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Communication for Development as a Strategy to Enhance Agricultural Extension Performance In Turkey

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Abstract

Turkey dating back to the 1930s, has experimented with varying agricultural extension models combined with huge financial investments, to transform her nearly four million smallholder farmers but with limited results. This study of 98 extension professionals in the East Mediterranean Region of Turkey found that many extension workers are primarily trained in the agricultural sciences. Their roles as facilitators of integrated rural development also require training in development and communication, otherwise known as "Communication for Development" (C4D) as it would strengthen their performance. The World Bank, in its 2007 report, World Congress on Communication for Development: Lessons, Challenges, and the Way Forward, strongly recommends C4D as a strategy for addressing human dimension concerns, such as local participation, interagency collaboration and capacity building, which are the main issues facing extension in this newly industrializing nation. Therefore, communication for development (C4D) is recommended as a strategy for improving extension performance in Turkey and offers a model for mainstreaming it in extension programming.

Keywords

Agricultural extension in Turkey, Communication for extension Development.

Introduction

Agricultural extension in Turkey started in 1931 when the Agriculture Congress was held to teach farmers modern agricultural production techniques. A little over a decade later, the establishment of agricultural extension services in provinces, such as Ankara, Eskişehir and Manisa began and by 1958 had been established in 51 provinces. Today, extension services exist in 81 provinces, 803 districts and thousands of villages (2011). Agricultural extension in Turkey is provided largely by the public sector through the Ministry of Agriculture and Rural Affairs (MARA). There are Provincial Directorates of Agriculture (PDA) at the provincial levels and County Directorates of Agriculture (CDA) at the county level.

Many agricultural extension experiments have been carried out in Turkey. For example, the training and visit system, which the World Bank promoted throughout the developing world, is said to have been empirically tested in Turkey (Benor, Harrison & Baxter, 1984; Ameer, 1994). Extension in Turkey has also received huge international financial investments; such as World Bank and International Agricultural Development Fund support in the 1980s, a Five-Year Development Plan (1990-1994), and several others thereafter. However, the impact of extension on the estimated four million smallholder farming population in Turkey is very minimal (Orhan, A 2011).

Deficiencies in agricultural research, training and information delivery are commonly cited. Over the years, MARA has taken strong measures to improve extension effectiveness,

such as enhancing quality and efficiency of agricultural production; focusing on training farmers and technical personnel; restructuring MARA itself; and improving human resources, including local participation. However, none seems to be working. Even the reorganization of extension in the 1990s couldn't bring any satisfactory progress, resulting in general dissatisfaction with extension performance at all levels. The main extension problems in Turkey are similar to what prevails elsewhere in the developing world; namely, a) an inability to involve the majority of smallholder farmers in decision-making; b) lack of coordination among development partners; and c) a weakness in facilitating integrated rural development (Klaver & Kamphuis, 2006). The World Bank (2007), in a report *World Congress on Communication for Development: Lessons, Challenges, and the Way Forward* described these as communication concerns and concluded that, "communication is integral to development and to achieving the Millennium Development Goals. For this reason, it must be built into development planning and embedded in strategies for poverty reduction, health planning and governance". Thus, the Development Communication Unit of the Bank, the Food and Agriculture Organization of the United Nations (FAO) and many other UN specialized agencies, now advocate the "communication for development" (C4D) strategy for addressing human dimension concerns, such as participation, integration and capacity building in extension programmes.

Purpose of the Study

The main purpose of the study was to examine how communication can be an effective instrument for enhancing extension effectiveness in Turkey. The specific objectives were to:

1. examine extension workers' characteristics, in terms of their qualification, length of service, and job satisfaction;
2. investigate access and use of information and communication technologies (ICTs) in extension; and
3. assess the need for extension training in development and communication, otherwise known as "Communication for Development" (C4D) in Turkey.

Methodology

The survey was conducted in the East Mediterranean Region of Turkey, covering four provinces: Adana, Hatay, Osmaniye and Kahramanmaraş. The sampling frame, that is, the number of extension employees in the region, was 186 agricultural engineers (refers to crop and animal husbandry workers), 43 veterinary surgeons and one sociologist. The study was conducted in August/September, at a time when many extension workers were on holiday. Therefore, only agricultural engineers and veterinarians who were available were interviewed. Data collection was done using a questionnaire developed in English and translated into Turkish. Provincial directors assisted in distributing and collecting completed surveys. Overall, 98 agricultural engineers and veterinarians completed the study. The 98 respondents who participated in the survey were drawn from four provinces: Osmaniye, 38 (38.8%); Hatay, 6 (6.1%); Adana, 38 (38.8%), and Kahramanmaraş, 16 (16.35%). Due to the small sample size the study is not generalizable to extension workers throughout the country and this is a limitation. In spite of its limitations, the study presented significant findings. Extension workers were asked to indicate their levels of job satisfaction related to two categories of variables: a) individual variables; and b) organizational variables, using a Likert-type scale of 1 – 6. The six-point scale, 1 = Very Dissatisfied, 2 = Moderately Dissatisfied, 3 = Slightly Dissatisfied, 4 = Slightly Satisfied, 5 = Moderately Satisfied, and 6 = Very

Satisfied. Individual job satisfaction variables were those the individual can control, such as marriage and level of education; whereas organizational variables were those controlled by the organization, such as, salaries and working conditions. Data was analyzed using SPSS and inferential statistics were used to summarize data generated by the structured questionnaire. Chi-squared values and associated probability values (P-values) were used to ascertain the statistical significance of relationships. A Pearson Correlation Coefficient (r) was used to determine the relationship among job satisfaction variables, according to Davis (1971) convention.

Results and Discussion

Findings of the study are presented and discussed following the study objective.

Extension workers' characteristics

About 58 % of the respondents had a bachelor's degree, 28.6% had a Master's degree.(Table 1) Sixty-two percent of the respondents (62.2%) were agricultural engineers (or agronomists); and 16.3% were veterinary science (or animal husbandry) specialists.

Table 1: Level of Education of Extension Workers in Turkey

Level of education achieved	% (n=98)
Doctorate degree	1,1
Post graduate/Master's degree	28.6
Bachelor's degree	58.2
Diploma	1.1
Certificate	1.1

Only one respondent mentioned agricultural extension as an area of specialization. None was trained in development or communication, which is typical of extension workers in many countries. Their backgrounds suggest a need for C4D training. Turkey has very highly trained extension workers—bachelor's degree level or higher. However, their training in agricultural sciences is only good when extension is viewed as agricultural education—that is, teaching farmers how to raise crops and livestock. However, when the issue turns to one of facilitating integrated rural development that requires social science education, particularly, training in development and communication, otherwise known as “Communication for Development” (C4D), they are found wanting (Inagaki, 2007; World Bank, 2007; Agung, 2012).

Many extension workers were relatively new university graduates. Fifty-six had graduated four years ago or less; 22.4% 5 – 6 years ago; and only 9.2% 8 or more years ago. Many of the extension workers had also not been in the service for a long time. Fifty-one percent (51.0%) were employed in extension a year or less; 20.4% were employed 2 – 3 years; and 27.6% have been in extension four or more years. Overall, 72.2% have been in the extension service for three years or less.

With respect to age, 55.1% were 30 years or younger and 43.9% were 31– 40 years old, suggesting that the extension population in Turkey was made up of young professionals. On marital status, 56.1% were married and the rest, 42.9% were single. Only one person was divorced. Fifty-three percent had no children and 39.8% mentioned having 1 – 2 children; and 4.2% having 3 – 5 children. This revealed that Turkey, a Muslim country, had small family sizes, a characteristic of a NIC or industrialized nation.

Marital status (the independent variable) did influence extension workers' levels of job satisfaction (dependent variable).

The mean scores for "Enthusiasm towards my work" for married extension workers was M=4.22 compared to M=4.40 for extension workers who were single or not married. Similarly, married extension workers were slightly less satisfied with their salaries (M=3.40) than those who were unmarried (M=3.76).

The character of the respondents in terms of job satisfaction is presented in Table 3. Section A shows "Individual Job Satisfaction Variables" and B shows Organizational Job Satisfaction Variables (table 4). Individual job satisfaction variables were those caused by the individual; whereas organizational variables were those controlled by the organization, such as type of training provided to extension workers, salary decisions, and opportunities for further training for extension workers.

Table 2: Extension Workers' Job Satisfaction Variables

A: Individual Job Satisfaction Variables	Satisfied %	Dissatisfied %
My enthusiasm toward my work.	71.4	27.8
My salary and other incentives related to the job.	53.1	46.4
The flexibility I have with my time as an extension worker.	63.1	35.4
My achievement as an extension officer.	64.3	31.5
My ability to meet the needs of the local people.	65.3	33.7
My level of education.	62.2	32.6
The demand small farmers put on me.	56.1	40.8
B: Organizational Job Satisfaction Variables		
Decentralization of extension services to the districts.	40.8	56.1
The opportunity to work in an area am trained in.	40.5	58.3
My training in communication.	29.6	69.8
The cooperation I get from the Non-governmental organizations.	40.8	52.1
The cooperation within MARA departments.	45.9	48.9
The resources I have to work with as an extension officer.	41.9	64.4
Opportunities I have for higher education.	42.8	49.0
Opportunities to attend conferences and workshops.	41.9	53.0

With respect to individual variables (Table 2a) 71.4% of extension workers were satisfied with their work compared to 27.8% who were dissatisfied about their work. Also 64.3% of respondents were satisfied with their achievements as extension agents and 31.5% were not as satisfied, implying that they could do more. Still 56.1% saw demands smallholder farmers placed on them as a measure of satisfaction.

Not many respondents were satisfied with the organizational job satisfaction variables (Table 2b). For example, the vast majority of respondents (69.8%) were dissatisfied with their training, with only 29.6% saying they were satisfied. Similarly, 54.4% of respondents were dissatisfied with the resources they had to work with and 41.9% were satisfied with the resources they had to work with. Also, 40 (40.8%) of respondents were satisfied with the process of decentralizing extension decision-making to the districts whereas 52 (56.1%) were dissatisfied with the process of decentralization.

Access and Use of Information and Communication Technologies in Turkey's Extension

This objective examined extension workers' access to Information and Communication Technologies (ICTs) and their use in extension work. Virtually all extension workers (96%) owned cell phones; 63% had access to computers; and 51% owned laptop computers. In addition, 91% reportedly had access to websites; 70% used Face book; however, only 3 (3%) used Twitter. (Table 3)

Table 3: Extension Workers' Ownership of Information and Communication Technologies

Equipment	%
Mobile phone	95.9
Computers	63.3
Laptop	51.0
Use social networking web sites	90.8
a. Facebook	70.4
b. Twitter	3.1
c. LinkedIn	2.0
d. Orkut	1.0

Extension workers indicated how much time they spent daily on the computer. Fifty-five (55%) of the respondents spent 1 to 5 hours daily on the computer whereas 13% respondents spent 5 hours or more. Twenty-one percent (21%) spent less than an hour a day on the computer while 9% did not spend any time on computers. While extension workers in study were highly skilled in the use of ICTs and in fact, had ready access to these technological innovations, they were not using them for agricultural communication purposes. For example, they were not using the Internet or cell phones to deliver information to farmers but only as social media, that is, for personal communication with friends and relatives. It would appear from the study that the extension workers purchased their own cell phones and computers. Therefore, it is quite understandable why they will not use them for extension education purposes with farmers. However, as the cost of these technologies drop by the day, it is possible that these become tools for extension workers to interact with farmers on a daily basis.

Need for Communication and Development Training

Extension workers' need for development and communication training was assessed in two ways. First, they were divided into two groups: those who received short-term training in communication, such as through workshops and conferences; and those who did not. Thirty respondents (30.6%) reported receiving short-term training in communication and 45 (49.5%) did not. A means analysis for participation in communication workshops and selected job satisfaction items showed that in general, those who participated in communication workshops had higher mean scores across items than those who did not. For example, they had higher levels of enthusiasm toward their work (n=29, M=4.52, SD=1.38) compared to those who did not (n=45, M=4.16, SD=1.59). They also had higher mean scores on "My ability to meet the need of smallholder farmers (n=30, M=4.40, SD=1.07) as against those who did not (n=45, M=3.64, SD=1.58).

A very strong positive association ($r= 0.722$) was found between "My training in communication" and the "Cooperation I get with other sectors," meaning that those who had training in communication or had good communication skills were better able to interact with their counterparts in other departments of the Ministry of Agriculture (MARA) or sectors of government. Also, a strong relationship was found between "My training in

communication” and “Cooperation I get from non-governmental organizations” ($r= 0.649$). Other strong ($r= 0.60$ or higher) relationships were found between “Cooperation from NGOs” and “Cooperation from other departments of MARA.” In other words, those who related well with NGOs did so with other organizations as well. Not surprisingly, those trained in communication had a strong correlation with government departments ($r= 0.722$) and with NGOs ($r= 0.649$). Those who were satisfied with their achievements as extension officers also had substantial positive correlation with resources to work with (.627) and they were mainly those who reported attending communication training workshops.

The finding support the notion that many extension workers are trained in technical agricultural subject matter, not in the social sciences areas, such as communication and development (Awa, 1990; Ascroft & Masilela, 1994). Training in communication techniques and technologies, it will seem, is necessary to mobilize, organize and generally empower smallholder farmers for participatory decision-making and community-driven development. Likewise, training in development will enhance extension workers’ skills in dealing with the complexity of integrated rural development programming. Rondinelli (1993) noted that while rural development programs are becoming increasingly complex extension workers lack the training to cope with this growing complexity. Turkish extension workers are highly skilled in the agricultural sciences, however, they will also need training in the social sciences, particularly in C4D. Thus, the Ministry of Agriculture and Rural Development is urged to consider mainstreaming C4D in its agricultural and rural development programming as a way to effectively empower its smallholders farming sector. Indeed, C4D is being offered in a number of universities as a post-graduate Master’s professional degree programme. Such a degree programme can be offered in Turkey to enhance the capacities of extension professionals (Inagaki, 2007; World Bank, 2007). The case for C4D in development programming, and by implication, extension work, was stated by Gray-Felder (2001), former vice president for The Rockefeller Foundation:

While there is demand for a new type of professional communicator in social change the supply of communicators for social change—those that can apply strategic thinking in communication to issues of social development—are very limited.

She added:

There are hundreds of universities in Europe and North America, as well as in Asia, Africa and Latin America, where thousands of professionals graduate each year in journalism studies or public relations and marketing. There are, however, we believe, less than one percent of schools that offer studies on communication for social change or communication for development.

Agunga (2012), as shown in Figure 1, has also offered a framework for mainstreaming C4D in poverty reduction programming, more importantly, to increase the effectiveness of extension workers as development facilitators. The model can be applied for regional development by establishing a C4D Center in that region. The heart of the C4D programme’s success is the C4D strategist. Once on the ground this person is able to network with governmental, nongovernmental and business organizations to facilitate partnerships; assist extension workers with community mobilization and participation; and provide short-term training opportunities in development and communication to strengthen the capacities of field extension workers and, thus, their ability to facilitate integrated rural development. Virtually all development organizations, including non-governmental organizations (NGOs), have a need for communication. Therefore, having

a regional C4D Center is a cost-effective way to meet this need. Among the many functions of the C4D Center are:

- a) To assist extension workers in mobilizing organizing and generally preparing smallholder farmers for participatory decision-making;
- b) strengthening the capacities of extension workers and all other field staffs in the region through providing short-term training; and
- c) advising programme management on ways to promote

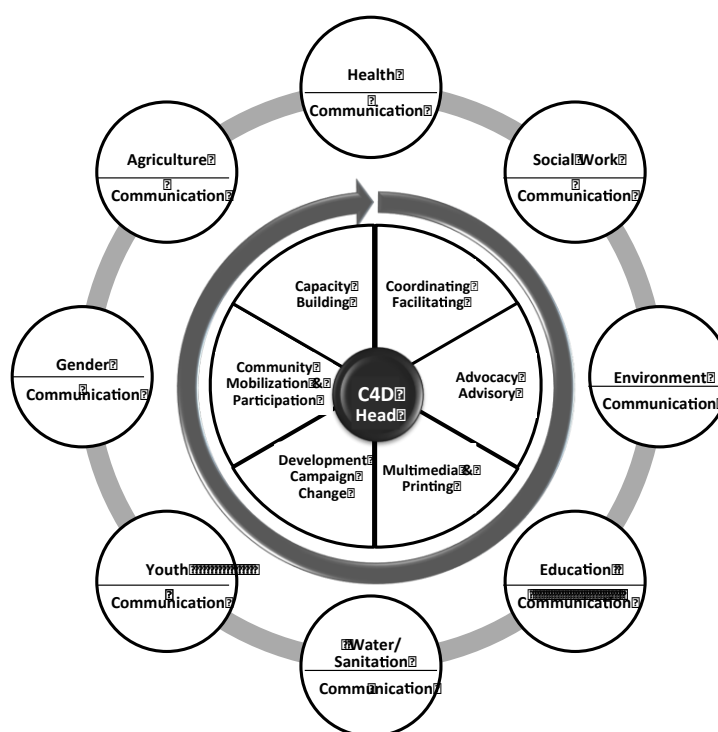


Figure 1: A communication for development framework (Agunga, 2012)

inter-agency collaboration. A multimedia and print facility can be incorporated so the center can produce multimedia and print materials to meet the needs of participating organizations. Still yet, the center director can assist a university in the country to establish a post-graduate C4D curriculum to ensure national self-reliance in C4D capacity. Within 2 – 3 years, success of the C4D Center becomes visible at which point it can be replicated in other regions, with a national C4D Coordination Center. In fact, the C4D center can become financially cost-effective or self-sustaining in the long run by marketing its services, such as the short-term training and multimedia and print products (Khanal & Thapliya, 1992).

Conclusion and Recommendation

This study was carried out to see what we could learn about extension workers and their ability to facilitate integrated rural development, particularly, promoting smallholders' involvement and interagency collaboration. The study was exploratory and not designed to explain a causal relation. A major finding is that while extension workers have a high level of academic training, it is primarily in agriculture, such as animal and crop science, and not in development and communication, which extension workers felt they need to be effective facilitators and community mobilizers. The study concludes that what is needed is incorporating training in development theory and communication techniques and technologies into the extension curriculum at the university level mainly as a post-graduate Master's degree program in "Communication for Development" (C4D). For extension workers already in the field this training can be provided as in-service, short duration courses.

The fact is development policy and strategy has changed from piecemeal or project to integrated or program approach, which has necessitated the adoption of a multifaceted or integrated rural development (IRD) approach based on general systems theory. While governments and donor agencies have agreed that IRD approach is the way to go and have invested fairly heavily in them a corresponding attention is not given to preparing extension workers on how to deal with this complexity of rural development programming. We believe that until considerable attention is given to this aspect, poverty reduction programs will continue to suffer, in spite of the financial investments.

The study shows how C4D or training in communication and development can improve the success rate of poverty reduction programming. First, is that these are social sciences concerns, thus, requiring the presence of social scientists, particularly C4D professionals in the field, to guide extension workers. Next, that the main development concern is how to promote community involvement, integration and capacity by focusing on regional development programming. Turkey, as a newly industrializing nation, must prepare its smallholder-farming sector to function more effectively in a new world. Agricultural extension has a critical role to play in the process. Unquestionably, the Ministry of Agriculture and Rural Affairs (MARA) of the Government of Turkey, the Department of Agricultural Extension (DAE), the General Directorate of Organization and Support (TEDGEM) in particular, is committed to having a highly functional extension service. We believe that the greatest need is to incorporate C4D methodology in extension practice. The authors have the knowledge and skills to offer a helping hand.

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