

Empowerment of Women through Comprehensive Agricultural Support Programme (CASP) in Gauteng Province, South Africa

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ABSTRACT A desktop study coupled with first phase of farmer survey (43 farmers) was conducted in all municipalities of Gauteng Province. A desktop audit of empowerment initiatives in the four sub-sectors (field crops, horticulture, animal products, and industrial products) in the province was conducted. Data collected on infrastructural support indicates that the number of women funded through CASP increased steadily from 20 in 2004/2005 financial year to 102 in 2011/2012 financial year. The results further show that for the past six financial years except for financial year 2008/2009 at least 341 women or female farmers were supported through CASP compared to at least 229 male farmers. The highest number of women farmers funded were in poultry (163) followed by that in horticulture (81), animal production (63) and then field crops (24). There seems to be a trend to support women and small-scale farmers in the intensive production systems such as poultry and horticulture through vegetable tunnels. The fact that the majority of farmers receiving support from the Gauteng Department of Agriculture and Rural Development (GDARD) were females is not surprising, similar results were also reported in provinces such as Limpopo, North West and KwaZulu - Natal. The budget associated with women also grew from about 1.8 million rands in 2004/2005 to just above 42 million rands in 2011/2012 financial year. Poultry was allocated a higher budget than any other farming infrastructure with over 19 million rands allocated. The largest number of farms funded through CASP were based in Sedibeng (172 farms), followed by City of Tshwane (158), then Westrand (61). The Johannesburg and Ekurhuleni Metropolitan Cities were the bottom two with 33 and 38 farms, respectively.

INTRODUCTION

Gauteng is the most urban and industrialised province in South Africa, it has undergone significant socio-economic and structural transformation during the first decade of democracy. The ideal for agriculture was for Gauteng to shift from primary / secondary production towards secondary / tertiary production in the sector. However, this shift could not happen as anticipated due to the dualistic economic profile of the country's farmers.

The small holder farmers who predominantly are black and poorly resourced could not participate in the sector without a concerted government support for business development. With the coming of the new democracy economic and

political transformation was central of the agenda of the new government. In 2001 government developed the National Agricultural Strategy which gave direction of the eight priority programmes meant for agricultural development, black economic empowerment, agricultural infrastructure, food security, knowledge and information management, natural resources, regulatory services and agricultural research. The focus of this study was on the strategy to support farmers with agricultural infrastructure. The instrument developed to support farmers with agricultural infrastructure was the Comprehensive Agricultural Support Program (CASP). The Comprehensive Agricultural Support Program was initiated in 2004 as a government instrument to provide post - settlement support to the targeted beneficiaries of land reform and to other producers who have acquired land through private means and are, for example, engaged in value-adding enterprises domestically or in-

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volved in export. The programme core focus for the Department of Agriculture Forestry and Fisheries (DAFF) was to make interventions in six priority areas: (a) Information and technology management, (b) Technical and advisory assistance, and regulatory services, (c) Marketing and business development, (d) Training and capacity building, (e) On/off farm infrastructure and product inputs, (f) and Financial support. The Gauteng Department of Agriculture and Rural Development (GDARD) used this instrument in the years under review to empower its farmers innovatively balancing the political mandate and the administrative demands to account for the public fiscals. The report herein will tabulate the gains made. According to Makhura (2001), Mpandeli (2006), Maponya and Mpandeli (2013); Denison et al. (2015), small scale farmers in Limpopo Province indicated that in order to maintain high levels of production and quality it is necessary for farmers to access all the required inputs. Some farmers indicated that, with the recent launch of the Comprehensive Agricultural Support Programme (CASP), on the 30th May, 2004, by the Department of Agriculture, they can overcome some of the challenges faced by small scale farmers across the country including infrastructure, market access, financial support (Makhura 2001; Mpandeli 2006; Denison et al 2015). CASP offers a wide range of support services including financial support, purchase of inputs, infrastructure development, training and capacity building. The intention of CASP is to increase support to agricultural activities in the communal land areas as well as to other small-scale agriculture. Small-scale farmers in South Africa have continued to maintain a livelihood in the face of unfavourable conditions. These farmers have had access to very limited support services, which made it difficult for them to operate economically (McIntire and Delgado 1985: 733; Ngqangweni 2000; Denison et al. 2015). The aim of this paper is to investigate the extent to which there has been empowerment in the agricultural industry.

Study Site in Gauteng Province

A pilot study was conducted to test the instrument using 38 farmers at the initial stage of the study. Adjustments were made to the questionnaire instrument on the basis of the answers provided in relation to the desired answers. Editorial

together with typographical errors were also rectified. The questionnaire instrument was limited by the extent of level of education of the respondents. Every effort was done to interpret the questions where needed (Fig.1).

RESEARCH METHODOLOGY

Mixed Method Approach

Akinwunmi (2009) referred to this method as “integrating” to mean adding together, “synthesis” for amalgamation, and “multi-method” for more than one method in one. It was noted that the method combines the quantitative and qualitative approaches in one study (Akinwunmi 2009; Tashakkori and Teddlie 1998).

The collective understanding of several authors (Akinwunmi 2009; Onwuegbuzie and Leech 2006; Johnson and Onwuegbuzie 2004; Creswell 2003; Mertens 2003; Lincoln and Guba 1985) is that the approach is more suitable in studies that enable the collection of both quantitative and qualitative data. The collected data, in its nature would demand variables in their nature to explain sophisticated systematic problems and or a phenomenon.

Numerous sources (Creswell 2002; Tashakkori and Teddlie 1998; Jick 1983) identify the genesis of mixed methods in the study of psychology. In this paper quantitative data will mainly be the secondary data collected from the study area including among others farmer’s data, production data, climate data and all other geo-physical data. Qualitative data was collected from farmers as champions on matters that have an impact on empowerment. As argued by Creswell (2003 and 1994), Berg (2001), Locke et al. (2000) and Bogdan and Biklen (2007), the basis of selecting a research method for a research project has to do with the objectives of the study.

Target Population

Among the methods used to collect data for this study were interviews of farmers. In order to fully understand and to properly interpret the results of the interviews, the target population of the farmers who participated in the interviews needs to be characterised. A sample frame was established in which all the farmers who benefited from the empowerment programmes in the Province and in each of the municipalities/

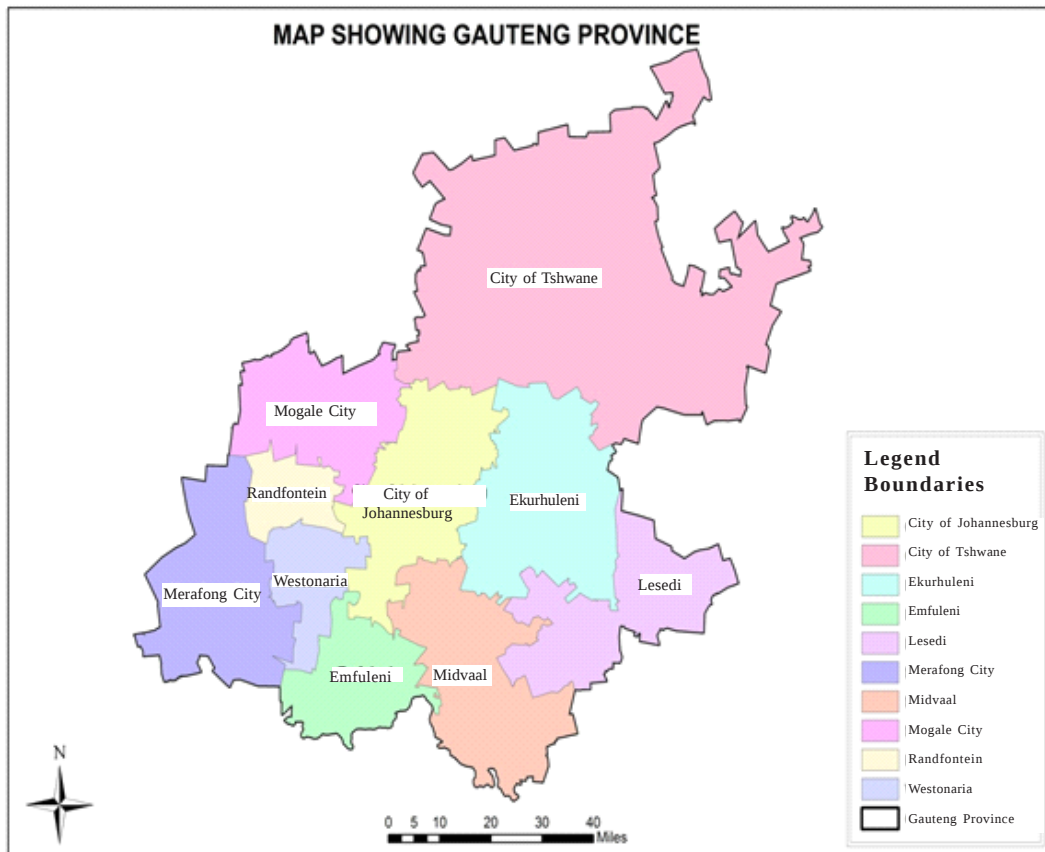


Fig. 1. Map of Gauteng Province showing different municipalities

metropolitan areas were enlisted. The total size of the sampling frame for the Province was 203 farmers who benefitted from the department's empowerment programmes of spread across all the municipalities/metropolitan areas. Stratified random samples of the farmers were selected where the same proportion of farmers was sampled for each of the municipalities / metropolitan areas. A total of 70 farmers were the main target population to respond to the questionnaire. The gender of the respondents was 56 percent males and 44 percent females. The respondents were mostly in livestock (41 percent), mixed (37 percent), horticulture (13 percent) and field crops (four percent) farming.

Data Collection Instruments

This research paper was based on both primary and secondary data. Primary data were collected using a questionnaire developed. Sec-

ondary data were collected mainly from GDARD based on previous year's reports to date. The questionnaire was constructed to collect general information on the respondent such as names, contacts details and names of the farm where the respondent worked. On and above the general information, critical demographic data were collected on gender, experience, level of education and post level. The instrument then was constituted of questions along empowerment and the perception of farmers on critical identified areas such as training, extension, infrastructure, inputs, land and decision making. The questions were structured such that the respondent tick on the appropriate and be empowered to express themselves on open ended questions.

Data Analysis

Quantitative data was captured in MS Excel Package and analysed statistically using the SAS

Package (SAS 2009). The Procedure FREQ of SAS was used to generate simple frequency tables for variables of interest. Selected data was summarized in Excel Spread-sheet. Descriptive analysis techniques were also used in the study to capture the perceptions of respondents mainly the qualitative data.

Triangulation Approach

Triangulation according to (Smith 1975; Easterby-Smith et al. 2002; Flick 2004; Downward and Mearman 2005; Akinwunmi 2009) is a terminology used in navigation and surveying where three reference points are taken as a minimum to locate an object. Triangulation is inherent in mixed methods approached in the sense of complementarity of data to have better insight of the problem (Akinwunmi 2009; Morse 1991; Creswell 2003; Creswell and Plano Clark 2007). According to Akinwunmi (2009), Denzin (1970), Jick (1983), Modell (2005), Aghaunor et al. (2006) the main reason for the usage of triangulation approach is that it gives superior validity and reliability than a single methodological approach. Easterby-Smith et al. (2002), Ryan et al. (2002), Downward and Mearman (2009), Modell (2005) as cited by Akinwunmi (2009) identified four different classifications of triangulation: (a) theoretical, (b) data, (c) investigator and (d) methodological which improves validity of research findings. This paper used and discusses (a) data triangulation and (b) methodological triangulation.

Data Triangulation

Akinwunmi (2009) defined data triangulation as a process in which data for research is collected over different time frames or from different sources. Downward and Mearman (2005) gives an example where survey data could be combined with time series data to give a researcher an understanding of different triangulated times about the whole time period. Another combination could be that of a survey and interview data.

Methodological Triangulation

Different methods used at different levels are used in data collection to maximise the amount and quality of data being collected. Several authors demonstrated how the techniques can be

used in different disciplines and situations (Todd 1979; Tashakkori and Teddlie 1998; Elliot Williams 2002; Creswell and Plano Clark 2007). In the study at hand two methods and techniques will be used quantitative and qualitative coupled with time series data and perceptions of leaders.

Validity and Reliability

Triangulation as described in paper improves the validity and reliability than the usage of a single methodological approach. Validity is the degree to which a measure does what is intended to. This includes both the fact that the measure should provide a good degree of fit between the conceptual and operational definitions of the construct and the instrument should be usable for the particular purposes for which it was designed. Different types of validity includes: (a) Face validity which is the extent to which a test is subjectively viewed as covering the concept it purports to measure. It refers to the transparency or relevance of a test as they appear to test participants; (b) Content validity on the other hand refers to the extent to which a measure represents all facets of a given social construct; (c) Construct validity the degree to which a test measures what it claims, or purports, to be measuring and lastly (d) Criterion validity is a measure of how well one variable or set of variables predicts an outcome based on information from other variables.

Reliability is the dependability of a measurement instrument that is the extent to which the instrument yields the same results on repeated trials. There are a number of different types of reliabilities: test – retest reliability – instrument administered at different times, equivalent reliability – use of different but equivalent instruments, split half reliability – the instrument split in half to cover different set of questions and internal reliability – also called internal consistency. Reliability will also be ensured by the use of time series data to check trends and the use of the perceived responses from interviews of the respondents. The questionnaire instrument was subjected to face validity. It was scrutinized by an expert who has been in the field with experience to doing research in competitiveness of agricultural commodities. To ensure content validity, Porter's model on competitiveness was used to ensure that all five factors are measured in full.

RESULTS AND DISCUSSION

The Policy Foundation of the Comprehensive Agricultural Support Program

In 2001 and 2015 government developed the National Agricultural Strategy which gave direction of the eight priority programmes meant for agricultural development, black economic empowerment, agricultural infrastructure, food security, knowledge and information management, natural resources, regulatory services and agricultural research. The said eight programmes were made deliverables of all provinces inclusive of Gauteng (Denison et al. 2015).

One such program developed was CASP – Comprehensive Agricultural Support Programme. It was therefore important to assess the views of small holder farmers on the benefits they receive from policies and strategies of government. The results from Table 1, shows the benefits of farmers derived from empowerment policies, strategies and projects. The components of empowerment that received a favourable review by farmers were farm infrastructure

Table 1: Benefits of farmers derived from empowerment policies

<i>Components of empowerment</i>	<i>Frequency</i>	<i>Percentage</i>
Farm infrastructure	17	24
Provision of agricultural inputs	15	21
Agricultural education and training	9	13
Agricultural information and interaction	7	10
Provision of biological asserts	6	9
Animal vaccination	6	9
Marketing	5	7
Land	5	7
Total	70	100

(24 percent), followed by provision of agricultural inputs at (21 percent). Human capacity building in the form of agricultural education and training had (13 percent) of the farmers considering it as important.

Agricultural information linked with interaction and consultation stakeholders was viewed as an important benefit by 10 percent of the farmers. The lowest components of empowerment were the provision of biological asserts and animal vaccination each at (nine percent), while marketing and land related issues were each at seven percent.

Trends on Infrastructural Development per Commodity in Gauteng Province

The results from Table 2 show a summary of the four infrastructures of farming systems which have been funded by CASP over six financial years in the different municipalities of Gauteng province. The table shows the number of farms funded in the different infrastructures for the six financial years. The sixth infrastructure is mixed farming were some farmers in the municipalities funded were practicing both poultry and horticulture farming systems. The mixed farming infrastructure was added to the list seeing that some farmers in the Gauteng province which were funded by CASP were also practicing this kind of farming.

In the first CASP financial year 2004/2005, horticulture infrastructure seems to have the highest number of farms, having 16 vegetable farms being funded. This is followed by the poultry infrastructure with 11 farms being funded. The results from Table 2 also further show that there were no field crop infrastructure farms funded in the first financial year, may this be because there were no field crops farms to fund at the time.

Table 2: Trends in farm infrastructure developed per year in Gauteng Province

<i>Year</i>	<i>Poultry</i>	<i>Animal</i>	<i>Field crops</i>	<i>Horticulture</i>	<i>Mixed</i>	<i>Total</i>
2004/2005	11	10	0	16	3	40
2005/2006	3	8	0	1	4	16
2006/2007	17	12	1	20	4	54
2007/2008	92	30	3	18	1	144
2008/2009	88	50	42	34	0	214
2011/2012	33	30	3	36	0	102
Total	244	140	49	125	12	570

In the second CASP financial year 2005/2006, we still observe that field crop infrastructure was not funded. Looking at Table 2 researchers highlighted that field crop infrastructure was the least funded farming system throughout the six CASP financial years except for the 2008/2009 financial year where 42 crop farms were funded. There was a very high increase compared to the other years and in the following year 2011/2012 the field crop farms funded dropped significantly to only 3 farms being funded in that year. This also raises a question of whether there were no crop farms that needed to be funded in the region. Financial year 2005/2006 shows to be the year with the least number of farms being funded across board with regards to all infrastructures, a total of 16 farms were funded.

Poultry infrastructure compared to other infrastructures has a higher number of farms which have been funded throughout all the CASP financial years, with a total of 244 farms being funded. The infrastructure with the least number of farms is field crops with only 49 farms funded by CASP. The financial year with the most number of farms funded by CASP is 2008/2009 with 214 farms funded and the financial year with the least number of farms funded is 2005/2006 with only 16 farms funded. This shows that most farmers funded by CASP practice poultry farming, be it layer or broiler farming and few farmers practice field crop farming.

Trends in Number of Women funded through CASP in Gauteng Province

It was noted that Table 3 shows that the financial year 2005/2006 had least number of women farmers who were supported by CASP with a total of 10 women funded. Financial year 2011/2012 had 105 women farmers who were supported which was the highest number of women farm-

ers across all financial years. The highest total number of women farmers supported throughout all the financial years fall under poultry infrastructure with 163 women in poultry farming being supported by CASP. This raises a question of whether the women farmers prefer poultry farming more than other type of farming infrastructures. The infrastructure with least number of women farmers is field crop farming infrastructure with only 24 women supported in that field. A total of 341 women were supported in the Gauteng region throughout the CASP financial years.

Table 4: Number of women farmers compared to male farmers per year in Gauteng Province

<i>Year</i>	<i>Female</i>	<i>Male</i>	<i>Total</i>
2004/2005	20	20	40
2005/2006	10	6	16
2006/2007	30	24	54
2007/2008	99	45	144
2008/2009	77	137	214
2011/2012	105	0	105
Total	341	232	573

The results from Table 4 give more comparison between the number of male farmers and female farmers. This gives an idea on how many women are being supported by CASP compared to men. As it is depicted above in Table 4, more women were supported by CASP compared to men throughout the six financial years except for financial year 2008/2009 with 341 women and 229 men. The observation in Table 4 does not necessarily give us a picture of the exact number of men farmers because the estimation was done by subtracting number of women from the number of farms supported by CASP. We cannot have a precise number of men farmers because the data does not mention how many men

Table 3: Trends in women farmers supported by CASP in Gauteng Province

<i>Year</i>	<i>Poultry</i>	<i>Animal</i>	<i>Field crops</i>	<i>Horticulture</i>	<i>Mixed</i>	<i>Total</i>
2004/2005	7	7	0	5	1	20
2005/2006	2	3	0	1	4	10
2006/2007	9	5	0	15	1	30
2007/2008	73	13	0	12	1	99
2008/2009	39	5	21	12	0	77
2011/2012	33	33	3	36	0	105
Total	163	66	24	81	7	341

farmers there are. In the data given, most farms contain more than one woman farmer.

Trends in Budget Allocation per Commodity in CASP Funding in Gauteng Province

Based on the analysis, Table 5 is depicting a summary of the budget spent on the five infrastructures of farming systems which have been funded by CASP over six financial years in the different municipalities.

The table shows the amount of money spent while funding the different infrastructures for the six financial years. Financial year 2004/2005 shows that the horticulture received the highest budget of R1 566 000.00 compared to the other infrastructures. This may be because more farms which were funded fall under the horticulture infrastructure with 16 vegetable farms being funded (see Table 1). It was noted that Table 3 shows that there were no field crop infrastructure farms funded in the first financial year, this resulted to no budget assigned for the field crop infrastructure.

In 2005/2006 financial year field crop infrastructure was also not assigned a budget because of no field crops farms funded by CASP, this is also the case for the 2007/2008 financial year. Field crop infrastructure has the least total budget amount assigned of R4 247 000.00 while

the highest total budget was assigned to poultry infrastructure with R26 184 883.00. We see a small budget assigned in the 2005/2006 financial year and this may be because in this year few farms were funded across board with regards to all infrastructures, with only 16 farms funded.

The results from Table 6 show how women farmers were funded throughout the six financial years across commodities. Based on Table 6 results, it was evident that in 2007/2008 poultry had much more budget assigned to it than any other infrastructure.

Poultry infrastructure compared to other infrastructures had more farms which have been funded throughout all the CASP financial years, with a total of 244 farms funded hence the bigger budget as mentioned above. Although financial year 2008/2009 has more farms funded, 2007/2008 financial year received bigger budget of R17 803 000.00 across all infrastructures.

Table 7 shows that more budgets were allocated to women farmer than men farmers. One of the reasons why more budget has been allocated to women is based on the fact that women are actively involved in agriculture activities than men, and women are the majority than men. It was also noted that women are encouraged to be actively involved in agriculture sector by the current government.

Table 5: Trend in the budget allocated per year

Year	Poultry	Animal	Field crops	Horticulture	Mixed	Total
2004/2005	1352000	850500	0	1566000	650000	4418500
2005/2006	232934	504890	0	125000	535880	1398704
2006/2007	2916949	1515000	139000	1895051	335000	6801000
2007/2008	9930000	4682000	318000	2690000	183000	17803000
2008/2009	5266000	963075.7	3588000	5826000	0	15643076
2011/2012	6487000	4118570	202000	4571996	0	15379566
Total	26184883	12634036	4247000	16674047	1703880	61443846

Table 6: Trend in the budget allocated for women farmers

Year	Poultry	Animal	Field crops	Horticulture	Mixed	Total
2004/2005	905000	300500	0	535500	105000	1846000
2005/2006	57467	216630	0	125000	535880	934977
2006/2007	1526949	445000	87017	918551	70000	3047517
2007/2008	7100000	1902000	0	1817000	183000	11002000
2008/2009	3501000	380000	3588000	2997000	0	10466000
2011/2012	6487000	3832430	202000	4571996	0	15093426
Total	19577416	7076560	3877017	10965047	893880	42389920

Table 8: Number of women farmers per year in Gauteng Province

<i>Year</i>	<i>Poultry</i>	<i>Animal</i>	<i>Field crops</i>	<i>Horticulture</i>	<i>Mixed</i>	<i>Total</i>
2004/2005	7	7	0	5	1	20
2005/2006	2	3	0	1	4	10
2006/2007	9	5	0	15	1	30
2007/2008	73	13	0	12	1	99
2008/2009	39	5	21	12	0	77
2011/2012	33	33	21	12	0	99
Total	154	66	42	57	7	326

Table 8 shows the growth in the number of women from 2004 / 2005 to 2011/ 2012. In the financial year 2007/2008 we see that poultry infrastructure had more women farmers being supported across board with 73 women farmers being supported, the majority being in poultry.

In the Table 7 we also see that few women were supported by CASP in financial year 2005/2006, this may be because of the number of farms which were supported in that year (Table 8). The year 2011/12 also shows more women were supported by the provincial government compared to men.

CONCLUSION

This paper highlighted that in the first CASP financial year 2004/2005, horticulture infrastructure seems to have the highest number of farms, having 16 vegetable farms being funded. This is followed by the poultry infrastructure with 11 farms being funded. Poultry infrastructure compared to other infrastructures has a higher number of farms which have been funded throughout all the CASP financial years, with a total of 244 farms being funded. The infrastructure with the least number of farms is field crops with only 49 farms funded by CASP. The financial year with the most number of farms funded by CASP is 2008/2009 with 214 farms funded and the financial year with the least number of farms funded is 2005/2006 with only 16 farms funded. This shows that most farmers funded by CASP practice poultry farming, be it layer or broiler farming and few farmers practice field crop farming.

The results from this paper show that female farmer are getting more infrastructural, financial supports from the Gauteng Department of Agriculture and Rural Development compared to the male counterpart. The results further highlighted that the majority of female farmers are farm-

ing broiler compared to the male farmers. As highlighted in the main paper poultry infrastructure has been funded compared to other infrastructure and has a high number of farms which have been funded throughout all the CASP financial years with a total of 244 farms being funded. This shows that most farmers funded by CASP practice poultry farming, be it layer or broiler farming and few farmers practice field crop farming. In this paper it was found that the financial year 2011/2012 had 105 women farmers who were supported through CASP which was the highest number of women farmers across all the financial years assessed. Financial year 2004/2005 shows that the horticulture received the highest budget of R1 566 000.00 compared to the other infrastructures. This may be because more farms which were funded fall under the horticulture infrastructure with 16 vegetable farms being funded.

RECOMMENDATIONS

Some of the reasons why more budgets have been allocated to women is based on the fact that women are actively involved in agriculture activities than men, and women are the majority than men. It was also noted that women are encouraged to be actively involved in agriculture sector by the current government, this is commendable and it needs to be recommended even for the future project activities. In the financial year 2007/2008 we see that poultry infrastructure had more women farmers being supported across board with 73 women farmers being supported, the majority being in poultry. It was also noted that few women were supported by CASP in financial year 2005/2006, this may be because of the number of farms which were supported in that year. The year 2011/12 also shows more women were supported by the provincial gov-

ernment compared to men. This is in line with government initiatives on women empowerment.

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