

WOMEN PARTICIPATION IN AGRICULTURE AND ISSUES IN AGRICULTURAL EXTENSION IN SRI LANKA

B.S.A.K. Rathnayake^{1*}, N.W.M.G.S. Navaratne²

^{1*,2}Department of Agricultural Extension, Faculty of Agriculture, University of Peradeniya, Peradeniya, Sri Lanka

ABSTRACT: Agriculture occupies a special place in the Sri Lankan economy while women being essential contributors of it. In addition to the access and ownership to main production inputs such as land, water, planting materials, etc. access to agricultural extension services by the female farmers will also play a prominent role in this regard. Therefore, this paper aims to identify the status of women participation in Sri Lankan agriculture, the issues in agricultural extension system which hinders women participation in main agricultural activities and the strategies needed to make sure balanced agricultural extension is delivered to the community working towards socio-economic development. This article is based on a review of existing literature on women's participation in agriculture including agricultural extension services in Sri Lanka. It was found that as stated in literature, even though the proportion of employed population in agriculture sector is diminishing throughout the last five years, female share is still higher than male counterparts. Although women's contribution is still kept unrecognized, they women involve in almost all the sub- sectors of agriculture. Being an important stakeholder of national entire food production system, women's capabilities are being underutilized by limiting their opportunities in productive and profitable agriculture. It was evident that female farmers were having problems in participating extension programs while female extension officers were facing challenges in conducting effective extension programs. If these barriers are removed and the human resources, both male and female, involved in agriculture and agricultural extension is properly managed, productivity will boost in several folds. empowerment is a crucial factor to gain optimum benefits in agriculture. Therefore women involvement in extension and advisory programs is critically important to increase their position in agriculture. However it was clear that female farmers were having problems in participating extension programs while female extension officers were having problems in conducting extension programs. Hence, strong gender-sensitive policies are required to facilitate increase more women's participation in decision making and accessing resources in the agriculture sector.

Keywords: Women, Agriculture, Agricultural Sub-Sectors, Agricultural Extension.

1. INTRODUCTION

Agriculture occupies a special place in the Sri Lankan economy despite its relatively small contribution to gross domestic product (GDP) and its slow growth rate. It employs approximately one-third of the labor force and most of the rural population, which comprises 80% of the total population and either directly or indirectly engages in agriculture [1]. Women are essential contributors to agriculture and rural economies in developing countries. Although their role varies within and between different regions, their involvement is conspicuous irrespective of country borders [2]. Women, on average, comprise 43% of the agricultural labor force in developing countries and account for an estimated two-thirds of the world's 600 million poor livestock keepers [3]. With respect to the female share of employment in agriculture in the South Asian region for the last ten years, Bhutan has been maintaining the same portion (52%), while Iran has decreased female share from 26% in 2009 to 21% in 2017. Countries such as Pakistan (34% to 39%), Bangladesh (41% to 45%) and Sri Lanka (39% to 40%) are in a mode in increasing female participation in the agricultural labor force [4].

Even though the role, women play in agricultural production in the country is undebatable, the increasing share of women in the agriculture labor force is a worrying trend for two reasons. One is the lower wellbeing of female workers due to the lower wages that prevail in agriculture. The other is the resulting lower labor productivity in agriculture due to the difficulties female workers face in accessing productive resources and various services [1]. There are five dimensions to gender inequality in agriculture: land rights, productive resources, unpaid work, employment and decision making [5]. Women farmers typically achieve yields that are 20-30% lower than men. However, studies suggest that women are just as efficient as men and would achieve the same yields if they had equal access to productive resources and services. Bridging this gender yield gap would boost food and nutrition security globally. This increase could uplift the total agricultural output in developing countries by 2.5-4 percent and trim

down the number of starving people in the world by 12-17 % equivalent to 150 million people [6]. Being a country where female plays a key role in agriculture; Sri Lanka also has the potential for production improvement if women's position in agriculture is valued properly. In addition to the access and ownership to main production inputs such as land, water, planting materials, etc. access to agricultural extension services by the female farmers will also play a prominent role in this regard. Therefore, this paper aims I) to identify the status of women participation in Sri Lankan agriculture II) to identify the issues in agricultural extension system which hinders women participation in main agricultural activities III) to identify the strategies needed to make sure balanced agricultural extension is delivered to the community working towards socio-economic development.

2. METHODOLOGY

This article is based on a review of existing literature on women's participation in agriculture including agricultural extension services in Sri Lanka. Research articles, census reports, survey reports, development notes, research reports, working papers, desk reviews, discussion papers, conference proceedings, project papers were used to collect the data. The reference period for the literature was 2000 to 2019.

3. FINDINGS AND DISCUSSION

3.1. Women In The Agricultural Labor Force

Agriculture is playing a dynamic role in the economy since history. The profile of agriculture has certain chronological changes yet contributing significantly to the national economy. Even though its share is diminishing after 2002, the sector bears a significant amount of labor force (Figure 1). The percentage of the employed population in agriculture reduced from 28.9% in 2014 to 24.7% in 2019. Yet, the cohesion between agricultural and rural livelihood is significant than what statistics indicate.

From the economically active population in Sri Lanka, only 36% of them are female while about 75% of them are living in either rural or estate sectors. The female contribution to the agricultural sector employment is higher than in males (Table 1). The rural women are engaged in smallholder agricultural activities usually considered as 'family labor' [7].

Women work in agriculture as farmers on their account, as unpaid workers on family farms and as paid or unpaid laborers on other farms and agricultural enterprises. They are involved in both crop and livestock production at subsistence and commercial levels. They produce food and cash crops and manage mixed agricultural operations often involving crops, livestock and fish farming. All of these women are considered part of the agricultural labor force [8].

It is clear the status of majority in female labor force in Sri Lanka is 'contributing family worker' (Figure 2). In the latest data in 2019 reveals that the portion for contributing family members in agriculture is more than 50% [9]. Even though, proportion of employed population in agriculture sector is diminishing throughout the last five years (Figure 3), still the female share is higher than male counterparts. However it is noteworthy to find that percentage of female employed in agriculture has reduced from 36.9% to 26.5% within last five years. This may be associated with the reduction of total employed person in agriculture from 32.7% to 24.7% from 2009 to 2019.

In Sri Lanka women involvement in agriculture has spread in a wide spectrum. Women have engaged in almost all the sub-sectors of agriculture in the country.

3.1.1. Plantation Sector

During the British colonial period which lasted from 1796 to 1948, the principal economic activities were centered on plantation crops such as tea, rubber, and coconut. Especially in the tea plantations, the main source of labor power was female. The Indian Tamils, which made 5.6 % of the total population of Sri Lanka, were originally brought to the island from South India in the mid-nineteenth century by the British colonial rulers to work in the newly opened plantations. Tea is one of the main income earners of the country for a longer period. Women carry out plucking, cleaning, etc. in Tea plantations.

Tea Research Institute (TRI) and Tea Small Holding Development Authority (TSHDA) plays extension and advisory services for the tea sector today.

Clients in the tea plantation sector could be categorized into different types such as company executives who usually function from head offices, estate level executives (managers including assistant managers), supervisory staff in the field and factory. Worker category including worker leaders, male workers (usually sundry workers) and female workers (usually tea pluckers) are the lower-level employees. It is one of the mandates of the TRI extension system to cover all the employee categories in

the corporate tea plantation sector. It was found that lack of extension activities targeting middle and lower level plantation employees is the major drawback in the TRI extension system. The technologies/recommendations not adequately able to address location-specific problems, being most cost ineffective and incompatible with the socio-economic conditions/ problems prevail in plantations are the major problems related to the TRI technologies and recommendations. It has suggested the para-extension aid approach which would be a strong link between the TRI and middle/ lower-level employees of the plantations which in rum may take over the part of the technology transfer function to the middle and lower-level employees of tea plantations [10]. The female portion which is abundant among tea pluckers should be given greater attention in this regard since they are the starting point of the tea production cycle. On the other hand, it should be ensured that a fair share of female proportion is included in deciding the composition of field level extension staff. It has found that the percentage of female extension workers in TSHDA is 4.23% in 2009 [11].

There are not much studies available in the coconut, rubber and other plantation crops sectors which have special focus on women participation of the activities.

3.1.2. Food Crop Sector

During the colonial period, a few extents of food crops, mainly Paddy, were cultivated at subsistence level while “chena” cultivation was carried out for other crops. It was found that both in paddy and ‘chena’ cultivation farm level activities such as planting or transplanting, harvesting or plucking and selling products at home are completely carried out by female counterparts only [12]. Together with males they also contributes for all the other related drudgery involved in their farms such as land preparation, cleaning, sowing etc. Being an unpaid contributing family labour for these activities, these women have limited access to resources such as land, credits, technologies etc. It was found that only 16% of all owned land belong to women while only 20% of top positions in rural development societies are held by women [3]. This set up have created limited opportunities for women to involve in decision making process which is ultimately affecting their livelihood.

In order to develop livelihood of women, as the main state body involved with agricultural extension for food crop sector, Department of Agriculture has introduced some activities through farm women extension unit established in 1952. It is worthwhile to study up to which extent these initiatives will enhance bargaining power of women in agriculture.

Field level extension activities of food sector are carried out by both male and female Agricultural Instructors (AI). Irrespective of the technical knowledge and other aspects genders also have an impact for the communication occurs between farmers and AI.

It has been found that 41% of farmers are willing to get the service of male AIs expressing that they can work easily with male AIs than female AIs and 17% are willing to get the service of female AIs expressing that they can discuss their problems with female AIs in a friendlier manner than male AIs. Some research results indicate that female AIs are lesser competent in technology transferring compared to male AI officers.

3.1.3. Fisheries Sector

In Sri Lanka, fisheries have been a male-dominated sector for centuries. Women in Sri Lanka rarely go out for fishing except for short distances in small boats with seines on the Western coast and inland fishing reservoirs. There are a number of reasons for this, including the lack technologically advanced vessels that can be handled by both men and women; lack of skills in swimming and deep-sea diving; a lack of protection from gender-based violence at sea; the lack of acceptance of women going out to sea; and lack of childcare. There is some engagement by women in lagoon fisheries, especially for crab and prawn [3].

A research conducted in *Trincomalee* district [13], in the Eastern province of Sri Lanka, showed that, even though male fisheries officials, male community leaders, and fishermen consider women’s participation in fisheries as quite minimal, women do play an invisible key role in fishing activities. Unfortunately, women’s contribution to the fisheries sector (especially in post-harvest and marketing) is frequently unrecognized [14]. Therefore, women do not receive institutional recognition and they have been excluded from decision-making processes at both the household and community level. Furthermore, the research findings highlight that women participating in the seafood export processing industry work under poorer conditions than men and receive lower wages, and frequently do not have access to measures and benefits that can safeguard their health and safety, and provide other forms of social protection [3].

Paying attention to the post-harvest practices, even though women contribute more than men in cutting, salting and drying the fish, the marketing of dry fish in larger volumes is mainly done by men [3].

Figure 4 shows the men's and women's participation in the fisheries value chain. According to that females play a significant role in community work and accessing credit and loan facilities on behalf of their men.

In migrant fishing communities, women play a crucial role in fish sorting, processing, drying and even dragging boats ashore. About 75% of women in *Mannar* (North-West), *Trincomalee* and *Batticaloa* (East) and about 25% of Women in the west coast areas of *Negombo*, *Chilaw* and *Kalpitiya* area estimated to be engaged in fishing-related activities.

In some areas of the west coast, women take part in fishing with beach seines and in marketing both retail and wholesale [15].

Unlike in other parts of Sri Lanka, women in the East are less involved in marine fishery support activities participating more in lagoon fishing and activities such as mending of nets. Since men in these areas migrate seasonally and leave women behind, women have a desperate need for activities to improve their livelihoods [16].

Women are involved in supervising and marketing their catches, especially in areas on the west coast where there is predominant bottom trammel net fishing. On average, about 13 % of the crew members' wives are engaged in income-generating activities but a relatively higher percentage (18%) of boats owners' wives are employed as hired labor in the factories in nearby areas.

There is a need for interventions particularly in improving/upgrading skill levels of women so that they can survive the conditions that push them out of fisheries in Sri Lanka (Siaison *et al*, n.d). A well planned extension and training are required to fill the lapses in fisheries sector particularly for women in fishing communities.

3.1.4. Livestock Sector

Livestock is a substantial component of agricultural systems in Sri Lanka [3, 12, 17]. Although men have dominated this sector, women also play a major role in raising livestock and poultry. However, cattle and goat raising projects have proved to be a successful income-generating activity for poor rural women. Furthermore, while women attend to the actual rearing and milking of animals, mainly the men handle supplies to milk collection centers [12, 17]. However, as grazing has stressed on the land, production has changed to more intensive management systems and stall feeding. Therefore, rural women have got more opportunities to engage in cattle and goat production programs and earn additional income [12].

Since poultry production can be done within the household premises and managed in addition to women's traditional responsibilities in the home, there are significant numbers of women engaged in small-scale backyard poultry production. Women do the raising of birds based on buy-back agreements with poultry companies. But mainly the traders, either commercial intermediaries or companies who offer buy-back arrangements, are men [3]. Hence the inputs and extension services are also provided by those men, to their contractors.

Different studies showed that limitations in transport (e.g. availability, affordability and security for women) and a lack of access to training, market knowledge, opportunities for networking, loans, and markets, are preventing South Asian women from moving up the value chain [18]. Furthermore, gender norms around women and slaughtering activities also hinder women's participation in the latter stages of the livestock value chain [14].

Table 2 shows the women's involvement in the livestock value chain. According to that, still, women represent the minority at different stages of the value chain. Unfortunately, women's participation or the access to extension in the livestock sector was not well documented.

3.2. Why Women's Participation/Access to Agricultural Extension is Crucial?

Rural advisory services play an important role in rural development, particularly in agricultural production, and increasingly throughout value chain development. They are also an important element of agricultural innovation systems (AIS). Rural advisory services (RAS) can help both women and men farmers to increase their yields, connect with markets, and take advantage of entrepreneurship opportunities. However, globally, women have less access to RAS than men and the information, technologies and services provided tend to be less relevant to the needs of female farmers. According to the FAO State of Food and Agriculture Report 2011-2012, closing the gender gap in access to services would strengthen women farmers' productivity and therefore increase agricultural output in the developing world by an estimated 2.5 to 4 percent, reducing food insecurity related malnourishment by 12

to 17 percent [14]. In order to reduce the gender productivity gap, equal access to rural advisory services by women is crucial.

Gender equality in rural advisory services is defined by the Global Forum for Rural Advisory Services [19] as, “policies, institutional arrangements, and practices of rural advisory services that increase women’s agency and position with regard to sustainable livelihoods”. GFRAS suggests that three key elements in pursuing this are strengthening women’s ownership and control, increasing the number of women professionals, adopting gender-sensitive approaches and practices [3].

Being an important stakeholder of entire food production system, women empowerment is a crucial factor to gain optimum benefits in agriculture. Women empowerment in agriculture can be measured using five components which indicate the levels of empowerment, named welfare, access, awareness, participation and control [20-22]. By developing an extension system with special concern to gender aspect will be beneficial for the society at large.

3.3. Experiences from Former Extension Methods

There is various agricultural extension approaches evolved in the past. Among them, World Bank-led Training and Visit (T& V) system was a remarkable initiative which created significant impact in agriculture.

The T&V System of agricultural extension has helped to increase agricultural productivity impressively in several areas [23]. T&V method was introduced to Sri Lanka under the project entitled ‘the agricultural extension and adaptive research project’ in 1978. It created a unified extension system covering all food crops with a single line of command from the national to field level. T&V system provided regular and fortnightly training to extension staff, scheduled visits to farmers with relevant information to that fortnight and conducting Regional Technical Working Group meetings for preparation of regional extension and research plan and for bridging the research – extension linkage [24].

The extension division of the Department of Agriculture employed extension officers at district, segments, range and field levels. By that time there were 24 administrative districts and the designation of DAEO was changed to Assistant Director of Agriculture. A new post of segment agriculture officer was created and posted to guide and to supervise 20-30 field extension personnel. Farm families and ranges served by *KrushikarmaViyapathiSevaka* (KVS) (750 on an average) were divided to six clusters and 6 contact farmers were identified in each cluster. Each contact farmer was visited regularly fortnightly and it was expected that contact farmer delivered the messages to the other farmers [24].

These contact farmers are selected based on the adequate land ownership and economies of scale. Moreover, it often demands literacy which is essential to understand and apply new technologies. Women tend to be left out of the contact farmer system whether as those selected to be contact farmers or those reached by contact farmers. Women are less likely to be selected as contact farmers because of their resource constraints such as having small holdings, inadequate access to credits for purchasing.

However, T&V system of extension could not be continued due to drastic administrative changes and removal of KVSs from agriculture extension in 1987 [24].

3.4. Issues in Women’s Participation in Agricultural Extension

Female representation in among field level extension officers cadre varies time to time. After independence in 1948, a greater attention was paid by the government on paddy production. Irrigation schemes were renovated, peasant farmers were settled in colonization schemes and exerted more pressure to the Department of Agriculture for technology improvements and transferring to farmers. Apart from the small increase in the number of agriculture instructors (AI), 70 field demonstrators were appointed in mid 1950s to assist AIs. In 1952 a few female demonstrators were appointed to work with farm women on food preparation, food preservation, needle work and handicrafts. The farm women extension work terminated in 1964 and re-established with the assistance of Food and Agriculture Organization (FAO) in 1970 [24].

With respect to level of participation in extension activities in village level is more favorable towards male farmers. Membership in village level farmer organizations (FO) is important to have access to various agricultural inputs, carryout different agro-based social activities and particularly to receive extension services. During the past few decades empowering farmers’ organizations was emphasized in the irrigation rehabilitation projects in the North-Central and North-Western provinces. A number of national and sub-national organizations are involved in conducting various training and advisory programs to improve farmers’ knowledge and skills in irrigated agriculture. A research done in *Anuradhapura* and *Kurunegala* districts showed that approximately 75-85% of the women in both districts were actively

involved in paddy and *chena* cultivation. There were about 4-6% of women cultivators in those districts. And it also showed that, focuses on fostering community-based capacity to motivate women and poor farmers to participate in planning of irrigation rotation, cropping pattern, input supply and marketing was 17.6% in both districts [25].

Land ownership also matters a lot in agriculture in order to expand the scale of production and to receive credits. Women have no formal land rights. But being members in the FO they have access to those benefits such as access to seeds, fertilizer, credits, income generating activities, trainings etc. Women deliberately choose not to attend the FO meeting as they were engaged in the domestic tasks. The presence and behavior of drunken men in the FO, lack of benefits from FO and malfunctioning of the FOs were other important reasons. Further, women participation was limited to listening only [25]. Therefore it is clear that women rarely receive training and advisory services. Unfortunately, even though there are cases where women are present in extension programs they don't exhibit active involvement there. It reflects women's willingness and ability to receive extension and advisory services. This situation is similar even in other agricultural communities in the country.

In Sri Lankan agricultural extension service, still the majority of officers are males. According to Bandara and Wanigasundera [26], the minority, 35% of AIs in Anuradhapura Inter-provincial extension area were females. Further, Tea Smallholdings Development Authority which is one of major agencies dealing with small scale tea growers has only 4.23% female extension officers [11] which represent an extremely low women's involvement. As showed in previous research findings, job satisfaction of AIs explained that the female AIs were more dissatisfied with responsibilities since AI's job includes a lot of field activities and adequate facilities, especially for travelling, had not been provided for them to perform these responsibilities. Interestingly, while majority of AIs (82%) were claiming that allowances for fuel and subsistence were inadequate, those who were satisfied with the allowances were mostly females. The hidden fact is that, most of female AIs rarely involve in field activities. They visit the assigned area / agricultural community hardly ever. Therefore those female officers were satisfied with the allowance they received for transport, as it was a saving to most of them.

3.5. Way Forward

Male dominance or male-preference is still prevailing most of the economic and social structures in Sri Lanka. Same is applicable to agriculture and agricultural extension sector as well. It is interesting to note that, reasons for being economically inactive among the female (60.5%) was to engage in household work while it is to engage in studies for the majority of male (39.6%) [27]. Is this 'household work' is depicted by the role of women as the contributing family workers in agriculture is noteworthy to study.

Policies of the agriculture sub-sectors in Sri Lanka can be considered largely gender neutral, but gender-sensitive policies are required to increase women's participation in decision making and accessing resources in the agriculture sector [1]. Agricultural extension should not be limited only to knowledge transfer process to particular identified group in the society. Instead it should focus on empowering farmers, both male and female, in order to assure social and economic sustainability of their lives. Most of the agricultural extension and advisory services operating around the country have not seriously looked in to gender aspects at the grass root level. Limiting women only into home economics will be a waste and an economically disadvantage to the country at large. The studies are lacking where it explore the training needs of female farmers so that they will also expose to the new technologies in agriculture. Well planned capacity building programmers for both male and female parties will be able to reap the maximum benefits from field level extension activities.

Table 1. Percentage distribution of Employed population by main industry & gender –First quarter 2019

| Major Industry group | Male | Female | Sri Lanka |
|----------------------|-------|--------|-----------|
| Agriculture | 23.7 | 26.5 | 24.7 |
| Industry | 29.3 | 26.3 | 28.3 |
| Services | 47.0 | 47.2 | 47.1 |
| Total | 100.0 | 100.0 | 100.0 |

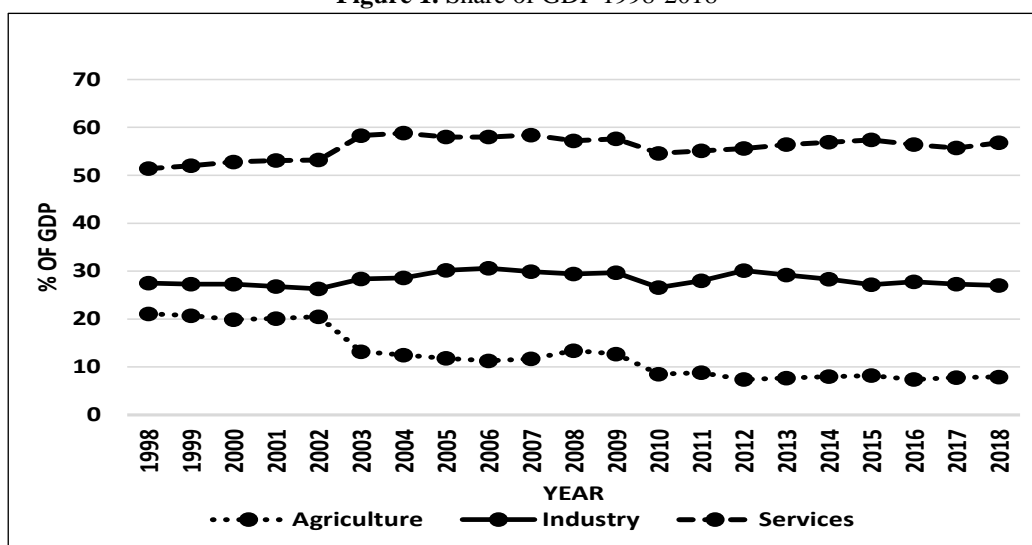
Source: Labor force survey, Department of Census and Statistics [7], Q1

Table 2. Women's involvement in livestock value chain

| Stages of Value Chain | Involvement of Women |
|-----------------------|--|
| Inputs | Veterinary Services - Some veterinarians are women |
| | Animal Feed Purchased form Private Sellers - Very few |
| | Breeding Material - Very few |
| Production | Small Scale Farms – 40% women |
| | Medium Scale Farms – 8.1 million |
| | Large Scale Farms – 30% |
| Collection Centers | 40% women in charge of centers collecting less than 120 liters. They are generally run by dairy societies. Men are in charge of over 89% of centers collecting more than 120 liters. |
| Chilling Centers | 10% of women managed chilling centers. These can be company owned or community operated centers |
| Processors | 10% of decision makers are women in the management of dairy processing companies |

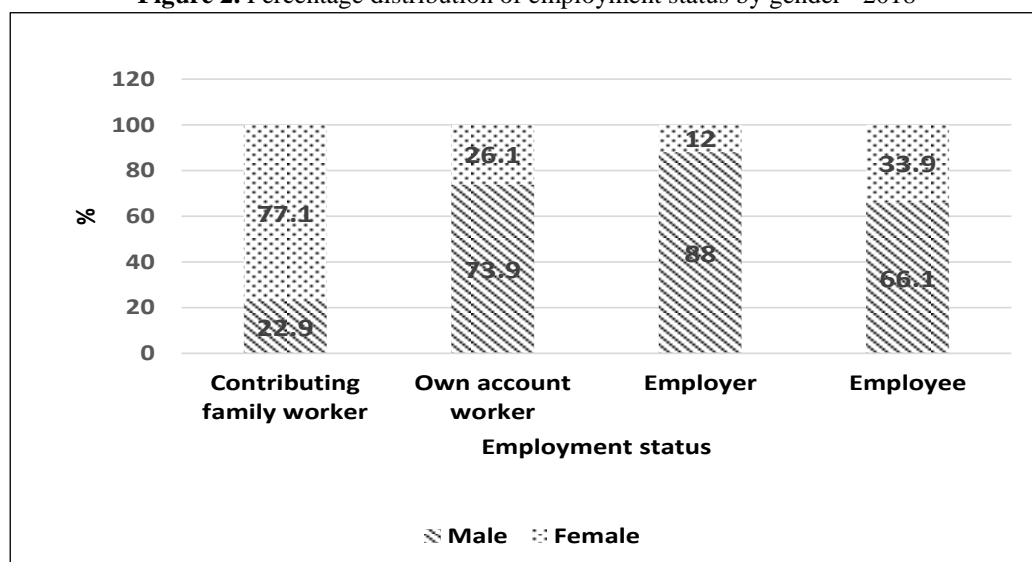
Source: [Hirimuthugodage \[28\]](#)

Figure 1. Share of GDP 1998-2018



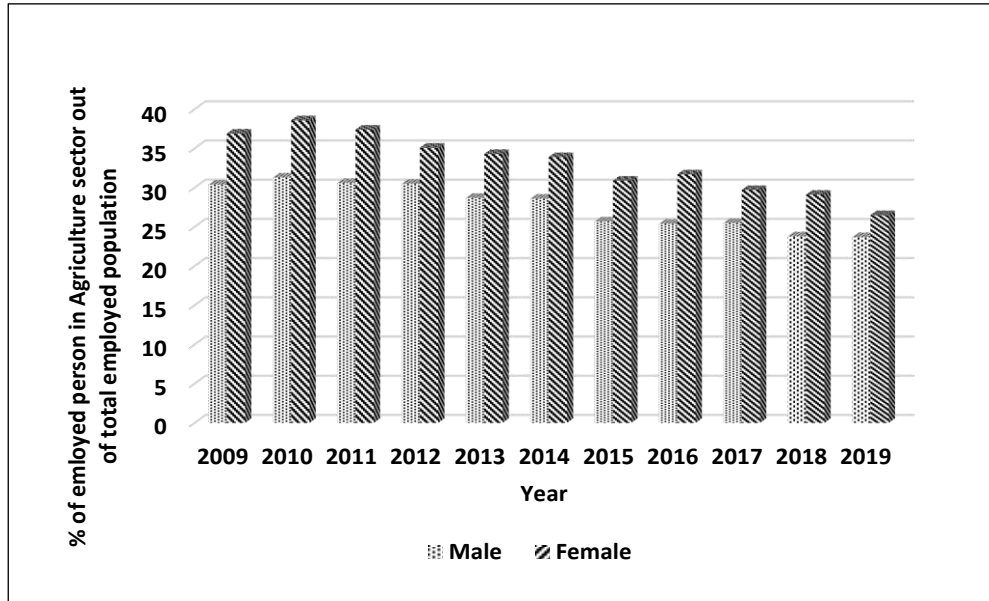
Source: Department of Census and Statistics, 1998-2019

Figure 2. Percentage distribution of employment status by gender –2018



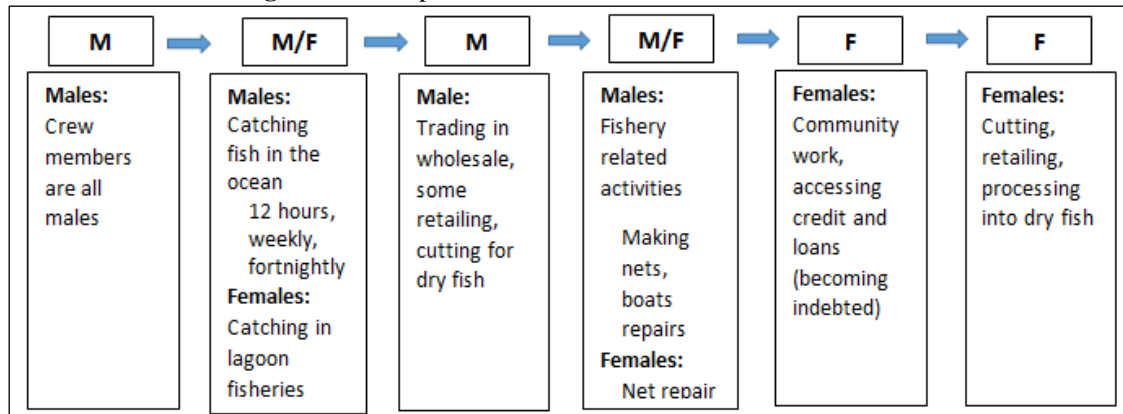
Source: Labor force survey- [Department of Census and Statistics \[29\]](#)

Figure 3. Percentage distribution of Employed population in Agriculture sector & gender



Source: Data retrieved from survey data 2009-2019, Department of Census and Statistics

Figure 4. Participation of men and women in fisheries value chain



Source: [3]

REFERENCES

- [1] J. Weerahewa, "Modernizing Agriculture in Sri Lanka-Status and Challenges. The Sri Lankan Economy- Charting A New Course, ADB," 2017.
- [2] M. Mamun-ur-Rashid, M. Kamruzzaman, and M. Emad, "Women participation in agricultural extension services in Bangladesh: Current status, prospects and challenges," *Bangladesh Journal of Extension Education*, vol. 29, pp. 93-107, 2017.
- [3] FAO, "Country Gender Assessment of agriculture and the rural sector in Sri Lanka," 2018.
- [4] FAOSTAT, "Available at: <http://www.fao.org/faostat/en/#data>," 2019.
- [5] K. Sexsmith, "Promoting Gender Equality in Foreign Agricultural Investments: Lessons from voluntary sustainability standards. Winnipeg: IISD," 2017.
- [6] FAO, "The State of Food and Agriculture 2010-11: Women in Agriculture. Rome: Food and Agriculture Organization of the United Nations," 2011.
- [7] Department of Census and Statistics, "Sri Lanka survey data," 2019.
- [8] FAO, "Agri-Gender statistics toolkit, Available at: <http://www.fao.org/gender/arigender/agri-gender-toolkit/it/>," 2010.
- [9] Labor force Bulletin, "Department of Census and Statistics,Sri Lanka," 2019.
- [10] Sidhakaran, "Advisory and Extension Division, Tea Research Institute of Sri Lanka, Talawakelle, Sri Lanka)," 2010.
- [11] K. G. B. Obeysekara, "Agricultural Extension in the Tea Smallholdings Sector Sri Lanka: Proceedings of Agricultural Extension Conference 2009 (pp.160-181). Agriculture Press,

- Peradeniya.(PDF) Farmers' Perception on the Gender of the Agriculture Instructors for Effective Technology Transferring in Paddy Farming Systems in Anuradhapura District, Sri Lanka," 2009.
- [12] R. Ratnayake, "Gender Issues in Agriculture-Sri Lanka. Sri Lanka Water Partnership. Available at: <http://lankajalani.org/wp-content/uploads/2015/03/Gender-Issues-in-Agriculture.pdf>," 2009.
- [13] G. Lokuge and D. Hilhorst, "Outside the net: Intersectionality and inequality in the fisheries of Trincomalee, Sri Lanka. Available at: www.tandfonline.com/doi/full/10.1080/12259276.2017.1386839," 2017.
- [14] FAO, "Promoting Non-fisheries Livelihoods in Small-scale Fisheries Communities in Sri Lanka. The Process of Planning and Implementation. Available at: www.fao.org/3/a-ar504e.pdf," 2013.
- [15] FAO-RAPA, "Rural women in SL's post-conflict rural economy.Farmers' Perception on the Gender of the Agriculture Instructors for Effective Technology.Gender info graphics. Female face of farming. FAO 2019. Available at: <http://www.fao.org/gender/resources/infographics/the-female-face-of-farming/en/>," 2009.
- [16] Asian Development Bank, "NE. Coastal Community Development Project," 2003.
- [17] S. Weerakoon and M. Maltesh, "Development Goals with Special Reference to Women in Agriculture in Sri Lanka and India,IFLA WLIC proceedings," 2017, pp. 1-6.
- [18] UNDP. Regional Bureau for Asia and the Pacific, "Trade Winds of Change: Women Entrepreneurs on the Rise in South Asia. Bangkok. Available at: www.asia-pacific.undp.org/content/rbap/en/home/library/sustainable-development/trade-winds-of-change.html," 2016.
- [19] Global Forum for Rural Advisory Services (GFRAS), " Sri Lanka Country Report," 2013.
- [20] R. Pravin, "Empowerment of women: Strategies and systems of gender justice, dominant publishers, new delhi. Puppets on a string: Women's wage work and empowerment among female tea plantation workers of Sri Lanka," *The Journal of development Areas*, vol. 27, pp. 339-340, 2005.
- [21] S. Sahay, "Women and Empowerment: Approaches and Strategies, Discovery Publishing House, New Delhi," 1998.
- [22] S. Longwe, "From Welfare to Empowerment: The Situation of Women in Development in Africa, a Post-UN Women's Decades Update and Future Directions' Working Paper 204, Michigan State University," 1990.
- [23] D. Benor and J. Q. Harrison, "Agricultural extension: the training and visit system (English). Unnumbered series; no. UNN 87. Washington, DC: The World Bank," 1977.
- [24] S. S. Emitiyagoda, "Extension Services with Special Reference to the Functions of the Department of Agriculture Sri Lanka: Historical Development, Current Position and Future Directions: Proceedings of Agricultural Extension Conference 2009 (pp.77-97). Agriculture Press, Peradeniya," 2009.
- [25] S. Thiruchelvam and B. A. P. Kumari, "Empowering farmer organizations in irrigation management: Challenges in Agricultural Extension: Proceedings of Agricultural Extension Conference 2009. Agriculture Press, Peradeniya," 2009, pp. 268-281.
- [26] K. Bandara and W. A. D. P. Wanigasundera, *Performance of Agricultural Instructors in Anuradhapura Inter-Provincial Area. Challenges in Agricultural Extension: Proceedings of Agricultural Extension Conference 2009 (pp.268-281). Agriculture Press, Peradeniya, 2009.*
- [27] Department of Census and Statistics, "Sri Lanka survey data," 2017.
- [28] D. Hirimuthugodage, "Agri-food value chains in Sri Lanka. Dairy and Fisheries value chains. Institute of Policy Studies. Available at www.ips.lk/wp-content/uploads/2017/03/IPS_IFPRI_FoodValueChainWorkshopAgriFoodValueChainSL_April2016.pdf," 2016.
- [29] Department of Census and Statistics, "Sri Lanka survey data," 2018.