

## **AGRICULTURAL AGENTS' TRAINING NEEDS & PERCEPTION ABOUT TRAININGS GIVEN IN ETHIOPIA: A CASE OF SOME ZONES IN SNNPRS**

**Yohannes Shiferaw<sup>1</sup> and D.V.R. Murthy<sup>2</sup>**

<sup>1</sup>Ph. D. Scholar, Department of Journalism & Mass Communication, Andhra University  
Visakhapatnam, India

Email: yohannes303@yahoo.com

<sup>2</sup>Professor, Department of Journalism & Mass Communication, Andhra University,  
Visakhapatnam, India

Email: dwa100@gmail.com

### **ABSTRACT**

*Extension agents shoulder difficult tasks in the field, under severe weather and minimum logistic conditions. Agricultural knowledge provided to them through trainings helps these agents tremendously. The present study investigates agricultural agents' training needs and their perceptions about trainings given currently in some zones of SNNPRS, Ethiopia. Questionnaire was used to collect data from 284 randomly selected agents in the area. Descriptive statistics and chi-square were used for statistical analysis. The response show that there were 75.4% male agents, that majority of agents were in the age group of 25-35 years and that married agents were dominant in the sample population. It was also found that majority of them had diploma level education, and that they had agricultural experience between 4-7 years. Agents indicated that they needed more training in animal breeding, crop production and environment as ranked respectively. Significant relation was found between gender and perception of relevance of training; however, no significant relation was detected in case of other demographic and socioeconomic variables such as age, marital status, education and experience. It was recommended that trainings be given to agents on animal breeding and crop production and that all trainings need to be responsive to agents' knowledge requirement*

**Keywords:** Training Needs, Agents' Perception, Knowledge, SNNPRS

### **INTRODUCTION**

In a country like Ethiopia where agriculture is the main stay of majority of the population, development in the sector can be reflected in the general national GDP of the country. In Ethiopia, agriculture is the backbone of the country's economy and 46 percent to the national GDP is a contribution from the sector. Moreover, the sector approximately employs over 80 percent of the population (ATA 2012). Ethiopia is a country well-known for its food insecurity problems, and for many years millions of people were exposed to food shortage with the result that high level of food aid required from international organizations (FAO 2006). Many a time such problems are attributed to the traditional farming practice followed by majority of the farmers. The practice has been found to be incapable of producing sufficient food from smallholder farming. The rational for having effective extension system

emanates from the desire to introduce modern technologies to farmers who are struggling to survive using practices which has been found unproductive (Osman 2007). Extension workers constitute strong force in the combat against adverse conditions resulting from lack of appropriate knowledge, as well as manmade and natural disasters, if they are provided with appropriate service conditions. This is because they are relatively frequent visitors to rural areas. However, actions taken to improve agricultural agents' knowledge have been quite unsatisfactory (FAO 2005). Research indicates the existence of a high level of recognition that extension has remarkable impact on rural development. The large number of staff, mostly extension workers, the agriculture ministries in developing countries are currently dispatching is a good indication to this recognition.

In Ethiopia, the life of more than 80 percent of population depends on agriculture; however, as a developing country, it lacks all kinds of technological inputs in the sector, and for many years, there have been efforts in place to change the life of poor farmers through introduction of research findings and new technologies (Spielman et al 2011). The key challenge in this endeavor would be how to equip agricultural extension workers with the kind of communication techniques that overcome traditional, cultural, and religious barriers to effectively help in the attempt of transferring technological findings in major areas of agriculture (Mathus, 1994). In the recent years, various policies and strategies have been set by the Government of Ethiopia to move the country's technology development and dissemination efforts of agriculture. Food security objectives have taken the main emphasis in the Agricultural Development Led Industrialization (ADLI) strategy of the country, which aims at transformation of agricultural production and productivity through technological means (Ousman, 2007; ATA, 2012). Such strategy demands efficient communication intervention in all agricultural efforts as increasing productivity and production of smallholder farmers could not be achieved without the proper consent and involvement of the grassroots. Much need to be done to develop knowledge of farm agents in rural areas thereby increasing their efficiency to assist farmers in the process of technology transfer which is very vital to achieve food security among smallholder farmers in the country. Training is a way of helping agents to be effective in their work as they regularly update and enrich the knowledge they acquired at colleges.

### **Significance of the Present Study**

In Ethiopia policy makers and planners have been giving considerable attention to rural development in recent years. In an aim to improve rural productivity, significant amount of development resources have been committed to the sector. The Government of Ethiopia approached agriculture with a remarkably intensive campaign assigning huge national budget to the sector. As a result, there have been indications of improvement in productivity of land in some areas due to provision of irrigation and other facilities (FAO 2005). In some places infrastructure facilities like road have been developed allowing farmers an easy access markets to sell products at reasonable prices. Agriculture agent to farmer ratio has been dramatically improved due to establishment of a number of agricultural training institutes in the county (Spielman 2008; Tadesse 2002, AL-Sharafat 2012).

Despite all the efforts at the top of the system, extension has been and still is treated as an inferior subject by most agricultural researchers, in spite of evidence that if there is weakness in extension, some valuable technologies never end in the hands of the farmers (FAO 2005). Most of the agents currently face the challenges owing only to the knowledge they acquired from colleges some years ago. Agricultural trainings provided to agents have important roles

to play in facilitating the transfer of technologies to meet the needs of rural community. Many researchers found that training in extension system are not responsive to clients' need. For instance, Cho and Boland (2004) found that most of the training provided were crop production oriented and that training in agricultural extension and economics are very few and inadequate. However, Tadesse (2008) indicated that participation in training, access to communication sources and number of information sources had significant association with level of knowledge and adoption of improved wheat varieties. In a study conducted in Uganda, Erbaugh, through weighted discrepancy scores, found that the three highest ranked training needs were Field Pest Sampling Procedures, Differentiating Crop Diseases, and Knowledge of Integrated Pest Management (2007).

Such need identifications are vital in addressing immediate problems of agents. Kanungo & Mohapatra stress that extension workers should be properly trained to select the appropriate communication mechanism to use in their situation for diffusion of farm innovations (2003). Agent farmer contact can reduce as a result of agent's lack of the necessary knowledge demanded by farmers and this can be harmful to the extension system. Rogers (2003) explains that one of the factors in change agent success is the extent of effort he or she expends in communication activities with clients. According to him, numerous evidences suggest that change agent success is positively related to the extent of change agents' effort in contacting clients. Continues training that is based on identification of agents knowledge problem should be provided. It is also important to assess the agents' attitude to the trainings given so that subsequent efforts can be improved.

This study analyzes the training needs of agricultural agents in the three zones of SNNPRS. It also identifies agents' perception about the relevance of training they had been given in the past. The information is obtained from agents who are professionally assigned to assist farmers and have the maximum possible proximity to the farmers. Thus, it is assumed that information collected from these groups would shade light on availability of training in the area, perception of agents about the trainings, and areas agents request training. Thus, the finding of the study is believed to be important for farmers, agricultural agents and concerned bodies in the agency system as it may indicate ways of improving agents' capacity of assisting farm community.

### **OBJECTIVES OF THE STUDY**

The main objective of the study is to analyze the training need of agricultural agents in SNNPR state. Thus, the specific objectives are:

- Identify the availability of training to agricultural agents in the area'
- Find out the training needs of agents in the area,
- Describe perception of agents about training given in the area,

### **METHODS**

**Research setting:** The study is conducted in the Southern Nations, Nationalities and People's Region State (SNNPR) which is geographically located between Latitude 4<sup>0</sup>45' – 8<sup>0</sup>58' and Longitudes 34<sup>0</sup>88' -39<sup>0</sup>14'. The total area of the region is 11, 3543 km<sup>2</sup> which is estimated to be 10% of the country area coverage. The region is divided into 14 administrative zones and 5 special districts ('weredas'). The population of the region, according to 2007, Central Statistical Agency census result, amounts to 15,042,531,

accounting nearly 20% of the total population of the country. Out of this, 7, 482,051(49.7) are males while 7, 560,480 (50.3) are females. About 1,545,710 of the population are urban dwellers while 13,496,821 are rural counterparts. Agriculture constitutes around 90% of the region's population main livelihood. The population density of the region is 142 persons per sq. k. m, which makes the region one of the most populous and densely inhabited in the country. Information from SNNPR State Government Office indicates that there are about 2,966,382 household currently getting service from 12801 trained extension workers.

**Research tool and data collection:** The study was conducted in nine selected districts in the South Nation Nationalities Peoples Regional State (SNNPRS). Data were collected through survey questionnaire. Agricultural agents in the selected districts were sources of the data. Multistage probability sampling technique was used to identify subjects for the survey. At first stage, three zones were selected from 13 zones in the state. In the second stage, three districts were identified from each of the selected zones. At the third stage, 36 agricultural agents were selected from each of the districts using systematic probability sampling method. For this, lists of agents were obtained from district agricultural offices. Thus, a total of 318 questionnaires were distributed in 9 selected districts of the three zones. The response of 284 subjects were finally obtained from enumerators and used for analysis. The data collected through self administered questionnaire were edited, coded and entered to the computer for analysis using Statistical Package for Social Sciences (SPSS) software.

## RESULTS

### Respondents' Demographic and Socioeconomic Characteristics

Demographic characteristics of respondents such as gender, education, marital status and family background are shown in table 1. Responses indicate that males constituted 75.4% of the sample while females were only 24.5 %. As far as agents' educational status is concerned, great majority, that is, 93.3% stated that they were diploma holders. Only 6% reported that they were above diploma. In case of marital status, 61.6% of respondents were married while 38.4% were unmarried. Result also indicated that 58.5% of respondents were from rural background and that 41.5% of them were from towns or cities.

**Table 1.** Percentage distribution of respondents on selected demographic characteristics

| Characteristics    | Category          | Frequency | Percent |
|--------------------|-------------------|-----------|---------|
| Gender             | Male              | 214       | 75.4    |
|                    | Female            | 70        | 24.6    |
| Educational status | Certificate       | 2         | 0.7     |
|                    | Diploma           | 265       | 93.3    |
|                    | Bachelors & above | 17        | 6       |
| Marital Status     | Married           | 175       | 61.6    |
|                    | Unmarried         | 109       | 38.4    |
| Background         | City              | 118       | 41.5    |
|                    | Rural             | 166       | 58.5    |

Table 2 shows respondents' age and experience as an agent. The responses indicated that majority of respondents 61.3 % were between the ages 25-35 while 24.6% were 24 years and below. Another 14.1% were at the age category of 36 and above. The mean age was 29.7

years ( $M=27.9$ ;  $SD=6.28$ ). In case of their work experience, majority 65.6% reported that they had experience between 4-7 years. Another significant number 26.1% reported that they worked for 8 years and above. Those who worked for 3 years and lower constituted only 8.1% ( $M= 7.24$   $SD= 4.85$ ).

**Table 2.** Percentage distribution of respondents by selected socio-economic characteristics

| Socio-economic Characteristics | Categories         | Frequency | Percent | M    | SD    |
|--------------------------------|--------------------|-----------|---------|------|-------|
| Age                            | 24 & Below         | 70        | 24.6    | 29.7 | 6.28  |
|                                | 25-35              | 174       | 61.3    |      |       |
|                                | 36 & Above         | 40        | 14.1    |      |       |
| Experience                     | (1-3 years)        | 23        | 8.1     | 7.24 | 4.852 |
|                                | (4-7years )        | 187       | 65.8    |      |       |
|                                | (8 years & above ) | 74        | 26.1    |      |       |

### Frequency and relevance of trainings given

Table 3 shows the frequency of training provided to the agents in the past 6 months. Accordingly, majority of respondents 53.2% indicated that they were given training once in the last 6 months. Significant percentage, 27.1%, also indicated that they received training 2-3 times. 47% of respondents, however, stated that they had never been given any training in the last six months. Only 3.2 % stated that they got training for more than three times in the time specified.

**Table 3.** Frequency of Agricultural Training in the last six months

| Category          | Frequency | Percentage |
|-------------------|-----------|------------|
| None              | 47        | 16.5       |
| Once              | 151       | 53.2       |
| 2-3 times         | 77        | 27.1       |
| more than 3 times | 9         | 3.2        |
| Total             | 284       | 100.0      |

Table 4 shows respondents level of agreement on whether the trainings given so far were relevant to their work. As can be seen from the table, in a response to a 5 point scale, majority of the agents, 38.7%, stated that they agreed to the fact that trainings given so far were relevant to their work. Similarly another 21.5% indicated that they strongly agreed to the proposition. Still there were agents 6.3% who stated they disagreed and 4.6 % who stated they strongly disagreed that the trainings were relevant to their work ( $M=3.66$ ).

**Table 4.** Perceived Relevance of training provided so far to agents' work

| Categories        | Frequency | Percent | Mean |
|-------------------|-----------|---------|------|
| Strongly disagree | 13        | 4.6     | 3.66 |
| Disagree          | 18        | 6.3     |      |
| Undecided         | 82        | 28.9    |      |
| Agree             | 110       | 38.7    |      |
| Strongly agree    | 61        | 21.5    |      |
| Total             | 284       | 100     |      |

**Rank order of training need topics of agents**

Table 5 indicates the seven stage rank order of training needs of agricultural agents in relation to agricultural topics provided. According to the agents, among the topics given, animal breeding was ranked as the first need by 35.6% of respondents. Crop production as a topic was ranked first by 20.1% of respondents which makes it the second highly demanded training topic, and 19.4% ranked environment as 1<sup>st</sup> training need making the topic the third most needed training topic among the agents. Communication skill the 4<sup>th</sup> rank, market analysis the 5<sup>th</sup> rank, irrigation the 6<sup>th</sup> rank, and poultry production the 7<sup>th</sup> rank were chosen as 1<sup>st</sup> by 8.8%, 7%, 6.7%, and 3.2% respectively.

**Table 5.** Respondents' training needs in rank order

| Topic                | Value | Score | Rank            |
|----------------------|-------|-------|-----------------|
| Animal breeding      | F     | 101   | 1 <sup>st</sup> |
|                      | %     | 35.6  |                 |
| Crop production      | F     | 57    | 2 <sup>nd</sup> |
|                      | %     | 20.1  |                 |
| Environment Issues   | F     | 55    | 3 <sup>rd</sup> |
|                      | %     | 19.4  |                 |
| Communication Skills | F     | 25    | 4 <sup>th</sup> |
|                      | %     | 8.8   |                 |
| Market analysis      | F     | 20    | 5 <sup>th</sup> |
|                      | %     | 7.0   |                 |
| Irrigation issues    | F     | 19    | 6 <sup>th</sup> |
|                      | %     | 6.7   |                 |
| Poultry production   | F     | 9     | 7 <sup>th</sup> |
|                      | %     | 3.2   |                 |

**Perception about Trainings Given and Socioeconomic Variables**

Table 6 indicates result of relation between agents' perception of trainings given and selected characteristics of respondents. In case of gender, majority of male 37.4% who said they agree and another 24.3% who said they strongly agree indicated that they believed that the training given so far were relevant. In case of female respondents, while 42.9% stated they agree, 12.9% state they strongly agree. Majority of females preferred the choice undecided (44.3%). However, there were significant number of males who stated disagree 8.45% and strongly disagree 6.1%. No female respondent indicates any level of disagreement ( $X^2=21.406$ ;  $P=.000$ ). With regard to marital status, while 37.6% and 21.1% from the unmarried ones stated agree and strongly agree respectively, 39.4% and 21.7% of married respondents said they agree and strongly agree respectively. Still 5.7% and 3.4% of married ones stated that they disagree and strongly disagree respectively while similar percentage 7.3% and 6.4% of the unmarried stating disagreement and strong disagreement respectively ( $X^2=1.775$ ,  $P=.777$ ). As far as education is concerned, from the diploma holders, while majority, 38.9%, agreed to the proposition, another 21.9% strongly agreed. In case of bachelors and above, while 41.2% agree, 17.6% strongly agreed. Only 6% and 4.5% from diploma holders disagree and strongly disagree respectively while in case of bachelors, 11.8% and 5.9%, stated they disagree and strongly disagree respectively ( $X^2=6.155$ ,  $P=0.630$ ). In case of experience, 39.1% and 34.8% of those 3 years and below, 36.4% and

21.4% of those between 4 to 7 years, and 44.65% and 17.6% of those with experience 8 years and above stated they agree and strongly agree with the proposition respectively. Significant disagreement was from those between 4 to 7 years as 5.9% and 5.3% of them stating their disagreement and strong disagreement about relevance of the trainings to their work. Low level of disagreement was seen from those in 3 years and below group with only 4.3% (n=1) stating strong disagreement. With regard to age, 35.6 % of age 24 and lower, 44.1% of 25-35 age group, and 57.1% of those 36 age and above indicated they agree with the proposition. Similarly, 21.3% of age 24 and lower, 22.1% of age 25-35 and 21.4% of age 36 and above stated they strongly agree that trainings given were relevant. Though significant percentage from age 24 and lower disagreed (5.9%) and strongly disagreed (5.9%), only 7.1(n=1) from the age group above 36 stated disagreement with the proposition.

**Table 6:** Selected Characteristics of Respondents and Agents’ perception about training given so far.

|                   | Training provided to me so far were relevant to my work |     |    |      |    |      |     |      |    |      | Total |     | X <sup>2</sup> |
|-------------------|---|-----|----|------|----|------|-----|------|----|------|-------|-----|----------------|
|                   | 1   |     | 2  |      | 3  |      | 4   |      | 5  |      | F     | %   |                |
|                   | F   | %   | F  | %    | F  | %    | F   | %    | F  | %    |       |     |                |
| Gender            |   |     |    |      |    |      |     |      |    |      |       |     | .000<br>S      |
| M                 | 13  | 6.1 | 18 | 8.4  | 51 | 23.8 | 80  | 37.4 | 52 | 24.3 | 214   | 100 |                |
| F                 | 0   | 0%  | 0  | 0%   | 31 | 44.3 | 30  | 42.9 | 9  | 12.9 | 70    | 100 |                |
| Marital Status    |   |     |    |      |    |      |     |      |    |      |       |     | .777<br>NS     |
| Married           | 6   | 3.4 | 10 | 5.7  | 52 | 29.7 | 69  | 39.4 | 38 | 21.7 | 175   | 100 |                |
| Unmarried         | 7   | 6.4 | 8  | 7.3  | 30 | 27.5 | 41  | 37.6 | 23 | 21.1 | 109   | 100 |                |
| Education status  |   |     |    |      |    |      |     |      |    |      |       |     | .630<br>NS     |
| Diploma & under   | 12  | 4.5 | 16 | 6    | 76 | 28.7 | 103 | 38.9 | 58 | 21.9 | 265   | 100 |                |
| Bachelors & above | 1   | 5.9 | 2  | 11.8 | 4  | 23.5 | 7   | 41.2 | 3  | 17.6 | 17    | 100 |                |
| Experience        |   |     |    |      |    |      |     |      |    |      |       |     | NA             |
| 3years & below    | 1   | 4.3 | 0  | 0%   | 5  | 21.7 | 9   | 39.1 | 8  | 34.8 | 23    | 100 |                |
| 4-7 years         | 11  | 5.9 | 10 | 5.3  | 58 | 31   | 68  | 36.4 | 40 | 21.4 | 187   | 100 |                |
| 8years & above    | 1   | 1.4 | 8  | 10.8 | 19 | 25.7 | 33  | 44.6 | 13 | 17.6 | 74    | 100 |                |
| Age Category      |   |     |    |      |    |      |     |      |    |      |       |     | NA             |
| 24 & lower        | 12  | 5.9 | 12 | 5.9  | 63 | 31.2 | 72  | 35.6 | 43 | 21.3 | 202   | 100 |                |
| 25-35             | 1   | 1.5 | 5  | 7.4  | 17 | 25   | 30  | 44.1 | 15 | 22.1 | 68    | 100 |                |
| 36 & above        | 0   | 0%  | 1  | 7.1  | 2  | 14.3 | 8   | 57.1 | 3  | 21.4 | 14    | 100 |                |

**Source:** own data 2011; 1=strongly disagree, 2-disagree, 3-undecided, 4-agree, 5-strongly agree; Sig. (2-sided) p<0.05 significant(S); P>0.05not significant (NS) df=4(Gender, marital status, & parent background), df=8(education, experience & age); NA= not applicable due to number of cells with expected count less than five

**CONCLUSION**

The study investigated agents training needs and perceptions about relevance of training given to agricultural agents in selected zone of the SNNPR State in Ethiopia. According to their demographic characteristics, male agents' were three fourth that of female agents. It is also possible to see presence of younger and fresh recruits in the area as majority specified their age group between 25 to 35 years. Relatively, more respondents reported that they were married. Almost all (93.3%) agents' hold diploma level professional training which reflects existence of demand for more knowledge. Work experience of majority was between 4 to 7 years which indicates that most had worked in the area long enough to acquire sufficient experience. It was found that majority (53.2%) were given training only once in the last 6 months and 47% received no training at all. It was also observed that there were irregularities in the way trainings were given and the way agents were selected. Agents also indicated that they needed more training in animal breeding, crop production and environment as ranked one to three respectively. This goes against the finding of Cho and Boland (2004) who state that most training had focused on crop production. A cross-tabulation between the agents' perception about the relevance of training and selected demographic characteristics such as gender, age, education and marital status indicated that though majority in both sex had positive response towards the relevance of the trainings, more male agents disagreed. Despite high level of agreement seen across variables about the relevance of trainings given, comparatively lower level of disagreement was seen among females, among bachelors & above, among 3 years of age & below, and among those in the age group of 24 & lower. The chi-square analysis indicated the existence of relationship between gender and perception about relevance of training given in the area, ( $X^2=21.406$ ; at a value of  $P=.000$ ). No significant relation was found in case of other selected demographic and socio-economic variables. Based on the findings of the study, the researchers would like to recommend that more training in major areas of animal breeding and crop production should be provided. Moreover, trainings given should be responsive to the knowledge requirements of the agents.

**REFERENCES**

1. AL-Sharafat, et al (2012) Effectiveness of Agricultural Extension Activities. American Journal of Agricultural and Biological Sciences Science Publications. Volume 7 (2) Jordan.
2. ATA (2012) 'Achieving the Growth and Transformation Plan.' Ethiopian Agricultural Transformation Agency, Accessed from <http://www.ata.gov.et/>
3. Cho, K. & Boland, H. (Spring 2004) Agricultural Training in Myanmar: Extension Agents' Perceptions of Training Needs. Journal of International Agricultural and Extension Education, Volume 11(1) Retrieved from [www.iaaee.org](http://www.iaaee.org).
4. Erbaugh, J. (2007) Assessing Extension Agent Knowledge and Training Needs to Improve IPM Dissemination in Uganda. Journal of International Agricultural and Extension Education, Volume 14(1) Retrieved from [www.iaaee.org](http://www.iaaee.org)
5. FAO (2005) Modernizing National Agricultural Extension Systems: A practical Guide for Policy-Makers of Developing Countries. Research, Extension Division;
6. FAO (2006) Gender in Agricultural Development Policies: Policy Highlights. Agricultural Policy Support Service, Policy Assistance Division, Rome, Italy. Accessed

June 12, 2012 at [http://www.fao.org/docs/up/easypol/353/gndr\\_agric\\_dv-pol\\_030en.pdf](http://www.fao.org/docs/up/easypol/353/gndr_agric_dv-pol_030en.pdf)

7. Kaungo & Mohapatra (2003) Communication Technologies for Diffusion of Farm Innovations. Centre for International Communication, Sydney.
8. Mathus K. B. (1994) Communication Policy & Planning Principles. New Delhi, Allied Publishers Ltd
9. Ousman S. (2007) 'Effectiveness of Agricultural Development Training Program: The Cases of Teff And Livestock Farmers Southern Ethiopia' MA thesis Unpublished
10. Rogers, E. 5th ed.(2003) The Diffusion of Innovations. Focal Press, Simon and Schuster. New York
11. Spielman, D. et al (March 2011)Seed, Fertilizer, and Agricultural Extension in Ethiopia Ethiopia Strategy Support Program, International Food Policy Research working paper 020, Addis Ababa, Ethiopia.
12. Tadesse D. (2008) Access And Utilization of Agricultural Information by Resettler Farming Households: The Case of Metema Woreda, North Gondar, Ethiopia MA Thesis. Department of Rural Development and Agricultural Extension, School of Graduate Studies, Haramaya University.