3. THE PHILIPPINES

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ABSTRACT

The paper describes the extension system of the Philippines, with particular reference to Region 6 in the Western Visayas. Agriculture is very important in the Region, employing more than 50% of the population. The extension system is decentralized, with each Local Government Unit administering its own extension service. Radio is an important source of extension information, including the School-on-the-Air. Farmers would like more information about the storage of perishable crops, pest and disease control, and the substitution of low-cost local resources for commercial fertilizers, pesticides and livestock feed.

INTRODUCTION

Extension plays an important role in national development, particularly in agricultural and rural development. In general, it is aimed at changing people’s behavior (knowledge, attitudes, skills and practices) to enhance their ability to deal with their problems and meet new opportunities. Making extension work for national development is one of the pressing concerns of the present government.

The Philippines is a tropical country made up of 7100 islands, and has a population of 69 million people. Its agriculture is very diverse, but generally rice is the most important staple food, followed by corn, particularly in the south. Corn is also an important feed grain for livestock.

The Philippine economy is still predominantly agricultural, despite rapid industrialization. Agriculture employs 50% of the 69 million people of the Philippines, while 34% of the total land area is used for agricultural purposes.

Developments in agriculture such as genetic engineering of crops have not brought about significant changes in Philippine agricultural practices. Agriculture remains labor-intensive. Small-scale farmers lack sophisticated farm equipment, and have to perform farm chores manually or with the aid of draft animals. Their access to technical information is acquired mostly through various extension services.

THE EXTENSION SYSTEM

The Philippine extension service has been in existence since the Spanish Colonial period, but was organized into a national system only in 1952 (Mabutas and Paguirigan 1978). Since then, it has undergone several reorganizations (BNFI 1983). The most recent was in 1993, when the national Bureau of Agricultural Extension was devolved to the Local Government Units (LGUs) throughout the country (Fig. 1).

Currently, the Philippine extension system consists of local government units (LGUs), the national government, and private extension services. The LGUs of the provinces and towns deliver agriculture and fishery extension services to all farming and fishing communities. The Department of Agriculture (DA) and its attached agencies and corporations, the Department of Agrarian Reform (DAR), the Department of Environment and Natural Resources (DENR), and the State Colleges and Universities, undertake special extension programs in selected parts of the Philippines.

Keywords: extension, technical information, LGU (Local Government Unit), Philippines, Visayas
Private extension services include agribusiness firms and non-government organizations (NGOs). The agribusiness firms provide extension information related to their products or services. The NGOs also provide extension services, usually as part of their special projects.

**THE SURVEY**

This paper will discuss the flow of technical information through the Philippine extension system, as well as the technical information needs of farmers based on in-depth interviews of extension agents in the country.

The respondents for the interview were selected from the Western Visayan Region, or Region VI. Western Visayas is composed of six provinces with a total area of more than 20 thousand square kilometers. The region has a population of 5.8 million people, more than 50% of whom are employed by the agricultural sector (NCSO 1998).

The region has two distinct climatic types, one with a pronounced rainy season, followed by a dry season lasting about half the year. The other has a less distinct rainy season, and a dry season of only one to three months (AGCOM 1985).

Soils are deep, ranging from clay to sandy loam. The region is cut by mountains and mountain ranges which act as natural barriers and watersheds.

**THE FLOW OF INFORMATION IN THE EXTENSION SYSTEM**

The Agricultural Training Institute (ATI) and the Department of Agriculture both organize training programs for a limited number of extension staff from different provinces or regions. These in turn train extension staff at a municipal level who finally pass the information on to the farmers.

When interviewed, extension staff felt that their training courses had not been long enough to provide an in-depth treatment of the topics. This in turn affected farmers, since the courses missed out a number of details which might have been very useful to them. In an effort to supplement the information transmitted in training courses, the Department of Agriculture sponsors regular national television programs.

Regional and provincial offices also produce information campaigns for local farmers. In the Western Visayas, extension staff and farmers receive a regular agricultural news service from eight
radio stations. These programs are the preferred sources of agricultural information among farmers, for the following reasons.

- The information is received regularly, and most farmers own, or have access to, a radio.
- Radio sets are convenient: they are portable and farmers can take these with them to the field or to the market.
- Finally, radio programs are broadcast in local dialects, which makes them easy for farmers to understand.

One of the most popular radio programs for farmers is the School-on-the-Air, which gives farmers lessons in agriculture over the radio. This program uses leading farmers as lecturers. The School-on-the-Air seems to be an effective means of transferring technical information, since it has remained on the air for the past 27 years. Last year (1998), Region VI had 447 graduates in poultry production and 552 in coffee production.

Group methods are also used for extension, such as seminars and training programs. Extension staff often hold training courses, seminars, and classes for local farmers. They also have one-on-one consultations with farmers, and they conduct farm visits to help the farmers assess their problems. Indigenous methods of transferring technical information are also employed (e.g. ballads about agricultural technology) (Table 1).

Sometimes, newly developed technology is extended in a special program in selected areas. For example, the Philippine Rice Institute establishes demonstration plots on farms to test the suitability of certain rice varieties in a given area, and find the level of susceptibility of these varieties to local pests and diseases. This enables the Institute to give location-specific recommendations to farmers.

Recently, fourteen consortia have been formed in the Philippines which link research and development institutions, state universities and colleges, local government units (LGUs), and the private sector. Western Visayas Agricultural Resources Research and Development Center (WESVARRDEC) is one of these consortia, coordinated by the Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD). PCARRD is mandated to coordinate, monitor and evaluate agricultural research and development in the Philippines. One of its thrusts is to promote technology transfer,

To discuss in detail the flow of information in technology transfer and promotion, WESVARRDEC is composed of various member agencies which conduct research. Results of these researches are presented during the In-House Reviews and Regional Research and Development (R & D) Symposium. Research information and technologies which are presented during these annually-conducted activities are packaged and popularized into various information, education and communication (IEC) strategies and formats. These IEC strategies are disseminated for public awareness.

The Regional Applied Communication Officers (RACO), who are the communication specialists or extensionists of the respective member-agencies, are in charge in the popularization and packaging. The IED strategies that the RACOs do are: publications, instructional materials like primers and posters, mass media linkages either in print or broadcast, and interpersonal communication such as information caravans, exhibitions, etc.

The Department of Agriculture also dis-

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Table 1. Farmers' sources of technical information.

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<th>Interpersonal approach</th>
<th>Group approach</th>
<th>Mass approach</th>
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<tr>
<td>Extension agents</td>
<td>Farmers' classes</td>
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<td>Research institutions</td>
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<td>Dealers in farm inputs</td>
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<td>Achievement days</td>
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<td>Indigenous ballads and other folk media</td>
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tributes booklets and leaflets to extension staff and farmers. But although these publications are provided free of charge, the number of copies is often too small to meet the demand. In some cases, printed materials are in English, which few small-scale farmers are able to understand.

The other main constraint is a financial one. Budget limitations play a significant role in the success of the transfer of technology and technical information. The limited funds affect the area of coverage of an information campaign, and the number of farmers that it can reach.

Although some technology transfer is nationally funded, training programs and other extension activities initiated at the municipal level are heavily dependent on the budget allotted by the LGU. As a result, farmers belonging to LGUs who allocate more to agricultural extension receive a better service than farmers whose LGUs provide a smaller budget for extension.

Farmers are not the only ones affected by the lack of funds. Extension staff often complain that the training programs they hold for farmers have been cut to a limited number of days, and cover only basic information. Even the printed materials given to extension staff and farmers are sometimes inadequate. Although the quality is good, the number of topics covered, and the number of copies printed, are often insufficient to meet farmers' needs.

However, funding and the problems caused by decentralization are not the only concerns of extension staff. Language is another constraint. The Philippines has more than 88 dialects. It has two official languages, English and Tagalog, but many small-scale farmers are unable to understand either of them, let alone both. Linguistic diversity forces extension staff to translate any text from English or Tagalog into the local dialect before making it available to farmers.

Government support for small farmers is crucial, particularly in infrastructure and marketing. Successful information campaigns are useless if in the end, most of the profit goes to the middleman, or if produce taken to market is lost due to the lack of storage facilities.

INFORMATION NEEDS OF FARMERS

Crop Production

Small-scale farmers in the Philippines are particularly concerned about postharvest and marketing activities. There is an evident lack of postharvest facilities. In fact, they have declined over the last decade (Yorobe, cited in Villareal 1992). This lack of storage facilities forces farmers to sell their produce without delay at a lower price, especially if there is a surplus in the market.

It is for this reason that farmers often ask for technical information about how to preserve perishable crops, and how to lengthen the shelf-life when there is a large supply on the market.

The two other major concerns of farmers are fertilizer management and pest control. At present, most farmers are dependent on chemicals for providing plant nutrients and pest control. The price of both fertilizers and pesticides has been rising, and farmers have begun to seek cheaper alternatives. An interest in organic fertilizers and biological pest control (e.g. natural enemies of pests) has arisen. Farmers have also become concerned to apply the correct amount of fertilizer or pesticide at the right time, to maximize its effectiveness and reduce the production costs.

The lack of access to a soil analysis service is a serious constraint. Poor farmers blindly follow the general recommendations set by the Department of Agriculture, and apply fertilizer without any regard to the level of nutrients already present in the soil. Farmers urgently need more technical information about soil analysis and its benefits. Most farmers do not even know the proper way to collect soil samples for analysis.

Livestock Production

The typical Filipino small-scale farmer, as well as growing crops, also keeps a small flock of poultry, or a few goats, cows or water buffalo, as an additional source of food or income. More often than not, farmers do not have much technical knowledge of how to raise these animals. They often have difficulty in diagnosing symptoms of disease. The technical information most urgently needed is the diagnosis, control and treatment of animal diseases such as scour and pneumonia. Farmers also need technical information on how to prevent disease.

Finding an alternative to commercial feeds is also a major concern of livestock raisers. The high cost of feed and feed supplements prompts livestock producers to ask for technical information about local feed resources that can replace commercial feeds, and low-cost formulations for feed rations. Other technical information needed includes feed supplements for breeders and fatteners, the type of feed supplements suited for different animals, and the most suitable animal feeds for animals of different ages.
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Annual Report: *Agrikulturang Makamasa.*