.

The graduates were keen to impart and share the knowledge they gained from the SOA to other constituents in their respective communities. As they put it, 'they would like to spread the good news of planting more trees and saving the mother earth from destruction and forest degradation'. They also suggested that another SOA be organised in the future related to tree seedling production and of growing fruit trees.

It is important to note that the SOA lessons on tree farming were not only heard by those who were enrolled but also those listeners in Southern Leyte, some parts in Mindanao, Bohol, Cebu, Masbate, and some parts in Western Visayas. The feedback was received by the station through text messages using or short messages via cell phones.

## IMPLICATIONS AND RECOMMENDATIONS

Based on the results of the *t*-test, it became evident that the farmer-students had increased their knowledge and awareness of tree farming policies because a significant difference was found between their post-test and pre-test scores. This means that the SOA program was able to achieve its objective of improving tree farmers' understanding of the tree farming policies and educating them on the processes involved in tree registration, harvest, transport and marketing of their tree products.

Now that the socio-demographic profile of the tree farmers which included their land area and trees planted on their farms was available, development planners and partners have directions on what to do next after the radio strategy and what other interventions to make for the intended audience and other stakeholders to facilitate the attainment of the project's desired goals.

With regard to the farmer-graduates' comments on the conduct and format of the SOA program, it was clear that the use of the radio school-on-the-air program was an effective strategy to educate people on tree farming policies. If the farmer-graduates are true to their promise of sharing the information with others there would be a greater multiplier effect on the program. However, it is recommended that a follow-up study be done on the impact of the SOA on Tree Farming Policies on the SOA graduates' decision to register or not to register their trees. And as emphasized by the ACIAR partners when they visited the Philippines while the SOA program was still on-going, some audio materials of the SOA could be used for integration into the curricular offerings for forestry undergraduate students.

It was not easy to establish rapport with the people in the field, local government officials, DENR and other stakeholders of the project, thus it is worthwhile to maintain the partnership and strengthen the linkages of all participating agencies and individuals concerned. Finally, the SOA on tree farming policies should be replicated in other areas of the country to educate more people in a more effective but less expensive way.

## ACKNOWLEDGMENTS

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