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Sustainable Agricultural Development Through Extension Education

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Abstract: To reach sustainable development in agriculture through extension service, institutional linkages at all levels should be very strong. To enhance the effectiveness of agricultural extension service in northern part of Cyprus, face to face interviews with extension workers and focus group interviews with three different groups of farmers were conducted to collect data and depend on the results ‘Agricultural Extension-Education Committee’ and ‘Extension Workers and Farmers Training Center’ were added in the current organization chart.

Key words: Extension organization, dissemination, training

INTRODUCTION

The quality, capability and performance of farmers in agriculture are fundamental indicators of the level of the agricultural sector’s efficiency, productivity, development and sustainability^[1]. Information and organization in the agricultural sector must assume greater importance. People involved in agriculture need improved skills, information and ideas in order to develop agriculture that will meet complex demand patterns, reduce poverty and preserve or enhance ecological resources^[2]. Agricultural extension is widely regarded as playing an important role in improving agricultural systems worldwide and its provision has been seen for many years as a principle responsibility of the state^[3].

In northern part of Cyprus, similar to other developing countries, public extension has a classic top-down structure and emphasis increased productivity on certain commodity. Since 1970s’ the authorities have been working to improve agricultural production through its extension services. However, the benefits gained have not spread to all farmers as was envisaged under the diffusion theory of extension^[4,5].

The northern part of Cyprus covers an area of 3,298 sq.km. in the northern part of the island of Cyprus and includes the Pentadactylos Mountain Range, Mesaria Plain, the Northern Coastal Plain and the Karpas Peninsula. The population northern part of Cyprus is 206,562 people in 1999 and the annual population growth is 1.7%. The adult illiteracy rate is 5.6% in this part of Cyprus. Agriculture accounts for 9.1% of total domestic product and 17.8% of people involves with agriculture. 56.7% of the land is appropriate for agriculture production. According to 1995 census, there are 11,854 farms and average farm size is 9.1 ha. Irrigated area forms

approximately 8.6% of economically used land. Animal husbandry takes about 30-40% share in total agricultural production^[6].

The authority of northern part of Cyprus is well aware of policy for rural development faces serious problems because of the result of an in-effective extension system. The purpose of this study was to evaluate the existing agricultural extension service and develop new organizational structure to accomplish sustainable agricultural development in northern part of Cyprus.

MATERIALS AND METHODS

Primary data of this study are obtained from agricultural engineers and agricultural technicians with face to face interview in all districts which will be mentioned below. In the research area only 27 extension workers was working during the time of study. Out of 27, 23 of them were participated the study voluntarily. Also, focus group interviews technique in which a group of people who possess certain characteristics provide data of a qualitative nature in a focused discussion^[7] have conducted with six animal husbandry producers, six horticulture producers and six field crop producers to obtain data about their problems and expectations from extension service. This study was carried out at the end of 2001-beginning of 2002.

RESULTS

Currently the agricultural extension service is organized as “Agricultural Education and Extension Subdivision” unit of the Agriculture Division (Fig. 1) and also “Education, Extension and Statistics Subdivision” unit of the Animal Husbandry Division (Fig. 2). There are

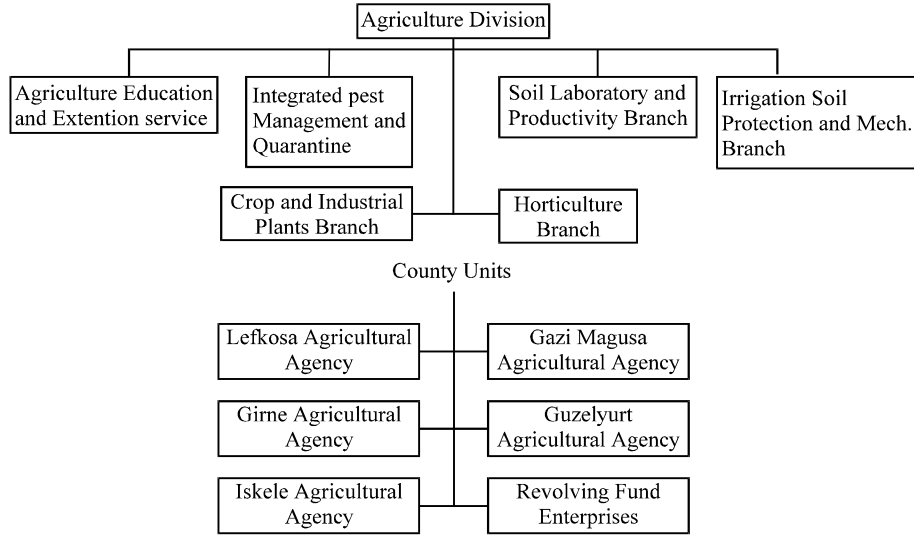


Fig. 1: Organizational Chart of Agriculture Division

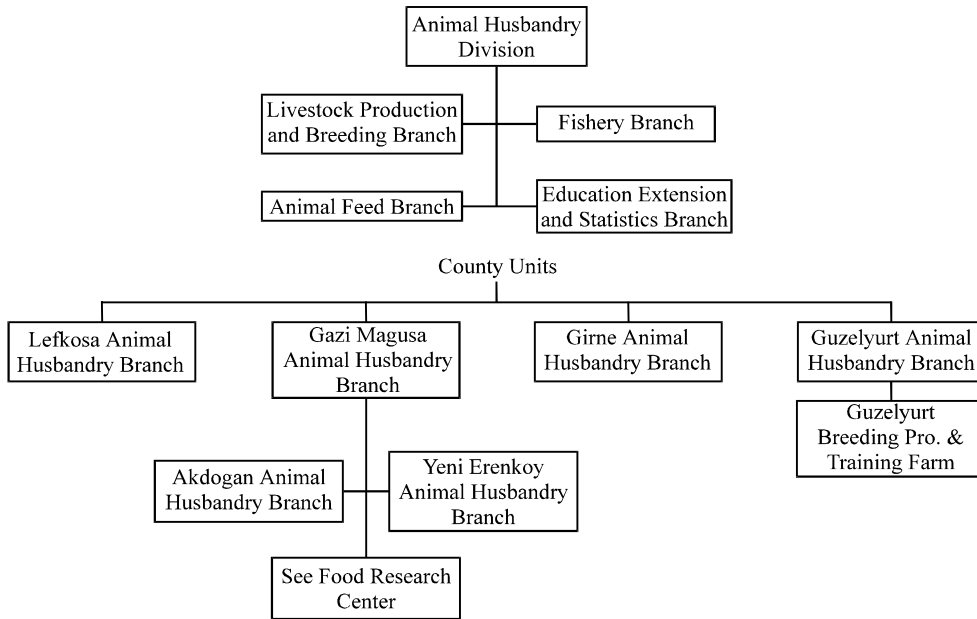


Fig. 2: Organizational Chart of Animal Husbandry Division

also “District Offices” works with County Agricultural Division and Animal Husbandry Division.

Majority of extension workers were graduated from various departments of agricultural faculties. Only three extension workers were graduated from agricultural vocational high schools. Thirty percent of extension workers job related with their bachelor degree. Only one of them is involved in pre-service training program and six of them are attended in service training during the last five years. Twenty six percent of the extension workers spend

only 2 h for extension activities in a day. Other 16% of extension workers pointed out that they do not even find a time for extension because of the time they spend in agricultural inspections. More than half of the extension workers (65%) claimed that they cannot even reach publications related to new techniques. Active participation of farmers to extension programs is not desired level in northern part of Cyprus.

Majority of farmers (88.2%) are willing to pay for the information provided by extension service. 23.5% of

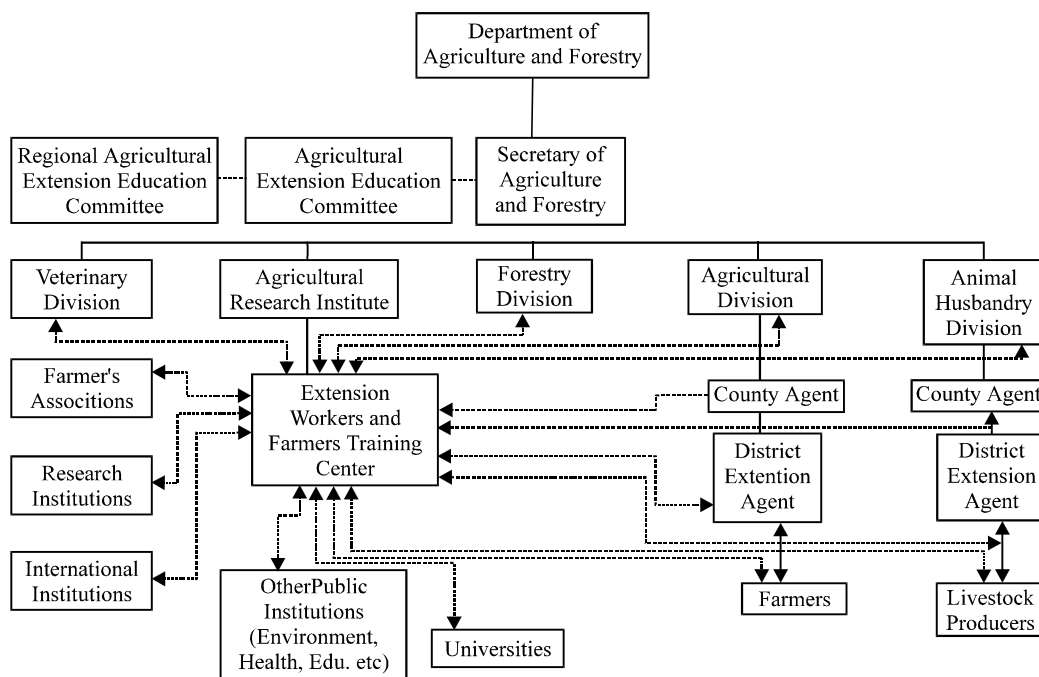


Fig. 3: Organizational and Operational Chart of Proposed Agricultural Extension Service

farmers are using internet to reach new information while 30.6% using their own knowledge and farmers' unions. Unfortunately only 11.2% farmers have a good communication with extension workers. Majority of farmers are members of the farmers' unions. They want more TV and radio programs and brochures to get new information. Farmers indicated that they receive only one or two brochure in a year. Farmers mostly desire information about integrated pest management, marketing, drip irrigation, small ruminant husbandry and greenhouse production.

Studies pointed out that the organizational and practical shortcomings^[5,8-10] are the main reasons for ineffective extension services in developing countries. Same shortcomings are also found in northern part of Cyprus and some of them are as follows; lack of vehicles, equipments and training materials to support extension activities; extension workers spend a lot of time in secretarial work including bookkeeping, documents recording, damage and lost determination; limited research-extension-farmer relation; inadequate active participation of farmers to program development; weak assessment of real needs of farmers; poor recognition of successful extension workers; no extension programs for woman and young generation and no strict agricultural extension policies.

Keeping extension principles, organization structure, extension methods, quality and quantity of extension

workers and economic and social aspects of farmers in view, several changes made in the present structure of extension service. In order to give effective agricultural extension and training service with limited sources and extension personnel 'Extension Workers and Farmers Training Center' and 'Agricultural Extension-Education Committee' were added to the organizational chart and its' operation was revised (Fig. 3).

Agricultural Extension-Education Committee consists of all extension workers, representatives of research institutions, representatives of farmers' associations, directors of extension subdivisions, representative of Agricultural Engineering Chamber and directors of other subdivisions (health, education, environment, forestry, etc.) which are related to rural development. Chairman of the committee is Undersecretary of Department of Agriculture and Forestry. General Committee meets once a year. The main reason of the establishment of Agricultural Extension-Education Committee is to manage extension and training activities through the sustainable agricultural development policies.

Agricultural Extension-Education Regional Committee is formed on county level and consists of county extension workers, representatives of research institutions and representatives of farmers. This committee meets twice a year and discuss the articles in their agendas. Co-chairpersons of these meetings are County Extension Agent of Agriculture Division and Animal Husbandry Division.

County Extension Workers are responsible for application, observation and supervising of extension programs on their district. District Extension Workers are responsible for agricultural extension activities of certain districts. In every district, there must be at least one agent in Agriculture Division and one agent in Animal Husbandry Division.

The leadership and staff of many research and extension organizations do not appreciate the important roles that farmers and farmers' organizations can play, both in disseminating technology and through effective feedback mechanisms, in helping set priorities and improving program relevance^[11]. With the establishment of the 'Extension Workers and Farmers Training Center' in the organizational structure farmers, livestock producers and farmers' organizations can provide effective feedback to extension service and research institutions. This center will provide not only educational programs but also multimedia support materials for extension workers. Extension workers' motivation, enthusiasm, confidence and credibility increase when they are given relevant and attractive multi media support materials which they can use to improve the effectiveness of their extension and training work^[10]. Women as well as men benefit from this center. Women farmers' access to extension services will lead to concrete improvements for rural women themselves, as well as enhance the productivity of agricultural sector and food security through increasing marketed output^[12].

In northern part of Cyprus, the effectiveness of agricultural extension service will clearly be enhanced when Extension Workers and Farmers Training Center establish. This center not only train extension workers and farmers but also responds more directly to the needs of farmers. This center can become a place for showing farmers ways of improving subsistence farming. With this center, as the education level of extension workers rises-also their initiatives for farmers become more numerous. The gender differences in extension program will also decrease. Also, giving responsibilities to Agricultural Extension-Education Committee and farmers' associations to direct the agricultural extension works of northern part of Cyprus will be very valuable. Finally, to reach sustainable development in agriculture through agricultural extension service, institutional linkages at all levels should be strength.

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