

# HARTI



லர்ஶிக லர்ஶாலி  
வருடாந்த அறிக்கை  
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ஹெக்டர் ஹெஶிடுகடூவ ஹெஶிடுஶூ, ஶர்ஶேஶை ஹ ஶூஶூ கிர்ஶே ஶாஶஶை  
ஹெக்டர் ஶொஶ்ஶேஶூவ கஶநல ஆராய்ஶ்சி ஶற்றும் ஶயிற்சி நிறுவகம்  
Hector Kobbekaduwa Agrarian Research and Training Institute

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## ESTABLISHMENT

Hector Kobbekaduwa Agrarian Research and Training Institute (HARTI) was originally established in 1972 under the Agrarian Research and Training Institute Act No. 05 of 1972. It functions as a statutory body under the Ministry of Agriculture. It was established mainly for the promotion of policy-oriented research and addressing training needs of the agrarian and rural sector. Being a pioneer of agrarian research in the country, HARTI has a wealth of experience spanning over 45 years in conducting socio-economic research and training and also providing information for the formulation of agrarian sector development policies since its establishment.

### Mandate

Under the provisions of Section 3 (1) of the above Act, the general mandated objectives of the institute are as follows:

- i. To foster, assist, encourage and co-operate in agrarian research.
- ii. To co-ordinate agrarian research undertaken by government departments, local authorities, public corporations and other institutions.
- iii. To carry out investigations and research relating to institutional factors affecting the development of agriculture.
- iv. To undertake investigations, research and studies relating to economical use of land for agricultural purposes.
- v. To carry out socio-economic research relating to agricultural and rural development.
- vi. To provide, undertake and implement training activities and programmes relating to agrarian research either alone or in association with other institutions in Sri Lanka or abroad and to award diplomas, degrees, prizes and distinctions in connection therewith.
- vii. To sponsor and conduct conferences, seminars and workshops at local, regional and international levels.
- viii. To carry out such research relating to problems of agrarian structure in co-operation with Asian countries to serve their regional needs and provide a centre for the collection and dissemination of information on agrarian related issues.
- ix. To relate such research to problems connected with agrarian development and modernization with special reference to Sri Lanka and other Asian countries in general.

## **Vision**

Be the leader in generating and disseminating knowledge for sustainable agrarian and rural development.

## **Mission**

To strengthen the agrarian and rural sector through conducting research and training activities

## **Goals**

- i. To be a centre of excellence in socio-economic research in agrarian issues.
- ii. To liaise closely with planners and policymakers in the government and business and research communities.
- iii. To make the policy formulation and implementation process more effective through generation and timely dissemination of knowledge.
- iv. To keep the public informed by providing independent assessments on national policy issues.
- v. To strengthen the capacity for socio-economic policy analysis by investing in the capacities of its staff and the institute's knowledge base.
- vi. To increase the capacity of rural development stakeholders through training.

## BOARD OF GOVERNORS

Mr. B. Wijyaratne	Chairman	-	Secretary, Ministry of Agriculture
Mr. Haputhanthri Dharmasena	}	-	Director/CEO (until late September)
Mr. K.W.E. Karalliyadda		-	Director/CEO (from 22 <sup>nd</sup> September)
Mr. N.P.V.C. Piyathilaka (Board Member)		-	Addl. Secretary (Admin), Ministry of Agriculture (until June)
Dr. W.M.W. Weerakoon		-	Addl. Secretary (Agri. Dev.) (from July) Ministry of Agriculture
Mr. L.B.S.B. Dayaratne	-do-	-	Addl. Secretary (Lands), Ministry of Lands
Mr. M.R.V.R. Meepura	-do-	-	Director, Public Enterprises Department, Ministry of Finance Planning
Mr. U.G. Rathnasiri	-do-	-	Addl. Secretary (Economic Affairs) Ministry of National Policies & Economic Affairs
Mrs. K. Piyaratne	-do-	-	Addl. Secretary (Restructuring), Ministry of Industries & Commerce
Mrs. K.N.K. Somaratne	-do-	-	Addl. Secretary (Admin) (until July) Ministry of Plantation Industries
Mrs. B.L.D. Balasuriya	-do-	-	Director of Education (Agri.& Environmental Education Branch) Ministry of Education
Mr. S. Senanayake	-do-	-	Addl. Secretary (Dev. & Planning) Ministry of Rural Economy

Dr, (Mrs.) Y.M. Indraratne	-do-	-	Director, Economic Research Department Central Bank of Sri Lanka
Dr. R.R.A. Wijekoon	-do-	-	Director General of Agriculture
Mrs. R.M.C.H. Herath	-do-	-	Land Commissioner General
Mr. D.V. Bandulasena	-do-	-	Acting Commissioner General of Agrarian Development
Mr. S. Mohanarajah	-do-	-	Director General of Irrigation
Mr. S.L. Naseer	-do-	-	Commissioner of Co-operative Development
Mr. J.J.S. Jayamanna	-	-	Actg. Secretary, Board of Governors (from October)

## MEETINGS OF THE BOARD OF GOVERNORS

<u>Date of the Meeting</u>	<u>No. of Members Attended</u>
1. 16 <sup>th</sup> February 2017	10
2. 16 <sup>th</sup> March 2017	10
3. 18 <sup>th</sup> May 2017	06
4. 28 <sup>th</sup> June 2017	09
5. 20 <sup>th</sup> July 2017	11
6. 20 <sup>th</sup> November 2017	13
7. 29 <sup>th</sup> December 2017	10

**AUDIT and MANAGEMENT COMMITTEE**

Mr. M.R.V.R. Meepura (Chairman)	-	Director Public Enterprise Department. Ministry of Finance and Planning
1. Mr. A.M.H.L. Abanwala (Observer)	-	Deputy Auditor General Auditor General Department
2. Mr. N.P.V.C. Piyathilaka (Member)	-	Addl. Secretary (Admin.) Ministry of Agriculture
3. Ms. K.N.K. Somarathne (Member)	-	Addl. Secretary (Admin.) Ministry of Plantation Industries
4. Ms. G.H.I. Vindya (Observer)	-	Audit Superintendent Auditor General Department
5. Mr. P.L. Namasena (Observer)	-	Chief Internal Auditor Ministry of Agriculture
6. Ms. N.C. Ekanayake (Convener)	-	Internal Auditor HARTI

**MEETINGS OF THE AUDIT & MANAGEMENT COMMITTEE****Date of the Meeting**30<sup>th</sup> January 20176<sup>th</sup> November 201711<sup>th</sup> December 2017

## Overview

Hector Kobbekaduwa Agrarian Research and Training Institute implemented its socio-economic research and training programmes while adapting to the agrarian and rural development policies and plans which implemented on par with the election of the present government in 2015. Accordingly, many socio-economic research which were commenced could complete in 2017 and numerous training programmes were also completed based on the relevant policies and programmes.

Accordingly, many fundamental socio-economic research was successfully completed and published by our institute which is needed for policy-making for several programmes implemented by the government including Food Production National Programme 2016-18, Non-toxic Agriculture Programme, Fertilizer Cash Grant Programme.

At the same time, several awareness programmes relevant to the above programmes were implemented on behalf of many government institutes including the Ministry of Agriculture and the Department of Agrarian Development and many other research and training programmes were held on foreign aids.

Accordingly, a socio-economic research was conducted by the Agricultural Policy and Project Evaluation Division of our institute to identify the performance (strategies) and constraints of vegetable farmers regarding vegetable production and marketing of Jaffna and Nuwara-Eliya districts and that research report was published in 2017.

All the activities of the two studies: Factors Determining Fruit Cultivation in Home Gardens in Sri Lanka and Importance of Indigenous Knowledge (IK) for Food Security: In Relation to Crop Cultivation commenced by this Division have completed as of now and are preparing for publishing.

Agricultural Resource Management Division successfully completed and published four socio-economic research in 2017 align with “Food Production National Programme 2016-2018” implemented by the present government. Accordingly, below mentioned socio-economic research was completed and published.

- Maize Production System in South East Dry Zone of Sri Lanka: Constraints in Sustainability and Potentials in Enhancement,
- Sustainability of Red Onion Farming System of Thelulla in Moneragala District,
- Sustainability of Prominent Food Crop Production Systems in South East Dry Zone of Sri Lanka with Special Reference to Groundnut, Green gram and Sugarcane Production,
- Capacity Development of Agrarian Research-Policy-Technology Personnel in Sri Lanka on Global Change and Sustainability

Environmental and Water Resources Management Division has also completed and published five socio-economic research in 2017 including National Food Production



Programme related to policy-making of agricultural and rural development and one research is about to complete. Correspondingly, following research reports have completed and published.

- National Food Production Programme 2016-2018 Baseline Survey,
- Study on High Sedimentation on Tank Beds over Human Activities and its Impact on Agriculture,
- Potentials and Constraints of Bio-pesticides and Bio-fertilizer Usage and Production in Sri Lankan Agriculture,
- Study on Absorption of Agriculture Graduates and Diploma Holders into the Agricultural Sector of Sri Lanka: Present Situation Constraints,
- Study on Lessons to be Learnt from Ancient Sri Lankan Water Management Techniques for the Development of Integrated Water Resource Management Concept

The research reports mentioned above have published and the study on Climate Change Vulnerability of Selected Crop Production Systems in the Dry Zone of Sri Lanka is in the final stage.

Marketing Food Policy and Agri-Business Division completed and published below mentioned socio-economic research in 2017.

- Quality and Safety Issues in Fruit and Vegetable Supply Chains in Sri Lanka: A Review,
- Fertilizer Cash Grant Programme in Sri Lanka: A Socio-economic Review,
- Farmers' Perspective of Current Status and Future Direction of Public and Private Sector Intervention on Paddy Marketing in Sri Lanka

Human Resources and Institutional Development Division conducted nine training programmes in 2017 under several topics for the government and non-government institutes including the Department of Agrarian Development. According to that,

- Training Programme on Farmer Organizational Empowerment,
- Training Programme on Agriculture for Healthy Generation,
- Training Programme on Training Trainers for Empowering Farmer Leaders aligns with National Food Production Programme,
- “Empowering Farmer Family by Empowering Farmer Women” One-day Training Programme in line with the Years of Poverty Eradication 2017,
- Training Programme on Social Mobilization,
- Two-day Workshop on Application of Agri-business Marketing Extensions,
- One-day Workshop on Usage of Polythene and Possibility of Using Bio Degradable Alternatives,
- Workshop on Development of Positive Attitudes,
- Career Guidance Programme for the Newly Recruited Research Staff of the Institute

Apart from these workshops and programmes, this Division took steps to provide training expertise to other institutes.

In addition to the above mentioned socio-economic research which was completed and published in 2017 and conducted training programmes by research divisions of our institute, research officers published nine research papers locally and internationally in 2017.

Research Officers provided two articles for local and international publications (Journals and Magazines) and research officers and other officers have represented committees, workshops and summits in 11 times.

Research Officers of our institute have contributed their support for training programmes in two times.

In addition to conducting socio-economic research and training programmes which is the prime objective of our institute, Statistics and Data Processing Unit and the Library have given an immense contribution for research and training field in 2017.

The Publication Unit of the institute which is entrusted with all the publications including completed research reports of research divisions has published,

Eight research reports in English language

Four research reports in Sinhala language

Three working papers

One workshop proceeding

Two journals (Each in English and Tamil languages)

Four magazines

Five newsletters (Two in English language, three in Sinhala language) and one other publication in 2017 and given four other contributions.

**K.W.E.Karalliyadda**  
**DIRECTOR**

## AGRICULTURAL POLICY AND PROJECT EVALUATION DIVISION

### COMPLETED STUDIES

#### 01. Potentials of Farmer Interactive Action to Remedy Vegetable Marketing Problems in Sri Lanka

**Research team** : Dr. W. A. R. Wickramasinghe                      Coordinator

**Source of Funding** : Consolidated fund

#### **Scope and Objectives** :

In the vegetable production sector of Sri Lanka, marketing vegetables has taken a key place as most of problems of vegetable value chain are centered on marketing. Surplus production of vegetables resulting in lower price to vegetable farmers is a key issue. Although changes in vegetable supply chain in Sri Lanka have been made with the expectation of increasing market margin for stakeholders of the vegetable supply chain, marketing problems are still persist.

Recent changes in vegetable supply chain are mostly apparent in exporting vegetables which is a growing trend (Subashini et. al, 2015) and supermarkets entering vegetable supply chain (Perera et al, 2004). No drastic change in vegetable farmers has taken place with supermarkets entering the vegetable supply chains except extensions of the vegetable market chains (Perera et al, 2004). Therefore, it seems these changes of vegetable supply chain do not support vegetable market clearance. Further, within this scenario, emergence of Oligopsony that a few buyers determine market price, causes price determination and aggravates economic problems of vegetable farmer. Vegetable farmer has become the price taker due to lack of bargaining power resulting in from lack of market information, indebtedness to the trader and being unorganized farmers (Rupasena, 1999).

One of the solutions for vegetable marketing problems is to maintain vegetable demand through controlling excessive production of a single variety. Coordination among vegetable farmers to be aware of information on vegetable cultivation of each farmer and required production of each vegetable is necessary; hence each farmer can maintain the market share. To make a coordinated mechanism among farmers and organize vegetable farmers information on actions and strategies taken by farmers with regard to vegetable production is required. Although there are many studies (Esham and Usami, 2005; Esham et al. 2006; Rupasena, 1999; Wickramarachchi, 2004; Perera et al, 2004; Subashini et. al, 2015) with regard to vegetable supply chain and marketing in Sri Lanka, no study has

been conducted with regard to strategic behaviour of vegetable farmers in Sri Lanka. Therefore, this study is focused on investigating strategic actions of vegetable farmers, factors causing these actions and potentials of changing their actions in to coordinating or cooperative actions.

The main objective of the study is to understand existing actions (strategies) of vegetable farmers with regard to vegetable production and marketing, and problems with regard to these actions so that potentials of farmer collective actions to remedy vegetable marketing problems are identified. The main objective is achieved by implementing the following specific objectives - 1. To explore actions (strategies) implemented by vegetable farmers in vegetable production and marketing at present and benefits derived from these actions, 2. To identify determinants of choosing these actions implemented by vegetable farmers in vegetable production and marketing, and 3. To find out potentials of farmer interactive actions to resolve vegetable marketing problems

### **Findings:**

Fifteen types of vegetables are grown in Jaffna district and seven types are grown in Nuwara Eliya district. Most of farmers in Jaffna district grow both English vegetables such as beet root, carrot, cabbage and local vegetables such as long bean, brinjal, bitter gourd, okra, pumpkin, snake gourd and cucumber. Most of the farmers from Nuwara Eliya district grow carrot, leeks, cabbage, beet root, tomato and brinjal. Average extent of land allocated for each crop per farmer is larger in Jaffna district than that of Nuwara Eliya district as farmers in Jaffna own transferable lands which are higher in extent compared to the farmers in the Nuwara Eliya district.

Most of farmers in Jaffna district sell their vegetables at market place where vegetables are sold at a competitive price compared to that in Nuwara Eliya district where mostly vegetables are sold at farm. Majority in two districts are price takers. Therefore, vegetable markets in these two districts are monopsonomic or oligopsonic.

The interviewed farmers have four strategies as strategy 1, 2, 3 and 4. In Jaffna district, majority of the interviewed farmers, (39.47%) implement strategy 2 that denotes growing two vegetables per year. Average payoff for the strategy 2 is Rs. 364,740/=. Average payoffs of the strategy 1, strategy 3 and strategy 4 are Rs. 456,913/=:, Rs. 419,150/=: and Rs. 564,230/=: per year are respectively. Each of the interviewed farmers in Jaffna district is engaged in dominant strategy and strategies they adopt are at Nash equilibrium.

In Nuwara Eliya district, an equal number of the interviewed farmers are engaged in strategy 2 and strategy 3 separately. Percentage of the interviewed farmers engaged in strategy 2 is 39.56% and strategy 3 is 41.76%. Average payoffs are Rs. 131,319/=: for

first strategy, Rs. 146,478/= for the second strategy, Rs. 255,820/= for third strategy and Rs. 15,100/= for fourth strategy. Each of the interviewed farmers in Nuwara Eliya district is also engaged in dominant strategy as no farmer tends to change existing strategy of vegetable production corresponding to strategies implemented by other farmers. Therefore, strategies they adopt are at Nash equilibrium.

Majority of the interviewed farmers do not act collectively with regard to vegetable production and marketing.

Farmers who want to expand their vegetable cultivation rent in lands and cultivate vegetables to increase profit. When farmers grow vegetables in larger extent of lands, farmers tend to invest more. Therefore, with availability of credit facilities, farmers tend to cultivate vegetables in larger extent and obtain more profits.

Some of the interviewed farmers said they consider other farmers' vegetable cultivations when they make decisions related to growing vegetables. Vegetable farmers can resolve vegetable cultivation and marketing problems through sharing information on these problems. Farmers' collective action is possible when barriers for organizing are overcome.

### **Recommendations**

Equilibrium of vegetable production game of two districts is a finite game considering a year. If the game is constructed over a period of years, equilibrium will change. Therefore, a study for generating an infinite game analysis should be carried out.

Encouraging farmers to organize and collectively act with regard to vegetable production and marketing is necessary to resolve vegetable production and marketing problems.

## ON GOING STUDIES

### 1. Factors Determining Fruit Cultivation in Home Gardens in Sri Lanka

**Research Team** : Ms. U.D. R. Udari - Co-ordinator  
Dr. W.A. R. Wickramasinghe - Co-researcher  
Ms. Dilini Perera - Co-researcher

**Source of Funding** : Consolidated Fund

#### Scope and Objectives:

The National Food Production Programme: 2016 - 2018 of the government has clearly identified fruit crop development and home gardening as an important priority area. Research effort on socio- economic aspects of fruit cultivation in home gardens has also been limited and adoption of tree cultivation varies across households. Furthermore, identification of the factors affecting adoption of tree cultivation is an initial step towards formulating policies and programmes aimed at promoting fruit cultivation in home gardens.

The general perception of society towards fruit cultivation is unclear and of critical importance for policy crafting, before blanket recommendations are made. Hence, this study aims at identifying socio-economic factors determining home garden fruit cultivation in all climatic zones (Dry Zone, Wet Zone, Intermediate Zone) in Sri Lanka and the findings will help policy makers develop site specific actions to enhance fruit cultivation in home gardens throughout the country.

1. To understand barriers related to fruit cultivation and production in home gardens so as to formulate strategies to expand fruit production in home gardens.
2. To understand existing fruit cultivation and production in home gardens.
3. To recognize potentials and barriers for fruit cultivation in home gardens.
4. To identify factors determining fruit cultivation in home gardens.
5. To propose actions to expand fruit cultivation and production in home gardens.

**Current Progress:**

Data collection (Questionnaire survey, focus group discussions and key informant interviews) of 1517 households representing 17 districts had completed. The data analysis and report writing is in progress.



Field Evaluation of Beneficiaries who received fruit plants through National Food Production



Programme 2016- 2018 in Kalutara district – Mathugama Grama Niladari Division

Questionnaire survey of households in Batticaloa district - Eravur Pattu Divisional Secretariat

## 2. Importance of Indigenous Knowledge (IK) for Food Security: In Relation to Crop Cultivation.

<b>Research Team</b>	:	Mr. R.L. N. Jayatissa	-	Co-ordinator
		Ms. A.K.A. Dissanayake	-	Co-researcher
		Ms. Dilini Perera	-	Co-researcher
		Ms. S. Lurdu	-	Co-researcher
		Ms. S. Hitihamu	-	Co-researcher

**Source of Funding** : Consolidated Fund

### Scope and Objectives:

IK is a precious national resource that can facilitate agricultural production in cost-effective and sustainable ways. Hence a blend of approaches and methods from science and technology and from IK will open avenues towards sustainable agricultural development in Sri Lanka. Further, present Sri Lankan government is also expected to make use of indigenous knowledge and practices in the modern agriculture under National Food Programme 2016-2018. Therefore, it is timely to find the available indigenous knowledge among farmers, the extent to which they are practiced and the economic value of those practices, as awareness of indigenous knowledge could be vital in the modernized world. Consequently, this study's main focus is to identify the importance of Indigenous Knowledge practices in crop cultivation and the findings will help policymakers develop sustainable agriculture in Sri Lanka.

- To identify existing IK practices in crop cultivation.
- To identify the barriers and constraints in using IK.
- To assess the impact of IK practices in crop cultivation.
- To provide policy recommendations on the use of IK in crop cultivation.

**Current Progress:** Data collection (Questionnaire survey, focus group discussions and key informant interviews) of 60 farmers representing 13 districts had completed. The data analysis and report writing is in progress.



## AGRICULTURAL RESOURCE MANAGEMENT DIVISION

### COMPLETED STUDIES

#### 1. Issues of Sustainability in Maize Production in South East Dry Zone of Sri Lanka and Options for Improvement

**Research Team** : Ms. P. R. Weerakkody - Coordinator

**Source of Funding** : Asia-Pacific Network for Global Change Research & Consolidated Fund

#### Scope and Objectives

During the last decade, maize production in the country recorded a continuous upturn in terms of producer prices and gross and net incomes to the farmers. These parameters demonstrate the economic viability of maize production in one hand. Besides, the maize production targets set through the promotional programmes have fell below the expected levels challenging the sustainability of the production system. In order to explore social, economic and environmental issues relating to this challenge, this study was implemented in the South East Dry Zone of Sri Lanka (SEDZSL) with three specific intentions from the assessment of sustainability of maize production in SEDZSL, identification of sustainability issues associated with maize production in that area and offer alternatives that would enhance the present level of sustainability of maize production in the study location.

#### Findings, Conclusions and Recommendations

The study reveals that farmers do maize cultivation amidst several problems. Water scarcity, high cost of seeds and fertilizer, difficulties in settling cultivation loans, threat from wild elephants, pest attacks, threats from other animals, land ownership issues, and labour scarcity are the problems so raised up in order. Recommended cultural practices are followed at a minimal level. Given that farmers have failed to harvest higher yields though high yielding imported varieties are commonly cultivated, the study reveals.

Farm Sustainability Index was used as the measure of sustainability in maize cultivation. It has been constructed based on social economic and environmental dimensions of the cultivation. Climate variability is the key factor that constraint the harvest of a high yield, according to farmer's estimation. Both animal damages and pests attacks also contribute to the same. All these factors exist beyond the farmer's control. The best option the

farmer has to earn a high income in such events is to increase the area under cultivation. The study reveals that the net income from maize cultivation is higher when the imputed cost of labour is not considered. It is another reason for the expansion of area under cultivation. Thus, the level of economic sustainability of maize cultivation does not remain at a higher level. It predominates in certain other aspects such as relatively high quality of seeds amongst other field crops, competitive market, increased contribution to family income and as a crop that provide job opportunities to the local people and therefore its social acceptability remains at a higher level. Nevertheless, pollution due to use of agro-chemicals degrades the environmental sustainability of maize production leading to a low farm sustainability index. The study report contains the policy, institutional and technological interventions remedying respective social, economic and environmental issues that improve overall sustainability of maize production.

## **2. Sustainability of Red onion Farming System of Thelulla in Moneragala District**

**Research Team :** Ms. M.D. Susila Lurdu - Coordinator  
Ms. P.R. Weerakkody - Co-researcher  
Mr. S. Epasinghe - Co-researcher

**Source of Funding:** Asia-Pacific Network for Global Change Research (APN)

### **Scope and objectives :**

At present a paradigm shift is required in the agriculture sector to face the challenges of climate change and food security while ensuring the well-being of the farming community. Therefore, there is a need to identify the socio economic and environmental aspects which determine the sustainability of each and every farming system. (2016 – 2018) National Food Production Programme placed special reference to OFC production in Sri Lanka. Therefore this study is mainly focused on Sustainability of Red Onion Farming System in Thelulla area known as ‘Little Jaffna’ in the Moneragala district. The main objective of this research was to reveal the social, economic and environmental dimensions of the red onion farming system, while determining the various factors governing the present level of performance of the same and provide policy recommendations to enhance this Farming System.

### Findings of the Study

In 1980 -1990 due to the war, red onion production in the Northern province gradually declined. Consequently, this became a golden opportunity for the farmers at Thelulla in the Moneragala district to supply their production to fulfill the market demand. Then they expanded the extent under native red onion variety. However, today this food system experiences a gradual decline, though at that time it was a main livelihood for the people in this area. The study results of the sustainability assessment showed that social, economic and environmental sustainability indices of the system account for 0.448, - 0.337 and 0.223 respectively with an overall sustainability index value of 0.123. Red onion is a food system with high social acceptance due to increased demand for labour that contributes to employment generation. However, the system is an environmentally destructive wing to increased use of fertilizer and pesticides. The quality, productivity and prices are lower. The income fetched is lesser and have failed to compete with high quality Jaffna products. Therefore, the food system is also less viable in economic terms and diversifying into other crops is observed.

### Recommendations

This study suggests productivity improvement through soil fertility and efficient water management practice. With the introduction of improved varieties higher market demand can be created the controlled pesticide use in this food system is suggested. Further this study suggests to take action to enhance the red onion production in the study area by focusing on social, economic and environmental dimensions which determine the sustainability of this food system.

### 03. Sustainability of Prominent Food Crop Production Systems in South East Dry Zone of Sri Lanka with special reference to Groundnut, Green gram and Sugarcane Production

**Research Team** : Mr. I P P M Wijesinghe - Coordinator  
Mr. H J C Jayasooriya - Co-researcher  
Ms. S K Kumara - Co-researcher  
Ms. R D Wijesinghe - Co-researcher

**Source of Funding** : Consolidated funds

#### Scope and Objectives:

This study attempts to identify the sustainability level of the prominent crop production systems in the South East Dry Zone. Overall objective of the study was to reveal the social, economic and environmental dimensions of the prominent food crop production

systems in South-East Dry Zone of Sri Lanka. Specific objectives of the study were (i) To estimate the financial profitability; (ii) To understand the environmental consequences; (iii) To identify social acceptability; (iv) To assess social, economic, environmental and overall sustainability of each selected food crop production system.

### Findings of the Study

1. According to the crop sustainability index value, sugarcane production system (0.15), groundnut production system (0.14) and green gram production system (0.09) could be rated as “Least sustainable” level (according to the policy matrix applied in this study)
2. Among three production systems, highest social acceptance and economic viability were recorded in sugarcane while groundnut was recorded the most environmental friendly production system.
3. Compared to other two pillars, social sustainability was the major contributory factor in generating the crop sustainability index where major contribution for developing social sustainability index was provided by ‘competitiveness’ (*mean difference between breakeven and actual price*) in all three production systems.
4. Major contribution for developing environmental sustainability index was provided by the ‘chemical fertilizer application’ (*severity of chemical fertilizer application*).
5. Major contribution for developing economic sustainability index was provided by the ‘relative economic importance’ (*Contribution to total family income from crop production*).
6. No significant difference could be observed with respect to the overall sustainability either in groundnut production system in Ampara and Monaragala districts; or in green gram production system in Hambantota and Monaragala districts.

### Recommendations

1. Overall sustainability of all three food production systems in SEDS should improve significantly to ensure better economy of relevant farming communities.
2. In order to improve the Economic Sustainability, productivity of all FCPS and thereby profitability need to be increased through;

- a. Increasing the availability of quality seeds with higher yield potential for SEDZ with respect to green gram and groundnut.
  - b. Introducing new sugarcane variety with higher yield and a high number of ratoons to increase the productivity of sugarcane in SEDZ.
3. Social sustainability of all FCPS could be increased by increasing the net return to family labour by means of;
- a. Introducing green gram variety with the character of one time maturity to facilitate machinery harvesting and develop suitable machines for same.
  - b. Introduce suitable machines for harvesting and processing (pod separation & seed separating).
  - c. Introduce suitable machines for sugarcane harvesting which can be used in existing field conditions.
  - d. Help farmers to cut down the labour usage for crop protection in all FCPS in SEDZ by providing assistance for electric fence establishment (for wild elephant) either at farm level or cluster level.
4. Increase profitability of groundnut and green gram systems through;
- a. Promoting varieties with special demanding characters to obtain higher profit margin from groundnut production (e.g. – suitable varieties could use for Jumbo Peanut products)
  - b. Encourage farmers for value addition, both in green gram and groundnut and provide technical and infrastructure support.

#### **04. Capacity Development of Research-Policy-Technology Personnel in Sri Lanka on Global Change and Sustainability**

**Research Team** : Ms. Renuka Weerakkody - Project Leader  
Ms. Sharmini K Kumara - Co-Researcher  
Mr. S. Epasinghe - Co-Researcher  
Mr. Prasanna Wijesinghe - Co-Researcher  
Ms. Rasika Wijesinghe - Co-Researcher  
Ms. Susila Lurdu - Co-Researcher  
Mr. Chinthaka Jayasooriya - Co-Researcher

**Source of Funding** : **Asia-Pacific Network for Global Change Research (APN)**

##### **Scope and Objectives:**

This project was aimed at promoting sustainability knowledge on agricultural sustainability among researchers, policymakers, extension officers and farmers. With the financial assistance from the Asia-Pacific Network for Global Change Research, a series of capacity building workshops and training programmes were conducted with the participation of above stakeholders. At the three day training workshop conducted for HARTI researchers their capacities were built on methods for assessing agricultural sustainability. Second in the series was a one day science-policy dialogue mobilized to disseminate the findings of research component undertaken by trained HARTI researchers to agrarian policymakers. Followed by this interactive event, 30 extension officers were trained to become trainers for farmers and those trainers completed training sessions successfully with regard to capacity building for 900 farmers in the study location as the final training event proposed under capacity building exercise.

## ENVIRONMENT AND WATER RESOURCE MANAGEMENT DIVISION

### COMPLETED STUDIES

#### 1. National Food Production Programme 2016 – 2018 Baseline Survey

**Research Team** : Mr. M.A.C.S. Bandara - Coordinator  
Ms. T.P. Munaweera - Co-researcher  
Ms. J.A.U.P. Jayasinghe - Co-researcher

**Source of Funding** : Consolidated fund

#### **Scope and Objectives:**

The study has been designed as a baseline study to the National Food Production Programme (NFPP) 2016 – 2018 implemented in 2016 on the request of Secretary to the Ministry of Agriculture. The purpose of this study is to gather cross-sectional descriptive quantitative and qualitative information on the status of NFPP implementing areas. The baseline survey will enable benchmarking of changes taken place as a result of the programme and help inform relevant authorities for further planning and monitor the progress.

The baseline survey was conducted in 20 districts covering 17 crops and the total number of sample was 2554. The survey collected information coming under six main categories as quantity and quality of input and output, relative prices, prevailing knowledge and attitudes of target communities, social and physical capital of the farmers. Using outcome indicators derived from the food production programme proposal, the baseline study aimed at documenting the initial status of villages with regard to these indicators, focusing on villages where the programme is planned but has not yet been conducted. The general objective of the NFPP baseline is to take the first measurement of the major long-term indicators for success of the NFP programme.

#### **Major findings**

1. During the survey, it was observed that the NFPP activities are already in implementation stage in most of the studied areas aligned with national agricultural plan.
2. Following drawbacks at the implementation of NFPP at field level were identified in the survey;
  - a. In some districts poor coordination among different stakeholders directly involved in the NFPP

- b. There is a need for improving the awareness of grassroot level officers in the field on NFPP activities
  - c. In some districts delays were observed in relation to fund releasing
  - d. Planning issues related to some activities such as mismatches between *kanna* meeting dates and project implementing dates, failures in introducing new crops to some areas and increasing the extent under cultivation were observed .
3. A number of issues that hinder the better performance of the agricultural sector in Sri Lanka were identified and some of the major issues generalized to all districts were listed below;
- a. Lack of good quality planting materials
  - b. High cost of agricultural inputs
  - c. High labour and labour shortage
  - d. Pest and disease outbreaks
  - e. Water scarcity

### **Recommendations**

1. The purpose of conducting baseline survey to the NFPP is to collect data to build up indicators to measure the progress and achievements of the programme over time, therefore, emphasize the need of evaluating the progress of NFPP utilizing the baseline findings.
2. It is of utmost importance to implement policies and programmes along with the future NFPP activities to solve the issues identified during the survey to achieve better results in the future.

### **2. Study on High Sedimentation on Tank Beds Over Human Activities and its Impact on Agriculture**

<b>Research Team</b>	:	Mr. W.H.A. Shantha	-	Coordinator
		Mr. K.A.B.S.Rupasinghe	-	Co-researcher
		Mr. D.D. Prabath Vitharana	-	Co-researcher
		Ms. G.G. de L.W. Samarasinha	-	Co-researcher
		Mr. B.A.G. Aluthgama	-	Co-researcher

**Source of Funding** : Consolidated fund



## Scope and Objectives

In the dry zone area tank capacity reduction due to sedimentation has been leading to a substantial productivity loss in the lowland cropping system in the respective command areas. Apart from inappropriate farming practices in the catchment areas other activities related to industrial, construction, tourism as well as residential areas have vastly contributed to erosion at an alarming level. Though a considerable number of research studies have been carried out on sedimentation of large reservoirs located within the upper catchment areas of the country and its impact on different sectors of the economy, due attention has not been paid to the small tanks and other reservoirs in the drier parts of the country. Therefore, prime objective of this study is to identify the magnitude of the minor tank sedimentation in the dry zone area of Sri Lanka and its impact on livelihood of farmer households in affected areas.

The specific objectives of the study are:

1. To identify the level and means of encroachments in the tank reservation areas particularly in the catchments of the small tanks and to map the intensity of encroachments.
2. To identify and assess the causes and rate of sedimentation and reduction of storage capacity of the tanks over time.
3. To study the impact on crop production system due to reduced storage capacity.
4. To propose policy recommendations for sustainable tank systems for crop production.

## Materials and Methods

### Study Area

The study sites were selected after the discussions and consultation of the Department of Agrarian Development. Two cascades representing Mee-Oya basin and Malwathu-Oya basins consisting minor tanks where sedimentation has been affecting the livelihoods were selected from Kurunegala and Anuradhapura districts respectively as the study area.

The primary data collection was mainly undertaken by administering a census (in place of conducting a household survey) of farm households that carry out crop cultivation under the irrigation facilities of Mahameruwa cascade in Ehetuwewa Agrarian Service Center area (ASC) in Kurunegala in the Walpola village tank cascade in Medawachchiya ASC area in Anuradhapura. A total of 312 farm households representing seven farmer

organizations across 11 Grama Niladhari (GN) divisions were interviewed in the census in collecting socio-economic data and information. Apart from the household census, focus group discussions and key informant interviews were also carried out to collect primary data and information. Studying the level of tank encroachment and changes in land use pattern in tank catchment as well as command area was designed to be undertaken using geo-reference data as the collection of field level data was highly sensitive and not reliable. Owing to financial constraints the engineering and soil survey had to be dropped from the study.

### **Major Findings**

1. The village catchment areas have been gradually diminishing due to inappropriate human activities while the command area has also increased to a remarkable level through converting adjacent forest lands and other areas into paddy fields.
2. Long-term negligence and lack of attention to village tanks particularly in the aspects of rehabilitation and monitoring has accelerated deteriorating the irrigation efficiency of village tanks.
3. Average per capita land size is becoming very low, hence the economic capability of such lands to provide food security and household income is also becoming very minimum.
4. Owing to less water retention capacity the irrigable area in the command area has also shrunk, compelling farmers to adopt water and land sharing practices (*bethma, katti maaaru* etc.).
5. Tank sedimentation leading to lowering groundwater level has also affected the crop production systems undertaken with irrigation facilities from agro-wells.

### **Recommendations**

1. As a means to combat climate change impacts the rainwater harvesting using wide spread tank cascades comprising small and medium size village tanks should be promoted.
2. Absence of a set criteria in prioritization of village tanks for rehabilitation has heavily been detrimental for achieving sustainability in irrigation and water management in the drier parts of the country therefore, it is recommended to create suitable criteria to select tanks for rehabilitation.

3. Farmer organization should be strengthened with capacity building and providing physical and financial facilities for undertaking tank rehabilitation activities and subsequent monitoring and operations stages as well.
4. Farmers should be made aware of crop diversification and climate –smart agriculture in order to strengthen them to combat adverse impacts of climate change.

### **3. Potentials and constraints of bio-pesticide and bio-fertilizer usage and production in Sri Lankan agriculture**

**Research Team** : Ms. T.P. Munaweera - Coordinator  
Ms. G.G. de L.W. Samarasingha - Co-researcher

**Source of Funding** : Consolidated fund

#### **Scope and Objectives:**

With the understanding and experience of negative externalities associated with chemical fertilizers and pesticides, a rising need to adopt environmentally friendly methods to improve soil fertility and pest and disease control methods while facing the challenge of producing more food from declining per capita land to cater to the increasing food demand is observed. Bio-fertilizers and bio-pesticides have been evolving as a cost effective, eco-friendly, renewable and sustainable source of soil fertility management and pest control. Even though bio-control methods and bio-fertilizers are not much popular in the country, Sri Lanka has been using those methods to a certain extent and yielded promising results and the current status of bio-fertilizer and bio-pesticide use in the country and the limitations of adapting and expanding of bio-pesticides and bio-fertilizers are not well documented. Therefore, this study was planned to find out the limitations, challenges, incentives and barriers of using bio-fertilizers and bio-pesticides for policy formulation and strategies related to future expansion of sustainable agricultural technologies in Sri Lanka.

#### **Major findings**

1. To increase the productivity of agricultural lands and to minimize the negative impacts associated with chemical pesticides the use of beneficial microorganisms as bio-fertilizers has shown a huge improvement in recent years. Field experiments in proper use of bio-fertilizers on various crops including both annual and plantation crops showed an increase in yield in both cases.

2. However, major finding of the research is that it was unable to find farmers continuously applying bio-fertilizers and bio-pesticides in to their fields.
3. The most important reason for poor adaptation of bio-fertilizers and bio-pesticides in farmer level is lack of awareness. Unlike chemical counterpart, bio-pesticides and fertilizers are not freely available in the market since they have to be stored and applied in conditions favourable for the multiplication of microorganisms. This requires special facilities and care which farmers are often unable to provide. On the other hand, bio-fertilizers are site and crop specific hence difficult to issue blanket recommendations.
4. Though farmers are aware of bio inputs they lack positive attitude towards it because they feel that the quality is poor and their performance at filed level is very unreliable.

Major constraints faced by the bio input producers in Sri Lanka are poor market demand due to low awareness among farmers, unavailability of government support such as subsidies or any other incentives to expand the industry and low chemical input prices.

### **Recommendations**

National level support and activities are necessary to promote bio-fertilizers and bio-pesticides sector in Sri Lankan agriculture and based on the study findings following suggestions are made;

1. Implementation and prioritization of the government policies to encourage the bio-fertilizer and bio-pesticide sector in Sri Lanka. It is of utmost importance to build collaborations between government, academia and industry to gather the knowledge dispersed among those various stakeholders and develop sound policy initiatives.
2. Bio inputs should be promoted as a component of integrated pest and nutrient management program of the country.

#### **4. Current Status of Agriculture Graduates and Diploma Holders' Involvement in Agriculture Sector of Sri Lanka**

**Research Team** : Ms. R.M.M.H.K. Rambodagedara - Coordinator  
Ms. J.A.U.P. Jayasinghe - Co-researcher

**Source of Funding** : Consolidated fund

##### **Scope and Objectives:**

This study was conducted with the main objective of identifying the absorption of agriculture graduates and diploma holders into the agricultural sector and their contribution to the agricultural development of the country. Specific objectives of the study included (i) analyze the agriculture graduates' and diploma holders' employment status and key influential factors on selecting current employment, (ii) investigate graduates' and diploma holders' involvement in agriculture sector within their occupational roles and find out the constraints of entering and retaining in the agriculture sector for agricultural graduates and diploma holders.

##### **Major Findings - Absorption of agriculture graduates to the agricultural sector**

1. A great majority of sample graduates were employed showing the high employment rate of the agriculture graduates. Their participation in the agricultural sector and agriculture related areas was also high. Inability to find a better job was the major reason of the sample graduates for staying in the current job.
2. Half of the surveyed graduates have been engaged in professional occupations followed by the managerial level occupations and technical and associate profession. Majority of the graduates employed as professionals were the teaching professionals.
3. Majority of sample graduates are engaged in agriculture related activities within their current job profile indicating their active involvement in agriculture sector development of the country.
4. Less employment opportunities in the public sector was a major constraint to enter and remain in the agriculture sector.
5. With the expansion of the occupational trajectory of sample graduates there is a declining trend towards agriculture related jobs regardless of the relevance to the sector lessening their contribution to the agricultural sector.

## Recommendations

1. Attention should be paid to create a clear path and opportunities to enter the public sector occupations for graduates to develop their careers as agriculture scientists to render their maximum contribution for developing the agriculture sector of the country.
2. Comprehensive knowledge in entrepreneurship education in the academic programs can be provided to reap their full potential to become agro-entrepreneurs, as there is great potential for graduates for being entrepreneurs in the agriculture field.
3. It is recommended to provide bare or underutilized lands both owned by the public and private parties for the graduates interested in entering agri-business/farm operations through contract agreement by creating a win-win situation with the responsible intervention of the Ministry of Agriculture. Further interest free loans or low interest loans for those willing to start agri-business operations or to develop existing agri-business operations can be introduced.
4. It is recommended to build strong linkages with the public sector, private sector and other relevant organizations to provide jobs and training opportunities to agriculture graduates to absorb them in the agriculture sector in the beginning of their careers.

## Major findings – Absorption of agriculture diploma holders to the agricultural sector

1. An overwhelming majority of the sample diploma holders were employed highlighting the high employability of agriculture diploma holders. Compatibility with educational qualifications and skills has been identified as a major reason for selecting the current employment.
2. Current employment in which the majority engaged in is related to the agriculture sector. When looking at the progression of the career of sample diploma holders an increasing trend of participation in agriculture related field is observed.
3. A great majority of sample diploma holders represent the job category of technicians and associate professionals. Many diploma holders are engaged in extension service related jobs which belong to technicians and associate professionals
4. Majority of agriculture diploma holders have been serving as agricultural instructors. Provision of advice to farmers in crop cultivation, animal husbandry and fishing to farmers and assist them resolve issues, assist farmers on mechanization and technology dissemination were among the key tasks performed by the diploma holders in agriculture.

## Recommendations

1. Attention should be paid to provide comprehensive and updated knowledge in academic programs in agriculture since extension officers play a key role in transforming the agriculture sector in the country.
2. Enhancing the quality of the academic program by ensuring more practical learning opportunities is also vital for the progress of the program as well as to make more productive output to the country.
3. In the current system extension officers should cover wider geographical area with diverse level of roles and responsibilities which help in effective service delivery. Hence measures should be taken to allocate achievable targets to extension officers to enable them provide a satisfactory service to farmers.

### 05. Study on Lessons to be Learnt from Ancient Sri Lankan Water Management

#### Techniques for the Development of Integrated Water Resource Management Concept

**Research Team** : Ms. J.A.U.P. Jayasinghe - (Coordinator)  
Ms. M.H.K. Rambodagedara - (Co-researcher)

**Source of Funding** : Consolidated funds

**Scope and Objectives:** This study was conducted to identify good water management practices prevailed in ancient irrigation systems which can be utilized in developing integrated water resources management (IWRM) concept for Sri Lanka. Specific objectives of the study include (i) Identifying salient features of ancient water management practices in Sri Lanka that contributed to sustainability of ancient irrigation systems with special reference to the dry zone of Sri Lanka (ii) Assessing the compliance of these practices with the principles of IWRM concept (iii) Making recommendations to integrate good practices of ancient irrigation systems for the development of IWRM concept for the country. The study was mainly focused on traditional tank cascade system of Sri Lanka.

## **Main Findings**

1. Traits of ancient Sri Lankan water management techniques consisted major principles of IWRM concepts in different aspects.
2. In the context of ancient Sri Lankan water management techniques, tank cascade system is well adopted to the climatic conditions of dry zone. Especially, it has not only taken conserving water for dry spells into consideration while minimizing the damages that can be caused during floods.
3. The land use pattern of tank cascade system uses the water efficiently and effectively. It is a well-balanced system, which has ensured the water and food supply to wildlife, hence it naturally controls the damages caused by wildlife to both crops and homesteads.
4. Structures of the tank cascade system have ensured not only gradual flow of water to the system throughout the year but the quality of water as well.
5. Water management and governance practices were closely connected with participatory approach. As community ownership is high in water management, the entire system was well balanced and fulfilled the different water needs efficiently.

## **Recommendations**

There is a need to strengthen the community ownership for water management and governance by enhancing the application of participatory approach as a major principal of IWRM concept. Hence, it is recommended to replicate regulations on ownership and maintenance obligations prevailed in the ancient irrigation system considering an appropriate way to the present context.

Natural and human systems as existed in the ancient irrigation system can be integrated to develop the IWRM concept within the present context. This could be a good mitigation strategy to address the burgeoning issues such as wild animal attacks and depletion of surface and groundwater tables both in terms of quality and quantity.



## ON-GOING STUDIES

### 1. Climate change vulnerability of selected crop production systems in the dry zone of Sri Lanka

<b>Research Team</b>	:	Ms. G.G. de L.W. Samarasingha	-	Coordinator
		Mr. W.H.A. Shantha	-	Co-researcher
		Mr. M.A.C.S. Bandara	-	Co-researcher
		Ms. M.T. Padmajani	-	Co-researcher
		Mr. H.J.C. Jayasooriya	-	Co-researcher
		Ms. R.M.M.H.K. Rambodagedara	-	Co-researcher
		Ms. M.P.N.M. Dias	-	Co-researcher

**Source of Funding** : Consolidated fund

#### Scope and Objectives:

Climate change, its consequences and anticipated effects on food production systems are well documented. Studies have shown that developing countries in the tropical region will be among the most vulnerable as majority of the rural population are depending on agriculture and related activities as the source of livelihood. In adaptation, planning vulnerability assessment is a useful tool that can improve decision making of the policymakers or programmes which are of great importance to the formulation of rational and effective adaptation strategies. Dry zone of the country is considered as the food production basket of the country and there is high variability among farming systems in the dry zone. Further, compared to other parts of the country higher proportion of labour from the dry zone is involved in agriculture sector. Therefore, this study was planned to assess climate vulnerability of selected crop production systems in the dry zone of Sri Lanka.

#### Specific Objectives:

1. To assess climate change sensitivity of the selected crop production systems to climate change impacts
2. To assess adaptive capacity of the selected crop production systems to climate change impacts
3. To assess the exposure of the selected crop production systems to climate change impacts

## MARKETING FOOD POLICY AND AGRIBUSINESS DIVISION

### COMPLETED STUDIES

#### 1. Quality and Safety Issues in Fruit and Vegetable Supply Chains in Sri Lanka: A Review

<b>Research Team</b>	:	Ms. Ruvini Vidanapathirana	-	Coordinator
		Ms. P.A.J. Champika	-	Co-researcher
		Ms. Roshini Rambukwella	-	Co-researcher
		Mr. W.A.N. Wijesooriya	-	Co-researcher

**Source of Funding :** Consolidated funds

#### Scope of the Study:

The Fruit and Vegetable sector has been a driving force in stimulating a healthy growth trend in Sri Lankan agriculture. At present, the controlling quality and assuring safety of fruits and vegetables in supply chain has become one of the most challenging issues in Sri Lanka. In the recent past various illicit practices were recorded throughout the supply chains by various actors like farmers, collectors, and traders. In addition to post-harvest losses, food adulteration with harmful chemicals reached an alarming level posing health hazards in the country. The widespread public concern over the quality deteriorated due to post harvest losses and presence of chemical residues in the harvested fruits and vegetables has become a serious issue in Sri Lanka. The consumers are reluctant to buy fruits and vegetables that are deteriorated in quality due to prohibited practices and usage of chemicals. Therefore, food safety issues need to be exhaustively investigated to examine the impact of current levels of practices.

#### Specific Objectives:

1. To review issues related to the post-harvest losses in fruit and vegetable supply chains in Sri Lanka and to identify studies addressing minimizing and overcoming post-harvest losses in the country
2. To review the safety issues related to food adulterations in fruit and vegetable supply chains in the country
3. To identify the institutional level measures to minimize quality and safety issues in fruits and vegetable supply chains in the country

4. To review success lessons and strategies developed by other countries of the Asia and Asia-Pacific region to mitigate the issues related to quality and safety issues in fruit and vegetable supply chains

### **Findings:**

1. The quality and safety of fruits and vegetables produced in Sri Lanka is affected by improper pesticide and fertilizer use, poor methods and practices from production stage to post-harvest measures. There is minimal intervention at the production or growing stage to ensure quality and safety.
2. High post-harvest losses occur during transport of fruits and vegetables due to cuts, vibrations, abrasions, compression and impacts like mechanical damages, use of improper packages (polypropylene sacks and gunny bags), compressed packing into sacks, overloading in lorries result in lack of ventilation in the lorries, malpractices by both farmers and transporters, rough handling during loading and unloading, lack of refrigerated vehicles for transportation, exposure to sunlight and rain and use of improper trucks and lorries.
3. Post-harvest loss of a commodity cannot be reduced by adopting improved post-harvest technologies alone, because the effect of the pre harvest factors such as crop management, field sanitation also contributes to crop losses. Pre-harvest fungicide treatment, sanitation, bagging and other field management practices and careful post-harvest handling can reduce majority of post-harvest disease problems, as many such diseases begin in the field.
4. Lack of sorting and grading practices also affect the quality of F&V. Farmers sell their products without sorting and grading in conventional channels. Only manual sorting is practiced in all the conventional and improved channels.
5. Lack of storage facilities at market places to store surplus supply for a reasonable time and unprotected retail outlets at roadside affect the quality of F&V.
6. The problem of contamination of food sources, especially vegetables by pesticide residues constitutes one of the most serious challenges to public health. Overuse of pesticides by farmers, malpractices and misuse of pesticides by farmers due to insufficient information and knowledge on the safe and effective use of pesticides, harvesting of crops without considering the withholding period prescribed by the DOA are the major issues with use of pesticides. Pesticide usage is not properly regulated due to ineffective legislation, lack of awareness and technical know-

how among the farming community in Sri Lanka. No comprehensive studies have been undertaken to determine the pesticide residues in vegetables and fruits in the country except for a few monitoring studies.

7. Use of synthetic chemicals in accelerating ripening is a typical problem in Sri Lanka as different types of liquid plant growth regulators containing ‘ethephon’ as an active ingredient are sprayed on the fruit or the fruits are dipped into the solution of ripening chemicals. Although section 26 of the food regulation of 1993 explicitly prohibits the use of calcium carbide, it is the commonly used chemical by collectors and traders. Excessive use of commercial grade calcium carbide results in direct contact with carcinogenic compounds such as arsenic and phosphorous hydrides.
8. In Sri Lanka, the task of ensuring food safety is conducted in a rather adhoc manner, tasks are dispersed to a number of government agencies and departments such as the Department of Agriculture, the Consumer Affairs Authority, the Sri Lanka Standards Institute, Atomic Energy Authority, Sri Lanka Customs – Quarantine Department, and the Ministry of Health, based on their respective areas of expertise. There is also lack of sufficient national standards to measure food safety and lack effective institutional mechanism to enforce food safety at different stages in the food chain.

### **Recommendations:**

1. This review recommends that emphasis should be given to formulate national policy to minimize post-harvest losses of fruits and vegetables, and the government would take initiatives and allocate resources to improve the post-harvest handling conditions, and thereby improve the socio-economic status of the stakeholders in fruits and vegetables supply chains.
2. Regarding the use of pesticides, the farmers need to be educated and trained on personal hygiene along with safe application of pesticides and efficient spray technology to prevent contamination in fields. Training of farmers in selecting the correct inputs and in post-harvest handling, including cleaning, drying, sorting, and packaging at the farm gate; training in the area of food safety both for the domestic market and for international trade are important. Recently the Registrar of Pesticide in a Gazette has issued MRLs for fruits and vegetables and with that new regulations can be introduced to prohibit sale of fruits and vegetables containing residues of pesticides.

3. Assurance of food safety from the beginning of farmers' themselves through "Farm to Fork" approach is necessary in food control measures which include farmers and growers, manufacturers and processors, food handlers and consumers. Every stakeholder along the supply chain of fresh produce involved in harvesting, handling and marketing plays a vital role in assuring the safety and quality of fresh produce. There must be a documented comprehensive national food safety policy and plan of action involving all relevant stakeholders from farm to table, and this food safety policy must be integrated into other areas of government policy such as poverty alleviation and agricultural development.
4. This review highlighted the importance of continued research to develop easy to use practical test kits to identify chemicals, pesticides, additives, preservatives and toxic elements at the production, processing, distribution and consumption levels. To go along with the increasingly important food safety requirements for high-value products, investments are needed in laboratory and testing infrastructures to make them conform with international standards.

## ON-GOING STUDIES

### 1. Fertilizer Cash Grant Programme in Sri Lanka: A Socio-economic Review

**Research Team** : Ms. Indika Edirisinghe - Coordinator  
 Mr. Virajith Kuruppu - Co-researcher  
 Ms. Darshika Amarakoon - Co-researcher

**Source of Funding** : Consolidated Funds

#### Scope and Objectives:

Among a number of policies and programmes introduced by the government of Sri Lanka the fertilizer subsidy programme is regarded the most lasting, most expensive and most politically sensitive programme implemented to promote the rice cultivation in the country. It was initiated in 1962 (that is, at the onset of the Green Revolution) and is still in operation for more than five decades and the policy has evolved over time. In 2016 Budget Proposals, a revision was made to the subsidy programme, bringing in a Fertilizer Cash Grant (FCG) Programme which took effect in 2016 *Yala*.

As fertilizer is an essential input in agriculture, any fertilizer related policy is crucial for national effort aiming at improving agricultural productivity. The introduction of the FCG programme in 2016 stirred a dialogue among policymakers, government officials,

farmers, media and the general public in terms of positive and negative results of the new programme. Therefore, it was timely to review the FCG programme to understand the benefits of the new programme as opposed to the previous programme and to make appropriate policy recommendations for designing an effective subsidy programme in the future.

The main objective of this study is to review the current FCG programme to make appropriate policy recommendations for an effective subsidy programme. The specific objectives are, (i) to examine the operational mechanism of the FCG programme, (ii) to ascertain the farmers' responses towards the FCG programme and to identify the challenges faced by both implementers and beneficiaries of the programme, (iii) to assess the cost-effectiveness of two fertilizer subsidy programmes (cash grant and material fertilizer subsidy programme implemented during 2005-15) and (iv) to propose strategies and recommendations for an effective fertilizer subsidy scheme.

A descriptive study was carried out and both qualitative and quantitative data was collected to achieve the objectives. The primary data collecting tools were key informant interviews, a sample survey, focus group discussions and case studies. Seventy nine key informant interviews, 16 focus group discussions and nine case studies and a sample survey with 390 farmers were conducted by the end of December 2017. The selected districts to collect data were Ampara, Kurunegala, Anuradhapura, Polonnaruwa, Matara, Killinochchi, Badulla, Monaragala and Jaffna. Data and information collected from various sources will be subjected to a descriptive analysis. Data of the sample survey will be analysed using the software package, SPSS version 16.0 for Windows. Data analysis and report writing will be carried out in 2018.

## **02. Farmers' Perspective of Current Status and Future Direction of Public and Private Sector Intervention on Paddy Marketing in Sri Lanka.**

**Research Team** : Mr. W.A.N. Wijesooriya - Coordinator  
Ms Champika Jayamini - Co-researcher  
Mr Virajith Kuruppu - Co-researcher

**Source of Funding** : Consolidated Fund

### **Scope and Objectives**

Rice industry is vital for food security and the economic development of Sri Lanka as its economy relies on agriculture sector. Promoting the marketing capability of farmers especially the smallholders is the key challenge of increasing farm investment. According to the importance of the rice sector, fluctuations in rice prices are considered a threat to

political stability, and this may be a reason why governments tend to intervene in their country's rice market. Like most Asian governments, Sri Lanka still views rice as a strategic commodity because of its importance in the diet of the poor as an occupation and a source of income generation of farmers. During the harvesting season farm gate prices declined drastically and during the off season high prices were recorded. Hence, with this situation both farmers and consumers were affected. This has become a major issue discussed by media and the general public in relevant periods. For prevention of adverse fluctuations government intervenes in paddy marketing mainly through the Paddy Marketing Board and encouraging the private sector. Meanwhile fewer researchers found that the terms of trade of paddy are unfavorable to the paddy farmers in Sri Lanka due to the continuous rise in production cost, low paddy prices and a significant increase in the prices of consumer goods (Wijetunga, 2011; Ahamed, 2014). Therefore, it is necessary to examine the farmer's decision making process on selling paddy and the problems faced by them and their suggestions for future planning.

### **The Main Objective of the study**

To examine the influencing factors for the choice of public and private sector marketing channels by the farmers and identify the key policy initiatives needed to increase the efficiency of the overall process of paddy marketing.

### **Specific Objectives:**

1. To examine the factors affecting the selling of paddy either to government or private traders by the farmers.
2. To identify the problems faced by farmers and their suggestions in each marketing channel.
3. To identify the key policy initiatives needed to increase the efficiency of government as well as the private sector intervention on paddy marketing.

Primary Field Survey Completed in Four major paddy producing Districts (Ampara, Anuradhapura, Batticaloa and Polonnaruwa ) in the country with 350 farmer respondents. Data entry has been completed and analysis is in progress.

## HUMAN RESOURCES AND INSTITUTIONAL DEVELOPMENT DIVISION

The objective of the training programmes conducted by HARTI is to develop knowledge, attitude and the skills of adults engaged in agrarian and rural development activities, and thereby improve the socio-economic standing of the farming community in Sri Lanka.

The clients of HARTI's training programmes belong to a broad range which includes field officers, higher officials of Government and Non-Governmental Organizations involved in development activities in the rural sector and the farming community in Sri Lanka.

Training programmes conducted by the Division are structured as follows:

1. Co-ordination, organization and preparation of general training programmes based on the needs of the farming community and national development programme.
2. Co-ordination and preparation of training programmes at the request of various organizations related to the agrarian and rural sector
3. Providing training expertise to other organizations on request.
4. Designing and conducting Action Research Project under National Development programme.

Besides national and international training, seminars and workshops are organized and co-ordinated collaboratively with other national and international organizations.

The training programmes conducted across the country during the year 2017 by the division are as follows.

1. **Training Programme on Farmer Organization Empowerment (Women Farmer Empowerment)**

Farmer organization is a rural organization with a wide legal base and working directly for the development of the agricultural sector and the collective betterment of the farmer community.



Although as a shareholder that directly contributed to the national agricultural development most farmer organizations do not function properly. Even though the Farmer Organizations contributed to improve knowledge, skills and attitudes of farmers and to obtain essential services, the relationship among the farmers and the organizations is strained. Majority of farmer organizations are in a nominal level and there are no visible operations.

Therefore, their skills and capabilities should be improved in way conforming to the national production process to make them active shareholders of the national agricultural development. This programme was designed to achieve that purpose by developing their organizational skills.

The general objective of this training programme is to strengthen farmer organizations through developing knowledge, attitudes and skills of the farmer leaders and making them active partners of the agrarian development process.

This programme was conducted in the Matale district covering Laggala, Hunukataela, Pallepola, Wasalakotte, Rattota, Kimbissa, Yatawatha, Kongahawella, Galewale Dewahuwa and Nawala Agrarian services centers. Around 1531 women farmer leaders were trained in these programmes.

**Training Team** : Mr. S.M.A.Samarakoon - Coordinator (Head/HRID)  
Mr. H.M.J.K. Herath - Assistant Coordinator (RF)  
Mr. P.C.J de Silva - Resource Person (SRO)  
Mr. Sangeeth Prasad Fernando - Resource Person (RO)

Provincial and Inter Provincial Council Agriculture Department Resource persons

## **2. Training Programme on ‘Agriculture for Healthy Generation’**

A major challenge that Sri Lanka’s agriculture is facing today is health and environmental issues caused by high usage of agro chemicals.

Especially, the chronic kidney disease spread in agricultural zones and other non-communicable diseases cause various health, economic and social issues in the agrarian community.

Accordingly, it is very timely to educate farmers and farmer organizations to derive better results from agriculture and to create a healthy generation. This training programme was conducted to fulfill those objectives.

The main objective of this programme is to improve skills, knowledge and attitudes essential for generating a healthy generation by reducing the health issues caused due to agro chemicals.

This training programme was conducted in Moneragala and Nuwaraeliya districts covering Dabagalla, Maligawella, Wallawaya, Thelulla, Thanamalwila, Katharagama, Moneragalla, Buttala, Nellyyadda, Aluthwewa, Ethimale, Madagama, Bibila, Badalkumbura, Sevanagalla, Kotagama, Siyabalanduwa and Nuwaraeliya, Ginigathena, Karalliyadda, Pallobowala, Mathurata, Bulugahapitiya, Rikillagaskada, Mandaranuwara, Ragala, Walapane, Theripaha, Nildandahena, Munwatta, Hanguranketha Agrarian Service Centers respectively. Around 2863 farmer leaders were trained.

**Training Team** : Mr. S.M.A.Samarakoon - Resource Person (Head/HRID)  
Mr. P.C.J.de Silva - Coordinator (SRO)  
Mr. S. Prasad Fernando - Assistant Coordinator (RO)

Provincial and Inter Provincial Council Agriculture Department Resource persons

### **3. Training Programme on Training of Trainers for Empowering Farmer Leaders**

National Food Production Programme launched by the government expects to create a prosperous Farming community by assuring food security through an environmental friendly, socially accepted cultural value system and economically productive farming practices.

This three year plan consists of strategies that empower farmers and has launched several programmes to improve the living conditions, social acceptance and self-esteem of farmers.

It is essential to empower farmers those who are actively engaged in farming activities. This programme targets to strengthen skills, attitudes and knowledge of farmer organization leaders and directing agrarian community towards sustainable agriculture.

The main objective of this training programme is to strengthen skills, attitudes and knowledge of farmer organization leaders and directing agrarian community towards sustainable agriculture by strengthening farmer organizations and unity of farmer community.

This training programme was conducted in the Polonnaruwa districts covering Galamuna, Pulastigama, Madirigiriya, Ambagaswewa, Manampitiya, Sevagama, Nawanagaraya, Aralaganwila, Siripura, Madirigiriya, Walikanda, Bakamuna, Higurakgoda and Giritale Agrarian services centres. Around 1377 farmer leaders were trained.

**Training Team** : Mr. S.M.A.Samarakoon - Coordinator (Head/HRID)  
Mr. H.M.J.K.Herath - Assistant Coordinator (RF)  
Ms. Norika Ayomi - Resource Person (RO)

#### 4. **‘Empowering farmer family by empowering farmer women ’- One day Training Programme in line with the Years of poverty Eradication 2017**

Women play a major role in raising children. Utilizing the best capabilities of women in generating income at the domestic level is the base of this programme.

Empowering women to divert their family to an economic, social development, making them sustainable entrepreneurs who can make decisions for the betterment of the family, improving knowledge, skills and attitudes needed to empower them with self-confidence and self- esteem are the major objectives of this programme.

This programme was conducted in Monaragala district covering Dambagalle, Thanamalwila, Monaragala, Buttala, Siyabalanduwa, Aluthwewa, Ethimale, Madagama, Bibila, and Sevanagala Agrarian Services Centres. Around 903 women farmer leaders were trained.

**Training Team** : Mr. S.M.A.Samarakoon - Coordinator (Head/HRID)  
Mr. H.M.J.K.Herath - Assistant Coordinator (RF)

Provincial and Inter Provincial Council Agriculture Department Resource persons

#### 5. **Training Programme on Social Mobilization (Women Farmer Empowerment)**

Farmer family is the smallest unit of the agrarian society. The government’s aspiration is to convert the farmer community to a prosperous one through empowering the farmer socially and culturally. In that case, empowering farmer women is considered an essential and important part.

However, the existing traditional social structure, weaknesses in leadership, traditional attitudes, and communication gaps, weaknesses in participation, back of knowledge on the legal power and management issues have directly impacted on the operation of farmer organization.

Therefore empowering women farmer leaders will be timely. This programme was designed to achieve that purpose by improving their organizational skills.

The main objective of this training programme was to empower the women farmer leaders in decision making and strengthening women farmer organizations to yield maximum benefits from the organization to the family community.

This training programme was conducted in the Anuradhapura district covering Nagampaha, Rajanganaya, Kekirawa, Epalogama, Galenbidunuwewa, Ehakada, Eppawala, Kabithigollawa, Elayapathuwa and Horowpathana Agrarian services Centres.

Around 1014 women farmer leaders were trained.

<b>Training Team</b>	:	Mr. S.M.A.Samarakoon	-	Coordinator (Head/HRID)
		Mr. H.M.J.K.Herath	-	Resource Person (RF)
		Mr. P.C.J.de Silva	-	Resource Person (SRO)
		Mr. Sangeeth Prasad Fernando	-	Resource Person (RO)

Provincial and Inter Provincial Council Agriculture Department Resource persons

## 6. **Workshop on Usage of Polythene and Possibility of Using Bio Degradable Alternatives.**

Solid waste management is a major global issue. Sri Lanka is no exception. Currently since the government has imposed a ban to restrict indiscriminate use of polythene products importation and production of polythene grocery bags, lunch sheets and shopping bags and rigid foam items it is timely to educate and encourage people about reducing the excessive use of polythene products, recycle and possibility of using environmentally friendly products as an alternative.

Developing the people's perception on impact of disposing polythene items on the environment and introducing alternatives for polythene on par with the sustainable development goals are the main objectives of this workshop.

This workshop was conducted at the Hector Kobbekaduwa Agrarian Research and Training Institute. Around 80 staff officers participated and external resource persons also participated.

Ms. Norika Ayomi - Coordinator - (RO)  
Mr. Sangeeth Prasad - Assistant Coordinator (RO)

#### 7. **Two- day Workshop on Application of Agri Business and Marketing Extensions**

This programme was designed to provide a theoretical and practical exposure on application of agri- business and marketing extensions to the final year undergraduates of the Faculty of Agribusiness and Management the Jaffna University.

Providing a theoretical and practical knowledge on agribusiness and marketing extensions, and promoting national integration and reconciliation was a main objective.

This programme was conducted in Hector Kobbekaduwa Agrarian Research and Training Institute and 74 students from the Agribusiness and Management Faculty of Jaffna University participated.

**Training Team** :

Mr. W.H.A.Shantha	-	(Coordinator / SRO)
Mr. Sidath Bandara	-	(SRO)
Mr. P.C.J.de Silva	-	(SRO)
Mr. Duminda Priyadarshana	-	(Head / MFPA)
Mr. S.M.A.Samarakoon	-	(Head / HRID)
Mr. Chinthaka Jayasooriya	-	(RO)

#### 8. **Workshop on Development of Positive Attitudes**

To accomplish the institutional goals to increase the productivity levels and efficiency of the employees, a workshop for the executive grade officers in the institute on development of positive thinking was held.

All the executive grade officers of the Hector Kobbekaduwa Agrarian Research and Training Institute participated in this workshop.

Mr. S.M.A.Samarakoon - Assistant Coordinator -(Hd/HRID)  
Ms. Norika Ayomi - Assistant Coordinator -(RO/ HRID)  
Mr. Sangeeth Prasad - Assistant Coordinator -(RO/HRID)

## **9. Career Guidance Programme for the Newly Recruited Research Staff of the Institute.**

This workshop was organized as an orientation to the new recruits in the post of research officer on the duties of the Institute, duties of a socio– economic researcher, research methodologies and the job description of the post of research officer..

This programme was conducted in Hector Kobbekaduwa Agrarian Research and Training Institute and around 12 researchers participated.

Mr. P.C.J.de Silva - Assistant Coordinator -(SRO/ HRID)

## OTHER ACTIVITIES

### Paper Presentations

1. P.R.Weerakkody, Social, Economic and Environment Sustainability of Food Crop Production Systems: Sugarcane vs. Maize Production’ at the Twenty Second International Forestry and Environment Symposium 2017; Department of Forestry and Environmental Science, University of Sri Jayewardenepura from 10<sup>th</sup> to 11<sup>th</sup> November 2017
2. G.G.de.L.W. Samarasinha presented a paper at the international workshop jointly organized by the Ministry of Agriculture, Sri Lanka, Asian Productivity Organization (APO) and Center for Integrated Rural Development of Asia and Pacific (CIRDAP) on “Climate Change Adaptation and Disaster Risk Reduction”.
3. M.T. Padmajani presented a research paper under the topic of ‘Determinants of Pesticide Use in Rice Production Systems in Sri Lanka’ in 3<sup>rd</sup> International Conference on Dry Zone Agriculture, organized by Faculty of Agriculture, University of Jaffna, 1 – 2 February 2017
4. H.J.C. Jayasooriya presented a paper on Climate change research in Agrarian Community Adaptation at the *workshop* on Present Status of research Activities on Climate Change Adaptation and Development of a Road Map for Future Research Programme on 11<sup>th</sup> June /2017 at Sri Lanka Foundation Institute, Colombo.
5. H.J.C. Jayasooriya, presented an abstract on Enhancing Adaptive Capacity of rainfed farmers in Sri Lanka At the experience sharing forum on climate smart initiatives of Sri Lanka held on 16-17 October 2017 at BMICH, Colombo.
6. H.J.C. Jayasooriya and W.H.A. Shantha Submitted a paper titled Climate change vulnerability, its impact on agrarian community and adaptation: present status and future needs of research and development activities for the mission of development of road map for future research programmes in climate change adaptation in Sri Lanka.
7. M. Rambodagedara presented a research paper on the topic of ‘Petterns and determinants of Income Diversification of Paddy Farming Households in the Anuradhapura District, Sri Lanka’ at 3<sup>rd</sup> International Conference on Dry Zone Agriculture, organized by Faculty of Agriculture, University of Jaffna, 1 – 2 February 2017

8. D.T.P.S. Dharmawardhana, Wetland Restoration and Management: A Case in Bundala Ramsar Site in proceedings of International Symposium on Agriculture & Environment (ISAE) 2017; Faculty of Agriculture, University of Ruhuna on 19<sup>th</sup> January 2017.
9. R.M.D.H. Rathnayake, Published an abstract and presented a poster on Effect of Different Spacing, Fertilizer Treatments on Physical and Chemical Yield of Different Plant Parts of *Pogostemon heyneanus Benth*; at the Sri Lankan Association of the Advancement of Science (SLAS) 70<sup>th</sup> Annual Session on 06<sup>th</sup> December 2017.

#### **Publications (Journal Article etc.)**

1. M.B.F. Rifana, 'Policy Interventions for Toxin-free Agriculture' (Kamanalam; Volume 33, April-June, 2017) and 'Achieving Sustainable Development Goals through Organic Farming' (Kamanalam; Volume 33, April-June, 2017).
2. S. Epasinghe, Mr. I.P.P.M. Wijesinghe, Mr. R.D. Wijesinghe, Mr. D.M.A.C. Dissanayake, Ms. D.T.P.S. Dharmawardhana, Ms. R.M.D.H. Rathnayake, Ms. M.B.F. Rifana, Development and Management of Abandoned Paddy Lands' (Volume 19, October 2017, Govijanatha)
3. D.T.P.S. Dharmawardhana, Present Status of Credit Borrowed Maize Farmers in Moneragala (Govijanatha; Volume 19, July-December, 2017).

#### **Services for Committees, Seminars & Workshops**

1. W.H.A. Shantha and M.A.C.S. Bandara served as members of the research team of National Strategic Review of Food Security and Nutrition: Towards Zero Hunger collaboratively undertaken by World Food Programme, South Asia Policy and Research Institute, HARTI, Department of Census and Statistics and Medical Research Institute.
2. W.H.A. Shantha and M.A.C.S Bandara served as members of the panel for undertaking the preparation of Terms of Reference for the training part of the action plan of the project on 'Addressing climate change impacts on marginalized agricultural communities living in the Mahaweli river basin of Sri Lanka' of Ministry of Mahaweli Development and Environment.



3. W.H.A. Shantha and M.A.C.S Bandara contributed to the budget discussion meeting with Hon. Eran Wickremaratne, State Minister of Finance on agricultural research sector and subsequently submitted a technical report on ‘Prioritization of Village Tank Rehabilitation in Dry Zone of Sri Lanka’.
4. G.G.de.L.W. Samarasinha, served as a steering committee member to the Sri Lanka Water Partnership, 2017.
5. G.G.de.L.W. Samarasinha, served as a resource person at the “Meeting on Introduction to South Asia Environmental Capacity Building-implemented Agricultural and Water Pollution Project” implemented by the Arthacharya Foundation of Sri Lanka.
6. M.T. Padmajani contributed to the National Conference on Biofertilizers and Biopesticides, organized by Wayamba University of Sri Lanka, Sabaragamuwa University of Sri Lanka and Asian Productivity Organization.
7. M.A.C.S. Bandara contributed to the Experience Sharing Forum on Climate Smart Initiatives of Sri Lanka organized by Ministry of Mahaweli Development.
8. W.H.A. Shantha and M.A.C.S Bandara conducted a short study on ‘Joint Emergency Assessment in Areas most at Risk of High Food Security and Livelihood Impact from the Ongoing Drought Condition in Sri Lanka ( Service Contract 2/2017).
9. W.H.A. Shantha, M.A.C.S. Bandara, G.G.de L.W. Samarasinha and H.J.C. Jayasuriya coordinated and successfully conducted the ‘Seminar of Agricultural Sustainability of Sri Lanka’ for the undergraduate students from the Department of Management and Organization Studies, Faculty of Management and Finance, University of Colombo, 08<sup>th</sup> – 10<sup>th</sup> December 2017.
10. H.J.C. Jayasooriya was a Committee member – National Committee on Natural resources management, sustainable agriculture and climate change, of Sri Lanka Council for Agricultural Research Policy
11. H.J.C. Jayasooriya served as a Representative to the Experts Committee of National Agricultural Research System (NARS) for the mission of development of a roadmap for future research programmes in climate change adaptation in Sri Lanka.

### **Contribution for Training Programmes**

1. W.H.A. Shantha, M.A.C.S Bandara and H.J.C. Jayasooriya served as organizing committee members in the Workshop on Application of Agri-Business Concepts and Marketing Extension for students from Faculty of Agriculture, University of Jaffna, held 08<sup>th</sup> – 10<sup>th</sup> December 2017.
2. M.T. Padmajani made a presentation on ‘Development of Agribusiness Sector in Sri Lanka’ to the Workshop on Application of Agri-Business Concepts and Marketing Extension for students of Jaffna University, conducted by HARTI.

## STATISTICS AND DATA PROCESSING UNIT

In keeping with a primary objective of HARTI — to become a centre for collecting, updating, analyzing and dissemination of information on the agrarian sector, Statistics and Data Processing Division (SDPD) was established to make a concerted effort to accomplish the above goal. Apart from storing and analyzing of data gathered in socio-economic surveys conducted by the institute, the following three goals of the division would essentially support in achieving the institutional goals.

- To be a national centre of excellence in agricultural information management.
- To be a key division for the enhancement of quality of research and training activities through application of statistics and information technology.
- To enhance the automated information processing systems at its best by adopting current information and communication technology tools and techniques.

The division comprises two units: the Data Development and Data Processing units. Later a Computer Technology Unit was also established at the division to provide services on computer and networking infrastructure facilities as required.

### Data Development Unit

An agrarian data bank was established at the unit to facilitate access to information of relevance in agrarian development and related fields functions as a repository, collection agency and service bureau. It is specially designed to play the role of a comprehensive source of statistical information to government officials, policymakers, researchers and other interested parties and to coordinate the dissemination of information in a useful manner.

The data bank comprises two forms of data; development indicators and survey archives. The development indicators are the secondary statistics collected from government agencies on various attributes and survey archives include primary data generated through field surveys conducted by the Institute. The data bank also provides consultancy, user and supplier education, training in computer use and an awareness service to assist in the retrieval and processing of information. Although agriculture, fisheries, forestry and industries were the potential areas at the time of establishment, priority was given to information on the agricultural sector. It was contemplated that comprehensive coverage of varied aspects of agrarian development and living conditions of farm households can be carried out under the agricultural sector. Thus a growing amount of district-wise information collected monthly, seasonally and annually for around 1800 of indicators falls into broad categories such as population, employment, land use, land settlements, fertilizer, cost of production and marketing.

Data is available with regard to the crops specified under 11 major crop groups; such as cereals, vegetables, fruits, tuber roots, livestock, industrial crops, spices, legumes, oil seeds, plantation and other crops. Currently, the centre consists of approximately two and half millions of records stored both in manual and computerized forms starting from 1950s. Accordingly, HARTI Information Centre maintains a database with district-wise information collected from diverse sources such as the Central Bank, Department of Customs, Department of Census and Statistics, Department of Agriculture and the Marketing and Food Policy Division of HARTI. An automated system has been implemented in the division for accessing information in the databases. Further, certain information in high demand is stored in the website. External and internal users could directly contact the SDP division to obtain agricultural information.

Data collection was carried out from the above said sources together, websites and text books published by relevant organizations. Food commodity prices were collected from Marketing and Food Policy Division of HARTI. The computer based information system running on LAN for maintaining the Agrarian databank was further implemented for better performance. Agricultural information such as extent and production of selected crops were uploaded into the Institute's website.

The computerized database was updated with following indicators during the year.

- Paddy statistics – extent and production
- Extent and production of vegetables, fruits and other field crops
- Paddy cultural practices
- Cost of production of paddy and other field crops
- Wholesale prices
- Retail prices

The databases that were updated with 64,343 records belong to the above indicators.

### **Provision of data on requests**

A total of 151 requests for agricultural information was requested from internal and external users. Out of that 108 from internal while 43 from external users.

### **Books referred to collect data**

- Annual Report of Central Bank -2015/2016
- Economics and Social Statistics of Central Bank – 2015/2016
- Statistical abstract of Department of Census and Statistics – 2016
- Cost of cultivation of paddy and other field crops -2012 yala/2015 yala
- External trade statistics of Department of Customs – 2012/2013

### **Data Processing Unit**

By aiming at the second and third goals of the SDPD the Data Processing Unit was established and it is a technical unit designed to carry out the following major functions.

#### **1. Updating and maintaining computerized agricultural database.**

Once the data is manipulated from data development unit technical support is provided by the data processing unit to update and maintain the database efficiently. Certain interrelated activities between these two units in terms of verification and filling of gaps in series of data take place. Data retrieval facilities have been incorporated through customized software running on LAN and the institute's website.

#### **2. Analyzing of sample survey data collected from field surveys by HARTI.**

This is one of the main activities assigned to the unit and the task involves coding, verification, validation, designing of databases, entering and cleaning of data before analysis. All analysis and tabulations are performed using statistical analysis methods and statistical software applications with the support of programming techniques.

The division received following two studies for data analysis during the year.

- |      |  |
|------|--|
| R511 | Study on High sedimentation on Tanks Beds over Human Activities and its impact on Agriculture.                                     |
| R518 | Absorption of Agriculture Graduates and Diploma Holders into the Agricultural sector of Sri Lanka : Current status and constraints |

## Computer Technology Unit

The unit is established for providing technical support to the institution with regard to computers, networks and related peripherals and support on software tools needed for operation of computer systems. A workshop has been set up to undertake all repairs and trouble shooting. The unit also takes the responsibility of providing procurement assistance making recommendations for IT peripherals to be purchased. Web development and maintenance activities are also assigned to this unit. Implementation of computer networks within the institution is also performed here

The unit is actively involved in technical functions of following activities during the year.;

- Preparations of technical specifications
- Technical evaluation committees
- Software installations and trouble shooting
- Network implementations
- Preparations for policies on computer and website maintenance.

## LIBRARY

The main objective of the library is to collect, compile, retrieve and disseminate information related to the agrarian sector for the benefit of HARTI research staff and other interested persons and organizations. During the year the staff borrowed 662 books, 18 reference books and 105 issues of journals for reference. The number of visitors to the library during the year was 306.

### Acquisition of books, journals and reports

During the year 124 books were added to the book collection which consisted of 16 purchased books and 108 books received on complimentary basis and under the publication exchange programme. A large number of periodicals, newsletters, annual reports from foreign and local institutions were also received either on complimentary or exchange basis. The library also subscribed to eight foreign journals titles (which included 96 issues) and 06 local journal titles during the year.

### Library Services

Requests for information and documentation services such as literature search, reference services, current awareness services and photocopying services were provided to the research staff as well as to the outside users.

Access to internet based information facilities has been further extended for the research staff with the WiFi facility being set up in the library. Collection of newspaper articles on various subjects and indexing of the articles for quick reference continued for the use of research staff and outside users.

### Inter Library Cooperation (ILC)

The library is a member of the Agricultural Libraries Information Network (AGRINET) and the CARP Library functions as the focal point. The library continues to participate in AGRINET SDCCP scheme (Selective Dissemination of Content Pages database).

Supplied bibliographical references from the library collection to the following databases were maintained by AGRINET

1. National Agricultural Bibliography (NAB)
2. Bibliography on Indigenous knowledge (With reference to Agriculture)

To update the National Union Catalogue for year 2016 bibliographical references were supplied from the library database to the National Library and Services Board.

## Digitization of Institute Publications

HARTI publications have been successfully digitized under the National Digitization Project of the National Science Foundation and our site can be accessed on <http://harti.nsf.ac.lk/>

The aim of this project is to establish an institutional e-repository and provide a fast and efficient online access to institute's publications.

HARTI Publications	Collection Name	Collection Views
	Annual Reports	400
	Annual Reports (Tamil)	307
	Acts	342
Journals	Sri Lanka Journal of Agrarian Studies	433
	ගොවි කටයුතු අධ්‍යයනය	326
	ගොවි ජනතා	713
	ගොවි ජනතාව	631
Research reports	Monographs( English)	485
	Monographs( Sinhala)	1073

Country Name	No. of Views
Japan	768
Sri Lanka	2504
United States	720
Germany	138
Russia	654
France	66
South Korea	50
Côte d'Ivoire	8
EU	74
Australia	10
India	8
Philippines	5
China	17
AP	4
United Arab Emirates	6



## PUBLICATION UNIT

The Publication Unit of the Institute is entrusted with the responsibility of publishing research reports, occasional reports, journals and general informational material such as the newsletter, bulletins, manuals, brochures in all three languages while ensuring the quality of publications, in a timely manner.

Twelve research reports were released in Sinhala and English languages in year 2017. The details are as follows:

Research reports published in English language:

1. Present Status and Future Prospects of Non-farm Employment (NPE) in Mahaweli Area
2. Present Situation and Prospects of Cinnamon Industry in Sri Lanka.
3. Consumption Pattern and Consumer Preference for Different Rice Varieties in Selected Districts in Sri Lanka.
4. Palmyrah Industry: Socio-economic Condition and Problems of Stakeholders in North and East.
5. Government Intervention in Paddy Marketing: Issues in Purchasing and Post-Stock Management.
6. Should Free Holding Rights be Granted to LDO Lands?: A Situational Analysis of Dry Zone in Sri Lanka.
7. Consumer Buying Behaviour and Preference for Liquid and Powdered Milk.
8. Income Diversification of Paddy Farming Householders in Anuradhapura District.

### Research Reports Published in Sinhala Language:

1. කුඹුරු ඉඩම් මූලාශ්‍ර අතර ප්‍රමාණ විෂමතා නිර්ණය කිරීම) පහතරට තෙත් කලාපීය නියමු ව්‍යාපෘතිය
2. පහත රට තෙත් කලාපයේ කුඹුරු බිම් වී වගාව සඳහා ශක්‍යතාව අනුව වර්ගීකරණය කිරීම.
3. නුවරඑළිය සහ බදුල්ල දිස්ත්‍රික්කයන් හි සුළු හා මධ්‍ය පරිමාණ මල් කර්මාන්තයේ වර්තමාන තත්ත්වය හා ගැටලු.
4. කෘෂිකර්ම දෙපාර්තමේන්තුවේ කෘෂි ව්‍යවසායක සංවර්ධන ව්‍යාපෘතිය ඇගයීමේ අධ්‍යයනය.

### In addition, the following publications were also released during the year:

#### Working Papers

1. Adoption of Soil and Water Conservation Measures: Case of Upper Watershed Management Project (UWMP)
2. An Evaluation of Mobile Based Market Information Systems in Sri Lanka
3. Socio-economic Impact of Mau Ara Project

#### Workshop Proceedings

1. Assessing Agricultural Sustainability.

#### Journals

1. Sri Lanka Journal of Agrarian Studies Vol. 18, No. 1, 2017
2. Kamanalam (Tamil) 33 Volume, issue 1-2, April-June, 2017

#### Magazines

1. Govijanatha, Vol. 18, No. 2, October-December, 2016
2. Govijanatha, Vol. 19, No. 1-2, January - June, 2017
3. Govijanatha, Vol. 19, No. 2, October, 2017
4. Govijanatha, Vol. 19, No. 3, July-December, 2017

**Newsletter**

1. Newsletter, Vol. 40, No.2, 2016
2. Newsletter, Vol. 41, No. 1-2, 2017
3. Newsletter (Tamil) - Vol. 1 No.1- 2, 2017
4. “*Puwath Hasuana*” Vol. 40 No. 2, 2016
5. “*Puwath Hasuana*” Vol. 41 No. 1-2, 2017

**Other Publications:**

1. Hector Kobbekaduwa *Nihada Viplawaya* (Sinhala)

**Other Contributions:**

1. Participated in the exhibition titled “Wasa Wisa Nethi Ratak” organized by the Presidential Secretariat
2. Coordinated the Programme Series - “Subharathi” organized by the Sri Lanka Broadcasting Corporation and the Ministry of Agriculture
3. Published articles in national newspapers
4. Produced a short video film on late Minister Hector Kobbekaduwa

## Staff Positions as at 31st December 2017

	No. of Positions as at 31.12.2016	Termination, Resignation during the year	Appointments	No. of Positions as at 31.12.2017
Director	1	1	1	1
Additional Director	1	1	1	1
Head of Divisions	5	1	1	5
Research Staff	23	2	13	34
Administrative Staff	7	-	1	8
Senior Staff of Library	2	-	-	2
Data Development Bank	0	-	-	0
Computer Unit	2	-	-	2
Publication Unit	3	-	3	6
Statistical Staff	22	2	-	20
Technical Staff	5	1	1	5
Clerical, Secretarial & Parallel Grades	43	4	-	39
Operative & Allied Grades	44	4	-	40
<b>Total</b>	<b>159</b>	<b>16</b>	<b>20</b>	<b>163</b>

## STAFF DEVELOPMENT

In 2017, the institute invested Rs. 2.1 million on staff development 38 and non-staff members underwent local training and fourteen staff members received foreign training.

### **The following Research Officers were engaged in Post -Graduate studies:**

- |                       |   |   |
|-----------------------|---|---|
| Mr. E.A.C.Priyankara  | - | Doctoral Degree on International Trade Huazhong University of Science & Technology China. 31 <sup>st</sup> August 2015 – 30 <sup>th</sup> August 2018 |
| Mr.N.P.G.Samantha     | - | Doctoral Degree on International Trade Huazhong University of Science & Technology China. 31 <sup>st</sup> August 2015 – 30 <sup>th</sup> August 2018 |
| Ms.J.A.U.P.Jayasinghe | - | Postgraduate Studies (Master) Australia 12 <sup>th</sup> January 2017 – 31 <sup>st</sup> December 2018  |

### **Participation at International Training**

#### **Programmes/Seminar/Workshops/Conferences/Meeting etc.**

01. Mr. H.J.C. Jayasooriya – Research Officer attended a training Programme on “Training of Trainers in Entrepreneurship and skills Development” – 23<sup>rd</sup> Jan – 17<sup>th</sup> March 2017 held in India.
02. Mr. P.C.J.de Silva - Senior Research Officer attended a CIRDAP & NIRDPR collaborative International Training Programme on “Human Resource Development for Rural Development” – 14<sup>th</sup> – 23<sup>rd</sup> March 2017 held in Hyderabad, India.
03. Mr. R.L.N. Jayatissa - Research Fellow attended a “32<sup>nd</sup> Technical Committee Meeting (TC 32) of CIRDAP” – 27<sup>th</sup> May – 30<sup>th</sup> May 2017 held in Bangladesh.
04. Mr. P.C.J de Silva – Senior Research Officer , Mrs. J.P.Nanayakkara – Asst.Accountant , Mr. S.A.C.U. Senanayake - Senior Information and Publication Officer , Ms. W.D.G. Perera – Account Officer , Mr. H.M.S. Jayarathne – Statistical Officer , Mr. J.C.K.B. Lionel – Statistical Officer , Ms. H.M.T.G.L. Herath – Librarian attended a Seminar on “Management and Conservation of Agricultural Heritage sites for Developing Countries” – 7<sup>th</sup> – 29<sup>th</sup> June 2017 held in China.

05. Mr. M.A.C.S. Bandara - Senior Research Officer attended a Seminar on “Management of Eco – Agriculture for Developing Countries 2017” – 30<sup>th</sup> June - 28<sup>th</sup> July 2017 held in China.
06. Mr. W.H.D.Priyadarshana - Senior Research Officer attended a Training Course on “Biogas Technology in the Treatment and Utilization of Agricultural Waste for Developing Countries” - 04<sup>th</sup> August – 28<sup>th</sup> September 2017 held in China.
07. Ms. R.M.M.H.K.Rambodagedara - Research Officer attended a Workshop on “Revitalization of Rural Communities through Productivity Improvement initiatives”- 21<sup>st</sup> – 25<sup>th</sup> August 2017 held in Indonesia.
08. Mr. W.H.D.Priyadarshana - Senior Research Officer attended Workshop on “Cold Chain and Logistics Management for Agri Food Producers” - 11<sup>th</sup> – 15<sup>th</sup> December 2017 held in Nadi, Fiji.

#### **Participation at Local Training – Staff Officers**

01. Ms. P.A.J.Champika - Research Officer attended workshop on “Export Tea, Spices and value Added Fruits and Vegetables” – 28<sup>th</sup> January 2017 held in Grand Oriental Hotel - Colombo 01.
02. Mr. J.J.S.Jayamanna - Assistant Registrar (Admin) attended a workshop on “Disciplinary Procedure” – 14<sup>th</sup> February 2017 held in CIDA/ICTAD Colombo 07.
03. Mr. D.M.A.C. Dissanayake -Research Officer, attended “Qualitative Data Analysis” - 15<sup>th</sup> March 2017 held in Department of Sociology at University of Colombo03.
04. Ms. D.T.P.S. Dharmawardhana (RO) attended Certificate Course on ‘Introduction to SPSS for Statistical Analysis - May 2017 at National Centre for Advanced Studies (NCAS).
05. Ms. M.B.F. Rifana (RO) attended “Policy Forum” (World Bank funded) - 24<sup>th</sup> July 2017 Organized by Agriculture Sector Modernization Project.
06. Ms. Roshini Rambukwella - (SRO), Ms. Ruvini Vidanapathirana (SRO) attended “Export Food Trade; Gaps, Potentials and Way Forward” – 4<sup>th</sup> August 2017 held in Institute of Food Science and Technology.

07. Mr. W.H.A.Shantha - (SRO), Ms. Geethani Samarasinha (SRO) attended Conference on recognizing climate Change Risk of Dry Zone Farmers in Sri Lanka” – 10<sup>th</sup> & 11<sup>th</sup> August held in National Building Research Organizations.
08. Mr. D.M.A.C. Dissanayaka - (RO), Ms. M.B.F. Rifana (RO), Ms. R.M.D.H. Rathnayake (RO), Ms. D.T.P.S. Dharmawardena (RO), Ms. M.D.D. Perera (RO), Ms .U.D.R. Udari (RO), Ms A.K.A. Dissanayake (RO), Mr. S.P. Fernando (RO), Ms. G.V.N. Ayome (RO), Mr. I.V.Kuruppu (RO), Ms. A.R.W.M.M.D. Amarakoon (RO), Ms. R.H.A.W. Ruvini (RO) attended “ Work – life Balance for Scientists ; Key to Success” - 24<sup>th</sup> April 2017 held in National Science & Technology Commission.
09. Ms. D.T.P.S. Dharmawardhana (RO) attended Empowering Women for Environment Protection - 26<sup>th</sup> October 2017 held at National Committee on Women.
10. Ms. Sagarika Hitihamu - (SRO), Ms. R.P.Vidanapathirana (SRO), Ms. Thilani Padmajani (RO) attended “Sri Lanka Economic Association (SLEA) Annual Session 2017” – 27<sup>th</sup> & 28<sup>th</sup> October 2017 held in Sri Lanka Economic Association.
11. Ms.Thilani Padmajani - (RO) attended “National Conference on Bio – Fertilizers and Bio Pesticides – from development to promotion” – 29<sup>th</sup> & 30<sup>th</sup> November 2017 held in IWMI.
12. Ms. G.W.Thushari - (Accountant), Ms. D.G. Perera (Account Officer) attended two day workshop on “Practical as Pacts of Bid Evaluation” – 24<sup>th</sup> & 25<sup>th</sup> November 2017 held in SDFL.
13. Ms. C.N. Premawardena - (Analyst Programmer), Mr. Randev Ranasinghe (Technical Assistant) attended a lecturer on “Cyber Security Talk” – 28<sup>th</sup> November 2017 held in SLITHM.
14. Ms. N.P. Jayaneththi - (Statistical Officer) attended World Census of Agriculture – 2020 (WCA 2020) Volume 01 – Stakeholders’ Meeting – 07<sup>th</sup> December 2017 held in Department of Census and Statistics.
15. Mr. Sangeeth Prasad - (RO) attended Workshop on “Time Series Analysis in Data Science” – 20<sup>th</sup> – 22<sup>nd</sup> December 2017 held in PGIS.

16. Ms. M.B.F. Rifana (RO) attended Workshop Proposal Writing - 21<sup>st</sup> December 2017 held at SLCARP
  17. Ms. D.T.P.S. Dharmawardhana (RO) attended R Statistical Programme- 13<sup>th</sup> of December 2017 at Faculty of Science University of Kelaniya
- Mr. I.V. Kuruppu - (RO) attended Workshop on “Non-market valuation and identification of benefit realization mechanism of agro bio diversity production” – 13<sup>th</sup> & 14<sup>th</sup> December 2017 held in Oak Ray Regency Hotel, Kandy.



<b>Contents</b>	<b>Page No.</b>
Statement of Financial Position as at 31st December 2017	01
Statement of Financial Performance for the Year Ended 31st December 2017	02
Cash Flow Statement for the Year Ended 31st December 2017	03
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Hector Kobbekaduwa Agrarian Research & Training Institute  
Statement of Financial Position as at December 31, 2017

LKR

ASSETS	Notes	2017	2016
<b>Current assets</b>			
Cash and cash equivalents	2	8,367,842.21	10,239,695.30
Receivables-Debtors	3	26,330,897.94	22,154,315.31
Receivables-Deposits	4	613,070.00	625,104.23
Inventories	5	6,027,270.16	5,879,924.92
Prepayments	6	24,453.87	854,953.11
Other current assets	7	198,825.50	222,563.12
		<b>41,562,359.68</b>	<b>39,976,555.99</b>
<b>Nun-current assets</b>			
Other financial assets	8	7,720,410.58	18,928,573.34
Infrastructure, plant and equipment	9	35,172,404.39	49,264,617.11
Land and buildings	10	38,460,159.58	37,406,540.40
Work in Progress	11	132,500.00	665,775.00
		<b>81,485,474.55</b>	<b>106,265,505.85</b>
<b>Total assets</b>		<b>123,047,834.23</b>	<b>146,242,061.84</b>
<b>LIABILITIES</b>			
<b>Current liabilities</b>			
Payables	12	10,243,351.69	11,121,020.64
		<b>10,243,351.69</b>	<b>11,121,020.64</b>
Provision for contingent liability			115,350.00
<b>Non-current liabilities</b>			
Employee benefits	13	45,663,255.50	42,678,156.50
		<b>45,663,255.50</b>	<b>42,678,156.50</b>
<b>Total liabilities</b>		<b>55,906,607.19</b>	<b>53,914,527.14</b>
<b>Net Assets</b>		<b>67,141,227.04</b>	<b>92,327,534.70</b>
<b>NET ASSETS/EQUITY</b>			
Government Grant - Capital	14, 21	58,021,062.86	170,879,115.48
Capital contributed by Ministry	21	-	1,405,701.00
Reserves	15, 21	5,305,677.92	26,190,953.79
Revaluation Reserve	21	13,590,928.40	35,003,646.00
Incentive and Training Fund	16, 21	151,098.25	319,994.30
Accumulated surplus/(deficits)	17, 21	(9,927,540.39)	(141,471,875.87)
<b>Total net assets/equity</b>		<b>67,141,227.04</b>	<b>92,327,534.70</b>

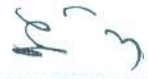
The Accounting Policies on pages 5 to 8 and Notes on pages 9 to 16 an integral part of these financial statements. I certify that the financial statements have been prepared in compliance with the requirements of Public Sector Accounting Standards.

  
Thushari Udage  
ACCOUNTANT

Date September 11 2018

The Board of Directors is responsible for the preparation and presentation of these Financial Statements. These Financial Statements were approved by the Board of Directors and signed on their behalf.

  
K.UDAGE  
DIRECTOR

  
B WJAYARATNE  
CHAIRMAN

Hector Kobbekaduwa Agrarian Research & Training Institute  
Statement of Financial Performance for the year ended December 31, 2017

LKR

Revenue	Notes	2017	2016
Funds from government Treasury		135,820,000.00	155,200,000.00
Funds from Outsiders for Research and Training Activities		4,809,635.34	4,954,465.96
Capital Grant received for Research and Training Activities		10,000,000.00	-
Other revenue	18	33,316,062.71	30,342,006.44
Bad Debt over Provision		5,983,563.19	-
<b>Total Revenue</b>		<b>189,929,261.24</b>	<b>190,496,472.40</b>
<b>Expenses</b>			
Wages, salaries and employee benefits	19	(141,550,602.91)	(130,876,188.88)
Research and Training Activities		(10,518,845.05)	(12,668,923.46)
Funds to Outsiders for Research and Training Activities		(4,809,635.34)	(4,954,465.96)
Depreciation	9, 10	(3,558,000.00)	-
Other expenses	20	(32,140,601.65)	(31,355,386.26)
Bad Debt under Provision		-	(32,237.18)
Bank Charges		(83,975.00)	(61,975.00)
<b>Total expenses</b>		<b>(192,661,659.95)</b>	<b>(179,949,176.74)</b>
<b>Surplus / Deficit for the period</b>		<b>(2,732,398.71)</b>	<b>10,547,295.66</b>



CHAIRMAN



DIRECTOR



ACCOUNTANT

Hector Kobbekaduwa Agrarian Research & Training Institute  
Cash Flow Statement for the year ended December 31, 2017

2016	Notes	2017 (LKR)	
	<b>Cash flow used in operating activities</b>		
10,547,295.66	Net deficit / Surplus for the year		(2,732,398.71)
	<b>Adjustment for</b>		
20,620,321.31	Depreciation	20,109,728.18	
(20,620,321.31)	Amortization	(16,551,728.18)	
	Provision for Bad debtors		
9,538,762.00	Provision for Gratuity	9,865,771.50	
115,350.00	Provision for contingent liability	(115,350.00)	
(1,643,812.29)	Investment Income	(1,778,840.43)	
(11,514.83)	Prior year adjustment	573,721.14	
(31,727.00)	Profit on Disposal Items	(7,520.00)	12,095,782.21
<b>18,514,353.54</b>	<b>Operating profit before working capital changes</b>		<b>9,363,383.50</b>
	<b>Working Capital Changes</b>		
(773,692.32)	Receivables	(4,176,582.63)	
(508,657.52)	Inventories	(147,345.24)	
(479,446.88)	Prepayments	830,499.24	
(51,135.32)	Other current assets	23,737.62	
(3,114,530.44)	Payables	(877,668.95)	(4,347,359.96)
<b>13,586,891.06</b>	<b>Cash used in operating activities</b>		<b>5,016,023.54</b>
<b>(3,233,185.50)</b>	<b>Payment of Gratuity</b>		<b>(6,880,672.50)</b>
<b>10,353,705.56</b>	<b>Net cash used in operations</b>		<b>(1,864,648.96)</b>
	<b>Cash Flow from Investing Activities</b>		
149,319.21	Receivables	12,034.23	
(12,686,243.73)	Other financial assets	11,208,162.76	
(5,653,529.44)	Infrastructure, plant and equipment	(4,800,719.64)	
(6,149,317.98)	Land and buildings	(2,270,415.00)	
1,643,812.29	Investment Income	1,778,840.43	
(665,775.00)	Work in Progress	533,275.00	
<b>(23,361,734.65)</b>	<b>Net cash used in investing activities</b>		<b>6,461,177.78</b>
	<b>Cash Flow from Financing Activities</b>		
8,308,000.00	Government Grant - Capital Received	14,315,000.00	
-	Capital Grant received for Research and Training Activities	(10,000,000.00)	
-	Fixed Deposit realization value transfer to Trasury	(11,546,393.76)	
197,264.70	Incentive Fund Institute Share 40%	604,393.60	
31,727.00	Sale of disposal items	7,520.00	
-	Incentive Fund Institute Share 10%	151,098.25	
<b>8,536,991.70</b>	<b>Net cash from financing activities</b>		<b>(6,468,381.91)</b>
(4,471,037.39)	<b>Net Increase in Cash &amp; Cash equivalents</b>		<b>(1,871,853.09)</b>
14,710,732.69	<b>Cash &amp; Cash Equivalent at the Beginning of Period</b>	<b>I</b>	10,239,695.30
<b>10,239,695.30</b>	<b>Cash &amp; Cash Equivalent at the End of Period</b>	<b>II</b>	<b>8,367,842.21</b>
	<b>Notes:</b>		
	<b>Cash &amp; Cash Equivalent</b>	<b>1</b>	<b>11</b>
		<b>01.01.2017</b>	<b>31.12.2017</b>
10,214,695.30	Cash at bank	10,214,695.30	8,332,392.21
25,000.00	Cash in hand	25,000.00	35,450.00
<b>10,239,695.30</b>	<b>Total</b>	<b>10,239,695.30</b>	<b>8,367,842.21</b>

Hector Kobbekaduwa Agrarian Research & Training Institute  
Statement of Changes in Net Assets/Equity  
for the year ended December 31, 2017

	Government Grant Capital	Capital Contribution from Ministry	Reserves	Revaluation Reserve	Incentive and Training Fund	Accumulated Surplus/(Deficits)	Total
Balance as at January 01, 2017	170,879,115.48	1,405,701.00	26,190,953.79	35,003,646.00	319,994.30	(141,471,875.87)	92,327,534.70
Funds received from Treasury	14,315,000.00						14,315,000.00
Amortization for the year	(15,504,126.58)		(1,047,601.60)				(16,551,728.18)
Amortization for the prior year	3,558,000.00					(3,558,000.00)	-
Prior year adjustment						591,313.65	591,313.65
Fixed deposit value transfer to Government Treasury	(11,546,393.76)						(11,546,393.76)
Capital Grant received for Research and Training Activities	(10,000,000.00)						(10,000,000.00)
Written back of capital Grants Reserves & Fund accounts		(458,567.00)	(6,814,022.62)		(106,664.76)	7,389,254.38	-
Accounting institute Share R 470			128,206.71		32,051.68		160,258.39
Accounting institute Share R 505			299,185.85		74,796.46		373,982.31
Accounting institute Share Consultancy Service 02/2017			119,468.83		29,867.20		149,336.03
Accounting institute Share Consultancy Service 01/2017			57,532.21		14,382.91		71,915.12
Correction of provision for Scholarship Debtors						(17,592.51)	(17,592.51)
<b>Written back of capital Grants Reserves &amp; Fund accounts</b>		<b>(937,134.00)</b>	<b>(13,628,045.25)</b>		<b>(213,329.54)</b>	<b>14,778,508.79</b>	-
Amortization adjustment from 1972 to 2015	(99,168,160.28)					99,168,160.28	-
Adjustment on revaluation reserve vehicle purchased by non institute funds	5,487,628.00			(12,587,628.00)		7,100,000.00	-
Adjustment on revaluation reserve for vehicle sales				(1,066,000.00)		1,066,000.00	-
Adjustment on revaluation reserve vehicle purchased by institute funds				(7,759,089.60)		7,759,089.60	-
Income & Expenditure						(2,732,398.71)	(2,732,398.71)
Balance as at December 31, 2017	58,021,062.86	-	5,305,677.92	13,590,928.40	151,098.25	(9,927,540.39)	67,141,227.04

LKR

Notes to the Financial Statements  
For the year ended 31<sup>st</sup> December 2017

1. Accounting Policies

1.1 General

The Financial Statements are prepared under the historical cost basis in accordance with Sri Lanka Public Sector Accounting Standards (SLPSAS) laid down by the Institute of Chartered Accountants of Sri Lanka and the provisions of the Finance Act No.38 of 1971. Adjustments have not been made for inflationary factors in these financial statements. The accounting principles are applied consistently on accrual basis.

1.2 Comparative information

The Accounting Policies have been consistently applied by the Institute with these used in the previous year, Previous year figures have been rearranged wherever necessary to confirm to the current year presentation.

1.3 Events Occurring after the Balance Sheet date

All material post Balance Sheet events have been considered and where appropriate adjustments or disclosures have been made in the financial statements.

1.4 Valuation of Assets

(i) Property, Plant & Equipment

The cost of property, plant & equipments are at their cost of purchase or construction together with any incidental expenses thereon. Expenditure incurred for the purpose of acquiring, extending or improving assets of a permanent nature by means of which to carry on the institute or for the purpose of increasing the capacity of the institute has been treated as capital expenditure. Cost of maintenance and repairs are expensed as incurred. The property, plant & equipment are recorded at cost (or revaluation) less accumulated depreciation which is provided for on bases specified below

a) Depreciation is provided on the straight-lines method at the following rates per annum.

Buildings	2 ½ % per annum
Equipment/Furniture	10% per annum
Computer	20% per annum
Welfare Equipment	10% per annum
Books	10% per annum
Vehicles	20% per annum

A full year's depreciation is charged in the year of purchase.

b) Ownership has been transferred to the institute of vehicle (CR- 0111) from UNWFP within the year and the new vehicle register number is WP CAV - 5208.

c) Amortization amount is recognized & accounted on other method of LKAS 20

**d) Depreciation of Capital Grants Reserves and Funds**

i) The balance of Capital Grants reserves and Funds accounts available from the establishment of the institute up to 2005 was written back to the accumulated deficit account in equal amounts within 5 year that details are as follows.

	2015	2016	2017	2018	2019
Capital contribution from Savings	220,474.56	220,474.56	220,474.56	220,474.56	220,474.55
Project Capital Fund	2,919,328.52	2,919,328.52	2,919,328.52	2,919,328.52	2,919,328.51
Capital Reserves	313,456.88	313,456.88	313,456.88	313,456.88	313,456.88
Project General Reserve	3,260,395.49	3,260,395.49	3,260,395.49	3,260,395.49	3,260,395.51
Capital Contribution from Ministry of Agriculture	468,567.00	468,567.00	468,567.00	468,567.00	468,567.00
Training Fund	79,252.38	79,252.38	79,252.38	79,252.38	79,252.39
Incentive Fund	27,412.38	27,412.38	27,412.38	27,412.38	27,412.39
Incentive Fund Institute share 40%	100,367.17	100,367.17	100,367.17	100,367.17	100,367.18

(Rs)

ii) Computers purchased from the COD funds in 2014 and the vehicle (No.65-1280) received from the FAO project is accounted in 2014 written back equally to the depreciation rate from 2014 to 2018 that details are as follows:

	2014	2015	2016	2017	2018
Computers Purchased from COD Project	287,601.60	287,601.60	287,601.60	287,601.60	287,601.60
Vehicle donated from FAO	760,000.00	760,000.00	760,000.00	760,000.00	760,000.00

(Rs)

## 1.5 Debtors

### i) Scholarship Debtors

Presently nine scholarship debtor balances are continued. Ratio of Last year Provision for bad debtors had 100% on scholarship balance. According to SLIPSAS 08 this year adequate provision has been made on risk and uncertainties.

## ii) Other Debtors

Other debtors are stated at the amounts which they are expected to realize. Adequate provision has been made for bad and doubtful debts as follows

1. Debtors balance over 5 years	-	100%
2. Debtors balance over 01 to 05 years	-	5%

Ratio of Last year Provision for bad debtors had 4% on total other debtors balance.

### 1.6 Stocks

Stocks of consumable items are valued at cost. Other stocks are valued at lower of cost or net realizable value. Cost of the stocks is valued using FIFO method.

### 1.7 Investment

The Hector Kobbekaduwa Research & Training Institute had withdrawn the 7 day call deposit under the Board of Governor's approval that investment nominal value is Rs. 12 Mn. Realized value of this investment had transferred to the Government Treasury under the Board of Governor's approval. Other fixed deposits had re-invested on same banks.

## 1.8 Liabilities and Provision

### 1.8.1 Gratuity

Provision has been made in Financial Statements for Gratuity payable under the payment of Gratuity act No. 12 of 1983.

In the year 2017 gratuity has been calculated base on Basic Salary and Cost of Living Allowance.

### 1.8.2 Contingent Liabilities

A provision for contingent liabilities has been made on pending court decision.

### 1.8.3 Contingent Assets

Contingent Assets has been made on pending legal cases for recovering to scholarship debtors



#### **1.8.4 Defined Contribution Plan**

Institute contributes 15% and 3% of employees monthly salary to Employee's Provident Fund (EPF) and Employee's Trust Fund (ETF) respectively. These contributions are recognized as expenses in the Statement of Financial Performance on current circulars issued by Department of Management Service.

#### **1.9 Statement of Financial Performance**

The statement of financial performance is stated after;

- a. Providing bad and doubtful debts and all expected future expenses in day - to - day operation of the Institute and maintaining the property plants and equipment in a state of efficiency.
- b. Revenues are included Funds of Government Treasury, income of hostel charges, conference hall charges & others.

#### **2.0 Transport and Printing cost**

Transport and printing expenditures have to be accounted for all divisions and research and training. Therefore that expenditure has been valued at an approved rate and that cost is adjusted to a percentage between those relevant expenditures.

#### **2.1 Capital Grants received for Research and Training Activities**

The treasury was allocated the funds for research & training activities on head of government capital grant since 2017. According to LKAS -38, Research & Training cost can be treated as Intangible assets but institute's research & training cost can't be treated as intangible assets. Because output of institute's research was not comply with requirements of LKAS 38. Therefore total research & training cost are debited to the "statement of financial performance" that cost treated as recurrent expenses and above mentioned government capital grants also transferred to the institute's "statement of financial performance" for the year.

2 Cash and cash equivalents	2017	2016
Cash in hand	35,450.00	25,000.00
Cash at bank - A/c No 2323292	1,691,279.68	3,009,818.80
Cash at bank - A/c No 2323293	1,682,215.70	17,910.00
Cash at bank - A/c No 2323315	83,985.25	17,754.53
Cash at bank - A/c No 2323317	4,874,911.58	7,169,211.97
	<b>8,367,842.21</b>	<b>10,239,695.30</b>

3 Receivables

Staff Debtors

Housing Loan	1,229,294.33	1,565,164.55
Consolidated loan	17,719,109.73	18,009,429.50
Special Advance	-	745.47
Festival Advance	22,655.21	22,779.05
Auditorium Income Receivable	415,137.50	95,687.50
Hostel Income Receivable	64,402.75	92,807.25
Due from displaced persons	-	6,723.32
Scholarship debtors	15,657,897.86	19,173,425.10
	<b>35,108,497.38</b>	<b>38,966,761.74</b>

Other Debtors

Investment income receivable	310,475.45	637,799.23
In-Services Training Institute	-	6,806.38
K N U Gunasekara	-	12,100.00
Ministry of Agriculture	85,527.16	1,384,750.96
Recoverable from resigned employees	621,460.55	597,445.87
Sarasavi Book Shop	4,272.25	4,272.25
Debtors - Miscellaneous	123,332.65	123,332.65
Debtors - Mobitel Pvt Ltd	18,980.11	150,539.28
R-481 Value of Ecosystems' Services Provided by the Jaffna Lagoon and Contribution of the Lagoon to the Livelihoods of Peripheral Villages	111,921.59	111,921.59
Baseline Food Security & Market Assessment	-	58,884.29
Receivable from APO	188,000.80	95,310.00
Consultancy 01/2016 - Food security outcome monitoring (FSOM)	-	100,912.64
R-512 Capacity Development of Agrarian Research -Technology personnel in Sri Lanka on Global Change and sustainability	309,161.19	-
Recoverable from Mr. W.H.D.Priyadarshana	45,500.00	
Recoverable for Medical Insurance	1,200.00	
	<b>1,819,831.75</b>	<b>3,284,075.14</b>
	<b>36,928,329.13</b>	<b>42,250,836.88</b>
<u>Less:</u>		
Provision for Bad & Doubtful Debtors	(597,122.94)	(923,096.47)
Provision for scholarship	(10,000,308.25)	(19,173,425.10)
	<b>26,330,897.94</b>	<b>22,154,315.31</b>

4 Receivables

Deposits

Fixed - Caterer	70,000.00	70,000.00
Fixed - Cashier	-	12,034.23
Sundry - Sri Lanka Telecom (Internet facility)	3,125.00	3,125.00
Sundry - Post Master General	24,945.00	24,945.00
Sundry - Colombo Gas and Water Co.	4,750.00	4,750.00
Sundry - Water supply and Drainage Board	500.00	500.00
Sundry - Celltel Lanka Ltd.	3,500.00	3,500.00
Sundry - Ceylon Electricity Board	406,250.00	406,250.00
Sundry - Fuel Deposit	100,000.00	100,000.00
	<b>613,070.00</b>	<b>625,104.23</b>

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	2017	2016
<b>5 Inventories</b>		
Publication and journals	2,685,929.00	2,753,079.00
Consumables	2,343,327.66	2,199,981.42
Sales Center	998,013.50	926,864.50
	<b>6,027,270.16</b>	<b>5,879,924.92</b>
<b>6 Prepayments</b>		
Vehicle Insurance	-	831,349.81
Building Insurance	24,453.87	23,603.30
	<b>24,453.87</b>	<b>854,953.11</b>
<b>7 Other current assets</b>		
Purchase Advance	198,825.50	222,563.12
	<b>198,825.50</b>	<b>222,563.12</b>
<b>8 Other financial assets</b>		
Call Deposits	1,500.00	12,001,500.00
Fixed Deposits at State Mortgage & Investment Bank	6,254,310.34	5,853,764.05
Fixed Deposits at State Mortgage & Investment Bank-Housing Loan Scheme	1,464,600.24	1,073,309.29
	<b>7,720,410.58</b>	<b>18,928,573.34</b>

9 Infrastructure, plant and equipment

Schedule of Depreciation of Assets - December 31, 2017

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Particulars	Cost as at 01.01.2017	Additions / (Disposal) during the Year 2017	Total Cost as at 31.12.2017	Acc/Dep as at 01.01.2017	Dep.for the year 2017	Accu/Dep. ended 31.12.2017	Net Value as at 31.12.2017
Equipment/Furniture	49,582,931.24	1,273,153.80	50,856,085.04	37,588,822.12	2,311,619.02	39,900,441.14	10,955,643.90
Computer Installation	29,827,812.58	1,675,800.00	31,503,612.58	25,504,830.79	1,652,517.60	27,157,348.39	4,346,264.19
Motor Vehicles	70,544,565.00	1,095,332.00	71,639,897.00	39,716,822.00	14,309,346.40	54,026,168.40	17,613,728.60
Books	13,516,426.72	756,433.84	14,272,860.56	11,396,644.52	619,449.34	12,016,093.86	2,256,766.70
Welfare Equipment	3,734.55	-	3,734.55	3,733.55		3,733.55	1.00
<b>Total</b>	<b>163,475,470.09</b>	<b>4,800,719.64</b>	<b>168,276,189.73</b>	<b>114,210,852.98</b>	<b>18,892,932.36</b>	<b>133,103,785.34</b>	<b>35,172,404.39</b>

11

10 Land and buildings

Schedule of Depreciation of Assets - December 31, 2017

Particulars	Cost as at 01.01.2017	Additions/ (Disposals) during the Year 2017	Total Cost as at 31.12.2017	Acc/Dep as at 01.01.2017	Dep.for the year 2017	Accu/Dep. ended 31.12.2017	Net Value as at 31.12.2017
Land	1,716,667.00		1,716,667.00	-	-	-	1,716,667.00
Buildings	52,478,286.24	2,270,415.00	54,748,701.24	16,788,412.84	1,216,795.82	18,005,208.66	36,743,492.58
	<b>54,194,953.24</b>	<b>2,270,415.00</b>	<b>56,465,368.24</b>	<b>16,788,412.84</b>	<b>1,216,795.82</b>	<b>18,005,208.66</b>	<b>38,460,159.58</b>

11 Work in Progress

Payroll System

132,500.00

<b>Payables</b>		<b>2017</b>	<b>2016</b>
12	Accrued expenses	5,984,633.66	7,183,746.48
	Payable Research & Training Expenses	464,121.38	-
	Tender deposit refundable	145,462.20	136,462.20
	Canteen deposit refundable -Upatissa Paranamana	50,000.00	50,000.00
	Salary Advance	17,139.91	17,139.91
	Unpaid expenditure	324,169.46	250,297.33
	Payable to Resigned Employees	228,991.00	264,900.60
	Employees and restaurant deposit	-	13,084.50
	Stamp Fees Payable	15,050.00	15,875.00
	Retention	22,769.79	280,904.45
	Creditors	1,922,278.75	36,580.00
	Received in advance - Hostel	-	23,948.00
	Received in advance - Auditorium	-	72,775.00
	Welfare Society	5,702.31	3,197.00
	Gratuity Payable on Cost of Living arrears	126,912.50	126,912.50
	Paye Tax Payable	-	-
	Payable to Ministry	94,358.05	94,358.05
	Upathissa Paranamana	82,797.04	61,788.37
	Payable to Cashier	-	12,034.23
	<b>Creditors against projects</b>		
	R-470 Minimum Cost of Diet in Sri Lanka	-	423,823.94
	Rapid food Security & need Assessment	7,774.28	7,774.28
	Consultancy 01/2016 - Food security outcome monitoring (FSOM)	25,587.36	-
	R - 505 Addressing Climate Change Impacts on Marginalized Agriculture Communities Living in the Mahaweli River Basin of Sri Lanka	-	606,890.97
	R-512 Capacity Development of Agrarian Research -Technology personnel in Sri Lanka on Global Change and sustainability	-	1,438,527.83
	Service Contract 03-2017	725,604.00	-
		<b>10,243,351.69</b>	<b>11,121,020.64</b>
	<b>Employee benefits</b>		
13	Balance as at January 01,	42,678,156.50	36,372,580.00
	Payments during the year	6,880,672.50	3,233,185.50
	Provision for the year	9,865,771.50	9,538,762.00
	Balance as at December 31,	<b>45,663,255.50</b>	<b>42,678,156.50</b>
	<b>Government Grant - Capital</b>		
14	Balance as at January 01,	170,879,115.48	182,143,835.19
	Capital Contribution During the year	14,315,000.00	8,308,000.00
	Capital Grant received for Research and Training Activities	(10,000,000.00)	-
	Fixed deposit realization value transfer to Government Treasury	(11,546,393.76)	-
	Amotization for the prior year	3,558,000.00	-
	Amotization for the year	(15,504,126.58)	(19,572,719.71)
	Amotization adjustment from 1972 to 2015	(99,168,160.28)	-
	Adjustment on revaluation reserve - vehicle purchase on non institute funds	(2,904,124.00)	-
	Adjustment on revaluation reserve - vehicle purchase on non institute funds	8,391,752.00	-
	Balance as at December 31,	<b>58,021,062.86</b>	<b>170,879,115.48</b>
	<b>Reserves</b>		
15	Contribution from savings	-	661,423.67
	Project Capital Fund	1,047,601.60	10,853,188.75
	Capital Reserve	1,675,000.00	2,615,370.64
	Project General Reserve	-	9,781,186.49
	Incentive Fund - Institute share	2,583,076.32	2,279,784.24
		<b>5,305,677.92</b>	<b>26,190,953.79</b>
	<b>Incentive and Training Funds</b>		
16	Incentive Fund	-	82,237.15
	Training Fund - Projects	-	237,757.15
	Incentive Fund 10% from project	151,098.25	-
		<b>151,098.25</b>	<b>319,994.30</b>

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<b>Accumulated deficits</b>		<b>2017</b>	<b>2016</b>
17	Balance as at January 01,	141,471,875.87	159,517,894.68
	Depreciation correction for Previous Years	-	456,646.46
	Prior year adjustment - Computer depreciation correction	-	350,287.94
	Prior year adjustment - Capitalization of Bio Gas project	-	(1,031,020.00)
	Prior year adjustment - Depreciation for Bio Gas project	-	103,102.00
	Prior year adjustment - Correction of interest on cashier's deposit	-	11,514.83
	Prior year adjustment - Air ticket fees not refunded by APO	6,810.00	-
	Prior year adjustment - Hostel & Auditorium Income Receivable	(674,590.00)	-
	Prior year adjustment - Receivable from Hostel	43,763.50	-
	Prior year adjustment - Gratuity paid to R.B.Senakarachchi	117,585.00	-
	Prior year adjustment - Electricity charges canteen	(119,433.97)	-
	Prior year adjustment - Settlement of Purchasing Advance	19,249.99	-
	Prior year adjustment - Correction of WHT for Fixed Deposit	(4,675.83)	-
	Prior year adjustment - Adjustment of interest income & WHT for deposit	19,977.66	-
	Correction of provision for Scholarship Debtors	17,592.51	-
	Accounting written back of capital grant reserves & fund account balances	(7,389,254.38)	(7,389,254.38)
	Correction of last year amortization for vehicle revaluation	3,558,000.00	-
	Expenditure over income as at December 31,	2,732,398.71	(10,547,295.66)
	Written back balance - refer note no...2.1	(14,778,508.79)	-
	Amortization adjustment from 1972 to 2015	(99,168,160.28)	-
	Adjustment on revaluation reserve vehicle purchased on non institute funds	(7,100,000.00)	-
	Adjustment on revaluation reserve vehicle sales	(1,066,000.00)	-
	Adjustment on revaluation reserve vehicle purchased on institute funds	(7,759,089.60)	-
	Balance as at December 31,	<b>9,927,540.39</b>	<b>141,471,875.87</b>

<b>Other Revenue</b>			
18	Hostel charges	12,662,039.85	15,334,782.82
	Conference hall charges	14,188,015.63	11,895,658.50
	Income From Mobitel Customer service	116,159.16	112,040.25
	Sales of publications	181,288.50	195,502.50
	Interest on investments	988,255.05	913,753.02
	Interest on staff loan	790,585.38	730,059.27
	Recurrent contribution from projects	215,462.13	453,501.92
	Scholarship Debtors	3,311,177.00	419,895.00
	Bungalow fees and room rent	81,021.65	62,108.60
	Palwehera Room rent	84,575.00	-
	Computer income	5,859.80	25,778.00
	Tender fees	4,500.00	-
	Manpower Income	248,403.62	23,773.10
	Scrap Item Disposal	7,520.00	31,727.00
	Other income	250,199.94	143,426.46
	Profit on Sale of Vehicles	-	-
	Supplier's Registration	181,000.00	-
		<b>33,316,062.71</b>	<b>30,342,006.44</b>

<b>Wages, salaries and employee benefits</b>			
19	Salary -Permanent staff	64,411,764.32	47,259,709.97
	Salary - Investigators	7,807,538.72	6,587,693.78
	Cost of Living Allowance,Special Allowance & other	40,571,685.10	51,595,828.96
	EPF	13,466,285.12	11,417,519.94
	ETF	2,693,256.80	2,283,503.98
	ETF Surcharge	1,030,198.63	-
	EPF & ETF Arrears	-	-
	Overtime	1,704,102.72	2,184,338.25
	Gratuity	9,865,771.50	9,538,762.00
	Gratuity Surcharges	-	8,832.00
		<b>141,550,602.91</b>	<b>130,876,188.88</b>

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Other expenses		2017	2016
20	Local subsistence & Local transport	1,363,007.30	1,016,069.09
	Foreign Travel Allowance	259,345.27	360,492.52
	Stationery and office requisites	1,840,570.07	1,280,642.01
	Fuel and lubricants	1,242,139.05	1,289,794.57
	Uniforms	254,182.59	377,474.01
	Vehicle repairs	1,768,017.16	1,051,462.88
	Maintenance of Building	948,958.90	1,262,690.08
	Plant machinery and equipment repairs	1,589,167.90	2,025,243.66
	Telephone charges	2,100,927.09	1,631,309.76
	Electricity	5,561,314.01	6,321,790.30
	Water bills	1,137,139.57	1,076,695.02
	Taxes to local authorities	327,661.20	315,601.20
	Postal charges	355,000.00	504,890.00
	Transport	573,285.00	566,795.00
	Legal activities on defaulters	-	4,000.00
	Technical Advice for Vehicles	90,000.00	75,000.00
	Technical Advice for Construction	75,000.00	180,000.00
	Newspapers	143,740.00	259,590.00
	License and insurance	1,174,584.11	981,083.06
	Security charges	2,584,800.37	2,565,800.00
	Cleaning services	770,957.35	745,408.58
	Laundry services	510,970.00	491,911.00
	Audit fees	250,000.00	300,000.00
	Medical charges	154,000.00	790,176.96
	Canteen charges	58,533.00	22,850.00
	Miscellaneous expenses - Others	348,359.28	661,175.02
	Legal charges	193,750.00	-
	Welfare	342,130.00	230,200.00
	Advertisement	803,929.30	652,009.50
	Interview charges	39,110.00	15,000.00
	Board of governors	363,618.00	253,800.00
	Printing & Publication	1,217,721.71	1,329,080.22
	Entertainment	12,785.50	13,848.06
	Dissemination of information	921,977.50	1,436,570.00
	Cost of Sales - Publications	180,303.50	198,192.50
	Withholding Tax	78,001.01	56,987.30
	Audit & Mgt Committee	76,556.00	81,000.00
	Staff Development	2,120,445.19	815,403.96
	Contingent liabilities expenses	-	115,350.00
	Write off balances	34,658.75	-
	EB Examination Fees	254,997.47	-
	Translation Fees	18,958.50	-
		<b>32,140,601.65</b>	<b>31,355,386.26</b>

Hector Kobbekaduwa Agrarian Research & Training Institute  
Notes to the Statements for the year ended December 31, 2017

21.1 Written back balance (Board approval received on Board meeting No. 350th)

Rs

	2018	2019	Total
Capital Contribution From Ministry	468,567.00	468,567.00	937,134.00
Contribution from savings	220,474.56	220,474.56	440,949.12
Project Capital Fund	2,919,328.52	2,919,328.52	5,838,657.04
Capital Reserve	313,456.88	313,456.88	626,913.76
Project General Reserve	3,260,395.49	3,260,395.49	6,520,790.98
Incentive Fund -Institution Share	100,367.12	100,367.12	200,734.24
Incentive Fund	27,412.38	27,412.38	54,824.76
Training Fund-Projects	79,252.38	79,252.38	158,504.76
<b>Total</b>	<b>7,389,254.33</b>	<b>7,389,254.33</b>	<b>14,778,508.66</b>

21.2 Amotization Adjustment from 1972 to 2015( Treasury Grant)

Year	Depriciation Amount
2015	9,584,426.49
2014	16,382,550.70
2013	12,545,598.64
2012	12,352,433.96
2011	7,170,854.53
2010	4,423,637.86
2009	6,907,471.03
2008	4,946,242.61
2007	4,023,313.59
2006	3,383,935.67
2005	3,187,749.11
2004	2,723,457.23
2003	3,306,575.36
2002	3,621,485.72
2001	3,782,659.00
2000	3,873,960.00
1999	3,726,275.00
1998	3,106,101.00
1997	2,402,788.00
1996	2,238,055.00
1995	1,827,668.87
1994	1,913,488.12
1993	1,723,954.26
1992	1,926,894.81
1991	1,548,936.37
1990	1,561,692.04
1989	1,640,893.46
1988	1,720,851.76
1987	1,395,144.17
1986	1,324,002.13
1985	1,308,038.40
1984	1,238,876.06
1983	807,421.42
1982	643,454.82
1981	498,098.92
1980	384,611.81
1979	355,200.93
1978	294,495.71
1977	211,873.97
1976	53,383.42
1975	22,211.37
1974	16,424.16
1973	7,244.73
1972	

Total	136,114,432.21
(-) Depreciation Adjustment related to the note -01	(36,946,271.93)
Net Adjustment on Gapital Grant	99,168,160.28



21.3.1 Adjustment on revaluation reserve Account ( Revaluation 2014)

Vehicle purchased on Treasury Capital Grant

Vehicle No	Cost(Rs)	Acc Dep (Rs)	WDV at revaluation date (Rs)	Revaluation Amount(Rs)	Revaluation Reserve (Rs)	Depriciation Per Year(Rs)
32 - 5590	708,250.00	708,249.00	1.00	1,500,000.00	1,500,000.00	300,000
32 - 4670	615,201.53	615,200.53	1.00	1,500,000.00	1,500,000.00	300,000
32 - 4671	615,201.53	615,200.53	1.00	1,500,000.00	1,500,000.00	300,000
51 - 4324	479,750.00	479,749.00	1.00	1,200,000.00	1,200,000.00	240,000
30 - 4342	345,000.00	344,999.00	1.00	1,200,000.00	1,200,000.00	240,000
40 - 3933	300,000.00	299,999.00	1.00	600,000.00	600,000.00	120,000
WP PD - 6376	6,130,520.00	2,452,208.00	3,678,312.00	6,500,000.00	2,821,689.00	1,300,000
WP PD - 6402	6,130,520.00	2,452,208.00	3,678,312.00	6,500,000.00	2,821,689.00	1,300,000
WP PD - 2350	6,040,000.00	2,416,000.00	3,624,000.00	7,500,000.00	3,876,001.00	1,500,000
WP PD - 2351	5,900,000.00	2,360,000.00	3,540,000.00	7,500,000.00	3,960,001.00	1,500,000
	<b>27,264,443.06</b>	<b>12,743,813.06</b>	<b>14,520,630.00</b>	<b>35,500,000.00</b>	<b>20,979,380.00</b>	<b>7,100,000.00</b>

Vehicle No	Depriciation Per Year (Rs)	Per Year	
		Capital Grant(Rs)	Revaluation Reserve(Rs)
32 - 5590	300,000	-	300,000.00
32 - 4670	300,000	-	300,000.00
32 - 4671	300,000	-	300,000.00
51 - 4324	240,000	-	240,000.00
30 - 4342	240,000	-	240,000.00
40 - 3933	120,000	-	120,000.00
WP PD - 6376	1,300,000	735,662.20	564,337.80
WP PD - 6402	1,300,000	735,662.20	564,337.80
WP PD - 2350	1,500,000	724,799.80	775,200.20
WP PD - 2351	1,500,000	707,999.80	792,000.20
	<b>7,100,000.00</b>	<b>2,904,124.00</b>	<b>4,195,876.00</b>

21.3.2 Adjustment on revaluation reserve Account ( Revaluation 2014)

After the revaluation Vehicles Sales at 2015

Vehicle No	Cost (Rs)	Acc Dep (Rs)	WDV at revaluation date (Rs)	Revaluation Amount(Rs)	Revaluation Reserve(Rs)	Selling Price(Rs)	Disposal Profit(Rs)	Revaluation Reserve Profit adjustment (Rs)
32- 0455	408,250	408,249	1	200,000	200,000	951,500	751,500	200,000
53 - 3287	786,585	786,584	1	450,000	450,000	1,059,750	609,750	450,000
53 - 3309	732,085	732,084	1	400,000	400,000	1,022,750	622,750	400,000
141 - 5648	80,000	79,999	1	4,000	4,000	6,850	2,850	4,000
141 - 5670	80,000	79,999	1	4,000	4,000	8,200	4,200	4,000
145 - 4055	80,000	79,999	1	4,000	4,000	6,855	2,855	4,000
145 - 4053	80,000	79,999	1	4,000	4,000	6,855	2,855	4,000
	<b>2,246,920</b>	<b>2,246,913</b>	<b>7</b>	<b>1,066,000</b>	<b>1,066,000</b>	<b>3,062,760</b>	<b>1,996,760</b>	<b>1,066,000</b>

21.3.3 Adjustment on revaluation reserve Account ( Revaluation 2014)

Vehicle purchased on institution fund

Vehicle No	Cost	Acc Dep	WDC as at revaluation date	Revaluation Amount	Depriciation Per the year	Agians Revaluation Reserve	Actual Depriciation
WP TR - 9402	133,500.00	133,500.00	-	65,000.00	13,000	13,000	
WP TR - 9408	133,500.00	133,500.00	-	65,000.00	13,000	13,000	
WP PB - 7320	6,450,000.00	6,450,000.00	-	4,500,000.00	900,000	900,000	
WP PC - 1628	5,990,000.00	3,594,000.00	2,396,000.00	6,500,000.00	1,300,000	820,800	479,200.00
WP PC - 1639	5,990,000.00	3,594,000.00	2,396,000.00	6,500,000.00	1,300,000	820,800	479,200.00
WP WU - 1794	165,460.00	99,276.00	66,184.00	160,000.00	32,000	18,763	13,236.80
			<b>4,858,184.00</b>	<b>17,790,000.00</b>	<b>3,558,000.00</b>	<b>2,586,363.20</b>	<b>971,636.80</b>



# ජාතික විගණන කාර්යාලය

## தேசிய கணக்காய்வு அலுவலகம்

### NATIONAL AUDIT OFFICE



මගේ අංකය  
எனது இல.  
My No.

} AGL/D/HAR/01/17/16

ඔබේ අංකය  
உமது இல.  
Your No.

}

දිනය  
திகதி  
Date

} 25 September 2018

Chairman,

Hector Kobbekaduwa Agricultural Research and Training Institute.

### Report of the Auditor General on the Financial Statements of the Hector Kobbekaduwa Agricultural Research and Training Institute for the year ended 31 December 2017 in terms of Section 14 (2) (c) of the Finance Act, No. 38 of 1971

The audit of financial statements of the Hector Kobbekaduwa Agricultural Research and Training Institute for the year ended 31 December 2017 comprising the statement of financial position as at 31 December 2017 and the statement of financial performance, statement of changes in equity and cash flow statement for the year then ended and a summary of significant accounting policies and other explanatory information was carried out under my direction in pursuance of provisions in Article 154(1) of the Constitution of the Democratic Socialist Republic of Sri Lanka read in conjunction with Section 13 (1) of the Finance Act, No. 38 of 1971 and Section 24 of the Hector Kobbekaduwa Agricultural Research and Training Institute Act, No. 05 of 1972. My comments and observations which I consider should be published with the Annual Report of the Institute in terms of Section 14 (2) (c) of the Finance Act appear in this report.

#### 1.2 Management's Responsibility for the Financial Statements

The Management is responsible for the preparation and fair presentation of these financial statements in accordance with Sri Lanka Public Sector Accounting Standards and for such internal control as the management determines is necessary to enable the preparation of financial statements that are free from material misstatements whether due to fraud or error.

#### 1.3 Auditor's Responsibility

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Sri Lanka Auditing Standards consistent with International Auditing Standards of Supreme Audit Institutions (ISSAI 1000-1810). Those Standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements.



An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatements of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Institute's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Institute's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of financial statements. Sub-sections (3) and (4) of Section 13 of the Finance Act, No. 38 of 1971 give discretionary powers to the Auditor General to determine the scope and extent of the audit.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

## 2. Financial Statements

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### 2.1 Opinion

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In my opinion, except of the matters described in paragraph 2:2 of this report, the financial statements give a true and fair view of the financial position of the Hector Kobbekaduwa Agricultural Research and Training Institute as at 31 December 2017 and its financial performance and cash flows for the year then ended in accordance with Sri Lanka Public Sector Accounting Standards.

### 2.2 Comments on Financial Statements

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#### 2.2.1 Accounts Receivable and Payable

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The following observations are made.

- (a) The debtors balance totaling Rs.577,716 coming from more than 5 years by the end of the year under review and follow up action for the recovery of this had been in a weak condition.

- (b) Action had not been taken to settle the credit balance coming from more than 5 years..
- (c) Canteen had been given to the external party by the entity on a rent basis and supplied the electricity and the accrued electricity bill of Rs.34,015 for the month of October, November, December 2017 had not been recovered.

### 2.3 Non-compliances with Laws, Rules Regulations and Management decisions

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As per the Public Finance Circular No 438 of 13 November 2009, disposable goods in government offices should be disposed immediately, but unusable consumer goods amounting to Rs.197,496 which was stated under the stock in the Financial Statement. Action had not been taken as per the circular relating to this.

## 3. Financial Review

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### 3.1 Financial Results

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According to the financial statements presented, the operations of the Institute for the year under review had resulted in a deficit of Rs. 2,732,399 as against the corresponding surplus of Rs.10,547,296 for the preceding year, thus indicting a decrease of Rs.13,279,695 in the financial result of the year under review. The decrease in the Government grants by Rs.19,380,000 had mainly attributed to the decrease of the financial result.

Analyzing the financial results of the year under review and 04 preceding years revealed that the financial result had become a surplus in the year 2016 despite the deficit in the years 2013 to 2015. However, when the employee remuneration and the depreciation on non-current assets had been adjusted to the financial result, the contribution for the year 2013 amounting to Rs.106,586,316 had continuously improved up to Rs.162,043,804 in the year 2016, but decreased to Rs.158,927,932 in the year under review.

#### 4. Operating Review

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##### 4.1 Performance

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##### 4.1.1 Activities and Review

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The following observations are made.

- (a) Fourteen projects had been started in the year 2015 and 2016 by spending Rs.33 million, Five projects should be completed before 31 December 2016 and nine projects before 31 December 2017. However, those research projects had not been completed even by 14 June 2017, due to that research results couldn't be given for the relevant field.
- (b) According to the Action Plan, provisions amounting to Rs.12.05 million had been made by the Institute to conduct 136 training programs under 07 subjects. However, only 55 programs scheduled to be under 03 subjects had been conducted during the year under review.
- (c) It had been planned to train 350 officers in 16 districts by conducting one day 17 programs relating to empowering the farmers under the National Food Production Programme. Instead of conducting that, 14 programmes had been held only in Polonnauwa district and 1323 farmer's organization leaders had been trained.
- (d) It had been planned to train 60 development officers by conducting one day training Program but it had not been conducted. Instead of that a training program had been held and trained 88 students in Agriculture Faculty in University of Jaffna relating to Business Management of Agriculture and Marketing of Agriculture

##### 4.2 Management Activities

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The following observations are made.

- (a.) Director's official residence of the Institute had been given to the Coordination Secretary of the Ministry without having a proper transfer or charging quarter's rent. Electricity and water had been provided by the institute itself, but the charges for water and electricity were not recovered. Further, telephone bill amounting to Rs.33,607 from February to July 2017 had also been paid by the institute. On this situation Director of the institute residing in Registrar's quarters and suitable action had not been taken on this matter.

- (b.) Five rooms of the hostel belonging to the Institute had been provided for the security officers of the Agriculture Ministry, from May 2015 without charging any fees, Action had not been taken to taken back these rooms or to recover the rent due to the institute and it had deprived an income amounting to Rs.8,203,030 by the end of the year under review.
- (c.) An Agriculture program was held from 07 June - 24 June 2017 in China. Although the director level officers less than 45 years old should be participated to this program. Four officers over that age limit and not in the Director level had participated to the program. Though the program was relevant to Agriculture Officers, Librarian, Senior news and Publication officer and two lady officers in the account section had participated and a sum of Rs.915,580 had been paid as incidental expenses.
- (d.) As per Section 47 of Employees Provident Fund Act No. 15 in 1958 and Section 46 of Employees Trust Fund Act No.46 in 1980 when calculating the contribution for those funds from January 2006 to March 2013 cost of living allowance had not been included. As a result sum of Rs.1,041,662 had been paid as a surcharge.

#### 4.3 Transaction of Contentious Nature

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It was observed that the stores had received a cassette recorder, camera teak dinner table and an executive chair which were purchased in the year 2014 spending Rs.230,125. Those were not physically observed in the verification done by the audit in 18 May 2018. An inquiry had not been carried out by the management in regarding this.

#### 4.4 Idle and Underutilized Assets

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The Bio Gas unit which had been installed in the period 2012 to 2015 incurring a cost of Rs.1,031,020 was not in operation from 2016 and action had not been taken to repair this.

#### 4.5 Staff Administration

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The following observations are made.

- (a.) The approved cadre of the Institute had been 235, and 73 vacancies existed by the end of the year under review. Among those vacancies post of Registrar, a senior level position had remained vacant for more than 07 years from 03 January 2011. Due to this reason had become a problem to settle the administrative matters of the institute.

- (b.) A sum of Rs.54,449 had been spent for the paper advertisement on 07 October 2016 to recruit the administrative Officer for the institute and it had been decided to select an officer internally for that post. Therefore the expenses incurred for the paper advertisement had become fruitless. As per the internal recruitment procedure to fill this vacancy there should be a 05 years' service period in the field of management assistant service, but an office who doesn't have this qualification had been appointed effective from 15 June 2017 without having an approval of the Board of Directors.

## 5. Sustainable Development

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### 5.1 Achievement of Sustainable Development Goals

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Institute had a knowledge about the United Nation year 2030 "agenda" of Sustainable Development Goals and identified the goals and targets, but not identified the indicators to measure and reach to based on those goals.

## 6. Accountability and Good Governance

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### 6.1 Budgetary Control

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As variances ranging from 15 per cent to 101 per cent had been observed in comparing the budgeted income and expenditure with that of actuals for the year under review that the budget had not been made use of as an effective instrument of management control.

### 6.2 Unresolved Audit Paragraphs

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Inadequate attention had not been made to unresolved audit paragraphs, pointed out in the previous audit reports and there are shown below.

Year	Paragraph No	Paragraph
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2013	5.2(c)	A sum of Rs.15,657,898 had not been recovered from the scholarship holders studied for Post Graduate Courses in foreign Universities and who had breached agreements.

2015

4.2(b)

The Assistant Registrar (administrative) had been interdicted due to a financial misappropriation and he had been reinstated. The Board of Control had ordered a fresh preliminary investigation to be conducted by cancelling the investigation already conducted. Further, this officer had been appointed for the post of the Acting Registrar before finalizing the inquiry.

## 7. Systems and Controls

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Deficiencies in systems and controls observed during the course of audit were brought to the notice of the Chairman of the Institute from time to time. Special attention is needed in respect of the following areas of control.

Area of Systems and Controls	Observation
(a.) Control of Operations	Failure to implement the research projects as planned.
(b.) Staff Administration.	Failure to fill the vacancies of the Institute.

W.P.C. Wicramarathna

Auditor General (Acting)



Auditor General,  
Auditor General's Department,  
306/72, Polduwa Road,  
Battaramulla.

**Report of the Auditor General on the Financial Statements of Hector Kobbekaduwa  
Agrarian Research and Training Institute for the Year Ended December 31, 2017 in terms  
of Section 14(2) (C) of the Finance Act No 38 of 1971**

Comments on the above report dated September 25, 2018 presents herewith.

## **2.2 Comments on Financial Statements**

### **2.2.1 Accounts Receivable and Payable**

- (a) The debtors balance coming from more than five years as at 31<sup>st</sup> December 2017 is Rs. 577,716. Actions are following up to settle that balance with recommendations of the Management and Audit Committee. An amount of Rs. 12,906 of this debtors balance has been recovered and agreements were made with the institute to settle an amount of Rs. 196,767.25 in installments.
- (b) The credit balance of Rs. 388,053 coming from more than five years is as follows.
- I. Payable balance for resigned employees is Rs. 167,607.51. This balance consists of payable foreign scholarship debtors balance of Rs. 17,593 for Mr. U. L. J. J. Perera. The balance Rs. 150,014.51 should pay for Mr. T. Ravichandran. He is a guarantee for Mr. V. Sathgunaraja who is a foreign scholarship debtor. Hence, this amount has not paid.
  - II. The institutional Contribution which should pay annually for the welfare society of the institute. This amount of Rs. 150,000 is the institutional contribution of the year 2013. I will take steps to settle this value in the future.
  - III. Repayment deposit deposited by the canteen maintainer, Mr. Upathissa Paranamana. That amount should settle when leaving the canteen.
  - IV. This amount of Rs. 20,445.63 consists of the salaries and other allowances which should pay for the Casual Investigators who were worked and left the institute before five years. I will take steps to settle this value in the future.
- (c) The value of these bills has recovered by now. I will take steps to recover these electric bills monthly.

**2.3** I will take immediate steps to remove these stocks from the main store properly.

### **3. Financial Review**

#### **3.1 Financial Results**

I agree.

### **4. Operating Review**

#### **4.1 Performance**

##### **4.1.1 Activities and Review**

(a) Although this report has inquired on 14 research reports, the detailed report submitted by the auditor general has inquired on 15 research reports. According to that, information on those 15 research reports is as follows.

1. Although report writing of the research report on “Determination of Discrepancies in Paddy Land Data; Pilot Project in Low Country Wet Zone” R-490 has completed; it has not published as a book. The reason for that is, the Board of Governors of the institute has advised not to publish as a research report as there were technical errors of farmland data of the Department of Agrarian Development. The coordinator of the study had to work according to that.
2. The research report on “Consumer Buying Behaviour and Performance for Fluid and Powdered Milk” (R-491) has published. The ISBN number of this report was 978-955-612-236-07.
3. The research report on “Prospects and Constraints of Off-season Big Onion Production Programme in Hambantota District” (R-492) has published. The ISBN number of this report was 978-955-612-235-0.
4. The research report on “vulnerability of Rain-fed Farmers to Drought and Potential Strategies to Enhance Resilience Capacity” (R-493) has published and its ISBN number was 978-955-612-235-0.
5. The study on “*Awaraya Ahawaray*” was conducted under the request of the Ministry of Agriculture but the Ministry advised not to publish the report as that was a completely unsuccessful project. The coordinator had to work according to that.
6. The research report on “Mechanization, Livelihood Pattern and Labour Usage in Paddy Production” (R-495) has published and its ISBN number was 978-955-612-242-8.
7. The research report on “Hybrid Seeds and Vegetable Cultivation in Sri Lanka: Local vs Imported” (R-496) has published and its ISBN number was 978,955-612-237-4.
8. The research report on “Assessment of Livelihood Development Component of the Samurdhi Poverty Alleviation Programme” (R-497) has published and its ISBN number was 978-955-612-240-1.
9. The research report on “Farmer Participation and Demand for Pesticide in Rice Cultivation of Sri Lanka” (R-498) has published and its ISBN number is 978-955-612-234-3.

10. The research report on “Small and Medium Scale Floriculture Entrepreneurs in Badulla and N’Eliya District; Present Situation and Future Potentials” (R-499) has published and its ISBN number is 978-955-612-225-01.
11. All the works of the research report on “The Study of Problems and Prospects of Spices in Sri Lanka” (R-500) are completed and editing of the research report is completed as at 20<sup>th</sup> October 2018. The coordinator of this study has emphasized that the report writing was late due to the busy schedule of the coordinator and the report can publish within October 2018.
12. The research report on “Consumption Patterns and Consumer Patterns for Different Rice Varieties in Selected Districts in Sri Lanka” (R-501) has published and its ISBN number is 978-955-612-223-07.
13. The study on “Factors Affecting on Continuous Cultivation of Tobacco and Possibilities to after them into other High Value Crop or Activity – Sri Lanka” (R-502) has published as a worksheet.
14. The research report on “Finding the Potentials of Increasing Income of the Samurdhi Beneficiary Agricultural Householders in the Batticaloa District” (R-503) has published.
15. The study on “Evaluation of Commercial Farm Program and Youth Agri-Entrepreneurship Program Implemented by Ministry of Agriculture” (R-504) has conducted as per a request made by the Ministry of Agriculture and the report has been sent to the Ministry.

The policy followed by the institute is publishing research reports after preparing the report while having comments and developing it according to the relevant objectives. According to that, the status of the research report upgrades by following three steps; developing the research report with the comments of the Head of the Division, developing the research report after the observation of the Additional Director, developing the research report with the ideas of two external reviewers expertise in the relevant subject area of the research. Then, the research report sends to edit and proofread respectively. Finally, obtains ISBN numbers and prints the cover page from State Printing Cooperation. A considerable time has to spend for each of the above. Finally, I should state that above mentioned factors are the reasons for spending a long period of time to publish a research report.

- (b) According to the revised action plan, although it was expected to obtain a fund of 12.05 million for the implementation of 136 training programmes under seven subjects in the reviewed year by the institute, provisions were made to get 4.4 million under treasury funds for 76 training programmes.

However, the Skill Development Training Programme for Agrarian Research Production Assistant Officers which was included in the revised action plan was prepared according to a request of the Ministry of Agriculture and that programme was expected to obtain an amount of 7.5 million from the Ministry of Agriculture to conduct 60 training programmes. Those programmes could not conduct because there were not the approval and fund provisions. However, the proposal for those training programmes were directed to the Ministry and the training modules for those training programmes have also been finalized.

According to that, training programmes were conducted as per the revised action plan and the programmes of T-421, T-422 and T-423 were implemented as special training programmes according to the scope under the permission of the Director as per to strengthen the National Food Production Programme (2016-2018).

Thirty training programmes were planned to conduct under the theme of “Agriculture for a Healthy Generation” (T-420) in Moneragala and Nuwara Eliya districts and this training programme was conducted at 18 Agrarian Development Territories in Moneragala district and 12 Agrarian Development Territories in Nuwara Eliya district before the end of the fourth quarter and 2803 farmer leaders were trained successfully.

In addition, a special training programme was conducted at Puttlam district and 66 farmer leaders were trained.

According to that, 81 training programmes were successfully conducted in the revised year.

(C) Although it was planned to implement as a programme of training trainers in some selected districts under the “Training Programme of Strengthening Farmer Leaders” (T-421) which was implemented parallel to the National Food Production Programme (2016/2018), this programme was conducted at 14 Agrarian Development Territories in Polonnaruwa district under the permission of the Director as a special training programme to strengthen the National Food Production Programme (2016/2018) and 1337 leaders of Farmer Organizations were trained successfully.

(d) A three-day Workshop on “Application of Agri-business Concepts and Marketing Extension” held before the end of 2017 at Hector Kobbekaduwa Agrarian Research and Training Institute under the Training Programme on Marketing Extension (T-422) for the students of Faculty of Agriculture, University of Jaffna with the objective of developing theoretical and practical knowledge of Agri-business and Marketing sectors, attitudes and skills. Core participants were 88 undergraduates of Faculty of Agriculture, University of Jaffna and that programme contributed to build National Reconciliation and National Integrity.

#### **4.2 Management Activities**

(a) Residents of the Director’s official resident have left the quarters by now. Other receivable balances have recovered except the estimated huge rent value.

(b) The Security Officers of the Ministry of Agriculture have left the institute hostel rooms by now. A letter for the recovery of charges relevant to the period of hostel facilities has sent to the Ministry.

(c) As per the letter dated May 16, 2017 submitted by the Ministry of Agriculture and according to their letter regarding nominating officers for the above workshop, it was informed that age limit for Director General level is less than 50 years and Director level is less than 45 years.

According to that, only three senior research officers were nominated by the then Director and Additional Director. Although other government institutes have received such training programmes under Sri Lanka – China relationship, this was the first opportunity received by

the institute. Therefore, information about those officers who participated for China tours of 30 and 45 days of those institutes were gained orally. (E.g. Department of Agriculture)

Under these circumstances, 11 officers could participate for the four training programmes received by our institute. The Additional Director and the Heads of the Divisions proposed not to omit the chance received by the institute by limiting the opportunity only to three senior officers.

Following factors were resolved verbally by the Additional Director from the Senior Assistant Secretary, Ministry of Agriculture, Miss Hadunhewa (The letter dated May 16, 2017 was sent by her).

- a. According to the letter dated May 16, 2017 sent by the Senior Assistant Secretary, it was discussed about age groups and posts, and decided to select candidates below 50 years with a degree or based on experiences.
- b. According to that letter, it explained that only two out of four training programmes were relevant to the institute (seminar on Mgt and Conservation of Agricultural Heritage Sites for Countries along the Belt and Road / 2017 Seminar on Modern Agriculture and Food Security for Developing Countries) and further, she explained that five officers for HARTI and five officers for SLCARP were proposed for the nominations for the first programme and further she informed verbally that, HARTI can send even 10 officers for the first programme on “ Seminar on Management and Conservation of Agricultural Heritage Sites for Countries along the Belt and Road in 2017” as SLCARP is not ready to send its officers.

Nominations were taken based on the age limit (below 50 years) and qualifications (degree and experience) as per the agreement with the Heads of the Divisions to give maximum opportunities for the officers of our institute.

1. Head of the Division (Statistics and Data Processing, Library and Publication)
  - a. S. A. C. U. Senanayake, Senior Information and Publication Officer
  - b. H. M. T. G. L. Herath, Librarian
2. Accountant
  - a. J. P. Nanayakkara, Assistant Accountant
  - b. W. D. G. Perera, Accounts Officer

Although all Divisions were called for this training programme through Heads of the Divisions, only above four officers have given their preference initially.

As China tour would be a sound experience for all staff officers of the institute, this opportunity was given to all Research Officers and the supporting staff while asking the willingness verbally from the Officers of Administration, Research, Statistics, Library and Publication who has fulfilled all the qualifications (according to the agreed qualifications).

Since only four internal officers were presented, names of the following two officers who are currently working as Statistical Officers and have worked for over 25 years were proposed by the Head of Marketing Food Policy and Agri-business Division.

1. J. C. K. B. Lionel, Statistical Officer (acting) Mathale
2. H. M. S. Jayarathne, Statistical Officer, (acting) Nuwara Eliya

In this process, necessity of an interview did not arise for this China tour. The institute could give the opportunity to seven Officers for the first training programme on “2017 Seminar on Seminar on Management and Conservation of Agricultural Heritage Sites for Countries along the Belt and Road” of the China tour based on the willingness and qualifications by the then Director and the Additional Director. Although four other officers had the opportunity as per the verbal information which was given by the Ministry of Agriculture, those four opportunities could not be gain by the institute as there were not officers who have fulfilled necessary qualifications and age limit and because of the lack of preference of selected officers.

As inquired by the audit, it can be informed that the Ministry of Agriculture has given the approval for the relevant officers while sending the nominations of the above seven officers to the Department of External Resources and the China Embassy, as there were inadequate days to get a written document of the verbal information given by the Ministry of Agriculture regarding the above tour.

But, it is clear that the Institute had to file a confirmation letter of the verbal information given by the Ministry of Agriculture. This is to confirm that the institute would ensure the verification of verbal facts in this manner in the future.

- (d) A fine of Rs. 1,041,662 has recovered under the basis of not paying the contribution for the Employee Fund which comes under the cost of living allowance because there was not proper advice given through Cost of Living Allowance Circular issued periodically by the government. Provisions have given for the payments of this fine after presenting all information regarding this fine to the Department of National Budget. The fine has been settled based on these provisions.

#### **4.3 Transaction of Contentious Nature**

I Accept.

#### **4.4 Idle and Underutilized Assets**

I Accept.

#### **4.5 Staff Administration**

- (a) Recruitments have been made by now for the post of Registrar and some other posts of the institute. Necessary steps are taking for other recruitments.
- (b) A high expense has been spent on the paper advertisement to recruit an Administrative Officer for the institute. But, it would cost much to hold a written examination to shortlist the applications. Therefore, the then Director has taken approval from the Board of Governors to select an Administrative Officer from qualified internal applicants. According to that, an internal applicant was appointed on June 15, 2017. But, according to the decision of the Presidential Commission of

Inquiry, she was appointed effective from June 15, 2017 and after an investigation on her appointment, she was reinstated in the post of Management Assistant again.

## **5 Sustainable Development**

### **5.1 Achievement of Sustainable Development Goals**

Key Performance Indicators (KPI) have identified in our institute for the evaluation of research. Currently, our institute is preparing indicators for measuring sustainable development goals and targets.

## **6. Accountability and Good Governance**

**6.1** I will act in the future to use the budget as an effective instrument of management control.

### **6.2 2013 5.2 (C)**

Although it had to recover a sum of Rs. 15,657,898 as at December 31, 2017 from those who have breached agreements after obtaining foreign scholarships for postgraduate courses at foreign Universities (foreign scholarship debtors), there was a sum of Rs. 19,173,425.10 as at December 31, 2016. Actions were taken to recover this difference. Institute will take necessary steps to recover the balance also. All the information regarding this has sent for audit.

### **2015 4.2 (b)**

Since the vacancy for the post of Registrar existed for a long time, This Officer has been appointed by the then Director, Mr. K. W. E. Karalliyadda to fulfill the duties of that post. As per the decision which was taken by the investigation against this officer, he has been punished and removed from the post of Acting Registrar by now. Vacancy for the post of Registrar has filled by now and a new officer has reported for the work.

## **7. Systems and Controls**

- (a)** Methods Controls are operating to implement research projects as planned and publish reports without any delay.
- (b)** Vacancies of the Staff Administration will complete so as to fulfill institute performance targets.

Director/ Chief Executive Officer

Copies: 1. Secretary, Ministry of Agriculture

2. Secretary, Ministry of Finance