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## Lessons Learnt from KOYMER Agricultural Extension Project in Turkey

Türkiye’de KÖYMER Tarımsal Yayım Projesinden Çıkarılan Dersler

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### ABSTRACT

**T**he reducing role of public in economy had encouraged the private alternatives in technology transfer, and also cost-sharing structures in agricultural extension services. The structural changes vary according to the country conditions. In this study, KOYMER Project, which was aimed at decentralization, cost sharing and creating a pluralistic structure in Turkish agricultural extension system, had been examined by interviewing with 566 consultants (advisors) in Turkey. Some information on personal characteristics, activities and problems have been gathered through the questionnaires. The project had positive effects on extension workers–farmers ratios, behavioral changes in technical and socio-cultural issues in rural areas. But, the planned financial contributions of farmers and sustainability of the model predicted had not provided in the project.

### ÖZET

**K**amunun ekonomideki rolünün azalması, teknoloji transferinde özel alternatifler ve tarımsal yayım hizmetlerinde maliyet paylaşımını teşvik etmiştir. Yapısal değişiklikler ülkelerin koşullarına göre farklılık göstermektedir. Bu çalışmada, Türk tarımsal yayım sisteminde yerelleşme, maliyet paylaşımı ve çoğulcu yapıyı oluşturmayı amaçlayan KÖYMER Projesi, Türkiye’de 566 danışman ile görüşülerek incelenmiştir. Kişisel özellikler, faaliyetler ve sorunlarla ilgili bazı bilgiler anket yoluyla derlenmiştir. Projenin kırsal alanda, yayımcı-çiftçi oranına, bazı teknik ve sosyokültürel konularda davranış değişikliğine pozitif etkileri olmuştur. Ancak, projede, çiftçilerin planlanan finansal katkıları ve öngörülen modelin sürdürülebilirliği sağlanamamıştır.

### INTRODUCTION

Public extension services are accused of having the large numbers of staff, being routine, cumbersome, and insufficient on their activities (Rivera, 2001, Celik Ates and Gokce Cakal, 2014). Beside these criticisms, liberalization tendencies and decreasing farmer population have encouraged the transformation process of public organizations to the private or semi-private structures in extension in the world. It is clear that structural changes depend on the countries conditions. Although, the privatization tendencies the issues as small farmers and social benefits still need

the public contributions and activities on extension in developing countries.

The models such as cost sharing, direct or indirect payments of farmers to the services are the mechanisms for reducing public expenditures and creating the privatization atmosphere in extension (Anderson and Feder, 2003; Swanson and Rajalahti, 2010). The cost sharing models in the world are given below:

- contracting between private consultants and government for providing extension services for a certain period as in Chile, Mexico and Colombia,

- contracts between farmers and consultants (the fee is calculated according to the profit and production increase or extension subsidies given by government for the small farmers as in Ecuador),
- contracts between farmer groups and consultants, as in Argentina and China
- direct payments (funding through farmer taxes and membership fees to the farmers organizations) as in France,
- fee based payment for the services as in England and Denmark
- assessing task wage for the project-based activities in Australia

Agriculture takes a considerable part in Turkish economy with a 3.5% share in GNP, 21.2% share in employment, and 3.40% share in the export value (TUIK, 2014). Historical roots of agricultural services in Turkey go back to middle 1800s (Anonymous, 1938). Public extension activities are dominated and conducted by Ministry of Agriculture and Rural Affairs (MARA) in Turkey. The financial participations of farmers for extension are only limited with the leader farmer projects, and some individual attempts of cash crops producers in developed regions in Turkey.

The radical transformation on financial support of farmers in agricultural extension was planned through "Village-Centered Agricultural Production Support Project" (KOYMER) in 2004. The project objectives were defined as technologic development and income increasing in rural areas by purchasing consulting services from agricultural engineers and veterinarians by General Directorate of Organization and Support at body of MARA. The advisors/consultants had to live in the villages where they were responsible for extension activities. A consultant was given at least one village in each county, in case of the locally funded the numbers of consultant and covered villages had been increased in KOYMER Project.

The first year salaries of advisors were completely paid by government but, following two years farmers contributions were planned as 5% in second and 10% in third years of the project to the additional government payments. Furthermore, the NGOs and some local organizations were the donors. Beside, extension activities, consultants were able to supply agricultural inputs and services as a fee based on the farmer demands, too.

Through the project the pluralistic and private extension system had been intended by MARA in Turkey. Consultancy services were purchased from agricultural engineers and veterinarians according to

the Public Procurement Law number of 4734 Article 22/d. Total cost of the project to the public (salaries, social security premiums, taxes, transportation, communication and education expenditures) was calculated as about 36 million US dollars in prices of 2004. At the end of KOYMER project, a new project which is titled as "Development of Agricultural Extension Project (TAR-GEL)" has been implemented on 1th of January 2007. TARGEL Project was built on the experience of KOYMER Project which was examined in this study. Within the context of TARGEL "2500 working areas" have been determined and by including KOYMER staff, 2500 extension workers have been employed as the contracted based in public extension organizations in Turkey (TEDGEM, 2009; ZMO, 2005).

The personal characteristics, activities, and the effects of the consultants have been examined in the research. Lessons learnt on functions, objectives and problems of the consultants in the project must be considered for creating new and pluralistic extension structures in Turkey and other countries.

## **MATERIAL and METHOD**

The main materials were collected from consultants (advisors) via survey in between 2006-2007. All consultants around the country were planned to include in the study. During the KOYMER Project, totally 1023 consultants were employed in Turkey. The questionnaire was posted to the consultants' addresses and/or the province extension organizations. Furthermore, up to 100 questionnaires were filled through mutually interviews. The collected data from 566 advisors (55.3% of all advisors in the project) in 72 provinces had been analyzed and interpreted by using some statistical tests such as percentages, Likert scale, Chi square, Mann Whitney. The analyses were done according to the age, faculty graduates and gender groups in the study.

## **RESEARCH FINDINGS**

### **Personnel characteristics**

The age of the consultants is changing between 23 and 38, and the mean is 29.3. While, female consultants ratio in the world is up to 13% (FAO, 1989), in the research it found as 28.4 among the project staff. The ratio of consultants with farming experience is 70.1%. The graduated faculties had been found as agricultural (83.9%), veterinary medicine (15.5%) and other (0.6%). Consultants were graduated from the faculties averagely 5.6 years ago.

As a result of the project philosophy, 95% consultants dwell in the villages. Although, during the appointments, recognizing of the villages by consultants was accepted as a rule in the project but, only 13.6% of them said to know the area served beforehand.

### Served village and farmer numbers

There are about 800.000 extensionists in the world and 80% of them are working at the public organizations. One extension worker averagely serves about 2000 farmers in the world but, the figures are changing according to the countries. Extension workers are able to reach only 10% of their potential consumers/farmers in the world (Feder, et al, 1999, Swanson et al, 1989). In case of the transportation facilities sufficiently developed one extension worker can able to serve maximum 200 farmers in a year (Anderson and Feder, 2003). According to these figures an extension worker can normally visit same farmer merely once in every 10 years in the world.

The research findings showed that 21.8% of the consultants serve more than one village. The lackness of transportation facilities was mentioned as the most important problem. According to age and faculty graduate groups the numbers of village served vary in the project. The elder, and agricultural faculty graduated consultants serve more villages (Table 1). The number of farmer served is one of the criteria for evaluating the extension systems. The figures have considerable variation as a range 20 to 10000 and in an average one advisor serves approximately 620 farmers in project area. Because of poly-culture farming structure of Turkey, the consultants are responsible for 6.3 different crops in their regions. Almost all consultants work at weekends, too.

### The objectives in extension

The primary objectives in extension were determined as yield/production increase, introduction/diffusion of alternative crops, quality improvement, organizational problems of the farmers, cost reduction, environmental protection, and marketing (Table 2).

**Table 1.** The numbers of village served by consultants, chi square test

Number of villages	29 and younger		30 and elders		Chi square value	Degrees of freedom	P value
	Number	Percent	Number	Percent			
One	247	81.0	181	75.1	2.747*	1	.097
More than one	58	19.0	60	24.9			
Number of villages	Agric. faculty graduates		Veterinary graduates		Chi square value	Degrees of freedom	P value
	Number	Percent	Number	Percent			
One	375	81.3	53	61.6	16.553***	1	.000
More than one	86	18.7	33	38.4			

Significant differences at \*\*\*  $\alpha < 0.01$  \*  $\alpha < 0.1$  significant

**Table 2.** The objectives in extension activities

Objectives	Number	Percent
Yield / Production increase	370	65.7
Introduction/diffusion of alternative crops	51	9.1
Quality improvement	49	8.7
Organizational problems of farmers	34	6.0
Cost reduction	31	5.5
Environmental protection	15	2.7
Marketing	12	2.1
Other	1	0.2
Total	563	100.0

The priorities are significantly different according to the gender groups. While females focus on quality improvement, the priority of male consultants is related with yield/production increase (Table 3).

**Table 3.** The priorities of objectives in extension, Chi Square Test

Objectives	Male		Female		Chi Square Value	Degree of Freedom	P Value
	Number	Percent	Number	Percent			
Yield / production	275	68.2	95	59.4	27.872***	7	.000
Alternative crops	40	9.9	11	6.9			
Quality improvement	20	5.0	29	18.1			
Farmers organization	28	6.5	8	5.0			
Cost reduction	24	6.0	7	4.4			
Environment	10	2.5	5	3.1			
Marketing	7	1.7	5	3.1			
Other	1	0.2	0	0.0			

Significant differences at \*\*\*  $\alpha < 0.01$

**The thoughts of the consultants about project**

Income levels, job guarantee, working and living conditions are mentioned as the important factors on professional and individual motivation of the staff in an organization (Marcotte, 1988). The satisfaction levels also affect on performance of institutions as well individual. The consultants mostly attach importance the professional satisfaction rather than economical in the project. The consultants have considerable doubts about the project future. Only 3.6% of the consultants

think that the project as beneficial, about half of the consultants do not believe usefulness of the project at country level. A quarter of the consultants interviewed do not expect the sustainability of the project because of uncertainty on personal rights. The consultants who plan to continue the consultancy are changing according to the faculty graduates. Especially, the veterinarian graduates are more willing to carrying on consultancy beside dealership, input suppliers and private veterinarian services (Table 4).

**Table 4.** Sustaining to consultancy according to the faculty graduates, Mann Whitney Test

Characteristic	Groups	Number	Mean rank	Sum of rank	Mann Whitney U	Z	Asymp. Sig. (2-tailed)
Sustaining consultancy beside dealership, input suppliers	Agr. Engineer	471	262.2	123490.0	12334.5***	6.251	.000
	Veterinarian	88	375.3	33029.5			

Significant differences at \*\*\*  $\alpha < 0.01$

**The main problems in project**

In this section the problems faced by consultants are summarized in two parts. First part contains the general extension problems in Turkey. Second part is related to the project application for guiding the transformation efforts on extension systems in Turkey and in developing countries. The problems in extension organizations have been stated as

technological problems, communication problems, insufficient regular in-service training, transportation, insufficient equipments and aids in extension activities (Sigman and Swanson, 1993). According to the consultants personal rights, impairment charges, the powers and responsibilities of non-compliance are the major problems during extension works and motivation (Table 5).

**Table 5.** Problems and their impact levels on extension works and consultants' motivation

Problems	Effect Level					Mean
	None		Very			
	1	2	3	4	5	
Personal rights	8.1	3.9	9.2	20.4	58.4	4.2
Impairment charges	9.4	4.2	17.7	21.0	47.6	3.9
Power responsibility	11.8	4.4	11.6	23.1	49.1	3.9
The absence of extension aids	18.8	8.2	19.1	19.3	34.6	3.4
Insufficient transportation facilities	24.9	10.6	17.8	19.3	27.5	3.1
Deficiency of office equipment	25.2	9.3	23.7	20.0	21.8	3.0
Insufficient regular in-service training	25.1	12.1	25.3	19.0	18.6	2.9
Housing problems	43.7	9.0	13.5	13.9	19.8	2.6

## CONCLUSIONS

The beneficiary farmers of KOYMER Project in between 2004-2007 were not willing to participate in financing of extension activities in Turkey. By considering this experience the Ministry has decided to employ all KOYMER extension staff in the Ministry body via TARGEL project. The employment sustainability of the staff and improving the extension services for rural people have been realized by this way.

The basic issue of the project is financial sustainability. Although, the intended financial participation of farmers is 10% of total project budget at the third year, the participation has not reached at this level in most of the project areas. Furthermore, the consultants in less developed and with a small population regions were not reached the stable incomes. According to the regions consultants had considerably different salaries although the same status and work definitions. The situation caused to resignations of some consultants. The other problem is the administrative indefiniteness. The directors of local extension organizations, heads of the villages (muhtar), the donors, and the bank directors all were act as the boss of the consultants. This multi-headed structure caused to conflicts, low motivation and confusions in extension activities. The undefined work plans and weak linkages with public extension services are also caused to some discussions between consultants and public extension workers. The consultants were seen as a rival not as a complimentary actor in the development efforts by some public extension staff.

As a rule, the consultants had to be lived in the villages without appointment in the project duration. Although the rule was useful for consultants to learn about farmers, village life, social structure and farming systems but, in long term it decreased the motivation of consultants. Instead of compulsory dwelling in the villages, it could be better to dwell in county by precondition of obtaining the transportation facilities for reaching the villages.

Although the financial participation of farmers and creating a pluralistic structure were objected at the project but, the expectations were not sufficiently acquired. It is hoped that, experiences gained will guide the future applications in Turkey and developing countries. Lessons learned can be summarized as below;

- ❖ In additional to gaining experiences and recognition of rural life, to dwell in the village

cause to low motivation in long term because of social-cultural opportunities in the villages.

- ❖ The lacks of housing and office facilities in the villages caused the low satisfactions levels on daily life of the consultants and their families.
- ❖ Most of the farmers are not willing to directly pay for extension services.
- ❖ Farmers should be sufficiently informed about all aspects of such radical transformation projects.
- ❖ Although the great support of public extensionists to the consultants there are some conflicts between them. The consultants are seen as a rival by the public extension workers.
- ❖ Poly-culture farming system requires multi disciplinary team work instead of individual expertise in extension. The single disciplinary of the consultants do not sufficiently answer in multi-cultural farming systems as in Turkey.
- ❖ The donors act as the boss of the consultants. The multi-headed management creates disorders in the activities. The management boards in each province can be formed for arranging the activities and information flows. Thus the consultants can be responsible for merely one actor and agreed workloads.
- ❖ Lack of sustainable funding is the important bottleneck in the project. Mobilization of funds from different sources such as donors, NGOs, ministry. There must be the comprehensive work plans. The plans must also show the operational resources, coordination and collaboration among the actors, defining the actions and responsibilities.
- ❖ Lack of motivation is another problem in the project. Performance based bonuses can encourage and motivate the consultants.
- ❖ Lack of support services is important issue in the project. The consultants are working and living in the villages and some of them in isolated areas. Today's complex structure of agriculture needs close cooperation among the actors. The isolation can be removed by utilizing the information and communication technologies in rural areas.

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