

## **A COMPARISON OF PROJECT PARTICIPANTS AND EXTENSION OFFICERS PERCEPTION ABOUT PARTICIPATION IN AGRICULTURAL PROJECTS IN THE NORTH WEST PROVINCE, SOUTH AFRICA**

Matiwane, M. B.<sup>15</sup> & Terblanché, S. E.<sup>16</sup>

### **ABSTRACT**

*The study examined the perception of project participants and extension officers about participation in agricultural projects. Specific objectives of the study were (1) to determine the degree of participation, and (2) format of participation as perceived by project participants and extension officers in the North West Province. A questionnaire was designed to collect data, in which structured and unstructured questions were used. To ensure a good flow of ideas, the questionnaire was divided into distinct sections. Data was captured and analysed by the Department of Statistics of the University of Pretoria. The data was collected by means of personal interviews with a total of 129 project participants and 75 extension officers.*

*The major findings were as follows: (1) Project participants initiated, and volunteered to participate in, projects, and owned and planned them. (2) The major decisions were made and accountability was retained by the project participants. (3) Project participants were consulted during needs assessments and during project development. (4) In terms of support, the community and the extension officers supported the project participants in many ways, such as allowing them to do farming on communal land and DARD provided infrastructure and training. Findings also showed that there was genuine participation in most projects. (5) According to both respondent categories there are too many members in the projects. (6) Extension officers participated well in the initial phase of the project but not sufficiently in the follow up phases of the project.*

**Key words:** Participation, participants, perception, agricultural projects, Extension Officers.

### **1. INTRODUCTION**

Community participation has been a challenge for South African Government policy, since the event of democracy in 1994 (Everatt & Gwagwa, 2005:2). In a case study carried out by the Food and Agricultural Organisation (FAO) in South Africa, it was identified that there is a high proportion of dysfunctional land reform projects such as livestock, dry land field crops, irrigated crops, vegetables, dairy projects etc., which are associated with internal conflict, loss of interest among beneficiaries and beneficiaries' defection, deterioration of farm infrastructure, limited production and marketing, poor business plans, low levels of experience, and financial problems (FAO, 2009).

Programmes tend to function well when there is a strong and clear partnership between communities, stakeholders and local municipalities. Participation of stakeholders in the

---

<sup>15</sup> Senior Manager, Department of Agriculture and Rural Development, Private Bag X82070, Rustenburg, 0300; Tel 014 592 8201;. This article is part of the author's PhD Thesis. University of Pretoria, South Africa. Email: [mbmatiwane@nwpg.gov.za](mailto:mbmatiwane@nwpg.gov.za)

<sup>16</sup> Senior Lecturer, Department of AEERD, Faculty of Natural & Agricultural Science, University of Pretoria. Tel.: 012 420 4623, Email: [fanie.terblanche@up.ac.za](mailto:fanie.terblanche@up.ac.za)

design, operation, and maintenance of infrastructure projects is now, more or less, accepted in the international circles. Some of the benefits of participation include increased productivity, reduced conflicts and increased involvement of the poor (Renfro, 2004:1-5). Active participation of farmers or project participants and other role players is critical to the success and sustainability of projects, often to the benefit of the rural poor. According to De Graaf (1986:17-26), the experience of the Asian Development Bank (ADB) has shown that active participation of farmers and other stakeholders, including local government officials and non-governmental organisations, has been critical to the success, cost-effectiveness, and sustainability of projects, often to the benefit of the rural poor. To do that, according to Wambura (1995:37-44), participation in extension should focus on joint decision making with regard to problems analysis, solution planning, activities implementation and evaluation of results, because external stakeholders want to know what difference extension education programmes make in the lives of people for whom they are intended.

Project Management as a specialised management technique to plan and control projects under a strong single point of responsibility should always be used, and ultimately be the responsibility of senior management, whose decision should be based on informative data (Burke, 2003) that will assist in the selection of the project for future investment that will be crucial for the long-term survival of a project, and if a wrong project is selected, it may precipitate project failure.

This study will focus on the perception of project participants and extension officers concerning participation in agricultural development projects. Projects participants who are beneficiaries, and extension officers who support projects, will be the respondents across all four districts of the Province. The study will compare the perceptions of the two categories respondents in relation to all variables. The project beneficiaries will remain the most important respondents because they are the direct beneficiaries of the projects and they are a focal point of government development

## **2. OBJECTIVES**

In general, the objective of the study was to compare the perception of project participants and extension officers about participation in agricultural projects.

The specific objectives of the study intended:

1. To determine and compare the degree of participation of project participants in projects as perceived by project participants and extension officers
2. To determine and compare the format of participation of project participants in projects as perceived by project participants and extension officers.

## **3. THE RESEARCH METHODOLOGY**

North West Province occupies a total area of 116 320 km<sup>2</sup> (9,5%) of the total area of South Africa) which makes it the sixth largest Province with 3 669 349 population. It is situated on the north-western side of South Africa. It has four districts namely, Ngaka Modiri Molema, Dr Kenneth Kaunda, Dr Ruth Segomotsi Mompati, and Bojanala District, as well as twenty local municipalities. It is considered to have the most uniform terrain of all the Provinces, with an altitude ranging from 920 to 1782 metres above sea level. Approximately 85% of the total surface area is classified as agricultural land, with 34% of the agricultural land classified as potentially arable and 66% as grazing land.

A questionnaire was used to collect data from 126 project participants (beneficiaries) and 75 extension officers involved in project activities in the North West Province of South Africa.

The questionnaire was designed according to the problem conceptualisation framework method as formulated by Düvel (1995:38-43).

A total of 544 projects were submitted by districts, ranging from household to commercial projects, and 134 were selected for the survey.

Data was entered into the Statistical Package for the Social Sciences and analysed by the Department of Statistics at the University of Pretoria using Pearson Chi-Square tests and a t-test for Equality of Means.

## **4. FINDINGS**

### **4.1 Participation in projects as perceived by project participants and extension officers**

#### **4.1.1 Participation at planning stage of the project**

Information, according to Ewang and Mtshali (1998:100-108), is important to guide the project. It will indicate whether the project should change, reorganise, rethink, or to remain on the same course. At the same time, knowledge must be made available to the people who need it. Everybody must have easy access to key project information whenever they need it, and it is important to ensure that all the project data is up to date and recorded efficiently by setting up a knowledge centre (Bruce & Langdon, 2007:76).

Project planning is one of the most important phases of the project management cycle. The success or failure of a project is often determined in this phase. Planning techniques depend on the nature of a project, the type of organisation and the skills of the project manager (IDT, 2003). As seen in Table 1 below, the Chi-Square test ( $\chi^2 = 14.769$ ;  $p = 0.002$ ) indicates that there is statistically a significant association between who planned the projects for all respondents at a 5% level of significance. The majority (47%) of project participants/farmers reported that they planned the projects, while only 36% of extension officers reported the same. A total of 38% of extension officers, however, indicated that they planned the project, while only 27% of project participants indicated that. A fairly large number (27) of project participants and very few extension officers (7) reported that projects were planned by donors. The additional support services provided by the Department of Agriculture and Rural Development (DARD) were acknowledged by 5% of project participants, against 17% of extension officers. A possible reason for this significant difference could be that the project participants were not made aware of the service provided by the Department. A total of 43% of both respondent categories revealed that project participants planned the projects, while only 31% of the total respondents reported that extension officers planned the projects, and 17% reported that donors and other institutions planned the projects. The fact that 74% of project participants and extension officers indicated that they were responsible for planning the project confirmed that it was a joint effort which is a promising factor that can lead to project success. This finding is important for the development or establishment of projects.

**Table 3: Respondents' perceptions of persons/organisations responsible for the planning of projects.**

Categories of persons/organisations responsible for project planning	Respondent categories		Total
	Project Participants	Extension officers	
1. Project participants (n)	60	28	88
(%)	46.9%	36.4%	42.9%
2. Extension officers (n)	35	29	64
(%)	27.3%	37.7%	31.2%
3. Additional support services of DARD (n)	6	13	19
(%)	4.7%	16.9%	9.3%
4. Donor & Other stakeholders (n)	27	7	34
(%)	21.1%	9.1%	16.6%
Total (N)	128	77	205
(%)	100.0%	100.0%	100.0%

$\chi^2 = 14.769$ ;  $p = 0.002$  (Highly significant association)

#### 4.1.2 Participation of stakeholders in project initiation

The involvement of organisation and stakeholders in project initiation implies a proactive capacity and the confidence to get going on one's own. According to a World Bank discussion paper (Paul, 2006), when beneficiary groups engage in a project, identify a new need and decide to respond to it on their own, they are taking the initiative for their development. There are also cases where beneficiary groups which had seemingly failed in some projects went on to initiate other projects on their own and with greater success. The earlier projects obviously had strengthened their capacity for cooperative action and given them the confidence and skills to initiate action elsewhere. Project initiation and participation of stakeholders were among the factors which were investigated.

According to the findings, 35% of project participants and 36% of extension officers reported that individuals from the community initiated the projects. Fewer project participants (16%) and extension officers (13%) gave credit to the Provincial Department of Agriculture and Rural Development for initiating the projects. An interesting fact is that 27% of project participants and 17% of extension officers reported that donors and other funding agencies were the ones responsible for initiating the projects. Although there is no significant difference ( $\chi^2 = 4.937$ ;  $p = 0.179$ ), it is clear that projects in the North West Province were mostly initiated by individuals from the community (36%), with 26% being initiated by the broader community (in total 62%). These figures are in line with the current practice in the Province. Once the projects are initiated by farmers, they will be able to own them.

#### 4.2 The level of participation in projects as perceived by project participants and extension officers.

Participation is more effective when there is a good and clear partnership between stakeholders and the government (Renfro, 2004:1-5). It is always better to conceptualise and operationalise routine relations between people collectively and to shape or change patterns of institutional and social interactions in ways that influence project outcomes (Cleaver, 2005 and Dasgupta & Beard, 2007) cited by Heinrich & Lopez, 2009:1554-1586).

Community participation may vary in the intensity with which it is sought in a particular project or at a particular stage of the project. Community participation, according to Atkinson (1999), may be viewed as a process that serves one or more of the following objectives: (a) As an instrument of empowerment, (b) May serve a more limited objective of building beneficiary capacity in relation to a project. (c) May contribute to increased project effectiveness; (d) The desire to share the costs of the project with the people it serves; and (e) May improve project efficiency.

The respondents were required to rank the following factors of participation: (a) Ownership, (b) Major decision making, and (c) Accountability, against the following categories: (a) Participants, (b) Community, (c) Department of Agriculture and Rural Development (DARD), and (d) Donor according to Table 2 below. The results are encouraging, since ownership (71.6%), decision making (64.9%) and accountability (71.7%) were the responsibility of project participants. The results also reflected the participation of the community second, DARD third and donor fourth.

**Table 2: A summary of the ranking order of factors of participation**

Categories of stakeholders	Factors of participation			
	Ownership	Decision-making	Accountability	Average
1. Participants	71.6%	64.9%	71.7%	69.4%
2. Community	20.1%	20.5%	17.6%	19.4%
3. DARD	6.9%	11.7%	8.3%	12.0%
4. Donor	1.5%	2.4%	1.5%	1.8%

#### 4.3 Selection of project participants

##### 4.3.1. Selection criteria

Once you have identified the project that you want to implement, you need to determine who should participate in the project (Regenesys School of Public Management, 2002:38-39). It was important to have criteria suggested as a means of determining how project participants were selected to participate in projects. The following criteria were used: (a) selection according to interest of the community; (b) selection on the basis of association with community leaders; (c) projects imposed on unemployed; (d) selection on the basis of the status in the community; (e) selection on the basis of affiliation to local farmer's organisation; and (f) other reasons. The highest percentage revealed that the selection of project participants was made according to the interest of the community (62%), 9% indicated it was imposed on the unemployed, while only 20% indicated other selection criteria, which were not listed. The Pearson Chi-Square test ( $\chi^2 = 3.642$ ,  $p = 0.622$ ) indicated no statistically significant difference at 5% level between the two respondent categories about the selection criteria. The majority of both respondent categories indicated the interest of the community as

the most important selection criteria, which is a positive sign of project acceptance by the community.

#### 4.3.2 Selection of project members

Lombard & Botha (1995:65-77) have pointed out that agricultural projects did not seem to be very effective and one of the possible reasons for such ineffectiveness is the selection of project participants. Thousands of Rands can be saved if participants can be selected in an elementary but accurate manner. Respondents were requested to indicate who selected project members, using the following criteria: (a) community leaders; (b) farmer organisations; (c) participants volunteered; and (d) Department of Agriculture and Rural Development, and (e) other institutions. The results of the survey are indicated in Table 3 below. The majority of respondents (57%) indicated that participants volunteered to participate in projects. Only 17% of participants were selected by community leaders and nine per cent by farmer organisations. The Chi-Square test ( $\chi^2 = 6.495$ ;  $p = 0.166$ ) indicated no statistically significant difference at 5% significant level across all respondent categories concerning the selection of project members. Although there was no statistical difference, there is a clear indication that more extension officers (67%) than project participants (50%) stated that participants volunteered to be involved in the projects.

**Table 3: Selection of project members across both categories of respondents**

Selection of project members			Respondent categories		Total
			Project participants	Extension officers	
1.	Leaders of the Community (CPA, Headmen, etc.)	(n) (%)	26 20.5%	8 10.7%	34 16.8%
2.	Farmers' organisations	(n) (%)	13 10.2%	6 8.0%	19 9.4%
3.	Participants volunteered	(n) (%)	65 51.2%	50 66.7%	115 56.9%
4.	Department of Agriculture and Rural Development (DARD)	(n) (%)	6 4.7%	1 1.3%	7 3.5%
5.	Other institutions	(n) (%)	17 13.4%	10 13.3%	27 13.4%
Total		(N) (%)	127 100.0%	75 100.0%	202 100.0%

= 6.495;  $p = 0.166$

#### 4.3.3 Decision to participate in the project

The decision to participate in a project depends on the individuals. They can accept or reject an invitation or nomination to participate in the projects. A criterion for an individual's decision to participate in a project was suggested as follows: (a) Increase income; (b) earn income; (c) because they were looking for participants; (d) to keep myself busy; (e) my

friends are participating in it; (f) instructed by DARD management; (g) requested by community; (h) appreciated the need to participate; and (i) other reasons. The majority of project participants and extension officer respondents (48%) indicated that participants participated in projects because they want to earn an income. The Pearson Chi-Square test ( $\chi^2 = 38.682$ ;  $p = < 0.0001$ ) indicated that there is statistically a significant difference at 5% significant level across both respondent categories. However, 50% of the cells had expected counts less than five and therefore the Chi-Square test may not be a valid test. More project participants (58%) than extension officer respondents (30%) indicated that the decision to participate was to earn an income and more project participants (26%) than extension officers (19%) indicated that they also wanted to increase their income. A total of 72% of both respondent categories indicated a financial reason for participating. A project needs to be a sustainable and financial viable proposition for it to be successful.

#### 4.4 Number of project participants in the projects.

When a business plan is developed, the numbers of participants are normally indicated, but during the survey the project participants were expected to indicate the actual number of participants in the project at interview. According to the project participants, the mean number of participants in the project is 21.62, while the extension officer respondents indicated a mean number of 19.90 participants. There is no significant difference ( $t = 2.189$ ;  $p = 0.702$ ) between the mean number of participants in the project given by project participants and by extension officer respondents at the 5% level (Table 4 below). There is general agreement between the respondents about the number of people that are participating in the project.

**Table 4: Mean number of project participants in projects according to both respondent categories**

Respondent categories	N	Minimum	Maximum	Mean	Std. Deviation
1. Project participants	125	1	200	21.62	35.934
2. Extension officers	73	1	318	19.90	44.560

$t = 2.189$ ;  $p = 0.702$

##### 4.4.1 Number of project participants that should be in the project with the same resources

Respondents were expected to give the actual number and also to indicate how many project participants should have been in the project with the same resources. The result of the survey indicated that a mean number of 13.54 participants, according to project participants, and 11.26 according to extension officer respondents (Table 5 below), should have been in the project with the same resources. The results indicate that both respondents agree about the number that should be in the project.

**Table 5: Number of project participants that should be in the project with the same resources across all respondent categories**

Respondent categories	N	Minimum	Maximum	Mean	Std. Deviation
1. Project participants	123	1	150	13.54	23.461
2. Extension officers	74	1	150	11.26	24.331

$t = 2.280$ ;  $p = 0.516$

Both respondent categories indicated a significantly smaller mean number of participants that should be participating in a project, namely: (i) project participants' current mean number of 21.62, against the ideal mean number with the same resources of 13.54, a mean number decrease of 8.08; (ii) extension officer respondents' current mean number of 19.90, against the ideal mean number of 11.26, a mean number decrease of 8.64. The T-test ( $t= 2.280$ ;  $p = 0.516$ ) indicated no significant difference between the mean number of participants that should be in the project with the same resources as given by participants and by extension officers at the 5% level. It is clear that both respondent categories indicated a smaller number of project participants.

#### 4.4.2 Number of project participants that should be in the project with additional resources

Respondents were also expected to indicate the number of project participants that should be in the project with additional resources. The result of the survey indicated a mean number of 15.81, according to project participants, and 12.96 according to extension officer respondents (Table 6). Even with additional resources, the mean number is still much smaller than the current mean number of participants: (i) project participants' current mean is 21.62 and the ideal mean is 15.81, a difference of 5.81; (ii) the extension officer respondents' current mean is 19.90 and the ideal is 12.96, a difference of 6.94. The T-test ( $t=2.853$ ;  $p = 0.468$ ) indicated no significant difference between the mean number of participants that should be in the project with additional resources as given by participants and by extension officers at the 5% level. The results still indicate that both respondents agree on the number of participants with additional resources. This is a good finding because both respondents know the number of farmers that should participate in projects.

**Table 6: Number of project participants that should be in the project with additional resources across both respondent categories**

Respondent categories	N	Minimum	Maximum	Mean	Std. Deviation
1. Project participants	122	1	150	15.81	26.479
2. Extension officers	73	1	150	12.96	26.506

$t=2.853$ ;  $p = 0.468$

Most important, however, is that there is a clear indication that there are too many project participants in the projects.

#### 4.5 Operations of project participants in projects

A scale of different methods of how people operate in projects was developed with the sole aim of determining of how they operate in the project. A total of 36% of both respondent categories indicated that project participants operated as cooperatives, while 35% operated as individuals in projects. Only 13% indicated that they operate as a delegated group at the project. According to Table 7 below, the Pearson Chi-Square test ( $\chi^2 = 8.539$ ,  $p = 0.171$ ) indicated that there is no statistically significant difference at 5% significant level between the two respondent categories.



**Table 7: Operations of project participants in projects across both respondent categories**

Categories of operations in projects	Respondent categories		Total
	Project participants	Extension officers	
1. Individuals (n)	40	30	70
(%)	31.5%	40.0%	34.7%
2. A cooperative with a management structure (n)	43	30	73
(%)	33.9%	40.0%	36.1%
3. Delegated group working for an individual (n)	1	0	1
(%)	.8%	.0%	.5%
4. Delegated group working for the project (n)	16	10	26
(%)	12.6%	13.3%	12.9%
5. Delegation for interim decision making (n)	1	0	1
(%)	.8%	.0%	.5%
6. Normal community member (n)	15	3	18
(%)	11.8%	4.0%	8.9%
7. Other categories (n)	11	2	13
(%)	8.7%	2.7%	6.4%
Total (N)	127	75	202
(%)	100.0%	100.0%	100.0%

$\chi^2 = 8.539; p = 0.171$

#### 4.6 The extent of involvement of project participants in the management of the project

The majority of the respondents (44%) indicated that project participants were very much involved, while 36% indicated that they were involved, and only 5% were not involved in the management of the projects (Table 8). A total of 79% of respondents indicated that they are involved, and even very much involved. The Chi-square test ( $\chi^2 = 4.486; p = 0.351$ ) indicated that there is no statistically significant difference at 5% significant level between the two respondent categories. Although more project participants (48%) than extension officer respondents (37%) indicated that they are very much involved in the management of the project, the difference is not significant. Important, however, is the fact that project participants are involved in the management of the project.

**Table 8: The extent of involvement of project participants in the management of the project across both respondent categories**

Categories of the extent of involvement in the management of the projects	Respondent categories		Total
	Project participants	Extension officers	
1. Not involved (n) (%)	7 5.6%	2 2.7%	9 4.5%
2. Slightly involved (n) (%)	4 3.2%	2 2.7%	6 3.0%
3. Reasonably involved (n) (%)	14 11.1%	13 17.6%	27 13.5%
4. Involved (n) (%)	41 32.5%	30 40.5%	71 35.5%
5. Very much involved (n) (%)	60 47.6%	27 36.5%	87 43.5%
Total (N) (%)	126 100.0%	74 100.0%	200 100.0%

$\chi^2 = 4.486, P = 0.351$

#### 4.7 Community support as perceived by project participants and extension officers.

##### 4.7.1 Provision of information to community members and institutions about project establishment.

It is always important for the Departments of Agriculture and other institutions to inform the community about projects to be established in their area. A total of 27% of all respondents indicated that most people were informed, 26% were widely informed while only 5% were not informed. The Chi-square test ( $\chi^2 = 1.995; p = 0.742$ ) indicated that there is no statistically significant difference at 5% significant level between the two respondent categories. In total, 76% of both respondent categories indicated that communities were informed about projects to be established.

##### 4.7.2 Responsibility of the community and/or DARD to initiate or request specific activities at project level.

In each and every community there were different approaches to establish projects. During the survey, the question was posed to the respondents about possible scenarios at project level as to whether: (i) the community initiates or requests specific activities, either to maintain ownership, or to hand over to the service provider; (ii) the Department initiates or requests specific activities, either to take over management and responsibility, and report to the community or not report to the community. The responses (Table 9 below) of the majority of respondents (61%) were that the community initiates or requests and therefore maintains ownership. Only 14% of both respondent categories indicated that DARD initiated and took over the management and responsibilities. The Chi-Square test ( $\chi^2 = 8.322; p = 0.077$ ) indicated that there is no statistically significant difference at 5% significant level between the two respondent categories. There is, however, an indication that more extension officer

respondents (69%) than project participants (57%) want the community members to maintain project ownership.

**Table 9: Responsibility to initiate or request specific activities at project level as perceived by both respondent categories**

Categories of scenarios in different locations	Respondent categories		Total	
	Project participants	Extension officers		
1. Community initiates or requests (maintains ownership)	(n) (%)	70 56.9%	50 68.5%	120 61.2%
2. Community initiates or requests (hands over to the service provider)	(n) (%)	20 16.3%	7 9.6%	27 13.8%
3. Department initiates or requests (takes over management and responsibility)	(n) (%)	20 16.3%	8 11.0%	28 14.3%
4. Department initiates or requests (and report to the community)	(n) (%)	12 9.8%	4 5.5%	16 8.2%
5. Department initiates or requests (and do not report to community)	(n) (%)	1 .8%	4 5.5%	5 2.6%
Total	(N) (%)	123 100.0%	73 100.0%	196 100.0%

$$x^2 = 8.322; p = 0.077$$

#### 4.8 The degree of participation of project participants as perceived by project participants and extension officers.

##### 4.8.1 Involvement of the project participants in the application of their project.

Project participants should be involved in the application of their project and its approval must be communicated to them in good time. According to Batchelor (2010:77-85), it is important to inform the public of the project and also to obtain the public's consent for the project. The majority of respondents (51%) reported that they were involved in the application of their project, and 30% were intensively involved. Only 9% indicated that they were not involved, and 11% were slightly involved. The Chi-Square test ( $x^2 = 5.308$ ;  $p = 0.153$ ) indicated that there is no statistically significant difference at 5% significant level between the two respondent categories. A total of 81% of respondents (project participants and extension officer respondents) indicated that they were involved, even intensively involved, when applying for the projects.

##### 4.8.2 Communicating the approval of the projects

There were two scenarios concerning the approval of the projects which were investigated: (a) heard about the approval before knowledge of the application, and (b) heard about approval after knowledge of the application. The results of the Chi-Square test ( $x^2 = 9.361$ ;  $p =$

= 0.003) indicated that there is statistically a highly significant difference at 5% significant level between the two respondent categories. According to Table 10 below, significantly more project participants (50%) heard about the approval before they had any knowledge about the application than extension officer respondents (27%), while significantly more extension officer respondents (73%) heard about the approval after gaining knowledge of the application than project participants (50%). This is a clear indication of poor communication that can negatively affect the outcome of a project.

**Table 10: Communicating the approval of the project according to both respondent categories**

Categories of communicating approval	Respondent categories		Total
	Project participants	Extension officers	
1. Heard about approval before knowledge of the application (n) (%)	58 50.0%	18 26.9%	76 41.5%
2. Heard about approval after knowledge of the application (n) (%)	58 50.0%	49 73.1%	107 58.5%
Total (N) (%)	116 100.0%	67 100.0%	183 100.0%

$$x^2 = 9.361; p = 0.003$$

#### 4.8.3 Project participants' degree of involvement in the project

The results of the Chi-Square test ( $x^2 = 16.096; p = 0.003$ ) indicated that there is a highly significant difference at 5% significant level between the two respondent categories about the degree of involvement in the project (Table 11 below). The majority of project participants (59%) indicated that members of projects were individually self-responsible within the project, against only 37% as perceived by the extension officer respondents. The second-highest percentage (29%) for both respondent categories (30% project participants, 26% extension officers) indicated that project participants were members of the management team. The lowest percentage (2% project participants, 7% extension officers) of both respondent categories (4%) indicated that project participants were passive members and were not attending meetings. The highest total percentage (53%) across both respondent categories indicated that project participants were self-responsible as individuals.

**Table 11: The degree of involvement in the project as perceived by both respondent categories**

Categories of involvement in the project	Respondent categories		Total
	Project participants	Extension officers	
1. Self-responsible individual (n) (%)	74 58.7%	17 37.0%	91 52.9%
2. Self-responsible manager (Doing it for somebody) (n) (%)	5 4.0%	5 10.9%	10 5.8%
3. Member of the management team (n) (%)	38 30.2%	12 26.1%	50 29.1%
4. Passive member but active in attending meetings (n) (%)	6 4.8%	9 19.6%	15 8.7%
5. Passive member and not attending meetings (n) (%)	3 2.4%	3 6.5%	6 3.5%
Total (N) (%)	126 100.0%	46 100.0%	172 100.0%

$\chi^2 = 16.096$ ;  $p = 0.003$

#### 4.8.4 Participants' degree of involvement in the management of the project

According to Table 12, significantly more project participants (56%) than extension officer respondents (30%) are involved in management positions, namely chairperson, manager and secretary. The majority of extension officer respondents (69%) indicated that they have other responsibilities, against only 28% of project participants. The Pearson Chi-Square test ( $\chi^2 = 31.099$ ;  $p < 0.0001$ ) indicated a highly significant difference between the two respondent categories. There are still too many extension officers (30%) involved in the management (as chairperson, manager, secretary) of a project.

**Table 12: The degree of involvement of the respondents in the management and other responsibilities of the project**

Categories of the degree of involvement in the whole project	Respondent categories		Total
	Project participants	Extension officer	
1. Chairperson	(n) 27	7	34
	(%) 21.3%	11.5%	18.1%
2. Manager	(n) 29	7	36
	(%) 22.8%	11.5%	19.1%
3. Secretary	(n) 15	4	19
	(%) 11.8%	6.6%	10.1%
4. Community member	(n) 17	1	18
	(%) 13.4%	1.6%	9.6%
5. Attend only annual general meetings	(n) 4	0	4
	(%) 3.1%	.0%	2.1%
6. Other responsibilities	(n) 35	42	77
	(%) 27.6%	68.9%	41.0%
Total	(N) 127	61	188
	(%) 100.0%	100.0%	100.0%

$$x^2 = 31.099; p = < 0.0001$$

#### 4.8.5 Project participants' contribution towards the project from initial phase to a fully-fledged production phase

The intention of the survey was to establish the contributions of project participants towards the project from the initial phase through to the fully-fledged production phase. The Department of Agriculture and Rural Development in the North West, in most cases, assists farmers with production inputs, infrastructure and the labour to erect structures, and accordingly the assessment of their contribution was based on these three factors and other possible factors which were not verified.

According to the findings, two aspects were indicated by respondents where their contributions were significant, more significant, and even very significant: (i) Production inputs – 92%; and (ii) Labour – 89%. The two aspects where participants' contributions were insignificant and less significant were: (i) Infrastructure – 66%; and (ii) Other aspects – 65%.

#### 4.9 The format of collaboration between project members in the project

The study shows that 64% of both respondent categories indicated that project members were working with one another, while 19% were working with some individuals within the projects, and only 3% were working against each other. There are no significant differences ( $x^2 = 1.518; p = 0.677$ ) between the two respondent categories.

#### 4.10 The extent of collaboration of project members

The study indicated that according to 44% of both respondent categories, project participants collaborated often and 33% very often, while only 4% never collaborated (Table 13 below).

The Chi-Square test was performed and the results ( $\chi^2 = 0.983$ ;  $p = 0.803$ ) indicated that there is no statistically significant difference at 5% significant level. There are, however, still 23% of respondents who indicated that the extent of collaboration is only slightly and even not at all. Another challenge will be to improve the extent of collaboration from only often to very often. It is, according to Swanepoel and de Beer (2006:24), not easy to establish collaboration and to develop it, but it is an essential element for a successful project.

**Table 13: The extent of collaboration of project members across both respondent categories**

The extent of collaboration within the project	Respondent categories		Total
	Project participants	Extension officers	
1. Not at all (n)	5	2	7
(%)	4.3%	3.0%	3.8%
2. Slightly (n)	23	13	36
(%)	19.7%	19.4%	19.6%
3. Often (n)	53	27	80
(%)	45.3%	40.3%	43.5%
4. Very often (n)	36	25	61
(%)	30.8%	37.3%	33.2%
Total (N)	117	67	184
(%)	100.0%	100.0%	100.0%

$\chi^2 = 0.983$ ;  $p = 0.803$

#### 4.11 The additional commitments of the project participants

The influence of additional commitments on the outcome of the project was assessed in terms of participation of members within and outside the project, with special reference to what they produce. They produce a variety of commodities, ranging from field crops (maize, sunflower) to horticulture (vegetables) to livestock (beef, goats, sheep, pigs and poultry).

##### (i) Production of commodities within the project

The results, according to the two respondent categories, indicated that the most common commodities are poultry (32%), beef (25%), and vegetables (19%). The only noticeable significant difference between project participants (13%) and extension officers (0%) was on sheep production. The Chi-Square results ( $\chi^2 = 7.922$ ;  $p = 0.428$ ) indicated that there is no statistically significant difference at 5% significant level. Only 33% (25) of extension officers answered the questions, which is a clear and alarming indication that they do not really know what commodities are being produced.

##### (ii) Number of years producing the same commodity

During the survey the respondents were expected to indicate the number of years during which the farmers or project participants had been producing the same commodities. Table 14 below indicates a higher mean number of years for project

participants (8.17) than the extension officer respondents (4.71). Only 33% of extension officers answered the question. The T-test results ( $t = 3.177$ ;  $p = 0.031$ ) indicate a significant difference at 5% significant level in favour of the project participants. This means not all extension respondents knew which commodities are being produced by their farmers over the years.

**Table 14: The mean number of years that participants have been producing the same commodity in the project according to both respondent categories**

Type of respondent	N	Mean	Std. Deviation	Std. Error Mean
Project Participants	121	8.17	8.755	.796
Extension officers	34	4.71	5.638	.967

$t = 3.177$ ;  $p = 0.031$

**(iii) Number of years of project participants in the project**

If participants are selected in an elementary but accurate manner, according to Lombard and Botha (1995:65-77), many thousands of Rands in funds might be saved. These participants will stay in the project and accumulate necessary experience that will help them sustain the project. Table 15 below reveals that there is a significant difference in the mean number of years of project participants in the project (7.43) against extension officer respondents (3.69). The T-test results ( $t = 8.220$ ,  $p = < 0.0001$ ) indicate a highly significant difference between the respondent categories. Again, only 44% of extension officers were able to give an answer.

**Table 15: The mean number of years that participants have been involved the project across both respondent categories**

Type of respondent	N	Minimum	Maximum	Mean	Std. Deviation	Std. Error Mean
Project Participants	120	0	40	7.43	7.948	0.726
Extension officers	32	0	12	3.69	3.641	0.644

$t = 8.220$ ,  $p = < 0.0001$

**(iv) Production of commodities outside the project**

The study also reveals that there is a statistically significant difference ( $t = 11.517$ ;  $p = < 0.0001$ ) in the mean number of years of project participants (4.23) and extension officers (0.97) perception of producing commodities outside the projects. The project participants indicated more years of producing commodities outside their projects, against the knowledge of extension officer respondents. Possibly, extension officers were not aware of the



production of commodities outside the projects. Only 33% of extension officers did answer the question.

#### 4.12 The influence of the extension and other support services as perceived by project participants and extension officers

##### 4.12.1 Participation of extension officers in projects

Projects consist of different phases or stages, from when they are initiated or considered up to the phases of completion. During the survey, both respondent categories were expected to respond to the question, “When did the extension officers start to participate in the projects?” Significantly more project participants (64%) than extension officers (51%) indicated that they started to participate at the initial or consideration phase of the project phase. The second highest percentage (27%) of both respondent categories indicated that they started to participate only at the planning phase. What is alarming is the significant difference between the two respondent categories about the participation of extension at the implementation phase, where 22% of extension respondents and only 9% of project participants indicated that the extension officers only started to participate at the implementation phase. Most important, however, is that according to the two respondent categories, 59% of extension officer respondents had already participated at the initial phase, while only 22% at planning and 13% at implementation phase. This is an indication that, according to both respondent categories, extension officers disappear after the initial phase. The Chi-Square test ( $\chi^2 = 10.423$ ;  $p = 0.023$ ) indicated that there is a statistically significant difference at 5% level (Table 16 below).

**Table 16: Participation of extension officers in the different phases of the project according to both respondent categories**

Project phases when extension officers started to participate	Respondent categories		Total
	Project participants	Extension officers	
1. Not participated	1	0	1
(n)			
(%)	.8%	.0%	.5%
2. Initial phase	80	35	115
(n)			
(%)	64.0%	50.7%	59.3%
3. Planning phase	29	13	42
(n)			
(%)	23.2%	18.8%	21.6%
4. Implementation phase	11	15	26
(n)			
(%)	8.8%	21.7%	13.4%
5. Other phases	4	6	10
(n)			
(%)	3.2%	8.7%	5.2%
Total	125	69	194
(N)			
(%)	100.0%	100.0%	100.0%

$\chi^2 = 10.423$ ;  $p = 0.023$

#### 4.12.2 Assessment of the support service provided by the extension officers

Assessment of the support system of the agricultural extension officers was based on the following questions: (i) did they play a role, and (ii) how competently did they perform it. A 5-point scale (1 - not competent, 5 - very competent) was used to assess the competency of extension officers. The roles identified for the survey were: (a) organising meetings and chairing them; (b) linking project to donors; (c) development of a business plan; (d) providing training on production-related issues; (e) Monitoring production; (f) assisting with record keeping; and (g) linking the project to a market.

##### a) Organising and chairing meetings

###### i) The role played by extension officers in organising and chairing meetings

According to the perception of project participants 90% of extension officers played a role in the chairing and organising meetings, while only 38% of extension officer indicated that they played a role. There is a highly significant difference between the two respondent categories ( $\chi^2 = 57.914$ ;  $p = < 0.0001$ ) in favour of the project participants). There is also a vast percentage difference between project participants (90%) who acknowledged the role played by extension officers and those who said none (10%) (i.e. they did not organise or chair meetings). An important finding is that 62% of extension officer respondents indicated that they did not play a role in organising or chairing meetings, versus only 38% who indicated that they did play a role. A total of 73% of both respondent categories indicated that extension officers played a role in organising and chairing meetings. It seems that project participants expect extension officers to organise and chair meetings. According to the findings, 56% of project participants indicated that extension officers are involved in management (chairperson, manager and secretary) positions. It will be necessary to clearly determine the role of the extension officers in a project.

###### ii) Competency of extension officers in organising and chairing meetings

The Chi-Square results ( $\chi^2 = 10.32$ ;  $p = 0.049$ ) indicated that there is a statistically significant difference at 5% significant level between the respondent categories concerning the competence of extension officers (Table 17 below). A total of 35% of project participants indicated that extension officers were competent, against only 4% of extension officer respondents. A total of 44% of extension officer respondents, against only 35% of project participants, indicated that they were even more competent, while 48% of extension officer respondents, against only 26% of project participants, indicated that extension officers are very competent. It needs to be mentioned that only 31% (23) of extension officer respondents indicated their competency in organising and chairing meetings. A total of 65% of extension officers did not answer the question.

**Table 17: Competence of extension officers in organising and chairing meetings according to both respondent categories**

Categories of competence of extension officers in organising and chairing meetings	Respondent categories		Total
	Project participants	Extension officers	
1. Not competent (n) (%)	3 2.7%	1 4.3%	4 2.9%
2. Less competent (n) (%)	1 .9%	0 .0%	1 .7%
3. Competent (n) (%)	40 35.4%	1 4.3%	41 30.1%
4. More competent (n) (%)	40 35.4%	10 43.5%	50 36.8%
5. Very competent (n) (%)	29 25.7%	11 47.8%	40 29.4%
Total (N) (%)	113 100.0%	23 100.0%	136 100.0%

$\chi^2 = 10.32; p = 0.049$

b) Linking project to donors

i) The role played by extension officers in linking the project to donors

A total of 76% of project participants and only 27% of extension officer respondents indicated that extension officers were able to link the projects to the donors. A total of 73% of extension officer respondents indicated that they were not able to link the projects to donors. Although a total of 60% of both respondent categories indicated that extension officers played a role in linking projects to donors, only 27% (17) were extension officers. The Chi-Square results ( $\chi^2 = 41.245; p = < 0.0001$ ) indicated that there is a statistically significant difference at 5% significant level.

ii) Competence of extension officers in linking the projects to donors

The Chi-Square results ( $\chi^2 = 0.657; p = 0.961$ ) indicated that there is no statistically significant relationship at 5% significant level between the two respondent categories. A total of 34% of project participants indicated that extension officers were more competent and 28% of extension officer respondents indicated that they were competent in linking projects to donors. A total of 34% of both respondent categories indicated that extension officers were more competent.

c) Development of a business plan

i) The role played by extension officers in the development of a business plan for the project.

The Chi-Square results ( $\chi^2 = 43.652$ ;  $p = < 0.0001$ ) indicated that there is statistically a highly significant relationship at a 5% significant level. According to 90% (101) of project participants, but only 43% (23) of extension officer respondents, extension officers played a role in the development of a business plan for the project. What is further alarming is that 90% of project participants indicated that extension officers did play a role in the development of business plan, while 57% of extension officer respondents indicated that they did not play a role. The outcomes of the project are associated highly with the role of extension officers and their collaboration with project participants in the development of the business plan. It seems again that, according to the perception of the project participants, they expect the extension officers to be a part of the development of a business plan.

ii) Competence of extension officers in developing a business plan for the project

The Chi-Square results ( $\chi^2 = 2.092$ ;  $p = 0.711$ ) indicated that there is no statistically significant difference at 5% significant level. The highest percentage of project participants (40%) indicated that extension officers were very competent and also more competent (36%), while (46%) of extension officer respondents indicated that they were more competent, and 27% to be even very competent. The total highest percentage according to both respondent categories indicated that 37% of extension officers were more competent and 37% even very competent. The importance of a well-planned business plan for a farm is non-negotiable. A poor business plan is one of the main reasons for project failure. Extension officers need to be trained in farm business planning as a matter of urgency.

d) Providing training on production-related issues

i) Provision of training by extension officers on production-related issues

According to the findings, the Chi-Square test ( $\chi^2 = 52.676$ ;  $p = < 0.0001$ ) indicated that there is statistically a significant difference at 5% significant level. The majority (73%) of both respondent categories revealed that extension officers provided training on production-related issues to projects. Significantly more project participants (90%) indicated that extension officers played a role in providing training on production-related issues to projects, against only 39% of extension officer respondents. It is surprising, also to see that the majority of extension officer respondents (61%) indicated that extension officers did not provide training on production-related issues to projects. The question is: what were they doing at the projects? This is an aspect that needs urgent attention at project level.

ii) The competence of extension officers in providing training on production related issues.

The Chi-Square test ( $\chi^2 = 1.982$ ;  $p = 0.763$ ) indicated that there is no statistically significant difference at 5% significant level. Only 39% of extension officers did provide training, while 61% did not provide training. The question remains whether extension officers are really competent to provide training on production-related issues. According to both respondent categories (43%), extension officers were more competent in providing production-related training.

e) Monitoring production

i) The role played by extension officers in monitoring production

According to 91% of project participants and 44% of extension officer respondents, extension officers played a role in monitoring production. However, there is a significant percentage difference between project participants who said yes (91%), the extension officers do play a role in monitoring projects, against those who said no (9%), they do not play a role in

monitoring projects. A total of 56% of extension officer respondents indicated that they did not monitor production of the projects. The Chi-Square test ( $\chi^2 = 49.245$ ;  $p = < 0.0001$ ) also indicated that there is a statistically significant difference at 5% significant level. This is a somewhat alarming finding, namely that the majority of extension officers were not really involved in the monitoring of production at project level.

ii) The competence of extension officers in monitoring production

The Chi-Square test ( $\chi^2 = 5.923$ ;  $p = 0.189$ ) indicated that there is no statistically significant difference at 5% significant level across both respondent categories concerning the competence of extension officers in monitoring production. A total of 39% of both respondent categories indicated that extension officers were more competent in monitoring production. The highest percentage of project participants (35%) and extension officer respondents (59%) indicated that extension officers were more competent in monitoring production. Only 27 (36%) of extension officers were involved in the monitoring of production at production level and were prepared to indicate their competency to monitor production.

f) Assisting with record keeping

i) The role played by extension officers in assisting project participants with record keeping

A total of 67% of both respondent categories indicated that extension officers played a role in assisting with record keeping. The Chi-Square test ( $\chi^2 = 34.285$ ;  $p = < 0.0001$ ) also indicated that there is statistically a significant difference at 5% level. According to 81% of project participants, as against 38% of extension officer respondents, extension officers played a role in assisting with record keeping. Another significant difference is noticeable between project participants (19%) and extension officer respondents (61%) who said no, extension officers did not play a role in assisting project participants with record keeping. It could again be an indication that project participants need the assistance of extension officers with record keeping. Extension officers can and should play a facilitating role to support project participants in record keeping and the analysis of data to plan effectively and to make the correct decisions.

ii) The competence of extension officers in assisting project participants with record keeping

The highest total percentage (34%) of both respondent categories indicated that extension officers were more competent in assisting project participants with record keeping. A total of 32% of project participants indicated that extension officers were competent, while 44% of extension officer respondents indicated that extension officers were more competent in assisting project participants with record keeping. The Chi-Square test ( $\chi^2 = 3.494$ ;  $p = 0.485$ ) indicated that there is no statistically significant difference at 5% significant level. Only 38% (29) of the extension officer respondents did play a role in record keeping, while 62% did not play a role at all.

g) Linking the project to market

ii) The role played by extension officers in linking the project to a market

A total of 58% of both respondent categories indicated that extension officers played a role in linking the project to a market. The Chi-Square test ( $\chi^2 = 44.348$ ;  $p = < 0.0001$ ) also indicated that there is a statistically significant association at 5% significant level. According to 75% (94) of project participants, and only 24% (15) of extension officer respondents, extension officers played a role in linking the project to a market. Another significant

difference is noticeable between project participants (25%) and extension officer respondents (76%) who indicated that extension officers did not play a role in linking the project to a market. Again, one gets the impression that the project participants (75%) expected that the extension officers should link the project to a market. However, according to the majority of extension officer respondents (76%), it is not their responsibility. According to Chipita et al. (2008:8), market-oriented agricultural advisory services provided by extension officers can play an important role in helping the client to overcome and know how to deal with their constraints.

- ii) The competence of extension officers in assisting project participants in linking a project to a market

The Chi-Square results ( $\chi^2 = 3.104$ ;  $p = 0.560$ ) indicated that there is no statistically significant association at 5% significant level. A total of 80% of project participants and 67% of extension officer respondents indicated that the competence of the extension officers varied between competent to even very competent. It should be kept in mind that only 24% of extension officer respondents indicated that they did play a role to link the project to a market.

- h) The extent of advice on production aspects provided by local extension officers to the project participants.

The Chi-Square results ( $\chi^2 = 9.910$ ;  $p = 0.017$ ) indicated that there is a statistically significant difference at 5% significant level. Only 40% (30) of the extension officer respondents indicated that they did provide advice provided to the project participants. A total of 33% of the extension officer respondents indicated that the extent of production advice provided was not enough and even not at all, while 67% indicated that it was enough and even more than enough. A total of 86% of project participants indicated that the extent of production advice provided by the extension officer was enough and even more than enough. Project participants clearly indicated the importance of production advice in projects.

- i) The value of the production advice provided by the extension officers

During the survey, the respondents were requested to respond to the question of how they value the advice provided by the extension officers. A total of 48% of project participants and 70% (28) of extension officer respondents indicated that the advice of extension officers was good. The total highest percentage of both respondent categories (54%) also indicated that the advice of extension officers was good, while 26% indicated that the advice was very good. The Chi-Square test ( $\chi^2 = 5.953$ ;  $p = 0.130$ ) indicated that there is no statistically significant difference at 5% significant level.

## 5. SUMMARY AND CONCLUSION

The study compares the perception of the two groupings in relation to the most decisive variables influencing participation. The summarised findings are set out as follows:

### 5.1 Objective 1

Objective 1: To determine and compare the degree of participation of project participants in projects as perceived by project participants and extension officers.

- (a) Project planning

People who had the potential to plan the projects were project participants, support staff of the Department of Agriculture and Rural Development, extension officers and donors. It is also important to note that the projects that are planned are for farmers. Although there was a significant difference between the two respondent categories ( $\chi^2=14.769$ ;  $p=0.002$ ), the total highest percentage of both (43%) revealed that the projects were planned by project participants, while 31% indicated that extension officers were involved and participated in the planning stage of the project. If participants were involved, played a major role and planned their projects, the chances of disowning the projects are minimised and this increases the chances of project success. There is a relationship between project planning and the participation of project participants in planning the project.

(b) Project initiation

When a group engages in a project, identifies a new need and decides to respond to it on their own, they are taking the initiative for their development. Possible institutions that normally initiate projects were identified as follows: Department of Agriculture and Rural Development, donors, the community and project participants (individuals from the community). The highest total percentage across both respondent categories (36%) revealed that projects were initiated by individuals from the community (project participants), while 26% indicated that the community initiated the project. The Chi-Square results ( $\chi^2=4.937$ ;  $p=0.179$ ) indicate no statistically significant difference between the two respondent categories. Projects initiated by project participants stand a good chance of success because the project participants will take the initiative for their development and success. There is a relationship between project initiation and project participation. (c) Major decision-making responsibility

In so far as the decision-making responsibility is concerned, both respondent categories indicated the following:

- Participants – rated first;
- Community – rated second;
- DARD – rated third; and
- Donor – rated fourth.

When people concerned is informed on time, and there is consensus on how problems or project activities are to be approached or done, this might contribute to knowledge gain. There is a relationship between decision-making and the production knowledge of the project.

(c) Ownership

Ownership, according to both respondent categories, is indicated as follows:

- Participants – rated first;
- Community – rated second;
- DARD – rated third; and
- Donor – rated fourth.

There is a clear indication that project participants are the owners and should be the owners of the projects. This will undoubtedly motivate them to work hard and make a meaningful contribution towards project development and success. There is a relationship between ownership and project success.

(d) Accountability

In so far as accountability is concerned, both respondent categories indicated the following (Table 7.43):

- Participants – rated first;
- Community – rated second;
- DARD – rated third; and
- Donor – rated fourth.

Project participants have been clearly indicated to be accountable for what is happening at the project. There is a relationship between accountability and production knowledge of the project.

(e) Selection of project participants

- Selection of project members

One of the questions raised during the survey was who selected project members. The result of the survey indicated that the majority of project participants (51%) and extension officers (67%) volunteered to participate in projects. Few participants were selected by community leaders (17%) and farmer organisations (9%), according to both respondent categories. The facts that participants volunteered and that the community also selected some of the project participants give a positive indication of project success. There is also no significant difference between the two respondent categories ( $\chi^2= 6.459$ ;  $p=0.166$ ) at 5% significant level. The selection of project members has a relationship with the production knowledge of the project success.

- Selection criteria

The majority of people volunteered to participate in projects but it was also important to have criteria suggested as a means of determining how project participants were to be selected, especially from those who did not volunteer to participate in projects. The highest total percentage according to both respondent categories revealed that the selection of project participants was made according to the interest of the community (62%) and other criteria (20%) which were not listed. There is no significant difference at 5% significant level between the two respondent categories ( $\chi^2= 3.622$ ;  $p=0.622$ ). The selection was made according to the interests of the community; this might also mean that the community has an interest in the project, which is an indicator for project participation. Selection criteria have a relationship with production knowledge of the project.

(f) Participatory approach

- Decision to participate in the project

The decision to participate in a project depends on the individuals concerned, as they can accept or decline nomination. The study revealed that the majority volunteered, and the question was, what made them participate. The results revealed that the majority of project participants (58%) participated in projects because they wanted to earn income, and 26% wanted to increase their income. Only 30% of extension officers indicated that participants want to earn an income, while 48% of both categories indicated the wish to earn an income. The decision to participate in a project is essential to project development, especially if project participants want to earn or increase income. Decision to participate in a project has a relationship with production knowledge of the project.

- Number of participants in project

If farmers participate in projects to either earn or increase their income, the business plan has to determine the number of farmers per project, so that they might be able to realise their



dreams by participating in projects. Respondents were expected to give the actual number and also to indicate how many participants should have been in the project with the same and additional resources. According to the project participants, there are currently a mean number of 21.62 participants in the project, while extension officers indicated a mean number of 19.90. The indications from the survey were that:

(1) For participants with the same resources, the project participants indicated a mean of 13.54 participants, and extension officer respondents indicated a mean number of 11.26. The T-test ( $t = 2.280$ ;  $p = 0.516$ ) indicated no significant difference between the average number of participants that should be in the project with the same resources, as given by both respondents.

(2) For participants with additional resources, project participants indicated a mean of 15.81 project participants, and extension officers indicated 12.96 participants. The T-test ( $t = 2.853$ ;  $p = 0.468$ ) indicated no significant difference between the average number of participants that should be in the project with additional resources, as given by both respondents.

According to the above finding, there is significantly less participants to participate in the projects even when more resources are available related to the current number of participants. The number of participants in projects has a relationship with production knowledge of the project.

- Extent of involvement in the management of the projects

The majority of respondent categories (44%) indicated that project participants were very much involved in the management of projects, 36% were involved, and only 5% were not involved. The Chi-Square test ( $\chi^2 = 4.486$ ;  $p = 0.351$ ) indicates no statistically significant difference between the two respondent categories. Project participants are involved in the management of the projects, and the possibility of them taking care of their project's production exists. The extent of involvement of project participants in the management of the project has a relationship with production knowledge of the project.

(g) Community Support

- Provision of Information

It is always important for the community or relevant institution to be informed about activities that are taking place in their area. The questions of when project members were selected, and to what extent community members or institutions were informed about the project, become relevant. According to 76% of both respondent categories, communities were informed about the project to be established. The information provided to the majority of participants will ensure that the project is known and supported and this is an indicator of project success. There is a relationship between provision of information and production knowledge of the project.

(h) Degree of involvement

- Involvement of the participants in the application of the project

It is always important for the project participants to be involved in the application of their projects. The timing of communicating the feedback about its approval is also important, in so far as the acceptance of the project is concerned. The majority of respondents in both categories (51%) reported that they were involved in the application of their project, with 30% intensely involved. The involvement of participants in every aspect of the project increases chances of project success. The involvement of the participants in the application of the project has a relationship with production knowledge of the project.

- Communicating the approval of the project

The majority of respondents (59%) heard about the approval of the project after knowledge of application, but 41% heard about the approval before any knowledge of the application. Timely communication is essential for project success.

- Degree of involvement in the project

The majority of respondent categories (53%) reported that they were involved as self-responsible individuals. There were also project participants who participated as members of a management team (29%). Even though the Chi-Square results ( $\chi^2 = 16.096$ ;  $p = 0.000$ ) indicate a significant difference between the two respondent categories, where participants/farmers act as responsible individuals in favour of the project participants, this contributes to project success. There is a relationship between the degree of involvement in the project and production knowledge of the project.

- Degree of involvement in the management of the project

Significantly more project participants (56%) than extension officers (30%) are involved in the management of the projects. Extension officer respondents clearly indicate that they have other responsibilities in the projects. Project participants' involvement in the management of the project can play an important role in the production knowledge of the projects participants.

- Contribution of project participants

The total percentage (67%) across all respondent categories revealed that their contribution towards infrastructure was less significant and even totally insignificant; labour more significant (35%) and even very significant (32%); and production inputs more significant (42%) and even very significant (36%). Project participants rely on the government to supply infrastructure for their projects, and because they do not have funds, they provide labour to assist in the establishment of the projects. Once the project is operational, they provide production inputs to sustain the projects. Contributions of project participants, in whatever form, have a relationship with production knowledge of the project.

(i) Extension support

- Participation of extension officers

When did the extension officers start to participate in the projects? Was it at the initial, planning or implementation stage, or had they never participated? These were questions raised to establish the participation and involvement of extension officers in projects. The total percentage (59%) of the two respondent categories indicated that extension officers participated at the initial phase, 22% at planning, and 13% at implementation. It is important to note that very few (0.5%) of the respondent categories indicated that no extension officers participated in projects. Although there is a significant difference at 5% significant level between the two respondent categories ( $\chi^2 = 10.423$ ;  $p = 0.023$ ), it is important to note that extension officers participated at the initial and planning stages. Although it is a small number, it is still a worrying finding that 13% of extension officers only started to participate in the implementation phase. There is a relationship between the participation of extension officers in farmers' projects and production knowledge of the projects.

- Assessment of extension support

Although, on average, only 32% of extension officer respondents answered the question regarding support services provided by them, the finding clearly indicated that these services are essential for project success. The majority of project participants (84%), however, clearly indicated that the extension officers did provide the services and that they were more and even very competent. The services provided were (project participants' indication of the participation of extension officers):

- Organising and chairing meetings (90%)
- Linking project to donors (76%)

- Development of a business plan (90%)
- Provision of training on production issues (90%)
- Monitoring production (91%)
- Assisting with record keeping (81%)
- Linking the project to a market (75%)
- Extent of advice on production aspects (86%)
- The value of production advice (78%)

The assessment of support of extension officers has a relationship with project success.

## 5.2 Objective 2

Objective 2: To determine and compare the format of participation of project participants in projects as perceived by project participants and extension officers

### (a) Collaboration of project members

Collaboration of members in projects was generally good because where collaboration existed, members would collaborate often (44%) or very often (33%). The study indicated that members (64% of both respondent categories) were working with one another, 19% were working as individuals within the projects, and only 3% were working against each other. There is no significant difference at 5% significant level between the two respondent categories ( $\chi^2 = 1.518; p = 0.677$ ). If a few people work against each other and the majority with one another, the chances of project success increase. There is a relationship between the collaboration of project members and participation in projects.

### (b) Methods of operation in projects

The total percentage across all respondent categories indicated that project participants operated as cooperatives (36%), as well as individuals (35%), in projects. Only 13% indicated that they were working as a delegated group. Project participants/farmers work as a cooperative, as well as individuals, which increases the chances of them taking good care of the projects and this can also improve production knowledge of the project. Operations in the project have a relationship with participation in projects.

### (c) Additional commitments

The influence of additional commitments to project success or failure was assessed in terms of the participation of members within and outside the project, related to what they produce. They produced a variety of commodities, ranging from field crops (maize, sunflower) to horticulture (vegetables) to livestock (cattle, goats, sheep, pigs and poultry). The results indicated that the most common commodity is poultry (32%), cattle (25%), and vegetables (19%). According to project participants, they had been producing the same commodity for a period of 8.17 mean years, against only 4.71 mean years according to extension officer respondents. Project participants clearly indicated more mean years (7,948) of being involved in the project than did extension officers, with 3,641 mean. The experience acquired through interaction with different farmers in and outside the project, and the number of years under production, could play an important role in a project's production. Therefore, it is indicated that additional commitment has a relationship with participation in projects.

## REFERENCES

- ATKINSON, R. 1999. Project management: cost, time and quality, two best guesses and a phenomenon, it's time to accept other success criteria. *International Journal of Project Management*, 17(6):337–342.
- BATCHELOR, M. 2010. *Project Management Secrets*. London: Harper Collins.
- BOTHA, C. A. J. 1995. *Agricultural extension and the role of the extensionist in farmer support programmes*. Proceeding of the 29th Conference, 27-29 June, 1995. Escom Training Centre, Midrand: 27-30.
- BRUCE, A. & LANGDON, K. 2007. *Manage Project: meet your deadline and achieve your targets. Transform the way you live and work*. New York: DK Publishing.
- BURKE, R. 2003. *Project Management, planning and control*. 4th ed. Burke Publishing.
- CHIPETA, S., CHRISTOPLOS, I. & KATZ, E. 2008. *Common framework on market-oriented agricultural advisory services*. Lindau-Eschikon, Switzerland: Swiss Centre for Agricultural Extension Development, Neuchâtel Group.
- DE GRAAF, M. 1986. Catching fish or liberating man: Social Development in Zimbabwe. *Journal of social Development in Africa*, 1:7-26.
- DÜVEL, G. H. 1995. An operational model for effective extension in South Africa. Proceedings of the 29th conference, 27-29 June 1995. Eskom Training Centre, Midrand:38-43.
- EVERATT, D. & GWAGWA, L. 2005. *Community Driven Development in South Africa, 1990-2004*. Africa Region Working Paper Series Number 92, October 2005. The World Bank.
- EWANG, N. P. & MTSHALI, S. M. 1998. Participating monitoring and evaluation: a strategic toll for managing sustainable development in Rural South Africa. Proceedings of 32nd Conference, SASAE, 19-21 May 1998. Hotel Osner, East London, Eastern Cape: 100-108.
- FAO, 2009. *A review of experiences of establishing emerging farmers in South Africa. Case lessons and implications for farmer support within land reform programmes. Capacity development in food and agriculture policies*. Rome: Food and Agriculture Organization of the United Nations.
- HEINRICH, C. J. & LOPEZ, Y. 2009. Does community participation produce dividends in social investment fund projects? *World Development*, 37(9):1554-1568.
- IDT (INDEPENDENT DEVELOPMENT TRUST). 2003. *The project cycle: Programme implementation support by Independent Development Trust (IDT)*. Chief Directorate: Policy Management, Office of the Premier, North West Province.
- LOMBARD, P. P. & BOTHA, C. A. J. 1995. *The application of a section instrument for the prediction of farming success: A method to select prospective farmers for participation on Land Reform agricultural projects, as part of the Reconstruction and Development Programme*. Proceedings of 29th Conference, 27-29 June 1995. Eskom Training Centre, Midrand.
- PAUL, S. 2006. Community participation in development projects: The World Bank experience. *World Bank Discussion Papers: Agricultural Economics*, 35(Supplement 3):459-467.
- REGENESYS (REGENESYS SCHOOL OF PUBLIC MANAGEMENT). 2002. *Project management course*. (Developed and delivered by Regenesys School of Public Management). Midrand: Regenesys School of Public Management.
- RENFRO, R. Z. 2004. *The value of participation in development: relevance to soil and water conservation*. Capacity building and training. Asian Development Bank Institution.

- SWANEPOEL, H. & DE BEER F. 2006. *Community development: Breaking the cycle of poverty*. 4th ed. South Africa: Formeset Printers Cape.
- WAMBURA, R. M. 1995. The impact of extension strategy on farmer's participation in development activities at village level in Tanzania: Modifying the training and visit agricultural extension system. *S. Afr. J. Agric Ext.*, 2:37-44.