

RESEARCH ARTICLE

Assessment of women centered agricultural extension programmes in Balangoda Agriculture zone in Sri Lanka

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ABSTRACT

In Sri Lanka, a significant number of new agricultural extension programmes has been launched by the Department of Agriculture (DOA) not only for male farmers but also for female farmers in order to uplift their living standards. Although, there is a very high proportion of labour force in the sector only a little pay contribution is made to the Gross Domestic Production (GDP). Hence, it is less productive. A major proportion of the agricultural labour force is female workers. Thus, this research assesses the impacts of agricultural extension programmes on women farmers in Balangoda Agriculture Division of Ratnapura district. Although, the extension programmes provided in this context have been useful, adoption levels of these extension programmes by women farmers were not so satisfactory. According to findings, 15 agricultural extension programmes have been conducted by the DOA. Among them, more adoption rates were found in “food technology and nutrition” and “kitchen management” programmes. Impacts of the extension programmes on women farmers were found as finding an extra income for their family, gaining knowledge on management of family health, nutrition level, reduction of family expenditure, enhancement in educational opportunities and having positive changes in their lives. Providing more support and market facilities will give better impacts of these programmes for the women farmers. Moreover, extension officers have to encourage and motivate women farmers to maintain these businesses in sustainable manner.

Keywords: *Agricultural extension programmes, women farmers, adoption, impacts, Sri Lanka*

INTRODUCTION

Agriculture plays a vital role in Sri Lankan economy as a source of food and an export earner. In 2015, agriculture sector contributed 8.7 percent to the national Gross Domestic Production, GDP (The World Bank, 2015a) and employed 30.9 percent of the labour force (The World Bank, 2015b). In order to enhance the importance of agriculture, knowledge and technology must be introduced. The highest employment share is in the service sector and this is true for both male and female whereas the agriculture sector has secured the lowest share. Among the employed female, 30.4 percent is in agriculture sector while this share is 25.1 for males (Department of Census and Statistics, 2017). This is where the agricultural extension or advisory services are important.

Agricultural extension is an ongoing process of disseminating new useful information to farmers while assisting people to acquire necessary knowledge,

skills and to change unfavorable attitudes that fuels in efficient utilisation of information or technology (Swanson and Claur, 1984). According to van Den Ban and Hawkins (1996), the goal of an extension is to ensure that increased agricultural productivity is achieved by stimulating farmers to use modern and scientific production technologies developed through research. Williams (1997) has viewed extension as an education system for teaching farmers (adult, women and youths), how to raise their standard of living by their own efforts using their own resources and providing them with scientific knowledge to solve their problems. Therefore, agricultural extension is expected to help farming in many ways.

Although, agricultural extension services are prominent in many countries, gender disparity in extension programmes has not been acknowledged much (Ngodoo and Idisi, 2014). Rivera and Corning (1990) stated that extension programmes are essential and they empower female farmers to engage in official development efforts. As per Gilles (1981) though 50% of farm women are involved in agricultural production activities most of them are not farm operators or managers. Most of the time, women are excluded from the benefits of extension even though they play a key role in agriculture.

Moreover, Oladejo *et al.* (2011) has stated that although, women are regarded as homemakers, they are engaged in manual processing of food crops and other farm product in addition to their housekeeping duties. They do planting, fertilizing, weeding, harvesting and processing. Women farmers work hard to grow food for themselves, their families and for sale. Women are more likely to focus their spending on their children's nutrition, education and health. Women also are integral to alleviate hunger and malnutrition because they are primarily responsible for ensuring food for their families in reliable available, accessible and nutritionally balanced manner. Therefore, women farmers' access to extension services enhances agriculture production and household food security (Ogato, *et al.*, 2009; Mehra *et al.*, 2008).

Furthermore, women play a significant role in agriculture all over the world. About 70% of the agricultural workers, 80% of food producers, and 10% of those who process basic food stuffs are women and they also undertake 60 to 90% of the rural marketing; thus making up more than two-third of the workforce in agricultural production. In Asia, women provide much of the labour for producing the staple crop, rice (FAO, 1985). Acharya and Bennett (1983) have reported that women perform 66% of the labour involved in planting, 75% in weeding, and all of the cleaning and storage of rice. In the production of wheat, they contribute 66% of the work for maize, 94% for oil seeds and 85% for millet. In addition, they make 42% of the agricultural production decisions and are most influential about seed selection and fertilizer use.

A similar trend can be seen in Sri Lanka as well. According to the Department of Census and Statistics (2015) women constitute 51.6% of the population. 30.4 %

women contribute to agricultural sector. Out of the female population 77.4% are in the rural sector. Womens' contribution to agriculture is increasing to the national economy. Rural women perform numerous labor intensive jobs in agricultural production such as land clearing, land tilling, planting, weeding, fertilizer/manure application, harvesting, food processing and livestock management (Malkanthi, 2016; Sireeranhan, 2013).

The farm women agricultural extension service was initiated in 1970 and further developed in late 1980s. Female extension workers were mobilised to assist farm women in establishing home gardens and other farming activities to improve the income and nutrition of farming families. This service was also subsequently made gender neutral by including male extension workers with special training. In 2006, farm women organisations were registered under DOA and women were assisted to start small enterprises giving training and partly funding to buy equipment. In 2011, women entrepreneurship promotion programme was initiated for training farm women in food processing, planting material production and *etc.* (Wanigasundera, 2015).

The fact that women play a crucial role in agricultural production and trade has been widely ignored by the development planners. Women have been excluded from training programmes of modern methods of crop cultivation, food production, labour-saving technologies, livestock and poultry management, small-scale industries, marketing and services. Credit for technological improvements in agriculture is seldom made available to women. Membership in cooperatives through which agricultural loans are generally channeled is restricted to "heads of households" that are traditionally defined as male (Dulyapach, 1985). However, it seems that few women participate in the training programmes in many countries (Gwivaha, 2015). The government officers claim that women are not interested in new technology while according to non-governmental agencies, the number of women candidates always exceeds the capacity of their training budget". This was corroborated by women farmers at a workshop on: "Directions for strengthening the role of women farmers" (FAO, 1994).

Since late 1980s, the Department of Agriculture (DOA) in Sri Lanka has attempted to change semi commercialised peasant agriculture in to science-based, market-oriented agriculture. In this effort, new agricultural technologies, management practices and interventions have been developed and introduced to the rice farming community. Almost all these agricultural development projects specifically target at male farmers (Samuel, 2001). Therefore, gender concern needs to be main stream in the agricultural extension process in which many activities are targeted at the farming community in coordination with the private sector and in-line ministries. Targeted womens' groups within the food crop sector have yet to be identified by the policy makers to develop and disseminate new technology and information relevant to their work. Awareness of the importance of adopting gender-responsive policies and implementation of such

programmes in certain areas should be take into account the fact that women could be developed (Mehra and Rojas, 2008). Although, some actions have been initiated to recognise in the and value of women's' contribution to the national economy in various aspects in many countries, further development and modifications of them are timely important (Kabir, 2012).

Women participated in few training programmes need to be developed so that relevant level of attention can be paid for women farmers' training. Also, education requirement has to be highlighted for the need of recruitment and training of more women extension services (Wanasundera, 2006). Maintenance of a DOA labour force database in Sri Lanka by gender could justify, initiate and guide policy formulation, generation of technologies and implementation of development activities targeting at women to facilitate their contributions in Agricultural development. Womens' Agricultural Extension (WAE), which was initiated in 1970 works solely for the women in the food crop sector. The programme activities were formulated in the food crop sector. The programed activities are in a way to be incongruous with the timely national needs and needs of people (Samuel, 2001).

After identifying the importance of increasing knowledge of women farmers for their farm families, Training and Extension Division of DOA launched several extension programmes for women farmers. This study was an attempt to assess the impacts of women farmers' extension programmes of Balangoda ADA division in Sri Lanka.

Objectives of the study

Main objectives of the study were (a) to identify women farmers' agricultural extension programmes conducted by the DOA to study socio-economic characteristics and adoption levels extension programmes by women farmers, (b) to evaluate the impacts of extension programmes for women farmers who involved in the womens' extension programmes and (c) to assess the constraints of women farmers in starting businesses after participating in extension programmes.

Conceptual framework of the study

Extension programmes of DOA are important for the women farmers in many countries. However, socio-economic factors of them are affecting for the participation of them in these programmes. According to the (Haile, 2016: Tologbonse *et al.*, 2013) factors affecting on women farmers' participation in agricultural extension services for improving the production in rural district and also factors influencing women participation in women in agriculture (WIA) programme. Furthermore, some constraints of women farmers make them unable to start small-scale businesses. Therefore, impacts of extension programmes are mainly based on the interaction between the situation of extension programmes, the socio-economic condition of the women farmers and

also constraints faced by the women farmers. Study reveals that socio-economic factors affecting on the adoption of improved agricultural technologies among women farmers (Sulo *et al.*, 2012) and they are presented in Figure 1.

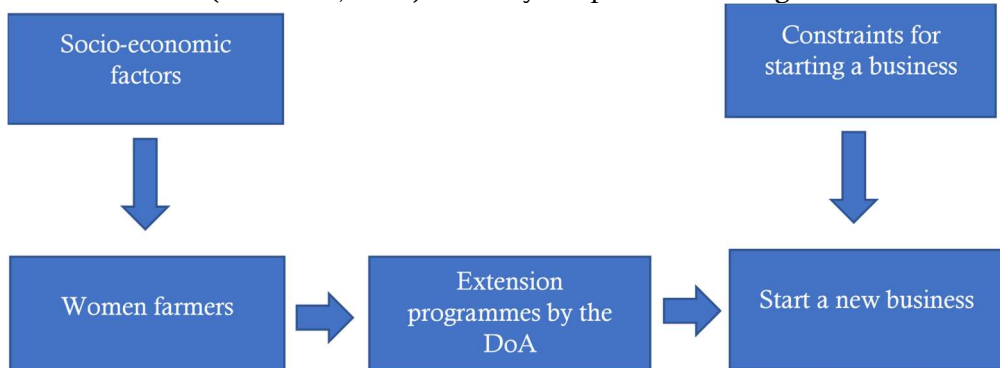


Figure 1: Conceptual framework of the study

METHODOLOGY

Study area

Balangoda Assistant Director Agriculture (ADA) division was selected as the study area (Figure 2). It is located in Ratnapura district, 143 km away from Colombo and also 42 km away from Ratnapura. It is one of the largest ADA divisions of the Sabaragamuwa Province. Total of 84,486 of people are living; where males are 48.7% and females are 51.2% (Department of Census and Statistics, 2016). As it belongs to Agro Ecological Zone of Mid Country Wet Zone, there is a comfortable climate condition. Agriculture is successfully conducted and vast array of crops can be successfully grown in the area. Out of the population of the area, majority (52%) is women and most of them are engaged in agriculture and allied activities.



Figure 2: Sri Lanka map showing the study area.

Research design

In Balangoda ADA, there were 300 registered women farmers at office who have participated in women extension programmes. Out of them, a sample of 50 women farmers were randomly selected for the study. A household survey was conducted using a researcher administered questionnaire to gather necessary data during March-September 2016. Other than the survey, few group discussions and participatory observations were also undertaken to get in-depth information about the situation. In data analysing, descriptive statistics such as frequencies, percentages were used. Data analysis was carried out using Ms Excel.

RESULTS AND DISCUSSION

Results of the study are presented under four sections as women farmers' agricultural extension programmes conducted by Balangoda ADA office, socio-economic characteristics of women farmers, impacts of women agricultural extension programmes and factors constraining women farmers' active participation in the extension programme.

Women farmers' agricultural extension programmes conducted by Balangoda ADA office

Fifteen extension programmes have been conducted for women farmers by Balangoda ADA office. They are presented in Table 1. Among them, nursery management programme provides knowledge and skills on different types of nurseries important for the area such as flower plants, plants for home gardens, forest plants and so on. Cut flower cultivation programme gives knowledge on production, processing of various cut flowers in the area like Roses, Anthurium, Orchids, and Carnation *etc.* Home gardening programme gives knowledge and skills on home gardening practices such as selection of important crops for family requirements, cultivation, management, harvesting of these crops. The programme on rice boiling with new techniques provides knowledge and skills on new methods and techniques for better quality boiled rice production. Value added milk production programme gives knowledge on production of different types of milk products such as yoghurt, curd, flavored milk *etc.* Value added fruit and vegetable production programme gives knowledge and skills on processing of fruits and vegetables like cordials, jam, jelly, chutney, and pickles. Value added rice production programme provides knowledge and skills on ready to cook rice, and double polished rice *etc.* Bee keeping and honey processing programme gives knowledge and skills on bee keeping practices and bee honey making. Programme of attitude changing provides knowledge and skills positive thinking, helping each other. Post-harvest technology programme gives knowledge and skills on new post-harvest practices. Self-employment programme and distribution of necessary equipment programme delivers knowledge and skill on important self-employment business for these women farmers like ice cream production, yoghurt production, herbal porridges production, spices production, short eats preparation *etc.* and provision of necessary equipment at subsidized rates.

Table 1: Women farmers' extension programmes conducted by Balangoda ADA office.

Serial No	Name of the Extension Programme	Aim of the programme
01	Nursery management	If small-scale; to prepare own seedlings, If large-scale; as a business
02	Cut flower cultivation	As a business
03	Home gardening	If small-scale; to meet the family vegetable requirement If large-scale; as a business
04	Rice boiling with new techniques	If small-scale; to prepare the family rice requirement If large-scale; as a business
05	Value added products from milk	As a business
06	Value added fruit and vegetable production	As a business
07	Value added rice production	As a business
08	Bee keeping and honey processing	If small-scale; to prepare family bee honey requirement If large-scale; as a business
09	Programme of attitude changing	To create positive thinking
10	Post-harvest technology	If small-scale; to protect their harvests If large-scale; as a business
11	Self-Employment programme and distribution of necessary equipment	To support self-employment activities
12	Mushroom production	As a business
13	Improve saving	To support enhancing savings
14	Kitchen management	To maintain a clean, efficient and effective kitchen with using a minimum cost
15	New food technology and nutrition	To prepare a nutritional diet at low a cost

Mushroom production programme provides knowledge and skills on mushroom preparation, processing and marketing. Improving saving programme gives knowledge and skills on improving the savings of them. Kitchen management programme offers knowledge and skills on how to improve the cleanliness, economic condition, productivity of a kitchen. New food technology and nutrition programme provides knowledge and skills on preparation of nutritious

food at low cost using items from own land or home garden, preservation of nutrition level of food and production of organic food for the family *etc.*

These programmes have been designed for women farmers by analysing several factors such as education level, nature of the agriculture sector of the area, available resources and marketing facilities on the area and so on. These programmes were aimed to give education, knowledge and relevant skills for the women farmers to engage in those activities, to obtain extra income in order to uplift their living standards.

Profile of the registered women farmers in Balangoda ADA office

Important socio-economic characteristics of women farmers were studied. Their profile is presented in the Table 2.

Table 2: Profile (socio-economic characteristics) of women farmers.

Socio-economic characteristics	Percentage (%)
Age	
20 – 30	04
31 – 40	02
41 – 50	66
51 – 60	30
Marital status	
Single	08
Married	92
Educational Level	
Primary	02
Pre secondary	20
Up to G.C.E O/L	46
Up to G.C.E A/L	28
Other	04
Family size	
Less than 3	02
Between 3 – 5	04
Between 6 – 8	68
More than 8	26
Average monthly income of Family (LKR)	
8,000 – 12,000	50
12,001 – 16,000	32
16,001 – 20,000	14
>20,000	04

Educational level, average monthly income of the family, family size and marital status were assessed as the main socio-economic characteristics. Majority of women farmers belonged to between 41 – 50 years age category (66%), educated

up to O/L (46%), married (92%) and having more than 6 – 8 members in their families (68%). Furthermore, most of them were having average monthly income in between 8000 – 12000 LKR (50%), which will be a good potential to engage in agriculture activities because they can find certain amount of this monthly income as a part of initial capital requirement.

Percentage of the adoption for different extension programmes

Percentage of the adoption by the participants of those 14 programmes among 15 programmes after the training programmes were evaluated. Findings are presented in Table 3.

Table 3: Percentage of the adoption of women farmers after participating in the extension programmes.

Serial No.	Name of the extension programme	Adopted percentage (%)	Rank
01	Nursery management	44	09
02	Cut flower cultivation	19	11
03	Home gardening	99	02
04	Manufacturing the boiling Rice by using new techniques	08	14
05	Manufacture value added products from milk	34	10
06	Value added products from fruit and vegetable	86	04
07	Value added products from rice	08	13
08	Bee keeping and honey processing	10	12
09	Post-harvest technology programme	76	05
10	Self-employment programme and distribution of necessary equipment	46	08
11	Mushroom production	54	07
12	Saving enhancement	58	06
13	Kitchen management	100	01
14	New food technology and nutrition management	98	03

As per the Table 3, percentage of the adoption was more than 80% in the four programmes; kitchen management, home gardening, new food technology and nutrition management and value added products from fruit and vegetable. These were the mostly practiced programmes by them.

Also, remaining percentages of adoption in other programmes are respectively post-harvest technology programme, saving enhancement, mushroom production, self-Employment programme and distribution of necessary equipment.

Manufacturing the boiling rice by using new techniques had the least percentage of adaption from programme.

Evaluate the impacts of extension programme for women farmers

Conducting business activities after participating in the extension programmes

As mentioned in Table 1, while the aim behind some of those extension programmes was to encourage the women farmers to enhance their family condition, aim of some extension programmes was to encourage them to start small businesses. Thus, the number of participants who have started businesses were studied. The findings are shown in Table 4.

Table 4: Percentage of women farmers who have conducted a business after participate in extension programmes.

Category	Percentage (%)
Conducting a business	38
Did not start a business	62

According to the results of the Table 4, only 38% of women have conducted different kinds of business activities. However, others practiced only at household level to improve their household management. Those women extension programmes provided technical knowledge to enhance their family conditions as well as to conduct various kind of self-employment opportunities to gain extra income for them. Not only the education and training, but also the DOA had provided necessary equipment to start business by providing 50% subsidy programme as an incentive. However, some women farmers explained that although they were willing to start businesses using the knowledge and skills gained from the extension programmes they had several problems such as lack of space, financial support, difficulties in finding raw materials, and market problem *etc.* in doing so.

Different types of business conducted by women farmers

Furthermore, an in-depth study on the types of business conducted by women farmers was conducted. Table 5 illustrates the different types of businesses as well as the number of women who conduct each business.

Average monthly income gained from these businesses by women farmers

Average monthly income from the businesses conducted by the women farmers was analysed. The findings are presented in Table 6.

Table 5: Types of businesses conducted by women farmers after participating in extension programmes.

Business	Number of women farmers	Percentage (%)
Mushroom production	01	02
Home gardening	05	10
Leafy vegetables production	03	06
Ice cream production	01	02
Yoghurt production	01	02
Sweets production	02	04
Herbal porridges production	03	06
Spices production	01	02
Short eats preparation	01	02
Nursery management	01	02

As per the Table 5, there are eleven kinds of businesses conducted by women farmers to gain extra income. Out of them, 10% were conducted homegardening. Leafy vegetable cultivation and herbal porridges were the next important types of businesses that were conducted by these women farmers.

Table 6: Average monthly income gained from businesses.

Average monthly income (LKR)	Number of women farmers	Percentage (%)
5,000.00 – 8,000.00	11	22
8,001.00 – 11000.00	06	12
11,001.00 – 14,000.00	02	04

There were three types of income categories. 19 women farmers were conducting businesses out of the 50. Majority of them had received the average monthly income in between 5,000 -7,000 LKR from their businesses.

The women farmers' opinions on agricultural extension programmes

In order to evaluate the impacts of extension programmes for women farmers, those programmes were evaluated using 5 point Likert scale: very important (VI), important (IM), no idea (NI), less important (LI) and not important (NI). The findings are presented in Table 7.

Table 7: The women farmers' opinions for extension programmes.

Number	Extension Programme	Importance of extension programmes for reduction of household expenditure				
		VI (%)	IM (%)	NI (%)	LI (%)	NI (%)
01	Nursery management	45	20	35	–	–
02	Cut flower cultivation	36	27	37	–	–
03	Home gardening	95	03	02	–	–
04	Manufacturing the boiling Rice by using new techniques	38	18	44	–	–
05	Manufacture value added products from milk	27	34	39	–	–
06	Value added products from fruit and vegetable	33	24	43	–	–
07	Value added products from rice	42	17	41	–	–
08	Bee keeping and honey processing	31	25	44	–	–
09	Programme of attitude changing	84	13	03	–	–
10	Post-harvest technology programme	28	29	43	–	–
11	Self-Employment programme and distribution of necessary equipment	76	24	08	–	–
12	Mushroom production	41	23	36	–	–
13	Saving enhancement	27	32	41	–	–
14	Kitchen management	83	14	03	–	–
15	New Food technology and nutrition management	78	21	01	–	–

VI – very important, IM – important, NI – no idea, LI – less important, NI – not important

As per the findings, majority of the women farmers (>75%) believed that out of 15 programmes, 6 programmes (home gardening, programme of attitude

changing, self-employment programme and distribution of necessary equipment, kitchen management and new food technology and nutrition management) are highly important for the reduction of expenditure at home. Moreover, no one was there having the perception of that these programmes are not important.

Women farmers' view on positive changes of the lives of women farmers

For the purpose of identifying the positive changes of the life of women farmers, resulting from participation in the women extension programme, six useful statements were identified and evaluated using five point Likert-scales same as the above. Findings of them are presented in Table 8.

Table 8: Women farmers' view on positive changes of the resulting from participation in the extension programme.

Change in women's life	Importance of extension programmes				
	VI (%)	IM (%)	NI (%)	LI (%)	NI (%)
1. Financial independent	76	21	07	–	–
2. Acquisition of property	47	28	25	–	–
3. Increase financial contribution	74	26	06	–	–
4. Increase financial contribution	83	12	05	–	–
5. Enhance decision making	75	13	12	–	–

VI – very important, IM – important, NI – not idea, LI – less important, NI – not important

According to the results of the Table 8, majority of the women farmers believed that those programmes were highly important for positive changes of their lives. Other than the second factor or acquisition of property, more than 70% of women farmers believe that all the other factors have been improved up to a significant level.

Constrains of women farmers in starting businesses after participation in the extension programmes

In order to identify the constrains of women farmers in starting businesses after participation in the extension programme, nine possible constraints were identified and they were evaluated by using 5 point Likert-scale: highly affecting

(HF), affecting (AF), no idea (NI), less affecting (LA) and not affecting (NA). Factors and ultimate results are shown in Table 9.

Table 9: Constraints of women farmers in starting businesses after participation in the extension programme.

Constraining factor	Women famers' view				
	HA (%)	AF (%)	NI (%)	LA (%)	NA (%)
1.Lack of capital and credit facilities	84	14	02	–	–
2.Lack of labor for business operations	65	23	12	03	–
3. Lack of space for the cultivation	58	30	08	02	–
4.Low demand of the consumers for the processed products	52	34	14	–	–
5.Husband's negative influence	53	31	12	03	–
6.High cost of adequate processing and storage equipment	42	28	18	12	–
7.High cost of inputs for processing	52	37	11	–	–
8.High level of extension agents turnover	37	34	15	14	–
9.Incompatibility of the technology to local norms& values	18	26	35	15	06

HF – highly affecting, AF – affecting, NI – no idea, LA – less affecting, NA – not affecting

According to the findings, out of nine constraints, 6 factors were highly affecting avoidance of starting up a business after participating in the extension programmes (lack of capital and credit facilities, lack of labor for business operations, lack of space for the cultivation, low demand of the consumers for the processed products, husbands' negative influence and high cost of inputs for processing). Specially input related problems and marketing problems were in among these 6 constraints. Moreover, husbands' negative influence was significantly acting as another constraint in starting businesses after participating in the extension programmes. Even though, women had wealth and decision making ability, she has to give the priority for her husbands' decisions, because still there is a male dominate society.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on the findings of the study, several important conclusions can be drawn. Balangoda ADA office of DOA is conducting very useful extension programmes for the women farmers in Balangoda area. All these programmes have been planned to provide good knowledge and skills for them to engage in different kinds of agricultural and business activities.

Socio-economic condition of women farmers is suitable for agricultural and business activities in order to find extra income for them. Especially, age level and educational qualifications of them are in a good level to understand new information by these women farmers.

Adoption levels by women farmers for some extension programmes are at significant levels. For example, home gardening, value added fruit and vegetable production, programme for attitude changing, kitchen management and new food technology and nutrition management. These are useful and important programmes for all of them. For some programmes, it is at a moderate level because some programmes are not highly useful for them. Not only that, adoption levels of some programmes are at lower levels. This is due to some problems with these programmes and also some constraints faced by women farmers.

Although, majority had not started businesses based on the knowledge and skills, a significant percentage of women farmers started and continue small-scale businesses and earn some amount of extra income. Some of them have several constraints in starting a business.

Most of the extension programmes are highly useful for the reduction of household expenditure as they are able to provide benefits in various ways. Furthermore, those programmes have been planned to use existing household resources efficiently and in an effective manner.

Furthermore, these programmes were useful to make several positive changes in the lives of women farmers that are highly important for their day to day life.

In focusing constraints in starting businesses after participating in extension programmes by women farmers, out of nine constraints, six of them are highly affecting for the starting of businesses. Among these six constraints, three inputs related problems and other three are marketing problems.

Therefore, women extension programmes have the potential of providing gainful employment opportunities for them. Women extension programmes can empower women farmers to make entrepreneurial decisions on their own. Changing attitudes of women farmers can clearly change all family condition. If

a mother can earn some additional income, it is highly effective on the well-being of the family.

Recommendations

According to the findings of the research study, following recommendations were made in order to gain better impacts for women farmers from the extension programmes conducted by the Balangoda ADA.

At present, some women farmers are conducting business activities successfully and are having better impacts from the extension programme. The officers have to encourage and motivate women farmers to reach the sustainable levels. The research also urges the need of conducting frequent follow-up programmes and motivational programmes.

Since there are low demands for some products of women farmers, women extension programme planners should train them for quality management, quality control and proper marketing of products that they make.

Governments' attention should also be paid to arrange suitable alternatives for loan and credit facilities, land requirements, necessary inputs at reasonable prices and marketing and promotion for the products of the women farmers.

Women extension programme planners should include an awareness programme for the husbands of the women farmers to create positive attitudes in them towards the extension programmes and business activities conducted by women farmers so that they continuously participate in extension programmes and to start possible business activities.

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