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A SOCIOLOGICAL STUDY ON ROLE AND CHALLENGES OF AGRARIAN COMMUNITIES IN CONTEMPORARY RURAL SOCIETIES.

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Abstract

Agriculture constitutes one of the key industries in the national economy in Sri Lanka similar to many other countries those are in the process of development. Nevertheless, It is noticeable that the effects of modernization of traditional peasantry communities and the changes happened therein had caused certain drawbacks on Agriculture. In this regard, the purpose of this Research was to appraise the role of traditional farmers in the contemporary agricultural social system and to assert the challenges being faced by them. In so doing this study was focused on 6 Grama Niladhari divisions namely; *Suhadagama, Kumarigama, Gonagama, Galapitagala, Rajagama and Senagama in the Uhana* DS's area in the Ampara district in Sri Lanka in line with a random sampling method having selected 870 for the sample. It was revealed that the category of youth nowadays, have shown fairly minimal attention on Agro-based activities. Moreover, one other set back is the marginal contribution of Government for those involved in Agriculture. In overall context, the concluding remarks of the Research is that a division of farmers faces problems due to the unavailability of quality seeds, and fertilizer, the majority of them not facing solemn problems. Also the outcomes of this research might be important in policy making for the Agricultural sector by required .bodies of Government.

Key Words: ***Agriculture, farmers' Role, Modernization, Rural Community.***

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1. Introduction

Substantiated facts prove that even in the history Sri Lanka entailed a self-sustaining economic system based on Agriculture. In line with the settlements originated in river valleys the crucial livelihoods was the Paddy cultivation. Accordingly the current milieu, farmers had created an Agro-based life style derived with conventionalized tradition which is a key characteristic could be determined within the prevailing social context. Sri Lanka being a third world developing country and it's subjection alongside the impact of modernization had influenced all the fields thereby, the Agro-based communities too had faced motilities. Under the above circumstances, investigations executed through this Research on the role of traditional farmer, in which ways these development strategies had affected the farmer and the challenges encountered by the farmers, accordingly.

2. Research Problem

Amongst several indicators the existence of Agro-based lifestyle becomes a central factor to identify separately the rural community from the urban community. It was noticeable that due to the frequent motilities that take place in varied circumstances, there were changes happened in mixed nature in both urban and rural settings affecting almost all the fields. Accordingly, the

Research problem of this study was to ascertain what changes happened of the role of farmers, therewith, what were the challenges they were to face due to the considerable changes happened in the field of Agro-economics under the modernization came in to effect.

3. Objective of the Research :

Main Objective

To study the specific functions and the responsibility of the farmer within the Agro-based lifestyle and to analyze the challenges emerged therein.

Specific Objectives

- To identify the role of the traditional farmer.
- To determine currently existed agro-based lifestyle.
- To diagnose the socio-economic and cultural background of the farmers
- To identify causes and facts affecting the farmers in current context

- To present possible action to inhibit the identified challenges

4. Literature Review.

a. Agriculture

The agricultural revolution as environmental catastrophe: Implications for health and lifestyle in the Holocene

(a). One of the most fundamental developments in the history of our species—and one having among the most profound impacts on landscapes and the people occupying them—was the domestication of plants and animals. In addition to altering landscapes around the globe from the terminal Pleistocene and early Holocene, the shift from foraging to farming resulted in negative and multiple consequences for human health. Study of human skeletal remains from archaeological contexts shows that the introduction of grains and other cultigens and the increase in their dietary focus resulted in a decline in health and alterations in activity and lifestyle. Although agriculture provided the economic basis for the rise of states and development of civilizations, the change in diet and acquisition of food resulted in a decline in quality of life for most human populations in the last 10,000 years (Schipmann, 2011).

b. Influence of exposure to pesticides on serum components and enzyme activities of cytotoxicity among intensive agriculture farmers

Although the effects of acute pesticide poisoning are well known for the pesticides most currently used, hardly any data exist on health effects after long-term low-dose exposures. Major unresolved issues include the effect of moderate exposure in the absence of poisoning. The increased utilization of pesticides other than organophosphates makes it even more difficult to find associations. In this study a cohort of 106 intensive agriculture workers were assessed twice during the course of a spraying season for changes in serum biochemistry, namely enzymes reflecting cytotoxicity (AST, ALT, LDH, CK, and amino-oxidase) and other biochemical parameters, such as markers of nephrotoxicity (urea, creatinine) and lipid profile (cholesterol and triglycerides). Several criteria for estimating pesticide exposure were used, the most important one being serum cholinesterase depression greater than 25% from baseline to peak exposure. Our results revealed an association of pesticide exposure with changes in AST

(increased activity), LDH, and amino-oxidase (decreased activity) as well as with changes in serum creatinine and phosphorus (lower and higher levels, respectively). These results provide support for a very slight impairment of the liver function, but overall these findings are consistent with no clinically significant hepatotoxicity. Intriguingly, paraoxonase-1 R allele was found to be an independent predictor of higher rates of AST and lower rates of amino-oxidase, so that it may play a supporting role as an individual marker of susceptibility on pesticide-induced health effects. In conclusion, different biomarkers might be used to detect early biochemical effects of pesticides before adverse clinical health effects occur (Hermandez, 2006).

c. Farmer

(a). Farmers on Welfare: The Making of Europe's Common Agricultural Policy

In 2007 the farm subsidies of the European Union's Common Agricultural Policy took over 40 percent of the entire EU budget. How did a sector of diminishing social and economic importance manage to maintain such political prominence? The conventional answer focuses on the negotiations among the member states of the European Community from 1958 onwards. That story holds that the political priority, given to the CAP, as well as its long-term stability, resides in a basic devil's bargain between French agriculture and German industry.

(b). In *Farmers on Welfare*, a landmark new account of the making of the single largest European policy ever, Ann-Christina L. Knudsen suggests that this accepted narrative is rather too neat. In particular, she argues, it neglects how a broad agreement was made in the 1960s that related to national welfare state policies aiming to improve incomes for farmers. Drawing on extensive archival research from a variety of political actors across the Community, she illustrates how and why this supranational farm regime was created in the 1960s, and also provides us with a detailed narrative history of how national and European administrations gradually learned about this kind of cooperation.

(c). By tracing how the farm welfare objective was gradually implemented in other common policies, Knudsen offers an alternative account of European integration history (Knudesun, 2009).

d. Modelling the role of agriculture for the 20th century global terrestrial carbon balance

(a). (Albert Bondeau, 2006)

In order to better assess the role of agriculture within the global climate-vegetation system, we present a model of the managed planetary land surface, Lund–Potsdam–Jena managed Land (LPJmL), which simulates biophysical and biogeochemical processes as well as productivity and yield of the most important crops worldwide, using a concept of crop functional types (CFTs). Based on the LPJ-Dynamic Global Vegetation Model, LPJmL simulates the transient changes in carbon and water cycles due to land use, the specific phenology and seasonal CO_2 fluxes of agricultural-dominated areas, and the production of crops and grazing land. It uses 13 CFTs (11 arable crops and two managed grass types), with specific parameterizations of phenology connected to leaf area development. Carbon is allocated daily towards four carbon pools, one being the yield-bearing storage organs. Management (irrigation, treatment of residues, intercropping) can be considered in order to capture their effect on productivity, on soil organic carbon and on carbon extracted from the ecosystem. For transient simulations for the 20th century, a global historical land use data set was developed, providing the annual cover fraction of the 13 CFTs, rain-fed and/or irrigated, within 0.5° grid cells for the period 1901–2000, using published data on land use, crop distributions and irrigated areas. Several key results are compared with observations. The simulated spatial distribution of sowing dates for temperate cereals is comparable with the reported crop calendars. The simulated seasonal canopy development agrees better with satellite observations when actual cropland distribution is taken into account. Simulated yields for temperate cereals and maize compare well with FAO statistics. Monthly carbon fluxes measured at three agricultural sites also compare well with simulations. Global simulations indicate a 24% (respectively 10%) reduction in global vegetation (respectively soil) carbon due to agriculture, and 6–9 Pg C of yearly harvested biomass in the 1990s. In contrast to simulations of the potential natural vegetation showing the land biosphere to be an increasing carbon sink during the 20th century, LPJmL simulates a net carbon source until the 1970s (due to land use), and a small sink (mostly due to changing climate and CO_2) after 1970. This is comparable with earlier LPJ simulations using a more simple land use scheme, and within the uncertainty range of estimates in the 1980s and 1990s. The fluxes attributed to land use change compare well with Houghton's estimates on the land use related

fluxes until the 1970s, but then they begin to diverge, probably due to the different rates of deforestation considered. The simulated impacts of agriculture on the global water cycle for the 1990s are~5% (respectively~20%) reduction in transpiration (respectively interception), and~44% increase in evaporation. Global runoff, which includes a simple irrigation scheme, is practically not affected.

(b). Demonstrated Benefits from Social Capital: The Productivity of Farmer Organizations in Gal Oya, Sri Lanka

(Norman Uphoff, C. M. Wijeyarathne,2000)

An analytical construct of social capital is presented, followed by a case study from Sri Lanka. There, farmer organizations were established in the Gal Oya irrigation scheme in the early 1980s with a combination of roles, rules, norms and values that supported mutually beneficial collective action. This produced measurable improvements in system performance and efficiency. In the 1997 dry season, after farmers were told there was not enough water in the reservoir to grow a rice crop, they achieved through their organizations a better-than-average harvest from 65,000 acres by efficient and equitable distribution. Ethnic cooperation was demonstrated by upstream Sinhalese farmers sharing water with downstream Tamil farmers.

e. Pesticide poisoning in the developing world—a minimum pesticides list

(Michael Eddlston, 2002)

In parts of the developing world, pesticide poisoning causes more deaths than infectious diseases. Use of pesticides is poorly regulated and often dangerous; their easy availability also makes them a popular method of self-harm. In 1985, the UN Food and Agriculture Organization (FAO) produced a voluntary code of conduct for the pesticide industry in an attempt to limit the harmful effects of pesticides. Unfortunately, a lack of adequate government resources in the developing world makes this code ineffective, and thousands of deaths continue today. WHO has recommended that access to highly toxic pesticides be restricted—where this has been done, suicide rates have fallen. Since an Essential Drugs List was established in 1977, use of a few essential drugs has rationalized drug use in many regions. An analogous Minimum Pesticides List would identify a restricted number of less dangerous pesticides to do specific tasks within an integrated pest management system. Use of safer pesticides should result in fewer deaths, just as

the change from barbiturates to benzodiazepines has reduced the number of deaths from pharmaceutical self-poisoning.

5. Methodology

5.1 Selection of the study area and the Sample.

Six Grama Niladhari Divisions namely; *Suhadagama, Kumarigama, Gonagama, Galapitagala, . Rajagama and Senagama in the Uhana* DS's area in the Ampara district of Uva Province in Sri Lanka were selected as to be the study area. The Sample selected was comprised by 242 females and 628 males in total of 870 of those involved in farming. They were selected in line with a random sampling method as to be the samplers .

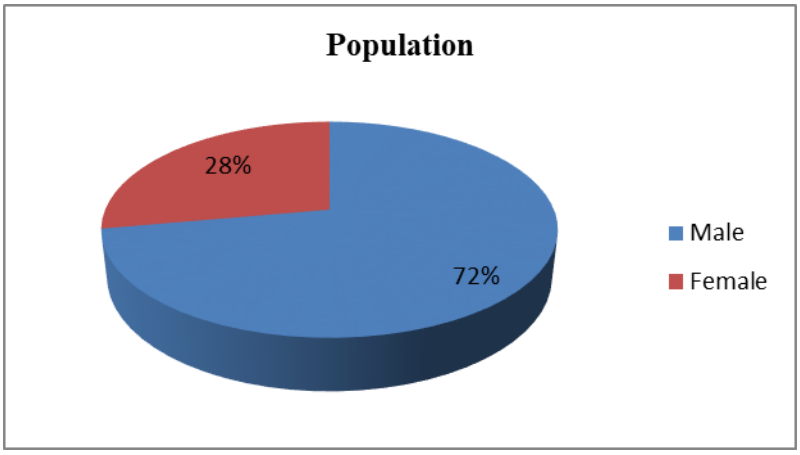
5.2 Data Collection

A questionnaire was utilized to collect data from the sample of 870 selectees and in addition the needed information were gathered through focused group discussions (FGDs), and observations as well. Furthermore, besides the targeted interviewees data collecting was proceeded through institutional data providers as well along with the added series of information through primary sources. Also literature reviews too was accomplished in par with the study by evolving secondary sources of information

5.3 Data Analysis

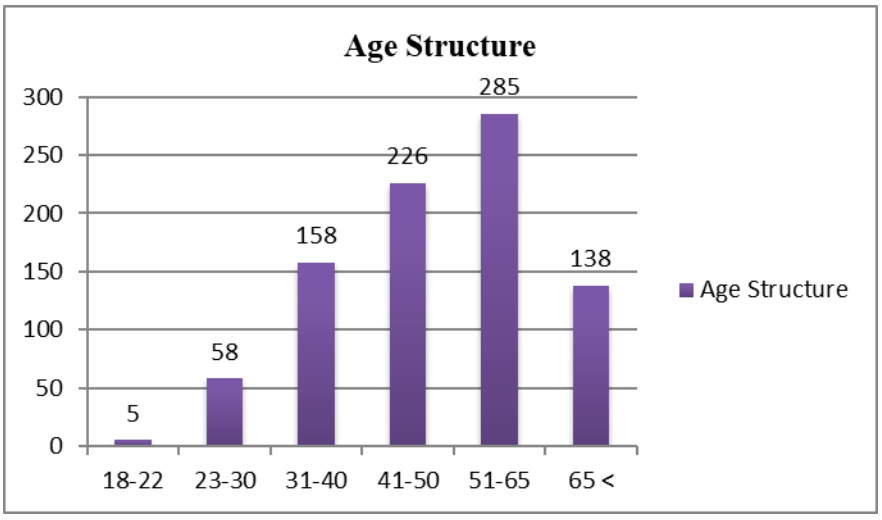
In reference to the analysis of quantifiable data, information were displayed by means of Graphs, Tables etc., applying - *wdÈh SPSS yd Excel* software for assessment, while analysis of qualitative data was addressed through a descriptive approach.

Graph No: 1 – Constitution of Population



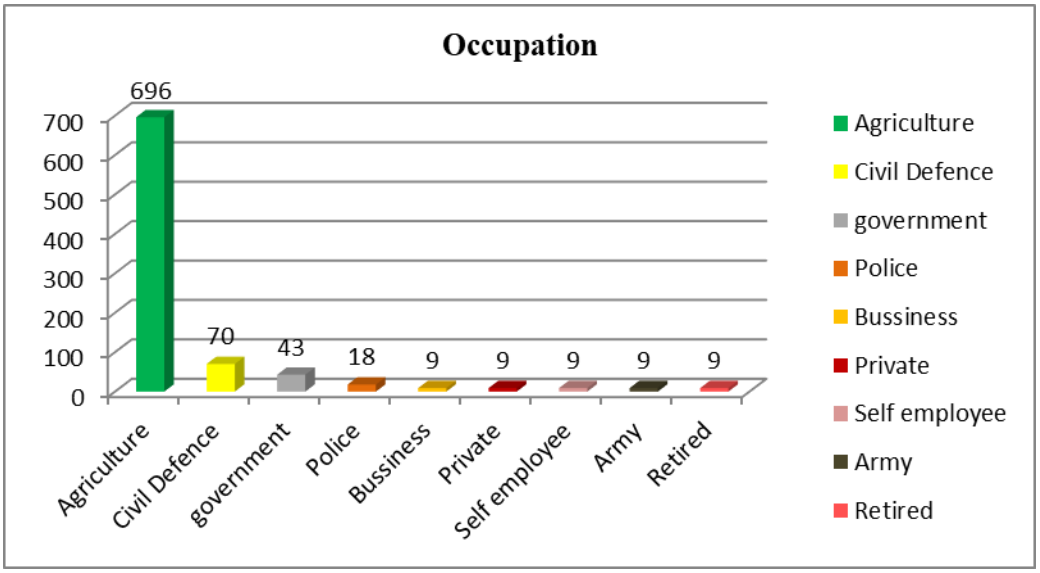
When the composition of population is concerned the structure of male population was 72% and the percentage of female representation was 28% so that, the majority of ¾ composited by the male.

Graph No. 02 – Age Structure



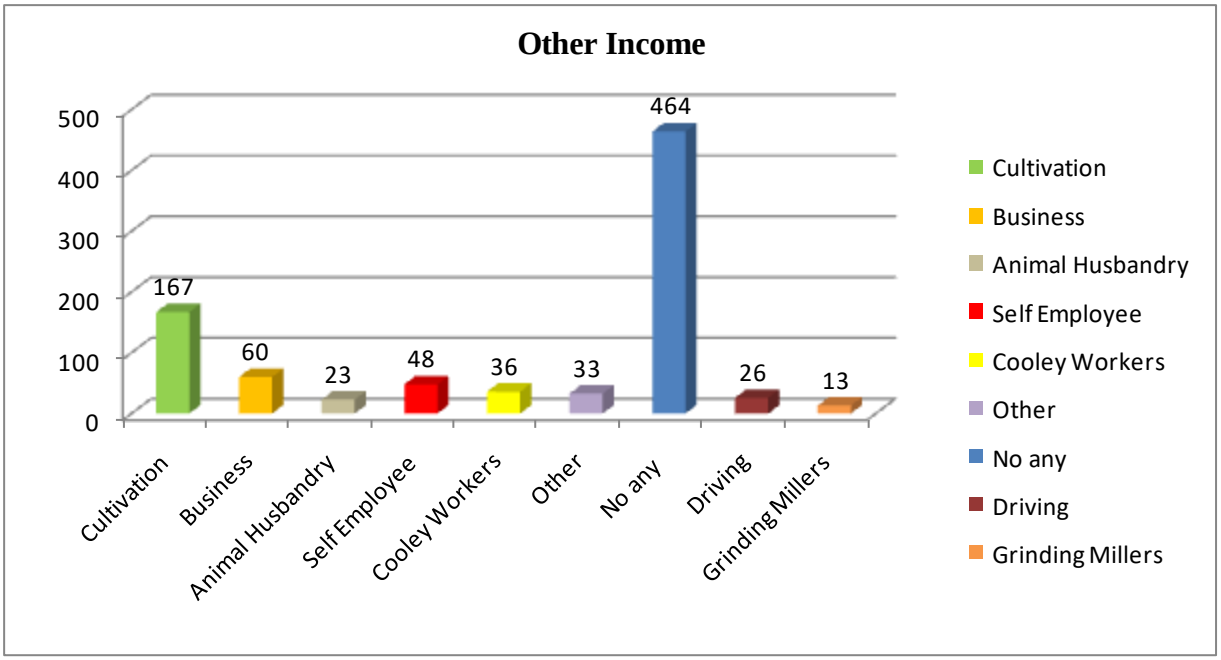
AS per the sample those who were selected were above 18 years old and the representation of informers in between 41 – 65 were exceeded 50% while, 15.8% were belong to the age category of those above 65 years.

Graph No. 03 - Structure of employment



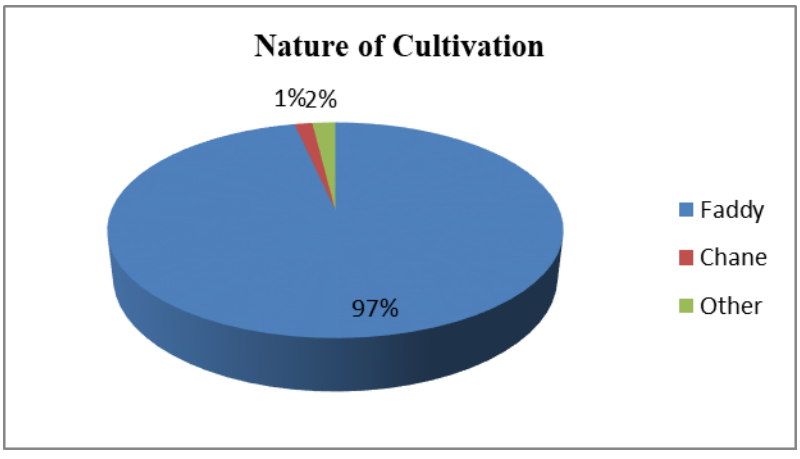
All those were selected for the sample were employed. Among them, 80% were found to be employed under the main category of Agriculture whereas, 8% of samplers were employed as civil army personnel and only 5% are found to be Government employees which was an exceptional case. Another 18 were found to be employed as police officers while 6% of the informants were engaged in mixed positions in the business sector, or in private institutions whereas, military services and self-employed avenues were other sources showing the diversity of living means.

Graph No. 04 - Other subsidiary income sources.



Investigations revealed that a segment of samplers could access for 8 categories of subsidiary income sources while 464 (53.33%) could not report such avenues. Crop cultivation, livestock farming, Self-employment ventures, coolly work, driving positions and the income derived through grinding mills etc. were among those supplementary income sources. In the category of supplementary income earners, 19.19% were deriving income through Agricultural work, 6.89% through trade related actions, 5.51% via self-employments while 3.97% were gaining added income through mixed income sources.

Graph No. 05 - Distribution of the types of Agricultural activities pursued



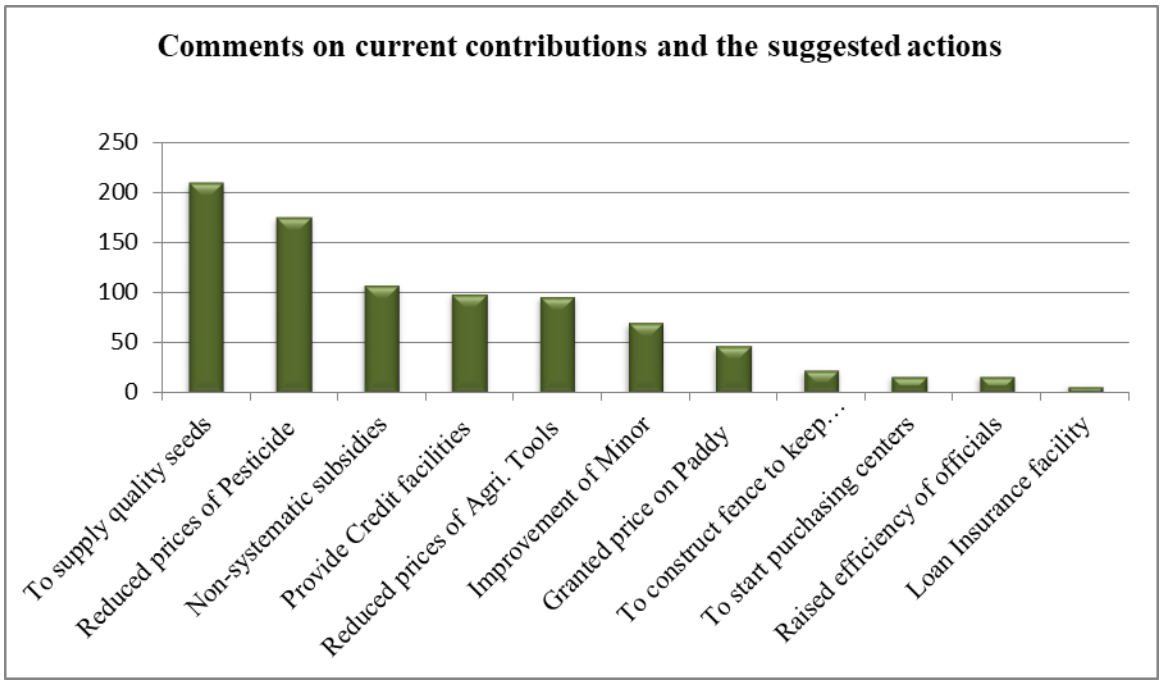
Studies attended on the types of Agricultural work in practice, disclosed that, large majority (97%) were involved in Paddy cultivation. A marginal number 1.3% reported as those involved in Chena cultivation while 1.2% were engaged in other types of cultivations.

Table No. 01 - Opinions on the subscription of Government for Agro-based activities

Subsidies	**Public Opinion**				
	Very Good	**Good**	**Moderate**	**Poor**	**Extremely Poor**
Fertilizer	255	428	121	50	16
Seeds	34	84	160	294	298
Assured Prices	117	312	174	175	92
Minor subsidies Incl. other facilities	9	28	55	187	591

Shared views and opinions could be ascertained on the contribution of Government towards Agricultural actions namely; Fertilizer subsidies, Seeds, certified prices, minor subsidies including other facilities. In this respect, the views shared on Fertilizer subsidy scheme was good as commented by 49.19% of informers. Only 7.58% were on negative attitudes on the fertilizer subsidies. Nevertheless, higher majority that of 592 persons (68.04%) shared their negative views such as “Bad” or “Very bad” against the supply of seeds. The public opinion on the certified prices fixed for Paddy was impartial out of which 49.31% feel it is positive and 30.68% feels unsatisfactory. Also, the majority (67.34%.) feels that the minor scale of subsidies with several other supports implemented by present Government are very much weak.

Graph No. 06 - Farmers’ comments on Government’s contribution for Agricultural activities and suggestions to improve same for better results.



Answering the query on ways to get advanced contribution from Government towards progressive Agro-based activities, the views shared by the majority of farmers were to take compelling action to supply quality seeds. This request was made by 24.13% of the sample. Secondly, 20.22% of farmers insisted the supply of pesticides at reduced prices. There were positive attitudes on the assistance made available on Fertilizer subsidy, and the accessibility for credit facilities etc. Also, 8% of farmers in the sample instigated the intervention of Government to evolve a proficient quality of maintenance of the network of irrigation.

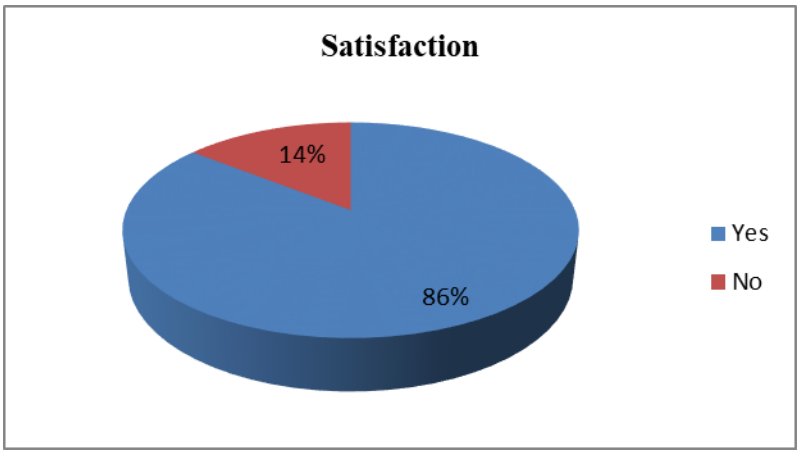
On the inquiry of whether there are changes happened on Agricultural activities during the time of war and the current Post War situation, the opinion shared by more than two third (82.06 %) mentioned that there are changes. The Next effort was to. ascertain what were the causes and factors emerged owing to the said changes.

Table No. 02 - Positive changes transpired in the post-war era as per the informers.

Changes - Causes and Effects	Numbers	Percentage
Positive environment to attend Agricultural activities without threat and fear.	363	50.84
Could recommence the dimidiated Agro-based activities	136	19.04
Increase of cultivated land	130	18.20
Accessibility for better sales prices for the product harvested	39	5.64
Improvement of Irrigational channels	30	4.20
Revived businesses with Tamil traders	16	2.24
Total	**714**	100.%

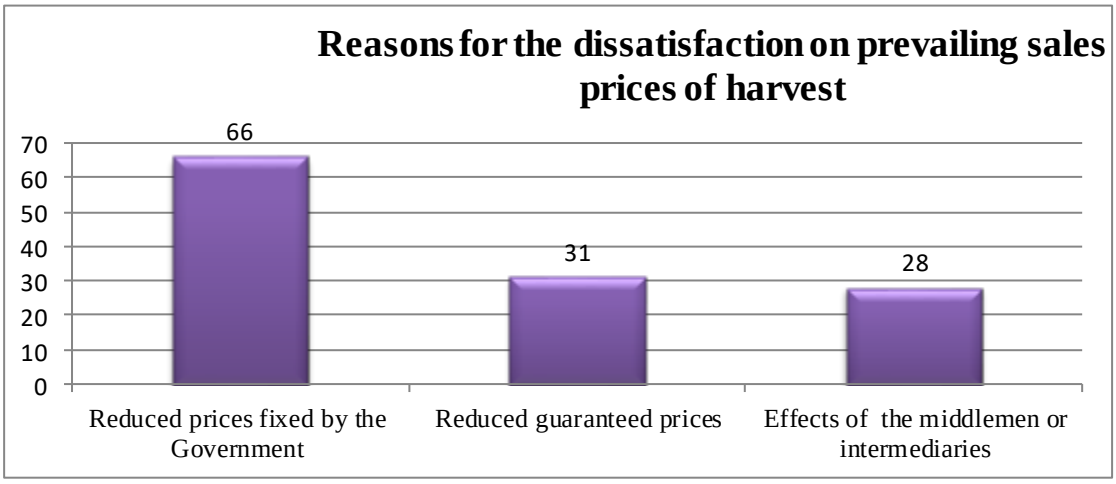
Majority of informers equal to 50.84% articulated that during the current post war regime people in the area could recommence their vacated farming work without hesitant or fear. Another 19.04% of the samplers shared views uttering that the recommenced cropping pattern had also shown changed or modernized practices.

Graph No. 07 - Extent of the contentment on prevailing sales prices of harvest



In response to the justifiability of prevailing prices on harvest, 86% of informers expressed their satisfaction on the guaranteed prices whereas, a minute percentage of the sample expressed their answer “don’t like”. Thereby, the study team went further to assess what were the reasons behind the dissatisfaction.

Graph No. 08 - Reasons for the dissatisfaction on prevailing sales prices of harvest



Since a division of informers in the total sample had expressed dissatisfaction on the prices against harvest, further inquiries were made and 43% of them said that the buying prices fixed by Government is not sufficient at all. Another 26% was in the opinion that they were under the influence of middlemen as well. Accordingly, both segments of farmers were emphasized the need to raise the guaranteed prices fixed by the Government mainly due to the uncontrollable cost of production, that affects due to the higher cost of seeds, fertilizer, labour and also due to climatic changes, as well as the damages caused by wild animals too are some of the factors affecting the higher cost of production normally incurred on Paddy cultivation.

Discussion

Those typical attributes of Sri Lankan rural societies are visible in this study area as well and this village is located at a distance from the capital of the country. The study outcomes revealed that the higher majority of people in the area are involved in Agro-based actions being the principle livelihood whereas, higher percentage of residents earning supplementary income out of farming work. Also, an higher number of the sample represented middle-aged persons while, lesser number of households are found to be employed at Government institutions. It was further disclosed that a higher percentage of those engaged in cultivation are involved in Paddy cultivation while others do Chena cultivation and also following other cropping patterns too.

When the supportive role of Government is concerned, it was apparent that majority of farmers are with pleasant attitudes. It was also disclosed that farmers envisioned un-interrupted services of Government to receive insecticides at reasonable prices, to arrange subsidy on fertilizer on right time, provision of agricultural equipment on concessionary rates and also to develop the network of irrigation etc.,

Also apparent that there were no considerable effect on the community with regard to health services since, needed services are being made available at reasonable level. In contrary, community has to face varied nature of dissatisfactions when they access for services in certain Government offices and it seems that there are no lively designed remedial action on same, hence, certain discontents are there on the Government led services.

Study outcomes exhibited a degree of satisfaction within farmers on the impact of development taken place during the period of conflict and also in the post war duration. Also revealed through opinions shared by the majority of informants the above situation is a result of the positively changed environment that had allowed farmers to do their cultivation work without fear.

Also, several development programmes and policies introduced within the post war setting had been positively impacted on the sphere of Agriculture and the role of the farmer. However, a minority group of farmers had discontented impression due to the unavailability of reasonable guaranteed price for their product. Nevertheless, majority of farmers shown positive feelings with the impression that they are accessible for good selling prices and they do not encounter any challenges just because of guaranteed prices.

Conclusions

The composition of peasantry communities within agro-based lifestyles which is subjected to the changes along with modernization and also the challenges faced by them were addressed through this study. The findings therein revealed that traditional peasantry culture has been changed while the majority of farmers involved in supplementary income sources in addition to the farming work. Also noticed that Paddy cultivation is attended in a bigger volume still, compared to the scale of Chena cultivation or other crops. Also conspicuous that contribution of

Government on the advancement of agro-based productivity needs more emphasis and a biggest challenge being faced by the farmers is their inability to generate better income through the productivity in the agro-based sector. While, lesser tendency of youth joining Agro-based action was identifiable, higher tendency was there in the involvement of agricultural activities in the post-war era. Accordingly, it can be concluded that the modern-day farmers as a whole, cannot bring to light the key problems and challenges prevailing in this area yet it shows that they live with some steadiness.

Recommendations

- The processes of development which are normally amalgamated with modernization be designed not to create any negative impact or influence on the identities of the traditional values of living. Specific concerns are necessary on the traditional agriculture.
- Also recommend to increase further the contribution being made available by Government. for the Agricultural sector. Specific attention is necessary on micro level assistance and relief support available currently.
- The credit facilities extended for the farmers need to be implemented with further streamlined processes. Once the re-arranged loan parameters with insurance policies and with added measures to reduce loan burdens the satisfaction of farmers will be augmented raising the interest of present generation too to access Savings & Credit .
- Also essential to improve or to re-design the supportive measures based on the concurrent needs of farmers and to be supplemented in line with well attended policies.

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