Private Extension in Albania: Impact of Albanian Fertilizer and Agri-Business Dealers Association on Farmers Adoption of Technology

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Abstract

The Albanian Fertilizer and Agri-Business Dealers’ Association (AFADA) is regarded as an alternative/complementary approach to costly traditional government extension systems which severely constrain agricultural development in Albania. The International Fertilizer Development Centre’s (IFDC) objective is to develop within AFADA a private sector extension service (PSES) by training active educated agricultural input dealers in extension methodologies. Such training empowers them to transfer to farmers’ new products and technologies.

In setting the objectives of the IFDC/PSES-Albania, an assessment of the perceived training needs of AFADA dealers was carried out in 1998. During the following two years, AFADA members were trained in extension methodologies. This training was combined with technical training to meet the needs identified in the above-mentioned study. On completion of the first IFDC project in Albania, an impact study was undertaken in order to have feedback on the effect of this training on AFADA members.

Eleven areas of Albania were selected representing about 80% of AFADA members’ activities. AFADA dealers in those areas were asked to provide lists of their customer-farmers. Farmers with in the neighborhood who declared themselves as non-AFADA customers provided the second grouping.

A questionnaire was devised and administered to a representative sample (437) of the above population. The findings identified how this training had contributed to the changes in farming practices. The results suggest that IFDC should continue to extend the provision of the training to other associations and to the IFDC and Albanian Agricultural Trade Associations Project (AAATA).

Introduction

During 1993, 432,631 small private farms were established in Albania (World Bank, 1993), and the land cultivated on them totaled 573,533 hectares. According to the Albanian Agricultural Census in 1998, there were 466,659 farms in the country. In 1998, the average farm size was only 1.17 hectares with an average of 3 plots per farm. Seventy percent of farms had less than 1.5 ha of land (Agolli, 2000). Albania is a mountainous country and only about 32% (702,000 hectares) of its area is cultivated, and another 425,000 hectares are in pasture. This fragmentation of the agricultural land is a major barrier for agricultural development.

According to the Ministry of Agriculture (1996), Albania had a total farming population of 2.4 million persons, 54% of whom live in the highlands, 18% in the hilly areas, and 28% on the plains (Figure 1).

The most prominent constraints of the agricultural development process are:
- Small farm size,
- Lack of seeds,
- Lack of capital for buying fertilizers,
- A strong trend (for young men) to migrate to Greece and Italy,
- Poorly developed markets (for inputs as well as for products),

Figure 1. Rural Population Zones.
Very little capacity to process agricultural products,
- Poor functioning of the irrigation system,
- Poor government services, and
- A general failure of cooperation among farmers beyond the level of ad-hoc practical issues.

Agricultural production contributes 54% of the GDP. Regarding the composition of agricultural production, the livestock sector was 50.0% followed by crops at 43.0% and fruit trees at 7.0% (Statistical Yearbook 1999, MoAF). Regarding agricultural inputs, the availability of fertilizers and insecticides was satisfactory, but the lack of advice to farmers and especially the availability of capital were the main obstacles in prohibiting their use. Irrigation facilities in Albania are poor. Prior to the 90’s, it was possible to irrigate 58% of the arable land. In later years, due to social upheavals and after the collapse of the Communist system, only 19% of the original irrigation area was actually irrigated in 1993 (World Bank, 1994). Several projects have supported the re-establishment of the irrigation system and these will gradually improve the situation.

Agricultural marketing during the 90’s, after the change to a free market economy, was a major bottleneck. The trading sector had not yet developed, transport facilities were rare, and physical market places largely absent. Credit systems for farmers were poor with several problems being encountered in borrowing money.

The International Fertilizer Development Center

The International Fertilizer Development Center (IFDC) is a public, international, non-profit organization, which was established in 1974. The Center’s initial purpose was to help developing countries solve their food deficit problems by focusing on the development of fertilizers and fertilizer practices to meet the special needs of tropical landholders, subtropical climates, and soils. However, during this decade, IFDC has evolved into a multifaceted center with a much-broadened focus.

IFDC’s Albania first project lasted from January 1992 to December 1999. The success of this project was based on a clear commitment to supporting the private sector and the innate ability of the Albanian people. While the project initially focused on the fertilizer market, it expanded its activities in many directions based on market and entrepreneurial demand and was modified as needed to achieve privatization of the sectors which it supported. During the first IFDC project, the Albania Fertilizer and Agribusiness Dealers Association (AFADA) was initiated.

IFDC, funded and supported by USAID, has encouraged the growth and improvement of sustainable agriculturally related trade associations, initially through its Agricultural Association Development Center (AADC) and then, beginning in 1999, via the Assistance to Albanian Agricultural Trade Associations Project (AAATA). AAATA continues working with the Private Sector Extension Service (PSES) and the Technology Transfer Centers (TTC’s), which are described later in this paper as supporting the development of Albanian farming.

IFDC has also initiated the following institutions in support of the Albanian Agricultural Private Sector:

Albanian Agribusiness Council Keshilli I Agrobiznesit Shqiptar (KASH) was established in 2000 by 16 agricultural trade associations to unite as a single voice for advocacy. KASH members come together to raise advocacy issues, plan strategies, and resolve issues with governmental authorities (IFDC/AAATA, 2001).

Association and Business Management Center (ABMC) was established by IFDC/AAATA in early 2001. The most progressive and financially healthy trade associations have come together to share costs and provide their members with an enhanced range of quality services that would not be possible as single associations. It provides administrative support to member associations (via annual dues) as well as technical assistance to association member SMEs, through local service providers, on a fee basis (IFDC/AAATA, 2001).

Albanian Fertilizer and Agribusiness Dealers’ Association

AFADA has demonstrated ability to reach agricultural input entrepreneurs in developing agriculture and in the process bettering their personal lives and those of their clientele, the Albanian farmer. AFADA as an association is unique in Eastern Europe; it is acknowledged as one of successful pioneering efforts in the restructuring of an agricultural...
economy after the collapse of communist central planning.

The relationship between AFADA agricultural input dealers and farmers is the basis of mutual benefit to all. AFADA members have a long-term commitment to their customers and know that without farmers they have no business. Conversely, farmers without modern technology, as reflected in quality agricultural inputs, cannot expect to survive over the long term. For the transfer of this technology, they trust AFADA dealers.

Since the beginning of its mission in Albania, IFDC has paid great attention and put much effort into training AFADA dealers. Methods used to achieve this objective included seminars, workshops, study-tours, trade missions, etc. AFADA is taking advantage of IFDC’s scheme of private sector extension training. It is an AFADA objective to meet the needs of its dealers with updated information who in return will support their clientele farmers (Androulidakis, S. et al., 1998).

History of Private Sector Extension Services

After the collapse of the communist regime in 1991, the economy of Albania began to flourish. The expanding production of private farmers created a favourable environment for setting up an agricultural extension system, both in terms of the receptivity of farmers for technological improvements and of the economic rate of return on investments in an extension system.

In many people’s minds, extension and government are linked. Yet, elements of privatisation and diversification in the supply of extension services have been witnessed throughout the world over the past two decades (Carney, 1998).

Albania has moved to a new extension arrangement, which is characterised by a pluralistic service drawing on a variety of different bodies, all with different strengths and objectives. The state from the beginning of the nineties is in a situation of permanent innovations. Although not encouraged by the Government, non-governmental organisations/NGOs are trying to set up private extension schemes and new providers have been established. It is also understood that the public sector should not withdraw from direct provision of extension because farmers themselves cannot contribute to the cost of extension.

Private sector involvement in extension is not, however, limited to taking over the functions formerly performed by public sector institutions. Schwartz (1994) and Umali and Schwartz (1994) listed numerous different forms of extension by private companies. The most simple is when private input supply companies provide information with their products. This they do in the interests of marketing their own products, as is more or less the case with AFADA. Some development projects are also beginning to recognise the potential of working with traders to deliver information, as traders are in regular contact with farmers and have existing networks (Compton, 1997).

Private sector extension may be provided not only by companies wishing to sell to farmers, but also by those wishing to purchase from them. Extension advice may be provided both to increase product quality to the benefit of the purchasers and as a way of promoting contract farming with suppliers. This is the case in Albania with tobacco companies, vegetable and olive oil processing factories, and exporters. The last two were the major power behind the creation of Horticulture Albanian Businessmen’s (HABA) and Albanian Oil (AOA) Associations, which have the characteristic that members are consumers, providers of information and extension services.

Private sector involvement in extension is not a new concept for other countries. Producers of seed and other inputs have long provided information along with their products (Waterman, 2000). In Albania, AFADA dealers have an interest in identifying the most efficient product mixes and then conveying this information to their customers. As farmers’ knowledge advances, market demand and competition are working to improve the process and the yields. Success of the private-sector extension function in Albania is clearly reflected in the dramatic increase in the use of modern inputs and subsequent improvement of production.

Given government budgetary constraints and the technical knowledge of AFADA members, IFDC introduced in late 1996 the concept of a Private Sector Extension Service (PSES) based on agri-input dealers’ technical knowledge, drive, and direct connection with their farmer clientele.

AFADA dealers generally possess a lot of knowledge on technical issues including
knowledge of agriculture. Almost 64% of the dealers had completed university programs and over 83% of these were agronomists (Androulidakis et al, 1998).

The new PSES approach was based on the assumption and principles (Kockelkoren, 2001) that:

- Farmers need appropriate information in the new and changed environment of free markets and private business;
- The public extension service (due to organizational problems and inadequate incentives) is not able to provide farmers with the advice they need;
- AFADA dealers maintain contact with a large number of farmers;
- Dealers are very capable of giving extension advice to farmers because they are well educated and have needs driven by their businesses;
- Dealers benefit from successful, well informed farmer clients.

Technology Transfer Centers: An IFDC Concept

IFDC and AFADA have a vision for transferring technology to Albanian farmers and to the enterprises that support them in both the public and private sectors. The Technology Transfer Centers (TTC) concept is based on a time-tested approach of multi-aspect demonstrations in which AFADA dealers and farmer clients are shareholders.

Farming is a system. In addition to land and farmers, there are many inputs available for effective use in farming. Some of these inputs include machinery, fertilizer, improved seed, green house materials, and crop protection chemicals. Helping farmers make wise decisions about using these inputs was the reason for establishing TTCs located in several ecological regions in Albania.

There are many sources of information and new technologies available to farmers in Albania. Among them are Public extension, AFADA dealers, other input dealers, press, and radio. The concept of having representative field areas available over time for practical demonstrations by private businesses, associations, various donor projects, and public institutions and scientists is another reason to develop TTCs. Many individuals and organizations can make use of TTC facilities on a cost-sharing basis.

Through such activities, it will be shown to farmers that many groups can work together to provide them with better information and improved technology. The program is designed to enhance farmer knowledge. It is also designed to put dealers and farmers together in the field to discuss products and how to use them.

AFADA PSES Impact Study

In providing extension, where there are potential tangible gains, AFADA dealers have become a vital and effective complement to the traditional government extension service. The interest and resulting actions of the dealers in transferring technology as a way of increasing business based on training received in extension methodologies and relevant technologies has been demonstrated an effective and relatively cost-free way of helping farmers.

Transferring modern technology and information about using the technology to the farm requires significant and continuous efforts. Interested farmers seeking improvement in their production and profit, well trained dealers providing practical advice and information, honest business support for continuing service and delivery of new products, and a committed public sector providing impartial information are the key ingredients of a successful system for transforming technology.

The outcome of a survey undertaken in 1998 (Androulidakis et al., 1998) with the main objective of assessing educational needs of AFADA members led to the following recommendations:

- Dealers’ training to include not only technical information but also extension methodologies and communication methods.
- Although many dealers already were involved in delivering information to their clients, they still needed to learn more in order to do their job better.
- That training activities be designed in ways that attracted dealers to participate in them.

Purpose and Objectives

The primary purpose of the study was to identify the impact of AFADA/PSES activities. Specific objectives of this study were:

1. To compare the information sources of two different groups of farmers.
2. To determine if the use of different information sources was associated with improved practices on farms.
Population, sample, and data collection

The target population for this study was the farmers of 11 Albanian districts (Figure 2) where most of the dealers trained in the extension methodologies were from. These dealers were asked to provide the researchers with a list of their regular customers. Using a random sampling procedure, a sample of 200 farmers representing about 50% of the total members listed were selected. This sample was matched at the time of administering the questionnaire by trained interviewers, selecting from the neighborhood a number of farmers who declared before their selection that they were not AFADA dealers’ customers. A total of 437 valid questionnaires resulted from this process.

Instrumentation

The questionnaire for this study was developed using related literature and previous research and was approved by a panel of experts. The questionnaire was divided into two main parts. Part I asked respondents to provide background information on their households and on their farm. Part II consisted of statements reflecting satisfaction gained from the use of information provided by agricultural information providers.

The questionnaire was pilot tested for content validity using AFADA and non-AFADA clients (who were not sample members). The revised questionnaire was administered with the use of public sector specialists who were trained by the research team to administer the questionnaire. The interviews took place during the first months of 2001.

Data analysis

The information was entered into an SPSS database and analysed using appropriate programs from SPSS (Statistical Package for the Social Sciences). Frequencies and percentages were used to report results regarding personal and farm characteristics of respondents. Chi squared analysis was employed to identify significant associations or differences among relevant groups.

Findings

The interviews resulted in 196 completed questionnaires from AFADA clients and 241 from non-AFADA clients (45 and 55% respectively).

Family and farm characteristics

As is the case for most Albanian families, the sample is characterised as having a large number of family members (mean=5, min=2, max=14). The average number of young people below 14 years of age in each family was 1.7 (min=1, max=5).

Ninety-nine percent of farmer respondents had between 0.1 and 4.0 hectares of land (mean=1.5 ha.). The cultivated land of the sample was generally in more than one piece, as is the case in all Albania. Approximately 87% had less than 6 pieces, with only 7% having all their land in one piece.

The average distance from the city to the parcel of land with most activities was 13.6 Km. This city is usually where they purchase their inputs and search for information.
Sales of the production

It was found that the production of the farmers included in the sample was very promising with 50% reporting increased production. In contrast, only 23% reported increased value of their production. Further analysis of the data showed that there was a significant association ($x^2=262.23$, df=4, $p=0.000$) with the tendency of farmers having increased production to have also increased the value of their output, thus suggesting an improvement in quality. It is also encouraging to note that those who increased sales (quantity and value) reported that they were satisfied with the advice provided to them.

Decision taking and seeking of information

The decision-making responsibility was generally concentrated in the father of each family (94.5%). The father was also the person who sought information on farming matters (98.5%). The majority of the major-decision making persons possessed 8 to 12 years of schooling (figure 3).

Seventy-four percent of those taking the decisions/information for farming activities were full-time farmers, whereas 25% were part timers. The age of those receiving information (the fathers) was less than 40 years for 18.2% of respondents, 41 to 55 for 56.6% and 25.2% were more than 55 years old. An effort was made to identify the main information sources respondents used on seeds, fertilisers, and Crop Production Chemicals (CPCs). It is not surprising to note that the farmers identified as AFADA clients, were obtaining the information mainly from AFADA dealers. It was, however, surprising to note that a high percentage who were not identified as AFADA customers, also used AFADA dealers as a source of information. Further investigation is needed to identify the reasons why these people were not AFADA customers and how they obtained the information.

Figure 3. Education level of the major decision making persons.
Table 1

*Distribution of respondents regarding the information sources (AFADA/Non AFADA) they use on selected inputs*

<table>
<thead>
<tr>
<th>Information Source</th>
<th>AFADA clients</th>
<th>Non AFADA clients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Seeds</td>
<td></td>
</tr>
<tr>
<td>AFADA dealers</td>
<td>75.3%</td>
<td>40.4%</td>
</tr>
<tr>
<td>Others</td>
<td>24.7%</td>
<td>59.6%</td>
</tr>
<tr>
<td>Fertilisers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFADA dealers</td>
<td>92.3%</td>
<td>48.3%</td>
</tr>
<tr>
<td>Others</td>
<td>7.7%</td>
<td>51.7%</td>
</tr>
<tr>
<td>CPCs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFADA dealers</td>
<td>83.5%</td>
<td>42.1%</td>
</tr>
<tr>
<td>Others</td>
<td>16.5%</td>
<td>57.9%</td>
</tr>
</tbody>
</table>

Table 2 containing data for all information providers shows greater details on the matter of information sources. Each question was relevant to every sample member because farmers may get information from more than one source.

Table 2

*Distribution of respondents regarding the information sources used in gaining advice on selected inputs (%)*

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Sources of information</th>
<th>AFADA</th>
<th>Public Extension</th>
<th>Press</th>
<th>Other input dealers</th>
<th>Other Farmers</th>
<th>TV</th>
<th>Radio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seeds</td>
<td></td>
<td>56</td>
<td>39</td>
<td>40</td>
<td>16</td>
<td>11</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Fertilisers</td>
<td></td>
<td>68</td>
<td>36</td>
<td>31</td>
<td>19</td>
<td>5</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>CPCs</td>
<td></td>
<td>61</td>
<td>32</td>
<td>24</td>
<td>25</td>
<td>5</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

Satisfaction with the advice provided

One question asked was if the advice provided had affected the increase of their farm production. A high percentage (88.9%) of the whole sample perceived that their farm production had increased, either by a small or large amount, because of information they had received mainly from AFADA dealers, public extension, or from the press. In examining separately the answers of the AFADA clients, it was found that 89.7% of them responded that the advice provided to them had resulted in an increase in their farm production.

Use of inappropriate seeds and saplings

Albania, similarly with other Eastern European Countries, faces a lack of quality seed varieties as well as a lack of quality saplings. This, together with inadequate information, has resulted in many farmers continuing to use their own seeds or saplings from their old stocks from one year to the next. The researchers conclude that the use of such old varieties may be used as a criterion for observing the influence of information providers on farmers. The null hypothesis is that there is no significant difference between farmers receiving and not receiving information from AFADA dealers in their use of such reproductive material. With the use of Chi-square analysis, it was found that there was a significant difference between the two groups regarding the use of seeds and saplings ($x^2=55.12$, df=2, $p=0.000$). There is a strong tendency for farmers not receiving information from AFADA dealers to rely on the use of seeds/saplings from their own production. In contrast, AFADA clients were more likely to purchase the newer improved varieties.
Farmers’ tendencies in regard crop production and inputs

Similar hypotheses were tested with regard to other crop production practices and outcomes carried out on respondents’ farms over the previous three years and whether or not they used AFADA or the public extension system as a source of information. As shown in the table 3, the farmers receiving information from the AFADA dealers replied statistically differently (p=0.05) from those using the public extension service. AFADA clients were far more likely to have increased their use of information on seed varieties, fertilizers, and CPCs, to have increased their use of market information, and as a result to use increased inputs when compared with those relying on the public extension system.

Table 3

*The relationship between use of improved practices and respondents’ use of AFADA or the public extension service as a source of information*

<table>
<thead>
<tr>
<th>Informed by AFADA (YES vs. NO)</th>
<th>Informed by Public Extension (YES vs. NO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tendency of crop production in the last three years (Increased, Same level, decreased)</td>
<td></td>
</tr>
<tr>
<td>Information on seed varieties</td>
<td>$X^2=26.465$, df-2, $p=0.000^*$</td>
</tr>
<tr>
<td>Information on fertilisers</td>
<td>$X^2=42.804$, df-2, $p=0.000^*$</td>
</tr>
<tr>
<td>Information on CPCs</td>
<td>$X^2=15.982$, df-2, $p=0.000^*$</td>
</tr>
<tr>
<td>Information on marketing issues</td>
<td>$X^2=7.250$, df-2, $p=0.027^*$</td>
</tr>
<tr>
<td>Tendency of using inputs in the last three years (Increased, Same level, decreased)</td>
<td></td>
</tr>
<tr>
<td>Fertilisers</td>
<td>$X^2=49.291$, df-2, $p=0.000^*$</td>
</tr>
<tr>
<td>CPCs</td>
<td>$X^2=9.194$, df-2, $p=0.01^*$</td>
</tr>
</tbody>
</table>

**Conclusions and Recommendations**

The objective of this research was to study the impact of the PSES, as it is undertaken by IFDC/Albania, on the Albanian farmers who are clients of AFADA dealers. As previously presented, several criteria were used in order to answer the question whether or not the training provided to the AFADA dealers on extension methodology had positive results. The results of the study showed, without saying, that all positive findings are due only to the extension training, that such efforts were fruitful.

The findings together with the necessary recommendations can be outlined as follows:

The decision-making process is left to the father of each farm family. This together with the finding that the same person is also the one receiving the information on farming reinforces the belief that dealers can provide extension information to farmers. The training of these information providers is promising for continued success in expanding output and quality of farm production.

The fact that a high percentage of the studied population are full-time farmers underlines the importance of further training in order to enable them to compete in a free market. This is also more than necessary because the size of the scattered pieces that are farmed requires correct practices.

The fact that farms are fragmented and scattered reinforces the approach of using dealers to provide extension information to farmers.

The prices of agricultural production cannot increase continuously. Increased quantity is mainly due to AFADA dealers’ efforts who not only sell quality inputs but, as the study shows, also do provide information on farming practices. There is much to be done in an effort not only to increase the quantity but to compete for better prices. AFADA dealers who want to keep their clients should get updated technical information which can be transferred to their clients using the most appropriate extension methods. This is a challenge for AFADA members.

Although there is a pluralistic information-providing system in Albania (many informers share the responsibility of providing information to the farmers), this study showed that the AFADA dealers played an important role in informing the farmers. This is another reason for recommending the continuation of the PSES.
Finally, the findings of this research are useful and helpful in recommending for planning and organizing future training programs not only for the AFADA members, but also for the other associations IFDC/AAATA is supporting (HABA, AOA, ANSPA, AVALB) to transfer appropriate information to farmers. Thus, in order to plan and deliver adequately effective programs for their members interested in technology transfer in agriculture, it is necessary to determine the educational needs for such programs as it was practiced with AFADA.

The above are reflected in the goals set in the PSES work plan 2001:

Support of all association members for a better performance of their personal businesses and activities, for all targeted sub sectors.

Support the self-sustainability and viability of associations by providing qualitative services and by enlargement and diversification of the range of the services, based on fee and dues charged services provided by PSES.

Bibliography


