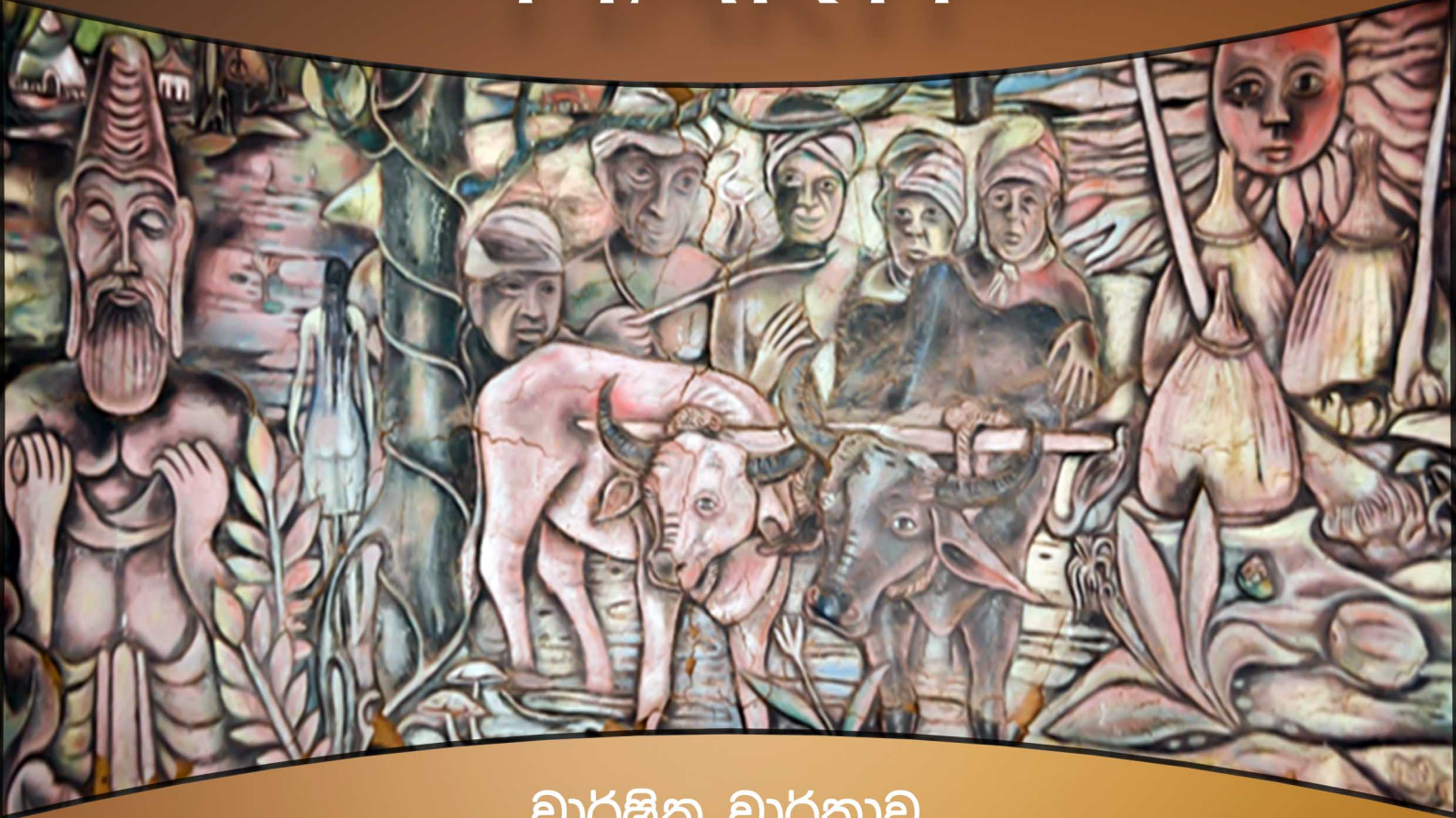


HARTI



லார்கீக லார்கால
வருடாந்த அறீக்கை
ANNUAL REPORT

2014



தெக்டர் கஹீலகஹீல தஹீலகஹீல, சர்சேசை ஹ சூலு தீர்தீ தாஸதத
தெஹக்டர் கஹீலகஹீல கமநல ஆராய்ச்சீ, தயீர்சீ நீறுவகம்
Hector Kobbekaduwa Agrarian Research and Training Institute

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ESTABLISHMENT

The Hector Kobbekaduwa Agrarian Research and Training Institute (HARTI) was 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 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 thirty five years in conducting socio-economic research and training and also providing information for the formulation of agrarian sector development policies since its establishment in 1972.

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 in order to serve their regional needs and provide a centre for the collection and dissemination of information on agrarian related issues/ problems.
- 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 for generating and disseminating knowledge for sustainable agrarian and rural development.

Mission

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

Goals

- i. To be a centre of excellence in socio-economic research related to agrarian issues.
- ii. To liaise closely with planners and policymakers in the government and with 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. R.M.D.B. Meegasmulla	Chairman -		Secretary, Ministry of Agriculture and Chairman of the Board of Governors
Mr. E.M. Abhayaratne	Director -		Director, HARTI
Mr. A.L.A. Asoka Siriwardena	Board Member -		Addl. Secretary(Admin), Ministry of Agriculture
Mr. S.D.A.B. Boralassa	-do-	-	Addl. Secretary (Lands), Ministry of Lands & Land Development
Ms. Pushpa Wellappili	}	-do-	Deputy Secretary to the Treasury, Ministry of Finance & Planning (until June)
Mr. M.R.V.R. Meepura		-do-	Director, Public Enterprises Department, Ministry of Finance Planning (from December)
Dr. D.S.A. Wijesundara	-do-	-	Director General, Department of National Botanic Gardens
Mr. M.C. Gamage	-do-	-	Director, Ministry of Traditional Industries & Small Enterprises Development
Mr. G.D.W. Jayawardena	}	-do-	Addl. Secretary, Ministry of Plantation Industries (until July)
Mr. W.A.S. Iroshan		-do-	Asst. Director (Planning), Ministry of Plantation Industries (from August)

Dr.(Mrs.) L.W.R. de Alwis	-do-	-	Senior Lecturer, Vocational Education Dept. National Institute of Education, Ministry of Education
Mr. D.D. Ariyaratne	-do-	-	Director (Planning), Ministry of Irrigation & Water Resources Management (until August)
Mr. J.M. Mangalatissa	-do-	-	Addl. Secretary (Dev. & Planning), Ministry of Co-operative & Internal Trade
Mr. H. Amaratunga	-do-	-	Director, Financial Intelligence Unit Central Bank of Sri Lanka
Prof. Ranjith Senaratne	-do-	-	Vice Chairman, University Grants Commission, Ministry of Higher Education
Dr. R.R.A. Wijekoon	-do-	-	Director General of Agriculture
Mr. R.P.R. Rajapaksha	-do-	-	Land Commissioner General
Mr. M.A.S. Weerasinghe	-do-	-	Commissioner General of Agrarian Dev.
Eng. Mrs. Badra Kamaladasa	-do-	-	Director General of Irrigation
Mr. W.H. Karunaratne	}	-do-	Commissioner General of Co-op Dev. & Registrar of Co-op Society (until July)
Mr. Upul Shantha de Alwis		-do-	Commissioner General of Co-op Dev. & Registrar of Co-op Society(from November)
Dr. Premalal Kuruppuarachchi	-do-	-	Asst. Representative (Prog), FAO

Mrs. A.I. Pathirana	}	-	Actg. Secretary, Board of Governors (until January)
Mrs. D.N. Hettiarachchi		-	Actg. Secretary, Board of Governors (from February)

MEETINGS OF THE BOARD OF GOVERNORS

<u>Date of the Meeting</u>	<u>No. of Members Attended</u>
1. 30 January 2014	13
2. 20 February 2014	08
3. 27 March 2014	15
4. 29 April 2014	13
5. 27 May 2014	14
6. 24 June 2014	15
7. 24 July 2014	10
8. 26 August 2014	14
9. 30 September 2014	09
10. 28 October 2014	11
11. 25 November 2014	13
12. 23 December 2014	12

AUDIT & MANAGEMENT COMMITTEE

1. Ms. Pushpa Wellappili (Chairperson) - Deputy Secretary to the Treasury, Ministry of Finance Planning (until June)
1. Mr. A.L.A. Asoka Siriwardena (Member) - Addl. Secretary(Admin), Ministry of Agriculture
2. Mr. M.C. Gamage (Member) - Director, Ministry of Traditional Industries & Small Enterprises Development
3. Mrs. M.I. Pushpa Hemamali (Observer) - Audit Superintendent Auditor General's Department
4. Mr. W.K.L.E. Walallawita (Observer) - Chief Internal Auditor, Ministry of Agriculture

MEETINGS OF THE AUDIT & MANAGEMENT COMMITTEE

<u>Date of the Meeting</u>	<u>No. of Members Attended</u>
1. 01 April 2014	02
2. 24 April 2014	03
3. 05 June 2014	03

OVERVIEW

Concerning the current policy of agriculture along with increasing productivity and production, food security, increased income of the farming community the role of HARTI is highly significant. The major functions of HARTI are to facilitate the policymakers, planners and programme implementers to make decisions related to interventions towards agricultural and agrarian development by conducting problem-oriented socio-economic research. Other functions of the HARTI are collecting and disseminating of market and other information related to agriculture and rural development, sharing knowledge and experiences of research via seminars, workshops, publications with policymakers, academics and other stakeholders such as students, farmers and traders and training of officers and farmers which are also immensely beneficial for achieving the current agricultural development objectives.

During the year 2014 HARTI conducted 18 research studies related to diverse issues in connection with different subject areas of agriculture and agrarian development. Those are consequences of free-holder rights of LDO lands, problems of promoting off farm employment and crop diversification, present situation and issues of backyard poultry production, factors affecting the poor mechanization of OFC sector, present situation of marketing of traditional rice varieties and issues of government intervention in paddy marketing etc. As most of these research issues were suggested by various institutions based on their informational requirements to make policy decisions the output of the relevant studies would definitely be useful for policymaking related to agricultural and agrarian development.

Two of the studies were initiated from external funds provided by WFP (World Food Programme) and IUCN (International Union for Conservation of Nature). The WFP provided funds to initiate a new project for the calculation of Minimum Cost of Nutritional Diet (COD). The COD project provided a new impetus to the Market Research Unit of the institute to analyze market information collected by the division for making useful policy decisions on poverty and food security. In addition this project was very helpful not only for developing technical aspects of the relevant division, but also developing the capacities of the researchers. Also it helped to enhance cooperation between HARTI and WFP and also with other institutions such as the Nutrition Unit of the Medical Research Institute and Department of Census and Statistics that are involved with HARTI to jointly conduct the study. All research studies instituted in the year except for two, were successfully completed during the year.

In terms of training, the institute was able to provide a satisfactory service to the country. Fifty six training programmes were conducted for 4,713 officers, farmers and other stakeholders such as traders to develop attitudes and required skills and capabilities to perform their roles efficiently and effectively.

The market information project of the institute could further expand its data dissemination via “6666” Mobitel SMS service. In the year, over 117,554 users had accessed the service to obtain information. Discussions were initiated with other mobile services providers to facilitate their users in accessing “6666” service. The progress of the discussion is at satisfactory level.

Conducting a training programme in collaboration with CIRDAP (Centre on Integrated Rural Development for Asia and Pacific) on post-harvest loss prevention methods in fruit and vegetable marketing is a vital step taken in the international arena in the year. Four international specialists representing Bangladesh, India, Malaysia and the Philippines attended this programme with local participants representing various organizations.

Three local seminars/workshops/ colloquiums were also conducted to share knowledge of the institute’s research studies with others. The institute extended its good will and cooperation with academics by helping them conduct the Annual Forum of the Agricultural Economists Association of Sri Lanka, in the institute premises.

In the year, the HARTI reached an agreement with the University of Colombo to initiate a degree programme to jointly offer a degree on Agricultural Economics. One important objective of this course is to provide a practical orientation for the students on field data collection, analysis and presentation by involving in day-to-day HARTI data collection work while studying. It also expects to develop required skills for them to work in institutions in the agricultural sector. Under this pre-preparatory work identification of subjects and topics, development of modules and materials are being done. It is expected to admit the first batch of the students in the end of 2015. This is a fulfillment of one objective of the HARTI Act, conferring certificates and degrees, which was not a focus.

The earnings of the institute increased from Rs. 25.79 million in 2013 to Rs. 26.03 million in 2014. The major factor for this progress was the increase of customers using hostels and conference/lecture halls of the institute due to well maintenance and upgrading the facilities.

E. M. Abhayaratne
Director

AGRICULTURAL POLICY AND PROJECT EVALUATION DIVISION

COMPLETED STUDIES

1. Evaluation on Women Agricultural Extension Programmes of the Department of Agriculture

Research Team : M.D. Susila Lurdu - Co-ordinator

Source of Funding : Consolidated Fund

Scope of the Study & Objectives

This study was conducted in Anuradhapura, Kurunegala, Moneragala and Kandy districts to evaluate the Women Agricultural Extension Programmes carried out island wide since 1970 and to identify problems and difficulties faced by the members and extension officers.

Findings

Around 92% of women selected to the study received various forms of training related to various subjects such as food production (73.3%), production of compost fertilizer (62%) and gardening management (Home Gardening), quality rice processing (29.3%) including material and financial benefits. Only 44 percent of women in the sample are engaged in income generating activities (self-employment). Twenty three percent of them are engaged in food processing, 18% in home gardening and compost production, 16% in flower and exotic plant gardening and 14.5% are engaged in rice processing industry and marketing. When considering the income of the women in all four districts, the contribution of their income to their family income is 20.5%. In addition, 31% stated that various aspects of their family lives have very well improved due to the participation in the Farm Women's Societies and 51.7% stated that all the aspects have improved averagely. Major issues which women of the Farm Women Society encountered were lack of freedom in decision making and difficulty in risk bearing (82%), lack of loan facilities (72%), lack of innovative training (45%), marketing issues and difficulty in obtaining raw material (40%) and not having a common place to sell their products at domestic level. Issues faced by the agriculture extension officers were limited provisions of funds (financial and material) and distribution issues of limited funds available (78%), lack of necessary training for farm women as it did not earlier as function Farm Women Programme (67%), lack of training facilities for new self-employment ventures (67%) and difficulty in proper monitoring and follow-up due to the busy schedule (63%).

Suggestions

The Farmer Women Programme (Govi kantha project) which earlier functioned as a special programme dedicated to women empowerment has gradually been transformed to an ordinary agriculture extension programme. Therefore, although there are officials and

designations created for the Farmer Women Programme, currently there are no facilities to conduct earlier activities dedicated to women and special training programmes. Currently, activities of the Farmer Women Societies are functioning with provincial grants, other provisions allocated for various contemporary projects of the government (*Api Wawamu-Rata Nagamu, Divi Neguma* etc.) and grants received through NGO and other agencies like the International Monetary fund. Therefore, the Women Agriculture Extension Programme and Farmer Women Society have merely become mechanisms that implement government development projects. Implementation of Women Agriculture Extension Programme and Farmer Women Society has rendered a significant contribution to assure an efficient agriculture extension service at rural level. In order to gain maximum benefits through those programmes for the rural development, the study suggests:

- i. Establishing a proper methodology by avoiding practical issues (giving priority to women extension service within the Agriculture Extension Service, make the highest qualified unemployed degree holders to engage in the extension service at rural level, appointing officials with adequate knowledge and subject interest as district level farmer women subject officers).
- ii. Re-launching previously conducted training programs for rural level and district level farm women officials
- iii. Allocating provisions, training officials, providing administrative facilities and making facilities to sell productions of the farm women and marketing extension (arranging opportunities for them to sell their products in nearby cities, arranging awareness programmes to educate them on production, marketing, marketing patterns and changes in the market).

2. Consequences of Free Holding Rights of Land Development Ordinance (LDO) Lands on Dry Zone Agriculture

Research Team: Mrs. B.A.D.S. Bamunuarachchi - Coordinator

Source of Funding : Consolidated Fund

Scope and Objectives:

This research focused on finding possible consequences of Free Holding Rights (FHR) for Land Development Ordinance lands and if such amendment is made, its impact on the farming community and dry zone agricultural sector. Sri Lanka has unique experience of land ownership systems and tenure systems since the ancient past. Under the Land Development Ordinance (LDO) in 1935 irrigated agriculture developed into sophisticated and large-scale systems which served as the economic foundation of settlements in the dry zone. Initially land was allocated among selected peasants on a perpetual lease basis and

currently the settlers own grants and permits for their lands that cannot be easily disposed of but the successors were to be nominated by the allottee but free holding rights have not been granted yet. These measures were taken with a view to preventing the colony land fragmentation by inheritance and the dispossession of the lands through sales. At present in most of the settlement schemes second or third generation of the LDO land settlers are living. So that in each settlement scheme one plot of high land as well as low land is shared by several numbers of families. Currently lands are transferred to people of non-farming community outside the family members, on the permission of the relevant officials gotten in unethical ways. Further it is commonly believed that lack of FHR created social issues as well as economic issues within the community itself including disputes regarding ownership, land and agricultural productivity not being at the expected level, undervalue of land market and issues related to obtaining credit. Availability of FHR on government lands is also questionable. Specific objectives of this study are:

- i. To examine the socio- economic conditions of lands settlers under LDO.
- ii. To find out the opinion of settlers regarding existing land title and ownership
- iii. To investigate possible consequences of FHR on land title and ownership
- iv. To provide policy recommendations

Primary data was used and a survey was conducted in Gal Oya , Parakrama Samudraya Minipe , Rajanganaya , Mahaweli H, Pavatkulam,Tabbowa,Unnuchhei, Vavnikulam and Kantale including Tamil populated areas using a pre-tested questionnaire. The sample size was five hundred for which 50 settlers were taken from each scheme. Further, key informant interviews were conducted.

Findings and Recommendation:

Most of the settlers (65%) believed that they already have free holding rights. As they have grants, they do not sense any discrimination of not having such rights. Only 36% feel that they do not have authority to remove any person claiming the title of lands. So the majority feel that they have right to generate income from the land (62%), have right to do income generating activities other than farming (61%) , have right to hand over land title to another person(53%).overall 52% are satisfied with the current level of ownership. Only 9% of the sample, who were given grants and permits, had family disputes. Only 1% of the sample had faced the ethnic conflict.

The existing type of ownership is more timely and relevant as retaining of land by successors of allottees is made to impose restrictions on dispossession. So that when the lands are mortgaged the creditors are not willing to buy those. In the absence of ownership restrictions most of the settlers would render landless.

3. Assessment of Backyard Poultry Promotion Program

Research Team: Mrs. H.M.S.J.M. Hitihamu - Coordinator

Source of Funding: Consolidated Fund

Scope and Objectives:

Poultry is one of the fastest growing segments of the livestock sector in Sri Lanka. It is the largest livestock group which consists of chickens, duck, turkey etc. The total poultry population in 2012 was 14.03 million. Backyard poultry contribution to the total population was 8 %. Family poultry or backyard poultry can be identified as small-scale poultry keeping by households using family labor with locally available feed resources. Family poultry was clarified as a small flock managed by individual farm families for food security, income and gainful employment for women and children.

The backyard poultry industry mainly focuses on egg production and has higher potentials in meat production too. The Department of Animal Production and Health (DAPH) identified the validity of the backyard poultry production systems in many ways: 1. Reduce the rural malnutrition, 2. Empower the rural women and conservation of indigenous chicken genetic resources. Therefore DAPH has initiated several small scale projects to develop the backyard poultry industry. The main objective of this study is to find out the present situation of small scale poultry farming in Sri Lanka. The specific objectives are; to identify the characteristics of small scale poultry industry, to study the socio- economic condition of the small farmers, to identify the problems and constraints in poultry production and marketing and to estimate the contribution of the backyard poultry to the nutrition of the farm families.

Findings :

In the small scale poultry production sector only 14.2% of the chicks are originated from the village. Guinea and game birds represent a very little number of animals. Game birds were found mainly at Nuwara –Eliya and Gampaha. Guinea fowls are found at the Kandy District. Most of the other small scale level poultry farmers purchased commercial type laying hens and broiler chicken. The breeds such as white leghorn (29.2%) and brown leghorn (23.9%) are very common among poultry farmers. Moreover the breeds such as Shaver, conish, RIR, Silky bunton also are bought as chicks for their farms. The farmers are facing the problem of finding good quality village chicken breeds. Government subsidy programmes also distributed breeds which are commercial level breeds. Therefore farmers are unable to produce their own chicks for future regeneration. Moreover, these distributed birds need more inputs like in commercial rearrange. Other than that farmers mentioned that

some of the distributed animals lay eggs within one year. Based on the findings of the study constraints and recommendations are described below.

Problems

- i. **Higher cost of production** Price of the day- old chicks, feeds, medicine and cost required to build the poultry houses are included in cost of production. When considering the poultry feeds private companies are the main suppliers. Most of the farmers prefer to buy feeds from them because of high quality of that feeds. Also most of the chicks providing companies are the private companies. Less availability of the government institution and providers has led to a dominance of the private companies. Farmers have to buy medicine required for the chicks from pharmacies. Therefore, they have to spend more money on the medicines.
- ii. **Poor financial condition of farmers** Most of the poultry farmers are involved only in poultry farming while few farmers are engaged in government employment and they carry out poultry farming as an additional income source. Therefore, the farmers engaging only in poultry farming face a lot of financial constraints. They are willing to expand their farms but they are unable due to financial difficulties.
- iii. **Marketing** There are no controlled price for chicks, feeds, eggs and meat. The price fluctuates frequently due to the intervention of the private companies. These price fluctuations affect the farmers when selling the production (eggs, meat) and buying the required inputs (chicks, feeds). Further, middleman intervention is also affects small scale poultry farmers. Middlemen benefit from the farmers living far away from the city. Some farmers are involved in buy- back systems with the private companies. Since they have to enter into a contract, within the contract period farmers are not able to derive other benefits outside the buy -back system.
- iv. **Disorganized extension services area leading factor for the low productivity** Most of the farmers are satisfied with the extension services that they received. They do not receive sufficient and satisfactory extension services from both government and non-governmental organizations. Some of the governmental organizations are involved as extension service providers only at the initial stage of the projects. But they are not involved in collecting feedback from the farmers as well as to ensure continuity of the programme.
- v. **Predatory problems reduce the animal population.** Farmers rearing poultry as an extensive and semi-intensive system face predatory problems. Chicks are attacked by predatory animals due to not having suitable housing facilities.
- vi. **Environmental effects.** There is water scarcity during the non- rainy season in certain districts like Kurunegala and Anuradhapura where poultry farming is very popular. Lots of chicks have died due to heat stress and also egg production has decreased in the dry season.

Recommendations

- i. Distribution of quality chicks through the intervention of government institutes, establishment of the new breeding centre and distribution of high quality chicks at low price, providing required medicines through veterinary officers at low price and establishment of controlled price for essential inputs and equipment are few several solutions for the problem of **higher cost of production**.
- ii. Granting loan facilities through government institutions at reasonable interest rates, providing micro finance facilities for the low income families and providing required subsidies are some remedies for the poor **financial condition of the poultry farmers**.
- iii. Controlling the prices in both inputs and production with government intervention is a solution for the marketing issues.
- iv. Providing extension on new technologies, carrying out continuous programmes to check the chick at continuously, intervention of non-governmental organizations as extension service provider and carrying out a well-organized system to collect feedback from the farmers and carrying out extension programme through the feedback are the major resolutions for the extension issues.
- v. Providing input subsidies to build poultry houses and granting low interest loans to build the poultry houses may address the predatory problems.
- vi. Evaluation of Entrepreneurship Development Programme

4. Evaluation of Agro-entrepreneurship Development Program

Research Team: Mr. R.L.N. Jayatissa - Coordinator.

Source of Funding: - Consolidated Fund.

Scope and Objective:

Farmer Business School (FBS) and 'Krushi Seva Piyasa' (KSP) are major programs that have been introduced by the Agro Entrepreneurship Division of the Department of Agriculture in the North Central, Wayamba, Sabaragamuwa, Western and Uva provinces in Sri Lanka. This study was conducted through a selected sample from the Districts of Anuradhapura, Polonnaruwa, Kurunegala, Badulla, Monaragala, Kandy, Matale, Puttlam, Kegalle, Gampaha and Colombo. Out of 120 agro entrepreneurs of farmers in business schools, 74 agro entrepreneurs have been selected for the study. Ten (10) KSP were studied. Data collected through semi structured questionnaire and key person discussions and case studies have been completed. Simple statistical tools, such as averages, mean and mode, graphs and percentage have been used for the analysis.

FBS is an educational program of learning from action. As a result, new entrepreneurs commence suitable enterprises during the period of study. These farmers have used their knowledge of enterprises that they learn. This helps transform the substance farms to business ventures. KSP was established as business centers providing agricultural inputs and technologies. In addition, an Agricultural Diploma holder or Degree holder has also been trained by the Department of Agriculture to conduct this agro business center using their own capital. The main objective of the study is to evaluate the above two concepts of agro entrepreneurship approaches and revealing the inside through generating knowledge and forwarding policy recommendations of building successful and sustainable agro entrepreneurs. The FBS held 36 farmers meetings and educated the Agriculture Instructors and selected farmers in the area on some of the important management concepts, theories and practices.

Findings and Recommendations:

Among the agro entrepreneurs 48% were male and 52% were female. In the sample, 66% were more than 40 years old. Youth involvement was only one percent. More than 60% of the agro entrepreneurs have studied upto O/L and Advanced level. Only 24% of the entrepreneurs are Samurdhi beneficiaries. The main employment of 66% of the sample is entrepreneurship. Majority of them were above the poverty line.

All KSP owners were agricultural diploma holders or agriculture graduates. Ninety percent of KSP owners are 35 to 50 years old. All of them (100%) maintain a close relationship with Agricultural Instructors of the Agrarian Services Centers when operating the business enterprise. All of them (100%) were supplied quality agro inputs and provided technologies to the farmers.

In the sample, 55% of the KSP entrepreneurs assisted innovative farmers in the area to plan their farms for crop cultivation with new technology. KPS provide 60% of them with books and leaflets about crop cultivation techniques. Further, 80% of KSP granted correct information on usage of fertilizer, seed and chemicals free of charge to the farmers.

KSP (57%) organized training classes to the area farmers for quality improvement of the planting materials organic fertilizer, and cultivation practices with agriculture instructors of the area.

The Department of Agriculture (DA) has no role to play in monitoring this program and there are no proper ways to resolve their problems. DA did not provide credit facilities they agreed at the training period. They have to compete with private sector traders who are without professional knowledge on agriculture.

Farmer Business School program also has no system for monitoring that. FBS is operating along with few helpless community members. They are unable to supply agricultural

machinery themselves due to lack of capital. Some entrepreneurs do not have suitable places to sell their products.

Recommendations:

- i. The two approaches are timely but, Agro Entrepreneurship Development Program need to be monitored and evaluation program should be continuing processes.
- ii. The agro entrepreneurs' development program is not operating properly as expected. Therefore, it needs to be restructured and reorganized, with innovative farmers.
- iii. These project activities are small level ventures and they have less impact on farming communities in terms of generating incomes and creation of new employment opportunities. It should be expanded in economically viable and socially accepted ways.
- iv. It is important to introduce new loan schemes, subsidiary purchasing schemes for inputs, uniforms, and new market places etc, for agro entrepreneurs.
- v. Marketing is the key problem in the sector. A promotion campaign for their agro products in urban areas is needed.

ON-GOING STUDIES

1. Present Situation and Future Prospects of Non-farm Employment Opportunities in the Mahaweli Areas

Research Team: Dr. W.A.R. Wickramasinghe - Coordinator

Source of Funding: - Consolidated Fund

Scope and Objectives:

Original land extent has been informally divided among descendants in smaller parcels so that each descendent can cultivate. This hidden land fragmentation in Mahaweli areas results in low levels of incomes which are insufficient to meet their requirements. This trend in Mahaweli areas will contribute to poverty instead of contributing to the development of the country. If the Mahaweli systems no longer provide the settlers the opportunities to survive, settlers will leave the Mahaweli areas seeking better opportunities in main cities. Having a limited capacity of providing employment opportunities to the increasing population in Mahaweli settlement schemes, future generations will step out of the development process, limiting the opportunities necessary for strengthening the capabilities required for enhancing the development potential of the people (Sen, 1999). Information on the types of livelihood strategies Mahaweli farmers practicing at present, sustainability of these livelihood strategies, and capacity of the Mahaweli system to provide employment opportunities in future is important in formulating development planning and policy.

The main objective of the study is to examine the present employment opportunities in the Mahaweli area, their sustainability and potentials of expanding non-farm employment opportunities in the Mahaweli area.

- (i) To identify types and number of existing employment opportunities in the Mahaweli areas.
- (ii) To assess contribution of non-farm sector for employment generation and household income in the Mahaweli area.
- (iii) To identify factors affecting settler-household involvement in non-farm employment opportunities in the Mahaweli area.
- (iv) To investigate potentials and barriers in expanding non-farm employment opportunities in the Mahaweli area.

The Progress:

The research was to be completed by the end of December, 2015. But, the time period was extended until March 2016. The writing of report of the study was in progress.

2. Value of Ecosystem Services provided by the Jaffna Lagoon and contribution of the lagoon to the livelihoods of peripheral village

Research Team: Dr. W.A.R. Wickramasinghe – Coordinator

Source of Funding: International Union for Conservation of Nature (IUCN)

Scope and Objectives:

Management of the Jaffna lagoon ecosystems is essential to ensure the sustainability of the ecosystem services as well as enhance the livelihood condition of the people. A lagoon management plan should comprise a component for human management (people depending on the lagoon). Therefore, management of lagoon ecosystems requires an integrated or holistic approach.

A prerequisite for crafting a resources management plan is based on data and information of the present situation, which includes type and size of existing resource bases, values of resources, rates of resource extraction, different activities implemented in the lagoon (uses of the lagoon), sustainability of present uses, impacts of present uses on sustainability of the ecosystems and the well-being of the dependent communities existing ecosystem management and resource governance system. However, as per the literature (Arudpragasam, 1974; Hoffmann, 1982 & 1985; Arpowicz, 1985; Powell, 1984b; Sachithanathan, 1969; Sachithanathan & Perera, 1970; Selvarajah & Costa, 1978), information required for preparing a lagoon management plan is scanty.

The objective of the research is to develop and document ecosystem value of the lagoon and the socio-economic profile of dependent communities.

The progress: This research is to be completed on March 31, 2015. Data collection and entering have been completed and data analysis is in progress.

3. Leafy Vegetables (කීර හා කොරටු වගාව) Production and Marketing in Matara District

Research Team: Dr. T.A.Dharmaratne - Coordinator.
Mr. R.L.N. Jayatissa - Co-researcher

Source of Funding: Consolidated Fund

Scope and Objective:

Leafy green vegetables are popular around the world and especially in Sri Lanka. They are fast growing crops that are harvested within four to six weeks. Some of the common key

leafy vegetables in the country are *Mukunuwenna*, *Kankun*, *Gotukola*, *Tampala*, spinach, *Katurumurunga*, *Penela* and *Kohila*. Tender leaves and, in many cases, stems are consumed raw or cooked. These vegetables are valuable sources of vitamins A and C, iron, calcium, folic acid, and dietary fiber. Cultivation of leafy vegetables is a profitable business for farmers in some part of the country. However, these vegetables are highly perishable and need to be sold in the market within a few hours of being harvested. Vegetables are usually grown in peri-urban production areas and rural areas. Daily sales of these vegetables provide valuable cash income to farmers, most of who have small landholdings. In some cases, all members of the farm family are involved in the cultivation and marketing of the vegetables. Normally, all leafy vegetables are grown in open fields. Insect, pest and disease damage levels were moderate and could be effectively controlled with pesticides. The general public was much less concerned of the danger of pesticide contamination of their food and the environment. But conditions have gradually changed during the past 10-15 years due to the constant use of pesticides to control insect pests and diseases. Consumers are becoming more conscious of their personal health and the quality of the environment. Some consumers have started demanding pesticide-free or organically grown vegetables and most are willing to pay higher prices for this produce. Whether grown organically or not, all consumers need access to safe vegetables. But this task is not easy. While consumer demand is exerting pressure on farmers to apply less pesticides, on the other hand farmers are facing the pressure to apply spraying more pesticides to combat pests which are becoming more tolerant to the chemicals. Hence, safer methods of pest control have to be found. Many farmers have responded to these realities by growing leafy vegetables under protective structures, especially in large net houses.

The expected outcome of the study initiated by the Ministry of Agriculture in view of the National Farmer's Week held in 2014 in the Matara district is conducting socio-economic research in areas and preparing policy recommendations and programs to provide facilities and inputs for those who cultivate the leafy vegetables in this region. Therefore, the basic objective is to review and analyse the production and marketing systems on leafy vegetable producers in Matara area. An identification of socio-economic situation of the vegetable farmers, conducting an economic analysis of production and marketing system and identification of their problems and constraints and its solutions are the key specific objectives of the study.

Findings and Recommendation:

The field survey was conducted in of Agrarian Service Centers (ASC) and information was collected from 102 farmers and key discussions and interviewed were held with several agricultural officers in the district.

AGRICULTURAL RESOURCE MANAGEMENT

COMPLETED STUDIES

1. Identification of Factors Affecting Poor Mechanization of OFC Production

Research Team:	Ms. Sharmini.K.Kumara	-	Co-ordinator
	Ms P.R.Weerakkody	-	Co-researcher
	Mr.S.Epasinghe	-	Co-researcher

Source of Funding: Consolidated Fund

Scope and Objectives:

The aim is to make Sri Lanka self-sufficient in maize, red onion, finger millet, black gram, green gram, cowpea and soya bean by the year 2015. However the annual production of these crops does not meet the domestic requirement and about 42 percent of the annual requirement is imported to supplement the large shortfall of domestic production. This signifies the need for a considerable increase in the supply of OFCs which is required to be achieved both in terms of production and productivity for which mechanization is seen as one alternative. Several studies have shown that farm mechanization enhances the overall productivity and production while lowering the cost of production. Mechanization of farm activities saves cost, time and labour due to timeliness of operations, better quality of operations and precision in the application of the inputs. Even though machinery is available for mechanized operations in the OFC sector, their practicability and adoption is restricted. Identification of types of socio-economic factors affecting the poor mechanization of OFC production has to be a priority concern in the effort to achieve self- sufficiency targets. Therefore, this study investigated the reasons for the poor level of mechanization of the OFC sector in the country.

Findings

- i. The study found that the decision on farm mechanization and the degree to which mechanized operations are practiced in OFC cultivation are primarily governing characteristics of farming systems in the area.
- ii. The study found two broad categories of farming systems relating to OFC production: Village based OFC production and Chena based OFC production system.
- iii. There are two institutes dealing with the Farm Machinery: Farm Mechanization and Research Centre and the Farm Mechanization and Training Centre which are two institutes dealing with the development and technology dissemination respectively. This fragmentation of duties has led to low availability and thereby a great degree of

unawareness on farm machinery among the farming community resulting in a poor level of farm mechanization in OFC production.

- iv. Though farmers represent major OFC producing locations they have received a limited exposure to farm machinery introduced by the FMRC and local manufacturers, a large majority of other farmers have not been exposed to or aware of already mechanized operations in OFC production.
- v. The cost of machinery is high, which could be due to small scale production capacity of machines. This has made machinery unaffordable even to large scale farmers.
- vi. Unfavorable land characteristics such as the undulating lands of Moneragala district and Ampara districts provide little incentives for the promotion of mechanized operations.
- vii. Negative attitudes of farming community to mechanize cultivation practices of OFC farming system. Those who cultivate at subsistence level have no motivation to use machinery as OFC production is a means of using family and exchange labour effectively for increasing profit margins from OFC production.

Recommendations

In order to ensure increased availability of appropriate farm machinery the following measures are recommended.

- i. Expedite the FMRC process in farm level adoptive research for the development of low cost, high tech, efficient and multi-purpose small farm machinery with zero defects and promote them.
- ii. Agricultural and Engineering faculties of the universities need to encourage students towards creating innovate appropriate farm machinery of the same caliber.
- iii. Encourage farmers and provide them incentives to do innovations on farm machinery.
- iv. Improve the staff strength of FMRC.
- v. Sales promotion on farm machinery.

In order to enhance farmer's access to farm machinery, the following recommendations are proposed.

- i. The DOA should prioritize providing farm machinery through district and provincial agricultural offices to farmers/ farmer organizations at subsidized rates/under easy pay schemes.

In order to improve farmer awareness and use of farm machinery and the advantages of the same;

- i. Strengthening of technology transfer through machinery demonstrations by allocating more resources to district and provincial agricultural offices so as to ensure that farmers are better

aware of low cost and efficient machinery and the productivity improvement due to farm mechanization.

- ii. Farmers should be formally made aware of the use, maintenance and advantages of farm machinery at *kanna* meetings and through farmer organizations with the involvement of responsible SMOs appointed for each office by providing a new strength and increase to the subject of farm mechanization in the extension service.
- iii. Formal training programmes conducted by FMTC should be farmer driven programmes targeting farm mechanization.

2. Supply Change Analysis of Vegetable Export Industry

Research Team:	Mr. S. Epasinghe	-	Coordinating Officer
	Ms. P.R. Weerakkody	-	Co-researcher
	Ms. Sharmini Kusum Kumara	-	Co-researcher

Source of Funding Consolidated Funds

Scope and Objectives

It is a common feature for the local vegetable industry to go through constant price fluctuations as in any other field crop. Prevailing agro-ecological diversity in the country is one of the options to overcome this problem. Though the local vegetable farming community has succeeded in producing a range of vegetables by using this diversity, reduction in the agriculture income due to the production surplus is an issue that farmers encountered. Therefore, directing that excess production to the export market is an alternative to uplift the living conditions of the farmers. However, a study conducted by HARTI reveals that the export industry has not been developed significantly. Shortcomings in various stages of the vegetable export value chain have created this situation. Poor quality of the products and failure to supply the required quantities on required occasions are three types of issues that exporters have faced. Those issues are largely connected with the initial stages of vegetable export value chain and it is very clear that active agents in the initial stages such as vegetable producers and suppliers can contribute to overcome these issues. Therefore, this study has attempted to examine the reasons for the weaknesses prevalent in vegetable export value chain and propose recommendations to overcome those weaknesses. The study was conducted in Nuwara Eliya, Badulla and Matale Districts.

Findings

- i. Findings revealed that vegetable producers and suppliers contributed in numerous value chains. Majority of the farmers (63%) in the sample were open field farmers and others (37%) were engaged in green house farming.
- ii. Supplying of selected portion of the total product to the exporter through supplier by the majority of open field farmers (75%) is the most prominent value chain in the vegetable export industry. Producers who supply as per the orders of the supplier have either taken the products

to the supplier or handed over to the supplier when he visited to collect the product. The rest of the product is distributed to the open market through the usual marketing network and their production does not target the export market. Accordingly, attention has not been paid to special cultivation practices or using post-harvest techniques. Also, the farmers are not informed on the quantity that supplier needed or the occasion needed. Therefore, majority of farmers who are active in vegetable export value chain do not pay much attention to quantitative and qualitative factors and timely supply. Hence they do not have a sufficient understanding on those requisites. However these farmers get extra or special benefits by supplying vegetables to the exporting purpose.

- iii. Another small group of open field farmers supplying for exports (12.5%) directly supply a portion of their production to the supplier. Another group of farmers (12.5%) supply their entire production to the exporter through a supplier. Above shortcomings are common to those value chains too.
- iv. The second prominent value chain is the one which farmers grow vegetables in green houses and supplying a portion of the production to the exporter through suppliers. Even though they grow vegetables in green houses they have failed to grow pesticide free, quality vegetables. However, they are successful in supplying the quantity and meeting the current requirements when compared with the open field farmers. But they receive a higher price for their production compared to the other category as they mostly grow exotic vegetables.

Recommendations

- i. Expanding the export market is a must to increase the vegetable exports because uncertainty of export orders is the origin of the issues connected with inadequate quantity, poor quality and issues relating to timely supply of vegetables for the export sector.
 - (a) A proper mechanism should be implemented with the mediation of the government to streamline the export industry by expanding the export market to increase the demand. For example, export market for local vegetables can be promoted and expanded through local and international exhibitions for local vegetables and value added products.
- ii. The most appropriate alternative to secure quality, quantity and timely supply of vegetables for the export market is to promote greenhouse farming. For that purpose, measures should be taken to solve the problems faced by the green house farmers and export orientation of their industries.
 - (b) Other than providing provisions to build greenhouses, measures should be taken to build the capacity of existing farmers in reducing pesticide usage, using advanced technology and finding special export market facilities. Measures should be taken to solve the main issues identified by the survey by taking steps to extend the production of vegetable in greenhouses through government projects while providing above mentioned inputs and facilities.

- (c) Expanding opportunities to obtain loans and providing cold room facilities are necessary to motivate exporters to store vegetables to overcome uncertainty of export orders faced by the producers and exporters in the export value chain. .
- iii. The following recommendations are made in order to avoid the quality, quantity and timely supply issues in the industry and thereby to ensure constant production-supply-export value chains.
- (a) Installing retail shops adjacent to the Dedicated Economic Centers will facilitate vegetable exporters and suppliers to buy fresh vegetables efficiently and storing export quality vegetables in cool rooms enabling suppliers to buy vegetables according to the orders will also be a possible alternative. Plastic crates can be promoted through those shops and it will ensure the quality of the products and reduce post-harvest losses.
- (b) A direct way of getting vegetable from farmers is by making orders through shop owners at Dedicated Economic Centers. That will help provide high quality fresh vegetable for the export market.
- (c) The Department of Agriculture should pay more attention to get high quality products from vegetable producers. Therefore, new technology and high quality seeds should be introduced to the farmers.

3. Present Situation and Prospects of Cinnamon Export Market

Research Team:	Ms. Rasika Wijesinghe	-	Coordinator
	Ms. A.M.S. Perera	-	Co-researcher
	Mr. I. P. P. M. Wijesinghe	-	Co-researcher

Source of Funding: Consolidated Fund

Scope and Objectives:

Cinnamon is one of the oldest and most significant spices in terms of foreign exchange earnings and employment in Sri Lanka. Exported to over seventy countries Ceylon cinnamon (*Cinnamomum Blume*) occupies a dominating position in exports with a 90% market share. Although the country's cinnamon industry has shown a steady growth in terms of value of exports during the recent years, the annual export volumes of cinnamon remained almost constant indicating a trend of increasing the unit price of cinnamon. Furthermore, statistics indicate that there has been a growing trend of increase in demand for cinnamon at the international markets. Therefore this study examined the long term trend and estimated the growth rate and instability of cinnamon exports with a view to identify the international markets for Ceylon cinnamon and market diversification and identify the key issues of the cinnamon export sector.

Findings:

- i. Results of the study revealed that with regards to the export turnover, the share of the cinnamon export was 60 percent in 2007 and marginally reduced in 2012 with an increase in pepper export earnings. According to the results derived from the estimations, cinnamon export volume is increasing by 4 percent annually with low instability.
- ii. The major export items of cinnamon are quills, , retail packs, crush or ground, chips and cinnamon oil. With other products such as cinnamon tablets, cinnamon tea, cinnamon energy drinks, cinnamon tooth picks industry being still in the infant stage due to high competition in world branded cinnamon by-products produced in developed countries.
- iii. The total share of quills and retail pack export increased during the last two decades. More than half of the cinnamon export value comes from quills exports and retail packs (20% of the total cinnamon exports) and cinnamon oil export, which is 14%. According to the estimated results of the growth rate analysis, the highest growth rate is recorded in exporting cinnamon retail packs.
- iv. The Sri Lankan cinnamon export processing industry is not yet equipped with advanced machinery to make cinnamon powder. Therefore, buyers demand cinnamon bails from Sri Lanka for making cinnamon powder.
- v. Top three countries' (Mexico, USA, Peru) demand is more than half of the total Sri Lankan cinnamon production. Exports to North American and South American markets are increasing by 4 percent annually while Europe increases their demand for Sri Lanka's cinnamon by 3 percent per year.
- vi. European and Asia Pacific regions can be identified as priority markets for expansion for Ceylon cinnamon. India and China demand for authentic cinnamon to meet their demand of their value added industries such as the pharmaceutical industry.
- vii. Unnecessary competition with cassia, inadequate supply, awareness of the importance of acquiring the Ceylon cinnamon logo, constraints in uplifting enhancing value added industry, lack of skilled peelers, poor quality products, unnecessary competition of local cinnamon exporters were identified as key issues in the cinnamon export sector.

Recommendations:

- i. Export market awareness to identify true value of cinnamon and differentiate pure cinnamon from Cassia.
- ii. Cinnamon production should be increased to retain from the export demand throughout the year in order to prevent losing international markets.
- iii. Exporters should be motivated to obtain Ceylon cinnamon certificate to ensure the quality product export.
- iv. Government should make facilities towards exporters to have international exposure in order to identify the buyers' behavior and new markets for existing value added products

especially, for items such as cinnamon tablet, cinnamon tea and cinnamon energy drinks. Further, it is important to initiate market promotional programs for these value added products.

- v. Government should focus more investment for training cinnamon peelers and motivate younger generation for these activities.
- vi. Investment on mechanization and modernization of cinnamon industry is necessary to maintain quality products. Initiating awareness programs for farmers and collectors regarding maintaining quality is also necessary.
- vii. A mechanism should be introduced to stabilize the cinnamon export prices.
- viii. Identifying priority markets and new markets to promote and diversify cinnamon export destinations.
- ix. Introduce separate HS code for Ceylon cinnamon

ON-GOING STUDIES

1. Classification of Paddy Lands in Low Country Wet Zone Based on the Limitation of Paddy Cultivation - Collaborative Pilot Project with Land Use Policy Planning Department

Research Team:	Mr. I. P. P. M. Wijesinghe	-	Coordinator
	Mr. Sisira Hapuarachchi (LUPPD)	-	Co-researcher
	Mr. Nelka Wijerathne (LUPPD)	-	Co-researcher

Source of Funding: Consolidated Fund

Scope and Objectives:

The constraint in low country wet zone paddy land utilization and management is due to the impact of the technical and socio-economic limitations. Paddy land filling, abandoned paddy lands, non-cultivation of paddy are major issues at present in this zone. The main factors of technical limitations are drainage problems, salinity due to seawater seeping, mixing chemical/drainage with irrigation systems, floods, toxicity, acidity/alkalinity, bog and half bog soils and water logging problems. While, socio-economic factors such as low yield, shortage of labour, problems related to ownership and tenure, machinery handling issues and increasing production cost have affected the paddy cultivation. Successful paddy farmers have cultivated lands but they face low yield and other physical limitations. Therefore, it is timely to develop the paddy land classification method based on the limitation of paddy cultivation and study the socio-economic background of the paddy farmers in the Low Country Wet Zone. The study was initiated jointly with the Land Use Policy Planning Department.

Specific Research Objectives:

- i. Classification of paddy lands based on the technical limitations for paddy cultivation in Low Country Wet Zone.
- ii. To study the impact of the socio-economic factors of paddy farming according to the above classification.
- iii. Proposing a plan for optimal utilization of paddy lands in the pilot project area.

The progress:

The data collection of the study is completed and data analysis and report writing is in progress.

ENVIRONMENT AND WATER RESOURCES MANAGEMENT DIVISION

COMPLETED STUDIES

1. Socio-economic Impact of Mau Ara Project

Research Team: G.G.de.L.W. Samarasinha (Team Leader)

H.J.C.Jayasooriya- Co researcher

Source of Funding: Consolidated Funds

Scope and Objectives:

The Mau ara project was implemented by the Department of Irrigation to provide water to Malala Oya basin which frequently suffers from severe drought conditions. The project was expected to develop 1500ha of paddy land in Hambantota and Monaragala districts the area which has been abandoned due to lack of water. The Government of Sri Lanka has spent about Rs. 600 million from its Consolidated Fund for this project.

The main objective of the study is to evaluate the socio- economic impact of the project on its beneficiaries.

Specific objectives are as follows:

- i. To study the impacts of Mau Ara project on agriculture and other livelihoods in the project area.
- ii. To examine the impacts of Mau Ara project on the overall standards of living of the beneficiaries.

Findings

- i. Paddy land allotments that cultivate both Yala and Maha seasons have increased from 2 percent to 98 percent after the project.
- ii. Cultivation of high lands has also increased after the project. Highlands that cultivate in both Yala and Maha seasons have increased by 7 folds after receiving Mau Ara water.
- iii. Due to illegal tapping of water from the main canal, downstream cultivated lands get affected as planning of cultivation is not possible.
- iv. Cattle farmers have faced the problem of feeding the animals as grazing is no longer possible as most of the lands are cultivated in both seasons.
- v. Sanitation facilities have developed with increased availability of water. With reduced time taken to collect domestic water requirements, beneficiaries have been able to utilize the saved time in other useful activities.

Recommendations

- i. Regularization of unauthorized water tapping along the main canal to ensure provision of water to downstream areas.
- ii. Rehabilitation of distributary canal network to further increase the cultivation extent.
- iii. Establishment of pasture lands to promote cattle farming.

2. Opportunities and barriers in income diversification of irrigated paddy farmers in Anuradhapura District

Research Team: Ms. J.A.U.P Jayasighe - (Coordinator)
Ms. R.M.M.H.K Rambodagedara - Co-researcher
Ms. A. M. S. Perera - Co-researcher

Source of Fund: Consolidated Fund

Scope and objectives:

The study intends to estimate the availability of lag period for paddy farmers, to examine factors affecting variation in utilization of lag time among different farmers and to identify possibilities and constraints for farmers to engage in enhancing household income through on and off farm activities.

Findings:

- i. More than 90 percent paddy farmers have declared they have free time to engage in other income generating activities
- ii. More than 98 percent of the paddy farmers have diversified their income in other income sources either in on-farm, off-farm or both. More than 97 of paddy farmers have diversified their income in on-farm income generating activities especially in other field crop cultivation whilst more than 30 percent of the paddy farmers have diversified in off-farm income generating activities.
- iii. Educational level, residing area, type of irrigation scheme, resource availability (land, labour and capital) are the major determinants of diversification of income among different paddy farmers.
- iv. Natural disasters such as frequent droughts and damages caused by wild animal, inadequate irrigation water, lack of resources, negative attitude, high market uncertainty and lack of knowledge were the major barriers for income diversification.
- v. Infrastructure development and access to loans were major opportunities for income diversification.

Recommendations

- i. Education of farmers: Farmers should be educated regarding the benefits of income diversification which will help changing the negative attitude of farmers on income diversification.
- ii. Skills development of farmers: As water is the scarce resource in the area to boost the income levels of vulnerable farmers steps should be taken to develop alternative job oriented skills of farmers especially regarding off- farm activities and less water consuming high tech on farm activities.
- iii. Institutional intervention: The government institutions such as Agriculture Department, Irrigation Department and Departments of Agrarian Development in collaboration of Local Governments should intervene in promoting income diversification among paddy farmers in Anuradhapura District.

3. Productive use of abandoned lands in Nilwala scheme area towards the livelihood development of the community

Research Team: H. J. C. Jayasooriya (Coordinator)
J. A. U. P. Jayasinghe (Co researcher)

Source of Fund: Consolidated fund

Scope and Objectives:

This study was conducted to understand the reasons for abandoning lands in the Nilwala scheme area and to identify the potential and suitable strategies to re-use those lands productively for the improvement of livelihoods.

Findings

- i. Major reasons for abandoning lands in the Nilwala scheme were:
 - a. Unavailability of proper systems and structures to channel water from the river to the adjacent fields and to retain in the field especially during dry spells,
 - b. Insufficient financial allocations to the Irrigation Department have resulted in poor maintenance of irrigation structures, drainage channels and flood control bunds,
 - c. Unavailability of structures to store the excess water available in the rainy season to use in dry spells (lack of reservoirs to store the excess water in the upper part of the river basin),
 - d. Development of soil salinity (due to seawater intrusion) and soil acidity,
 - e. Farmers abstaining from cultivating paddy due to lack of profit and paddy cultivation not being their primary income source,
 - f. High labour cost and labour shortage,
 - g. Farmers have not adapted to alternative crops in the lands/areas where paddy cannot be grown under any condition due to policy restrictions and attitudinal barriers of farmers.

- ii. Non-availability of accurate statistics regarding the extent of lands affected by acidity and the extent of lands situated below the sea level has become a problem in decision making.
- iii. Cultivation of lands situated below the sea level has led to pumping of water (up to - 15cm depth) often, which increases the cost of pumping and creates many other negative externalities including drying of the lands cultivated in the upper part of the river basin and increasing the potential for developing acidity in frequently drying lands.
- iv. Nilwala scheme area has a high potential for promoting livestock, especially the dairy cattle and buffalo. However, the prevailing system of “free grazing” has created problems in merging the livestock component with cropping activities, and finding adequate amount of grass is also a challenge.

Recommendations:

- i. A proper system of water management must be established by adopting a systematic cultivation pattern/schedule in which the cultivation of the lands in upper part of the river starts and then flows downstream, repairing and maintaining the existing irrigation structures and channel bunds, constructing new water management structures to facilitate the intake of river water into the fields, facilitating the removal of excess water by pumping at the field level as small units and empower farmers in that, facilitating the construction of reservoirs in the upstream and allocation of adequate funds to the relevant institutes for operation and maintenance of irrigation system.
- ii. Overcome the problematic soils and environmental problems by promoting paddy transplanting system especially in the lands in the downstream, promoting salinity and acidity tolerant paddy varieties and crops such as cinnamon and coconut, which can withstand such problematic soil conditions; and promoting special farming techniques (such as “Sarjan” method) which can be adopted successfully in the problematic soil conditions.
- iii. Educate and empower farmers to start alternative crop cultivation (leafy vegetables, reed, lotus, mushroom, cinnamon, coconut, etc)
- iv. Aware farmers on the benefits of integrated crop-livestock farming and promote such activities together with necessary assistance provided to the farming community.
- v. Promote semi-intensive and intensive systems of cattle/buffalo rearing and promote cultivation of suitable grass varieties and provide necessary assistance.

MARKETING FOOD POLICY AND AGRIBUSINESS DIVISION

The Marketing, Food Policy and Agribusiness Division – MFPAD (former Market Research Unit) was established in the Agrarian Research and Training Institute (ARTI) in 1979 to provide market information to the Cost of Living Review Committee, which was conducted at national level. Since then the Division has provided the relevant data and information to the policymakers, entrepreneurs, traders and farmers regularly and to the students when requested.

In addition to the above, this Division has provided prices to the Food Procurement & Monitoring Unit that was under the Presidential Secretariat and the Ministry of Defense and Urban Development to determine the best prices for food for the procurement of food to the government institutions (hospitals, Air Force, Army & Navy).

1. Food Information & Market Intelligence: Regular Work Program

Research Team

Mrs. C.P.Hathursinghe	Coordinator
Mrs. Roshini Rambukwella	Co-researcher
Mrs. R.P. Vidanapathirana	Co-researcher
Mr. Duminda Priyadarshana	Co-researcher
Mr. N.P.G. Samantha	Co-researcher
Mr. W.A.N. Wijesooriya	Co-researcher
Mr. E.A.C. Priyankara	Co-researcher
Ms. Indika Edirisinghe	Co-researcher
Ms. Champika Jayasinghe	Co-researcher

Assisted by:

Statistical Officers	- 03
Statistical Assistants	- 10
Casual Investigators	- 28

Source of Fund: Consolidated fund

The MFPA Division provides accurate data and information in time to policymakers. As usual prices and relevant market information of food commodities were collected from nine retail markets in Colombo and suburbs such as Pettah, Thotalanga, Dematagoda, Borella, Wellwatte, Kirulapone, Nugegoda, Kadawatha and Kiribathgoda and (Colombo) Pettah wholesale market. In addition, data and information were collected from 28 markets in major food producing districts and food consuming districts.

Data collection was done by 03 Statistical Officers, 07 Statistical Assistants and 28 Casual Investigators. For the data collection in outstations both Statistical Assistants and Casual Investigators were used.

The locations covered during the year 2014 were Kurunegala, Nikaweratiya, Dambulla, Matale, Anuradhapura, Thambuttegama, Polonnaruwa, Nuwara Eliya, Kandy, Badulla, Kappetipola, Ratnapura, Embilipitiya, Hambantota, Tissamaharama, Matara, Galle, Kalutara, Moneragala, Dehiattakandiya, Ampara, Puttalam, Marandagahamula, Meegoda and Narahenpita. During the latter part of the year Casual Investigators were recruited to Jaffna, Killinochchi, Vavunia and, Mullativu districts.

In addition, Wholesale Prices of food commodities were collected daily from Pettah, Kandy, Dambulla, Noroichcholai, Marandagahamula and Meegoda markets to disseminate daily through the Sri Lanka Broadcasting Corporation, Mobitel (6666 hot line) and www.harti.gov.lk website. In addition to these markets wholesale prices from Nuwara Eliya and Thambuttegama were also collected to disseminate through SMS. By analyzing both wholesale and retail prices in Colombo and outstations and producer prices in major producing areas, the Weekly Food Commodities Bulletins were issued every Friday. Accordingly, 52 Weekly Food Commodities Bulletins and 11 Monthly Food Information Bulletins were issued in the year concerned.

Progress for the Year 2014

- i. Weekly Food Commodities Bulletin – 52 Bulletins were issued.
- ii. Daily Food Prices provided to the relevant authorities – for the whole year.
- iii. Monthly Food Information Bulletins – 11 Bulletins were issued.
- iv. Provided daily and weekly information to the media in time.
- v. Provided price data and other market information to the requested government and private sector agencies throughout the year.

2. Fertilizer Bulletin

On request of the Board of Governors of the HARTI, monthly review of fertilizer supply and distribution situation of the country was presented at the Board of Governors' meeting. Fertilizer bulletin was also issued in time and distributed among the Board of Governors.

Ad-hoc reports submitted to the Ministry of Agriculture

- i. Crop Situation of Big Onion -*Yala* 2014 - Prepared by Mrs. R.N.K. Rambukwella, Senior Research Officer.
- ii. Tomato cultivation, Price Behaviour and Feasibility of Processing and Exporting of Tomato - Prepared by Mrs. C.P. Hathurusinghe, Research Fellow, Ms. Jayamini

- Champika, Research Officer, Ms. Indika Edirisinghe, Research Officer and Mr. Upul Aruna Shantha, Statistical Officer.
- iii. Crop Situation of Other Field *Crops* in Major Producing Areas (2013/14 *maha* & 2014 *yala*): Potato, Green gram, Cowpea, Maize, Soya bean, Gingelly and Groundnut - Prepared by Mrs. Ruvini Vidanapathirana, Senior Research Officer.
 - iv. Paddy/Rice situation *up to* May 2014 prepared by Mrs. C.P. Hathurusinghe, Head/MFPAD and Mr. Upul Aruna Shantha, Statistical Officer.
 - v. Paddy/Rice situation 2014 prepared by Mr. W.A.N. Wijesooriya, Research Officer.
 - vi. Cost of Production of Paddy 2014 Maha & Yala - prepared by Mr. Upul Aruna Shantha, Statistical Officer & statistical staff of MFPAD.
 - vii. Cost of paddy milling -2014 - prepared by Mr. Upul Aruna Shantha, Statistical Officer & statistical staff of MFPAD.

COMPLETED STUDIES

1. Production and Marketing of Traditional Rice Varieties: Present Status and Future Prospects

Research Team: Mrs. Roshini Rambukwella Senior Research Officer
Mr. E.A.C. Priyankara Research Officer

Source of Fund: Consolidated funds

Traditional rice varieties have been well-preserved, developed and used by Sri Lankan farmers for over 3000 years. However, with the increase of population, the “H” series of rice varieties were introduced in the 1950s and as farmers took up the new varieties, old traditional varieties suffered. Even though traditional paddy farming has many benefits which are environmental, economic, and social, there are several key challenges when promoting and implementing programmes associated with this in Sri Lanka. In recent years the government has identified the importance of expanding the traditional rice production in the country with the increasing demand. Therefore, it is a timely requirement to conduct a study on the present situation, constraints and prospects of traditional rice sector in Sri Lanka.

Scope and Objectives

The main objective of this research is to study the present situation, constraints and future prospects of promoting traditional rice sector in Sri Lanka. Specific objectives are,

- i. To understand the present status of traditional paddy cultivation and constraints faced by the growers,

- ii. To identify the available marketing channels of traditional rice varieties and the potentials and constraints associated with promoting their marketing
- iii. To identify the consumer preference for the traditional rice varieties and consumer buying behavior of different rice varieties.

We have selected five districts namely, Colombo, Galle, Kurunegala, Kegalle and Anuradhapura for the farmer survey and the Colombo district was selected purposively for the questionnaire survey of consumers. Simple random sampling was used in this study and 60 farmers engaging in traditional rice cultivation were selected randomly from each district totaling 300 farmers and selected 100 consumers in Colombo district. Both qualitative and quantitative data analysis methods were used.

Findings

- i. Suwandel (23%), Kuruluthuda (16%), Heenati (12%), Pacchaperumal (11%) and Kahawanu (7%) were the most popular varieties among sample farmers although many more varieties are available.
- ii. About 87% of the total sample do not use chemical fertilizer in the traditional paddy cultivation and they use organic fertilizer such as compost (55%), straw manure (50%), cow dung (41%) and leafy manure (40%).
- iii. Poor extension service (24%), crop damages by animals and birds (16%) and low yield were the major constraints faced by traditional paddy farmers.

Recommendations

- i. There is a significant gap of average yield between traditional and new paddy varieties. Therefore, a combination of both traditional and new paddy varieties is recommended. Achieving this target, promotion of traditional paddy cultivation in abandoned paddy lands especially in the Western Province is suggested.
- ii. Extension service should be strengthened through public and social organizations' partnership. Existing social organizations are very keen to promote traditional paddy cultivation and seeking support from others.
- iii. The average yield should be measured through crop cutting survey implemented by the Department of Census and Statistics.
- iv. More research on nutritional and medicinal value of the traditional rice varieties should be promoted.
- v. A public information dissemination system should be established on proven benefits of traditional rice varieties and advertising could be done by using popular personalities and internationally popular ways such as publishing advertisements in in-flight magazines etc.
- vi. Strict rules and regulations should be imposed to find out the malpractices and corruption in the traditional rice marketing process

2. Minimum Cost of Diet (CoD) Analysis - Sri Lanka

Research Team:	Mr. N.P.G.Samantha	-	Coordinator
	Mr. W.H.D. Priyadarshana	-	Co- researcher
	Mr. E.A.C. Priyankara	-	Co- researcher
	Ms. P.A.J. Champika	-	Co- researcher

Source of Funding: World Food Programme (WFP)

The HARTI conducted a study on Minimum Cost of Diet Analysis in collaboration with WFP, Medical Research Institute and Nutrition Coordination Division of Ministry of Health and the Department of Census and Statistics. The Cost of Diet (CoD) is a method to model the cost of a theoretical, simulated diet which satisfies all nutritional requirements of a household of specific composition of interest at the minimal possible cost, based on the availability, price, and nutrient content of local foods. When combined with household income data, the CoD can be used to estimate the proportion of households that could theoretically afford the modelled nutritious diet. In combination with access to the minimum cost of a calorie only diet, three different household groups can be distinguished in terms of their lack of financial access to (a) nutrients and calories, (b) only nutrients and (c) no lack of access to either calories or nutrients. Hence, the CoD tool can be used to calculate the affordability or economic access to a nutritious diet. It thus helps identify whether malnutrition and micronutrient deficiencies are caused by insufficient access to nutritious food. The analysis depicted in this study covers the period starting from October 2013 to September 2014. The whole period is divided into four seasons as *Maha* planting season (October 2013– January 2014), *Maha* harvesting season (February– March 2014), *Yala* planting season (April– July 2014) and *Yala* cultivation season (August– September 2014).

Scope and Objective

The primary objective of the study was to demonstrate the lack of economic access to a nutritious diet across different areas of Sri Lanka and to monitor how access changes throughout the seasons and to identify the different intervention requirements. A secondary objective was for WFP to build the capacity of HARTI staff to independently conduct CoD analysis using food price monitoring data.

Findings

- i. The cost of a nutritious diet (MCNUT) for the model household varies from LKR 11,831 in the Northern Province in Maha harvesting season to LKR 18,913 in the Western Province in Yala harvesting season across all the seasons. The MCNUT has increased for all the provinces except the Eastern Province in the range of 2% - 16% in

- Yala harvesting season compared to the Maha planting season.
- ii. The energy only diet (MCCAL) ranges from LKR 4,898 in Eastern Province in Maha planting season to LKR 7,268 in the Western Province in Yala harvesting season. It is remarkable that the energy only diet has increased significantly in Yala harvesting season in the range of 15% (Northern Province) - 41% (Western Province) in all the provinces compared to the Maha planting season. Prices of rice varieties, the most contributing energy source of Sri Lankan diet, have increased by 35% and 69% respectively for nadu rice and raw white in Yala harvesting season in the Western Province compared to the Maha planting season.
 - iii. Across all provinces a nutritious diet was found for all household members. Certain nutrients however, appeared to be more difficult to be met and contributed to the increased cost of the nutritious diet. The nutrients were; iron across all provinces and calcium in half of the provinces. For the Northern Province even Vitamin C and Vitamin B2 were barely met at 100% which indicates that the tool might have found a cheaper diet if cheaper food items with Vitamin C and Vitamin B2 would have been available. Out of all food items included in the analysis, the following were picked by the tool to make the most cost-effective nutritious diet: Rice, Dhal, Mukunuwenna, Dried Salaya, Chickpea, Coconut oil, Palm oil, Chicken liver, Dried Sprats and Dried chillies.
 - iv. Due to continuous increase of MCCAL and MCNUT across all the seasons in most of the provinces the affordability of the MCNUT and MCCAL has also declined. The Western Province where purchasing power of the population is the highest, recorded the best level of affordability in Maha planting season among all the provinces with only 22% of households being unable to afford the MCNUT. The percentage of households that cannot afford MCNUT increases up to 28% in Yala harvesting season due to an increase in food prices. The situation of the Eastern province is the worst as much as 55% of households do not have economic access to nutritious food in Yala harvesting season. Economic access to nutritious food is also poor for households in Uva Province, where 48% of households are below the Nutrient Poverty Line followed by Sabaragamuwa (41%), Central Province (39%), and Northern Province (36%) in Yala harvesting season.
 - v. The affordability of the MCCAL also dropped continuously across seasons in all the provinces. In the Northern Province as many as 13% of households cannot afford sufficient calories in Maha planting season and it increased to 16% in Yala harvesting season, followed by the Eastern Province (8% to 14%) and Uva Province (8% to 12%). In the Western Province only 1% of households were below the Calorie Poverty Line in Maha planting season and it has increased to 3% in Yala harvesting season.
 - vi. COD results across the seasons demonstrate that economic access to nutritious diet cannot be considered as granted in the Sri Lankan context. Although economic access to nutritious food is not the sole determinant of malnutrition, it is an important

prerequisite to fulfil. Being able to measure this dimension is therefore the initial step to inform policy decision makers.

ON-GOING STUDIES

1. Government Intervention on Paddy Marketing in Sri Lanka: Issues on Purchasing and Post Stock Management

Research Team: Mr. W.A.N. Wijesooriya – Co-ordinator
Ms. R.P. Vidanapathirana – Co-researcher

Source of Funding: Consolidated Fund

Scope and Objectives

Government intervention in Paddy/Rice marketing system in order to stabilize the market is common in most of the rice producing countries in Asia. The type of intervention varies in the form of support prices for farmers and issue prices for the distribution of food grains to consumers. According to the Government Policy manifesto in 2005, the Paddy Marketing Board was re-established in Sri Lanka. It started purchase of paddy by the year 2008. The PMB was re-established to achieve the objectives of purchasing agro production and their supply and distribution, encouraging producer to increase quality of their produce and processing and distribution of agro-productions, introducing a government guaranteed price scheme for paddy and maintaining security stock to ensure food security. Paddy considered as the national crop and it is also envisaged ensuring a remunerative price to paddy farmers in order to ensure the sustainability of the agricultural sector. Initiatives of the PMB have been helpful for consumers to obtain their food requirement at reasonable prices while the farmer community is provided the opportunity to enhance their living conditions through government's guaranteed price scheme for paddy, introduced through the Paddy Marketing Board.

Objectives of the study

The purpose of the study is to review the overall situation and identify the current issues of the government intervention on paddy marketing.

The Study's Specific Objectives are as follows:

- i. To examine the impact of paddy purchasing programme in order to stabilize the farmgate prices.
- ii. To examine the post stock management process by the PMB.
- iii. To identify the problems faced by the Paddy Marketing Board when purchasing, storing and selling paddy and rice.

- iv. To identify the key policy initiatives needed to increase the efficiency of government intervention on paddy marketing.

The Progress:

Data collection (gathering of secondary data and key informant interviews) has been completed. Data analysis and report writing are in progress.

HUMAN RESOURCES AND INSTITUTIONAL DEVELOPMENT DIVISION

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

The clients of HARTI training programmes belong to a broad range encompassing field officers, higher officers of GOs and NGOs involved in development activities in the rural sector and farming community in Sri Lanka.

Training programs conducted by the Human Resources and Institutional Development Division is structured on the following:

- i. Co-ordinating, organizing and preparing of general training programs based on the needs of the farming community.
- ii. Co-ordinating and preparing of training programs at the request of various organizations related to the agrarian sector as well as implementing Action Research Projects.
- iii. Providing training expertise to other organizations on request.

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

The training programs conducted all over the country during the year 2014 by the Human Resources and Institutional Development Division, are as follows:

1. Training Programme on Participatory Techniques (RRA, PRA & PCM) for Planning & Management of Rural/Community Development Projects

Training Team :	Mr. S.M.A. Samarakoon	-	Head/HRID (Co-ordinator)
	Mr. R.L.N. Jayatissa	-	RA/APPE
	Mr. P.C.J. de Silva	-	SRO/HRID
	Mr. S. Epasinghe	-	RO/ARMD
	Mr. H.M.J.K. Herath	-	SRO/HRID

The main objective of this training programme was to convince the participants about the value of the people's participation in terms of local level planning and management of development projects and help them achieve the said objective by enhancing their knowledge and skills and abilities to carry out PRA/RRA techniques.

One programme was conducted in year 2014. This programme was conducted for the officers in the Agrarian Development Department in Matara district. Around 30 participants attended this programme.

2. One-day Training Programme on Participatory Techniques for Planning and Management of Rural Community Prospects

Training Team :	Mr. E.M. Abhayaratne	-	Director
	Mr. J.K.M.D.Chandrasiri	-	Addl. Director
	Dr. M.S. Senanayake	-	HD/SDP (Co-ordinator)
	Mr. S.M.A. Samarakoon	-	HD/HRID
	Mr. R.L.N. Jayatissa	-	RA/APPE
	Mr.P.C.J. de Silva	-	SRO/HRID
	Mr. S. Epasinghe	-	RO/ARMD

The main objective of the training programme was to educate the selected beneficiaries from the Suriyawewa Divisional Secretariat on a mango cultivation project and preparing a community action plan for the mango cultivation project which is implemented in the area as a pilot project.

The training programme was conducted at the Suriyawewa International Stadium and around 77 farmer beneficiaries were trained during the year 2014.

3. Training Program on Marketing Extension

Training Team :	Mr.N.P.G. Samantha	-	RO/MFPAD (Co-ordinator)
	Dr. T.A.Dharmaratne	-	RF/MFPAD
	Mrs. C.P. Hathurusinghe	-	RF/MFPAD
	Mr. W.H.D. Priyadarshana	-	RO/MFPAD
	Mr. E.A.C. Priyankara	-	RO/MFPAD
	Mr.W.A.N. Wijesooriya	-	RO/MFPAD
	Mr. P.C.J. de Silva	-	SRO/HRID

This training program was designed to train the extension staff on marketing extension in order to promote the market-oriented production system. The main objectives of the training programmes are to enhance the participants' knowledge about the concepts on marketing extension and preparation of business plan, to understand ways and means of delivering marketing extension among farmers and to understand the use of market information on production and marketing planning.

The number of programmes conducted the year 2014 was two. Those programmes were conducted for the officers attached to the Ministry of Agriculture, Wayamba Provincial Council and 60 officers were trained.

4. Training Programme on Social Mobilization

Training Team :	Mr. S.M.A. Samarakoon	-	Head/HRID (Co-ordinator)
	Mr. P.C.J. de Silva	-	SRO/HRID
	Mr. H.M.J.K. Herath	-	SRO/HRID
	Mr. H.J.C. Jayasuriya	-	RO/EWRM
	Mr.H.M.C.K.Herath	-	External Resource Person

This training program was mainly designed for Agricultural and Rural Development Officers who were involved in agrarian and rural development activities as social mobilizers. The objective of this training program was to enhance and strengthen participants' theoretical and practical knowledge on social mobilization and participatory development.

The number of programmes conducted the year 2014 was four. Those programme were conducted for the officers attached to the Ministry of Economic Development of District Secretariat on Matale and around 144 economic development officers were trained.

5. Training of Farmer Leaders on Strengthening of Farmer Organizations

Training Team :	Mr. S.M.A. Samarakoon	-	Head/HRID (Co-ordinator)
	Mr. P.C.J. de Silva	-	SRO/HRID
	Mr. Thilak Kandegama	-	External Resource Person
	Mr. S.P. Gamini	-	External Resource Person
	Mr. W.S.U. Kulasiri	-	External Resource Person

The objective of this program was to empower the farmer leaders and strengthen farmer organizations to gain maximum benefits from the organizations for the farming communities.

In addition this program was aimed at training all farmer organization leaders in the relevant districts, specially the Chairman, Secretary, Treasurer and the Action Committee members. During the year 2014, this program was conducted in the Matara district under Govisathiya Development Programme - 2014.

There were 2372 farmer organization leaders in the Matara district who are trained during the year 2014 and it had empowered the 22 farmer organizations in the district to provide their maximum services to the farming community as well as for the rural development activities.

6. Farmer Organization Empowerment Training Programme (Deyata Kirula 2013/2014)

Training Team :	Mr. S.M.A. Samarakoon	-	Head/HRID (Co-ordinator)
	Dr.M.S. Senanayake	-	Head/SDP Division
	Mr. P.C.J. de Silva	-	SRO/HRID
	Mr. G.B. Weerakkody	-	External Resource Person
	Mr. Ariyapala	-	External Resource Person
	Mrs. Irin Perera	-	External Resource Person

The main objective of this training programme was to empower the farmer leaders and strengthen farmer organizations to get maximum benefits from the farming communities to carry out the ongoing development programmes in the area.

The Farmer Leaders in all the Agrarian Development Centers in the Kurunegala district are involved in this training programme under the Deayata Kirula 2013/2014. Twenty six one-day training programmes were conducted in the above district and trained around 2037 Farmer Leaders and Agricultural Research and Production Assistants.

7. Development Forum

Mr. P.C.J. de Silva	-	SRO/HRID (Co-ordinator)
Mr. S.M.A. Samarakoon	-	Head/HRID

Under this programme HRID of HARTI organized special lectures which are aimed at developing the working knowledge of all staff and obtain their optimum service to the HARTI. The following topics were taken into consideration for discussion in the development forum.

- i. Positive attitude development: This lecture was presented by Prof. Sarath Wijesuriya, Senior Lecturer of University of Colombo
- ii. Traditional knowledge related to Agriculture: This lecture was presented by Prof. Pandula Andagama, Environmentist

8. National Exhibition of Library Educational and Information

Mr. S.M.A. Samarakoon	-	Head/HRID (Co-ordinator)
Mr. P.C.J. de Silva	-	SRO/HRID
Mr. H.M.J.K. Herath	-	SRO/HRID

HRID participated and organized exhibition stall in the National Exhibition organized by National Library and Documentation services Board on 6th to 9th May 2014.

In this exhibition, HARTI had the opportunity to disseminate new research findings related to agrarian and rural development in Sri Lanka. In addition, the visitors were able to purchase HARTI publications at the stall.

9. Report – Agricultural Related Problems Faced by Farmer Organizations in Matara District

Research Team : Mr. P.C.J. De Silva - SRO/HRID (Co-ordinator)
Mr. S.M.A. Samarakoon - HD/HRID

A survey to find out agricultural related problems in Matara district was conducted prior to the 'Govisathiya programme in 2014 and the relevant report was submitted to the Minister of the Agriculture before the Govisathiya Exhibition in Matara. In the survey, almost all farmer organization in the district were reached out to and information on agricultural related problems faced by them was obtained from the officer bearers of the respective farmer organization through a short questionnaire.

Specific problems of the farmer organizations were reported under the name of each farmer organization and the problems of more general nature included under the heading of common problems.

A few common agricultural problems affecting the farmer organization in Matara district were identified.

- i. Drainage problem
- ii. Threat of wild animals to agricultural practices
- iii. Uncultivated lands and the threats posed by them
- iv. Problems related to Nilwala project
- v. Abandoning the farm lands and decrease of youth involvement in agriculture

COMPLETED STUDIES

1. Socio- economic Impact of Chronic Kidney Disease of Unknown Etiology

Research Team:	Mr.Chathura Jayampathi	-	Co-ordinator
	Dr.M.S. Senanayake,	-	Co-researcher
	Mr.S.M.A.Samarakoon	-	Co-researcher

Source of Fund: Consolidated Fund

Scope and Objectives :

The study was conducted in four districts to look into the socio-economic impact of CKDu on the affected households. Its objectives were to look into the impact of disease on the livelihoods of the affected families, estimate the loss of income of an affected family due to the disease, estimate the average monthly cost an affected family has to bear on treatments, estimate the impact of the disease on food consumption of the affected families, find out the impact of the disease on the education of their children and to estimate the impact of the disease on the agriculture production of the affected households. The study surveyed a sample of 200 affected households comprising 50 households from each of the four sampling districts: Anuradhapura, Polonnaruwa, Trincomalee and Moneragala.

Findings

According to the findings, males had contracted the disease most. They comprise 77% of the total sample. Also as many as 82% of the affected were household heads. Majority of the CKDu patients are mature in age and 67% of them are in their 50s. Those affected below thirty were 1.4% and those below 40 were 4.5%. Of the 200 households, 17 patients had already died. All those who died had lived less than 10 years after being diagnosed of CKDu. Majority of the affected households have less or no access to safe drinking water. The source of drinking water for 76% of the affected households is the well while for 20% it was tube wells. No strong relationship could be traced between alcohol consumption and contracting CKDu at a relatively younger age. Majority of the respondents (67%) had not suffered from any non-communicable disease before contracting CKDu. Seventy two percent claimed they subsequently became diabetic after being diagnosed of CKDu while 61% claimed to have suffered from blood pressure. Fifty one percent of the total sample households had experienced a loss in income due to CKDu. Forty percent of the households reported that the disease affected their main occupation — agriculture. Monthly expenditure of the households on medicine is relatively low due to the provision of medicine by the clinics in government hospitals. The average cost a household spent on medicine in the month prior to the survey was as follows: Anuradhapura district-Rs.330, Polonnaruwa district-Rs.1251. Trincomalee district-Rs.1013, and Moneragala district-Rs.2178. Further, the study shows that the disease had not affected much the consumption of households

though it has affected the education of their children to a certain extent. Apart from that, it was also found that the affected people had been exploited by certain fraudsters.

Recommendations

- i. Based on the findings of the study, following action can be suggested as measures to control and minimize the socio-economic impact of the disease i.e. Proper screening of the people in affected areas for early detection of CKDu, educating them on the areas such as the nature of the disease, adoption of preventive measures and receiving of proper treatment, preventing the exploitation of the affected people by fraudsters, provision of a subsidy or implementing a mechanism to support the affected households to purchase quality water filters, maintenance of a proper and networked record of CKDu patients and re-encouraging of rain water harvesting for the drinking purpose in the affected areas.
- ii. In long term it requires to take action to eradicate the CKDu. The foremost requirement in this endeavor is ascertaining the real cause or the causes of the disease. This seems only possible through multi-disciplinary research. Hence encouraging and facilitating the undertaking of multi-disciplinary research by the experts is very important.

2. Causes and Effects of Paddy Land Filling in Western Province (R 475)

Research Team: Mr. H.M.J.K Herath - Co-ordinator

Source of funding: Consolidated fund

Scope & Objectives:

Paddy lands play a vital role in multifaceted activities such as paddy production, making income for farm households and food security, maintaining drainage system as well as protecting environment. Concerning the importance of paddy lands in food production, national food security and environmental sustainability, the government has enacted rules and regulations to protect paddy lands. Despite these rules and regulations the extent of filled paddy lands has increased over the years. Wet zone faces this problem seriously. Specially the situation is prevalent in urban and semi-urban areas. As many researchers pointed out, most of the lands are filled illegally. The Western province is one such province which is seriously affected by filling paddy lands with or without permission.

Since this situation has created many problems and issues related to food production, environment as well as national economy this study attempted to study why people tend to fill the paddy lands and what the effects and impacts of paddy land filling on society and economy are. The specific objectives were;

- i. To identify the reasons for filling the paddy lands in the Western Province

- ii. To examine the emerging issues and socio-economic effects of paddy land filling
- iii. To identify institutional and legal weaknesses and problems faced by relevant officers, when they attempt to control/prevent paddy land filling, if any
- iv. To identify the better way to handle the issues and mitigate the problems emerged due to paddy land filling

Findings:

- i. Lowland Owners in the Western Province are facing many issues such as irrigation issues (39%), labour shortage (29%), sand and salinity condition in soil (25%) and high cost of production (21%) in paddy farming. The majority (70%) of those abandoned their paddy land.
- ii. A greater part of cases on paddy land filling (70.3%) is related to abandoned lands while 18.3% accounts for reservations/*Owita/Deniya*.
- iii. Approximately, 92% of filled paddy lands were not cultivated for 10 or over 10 years. And also majority of filled paddy lands were cultivated under the rain-fed irrigation system.
- iv. People do paddy landfilling due to the increasing demand for highlands (57%), abandon of land in long-run (32%), employment transition from agriculture to another field (12%) etc.
- v. People use those filled paddy lands mainly to construct buildings (64%) and cultivate highland crops (19%). Some people cannot use those filled lands (10%) due to legal constraints.
- vi. People used to fill paddy lands within 2-3 days. Especially they do this in weekends or public holidays to evade responsible officials. In many cases, people tend to fill lowlands close to another abandoned paddy land (51.4%), highland (48%), irrigation canal (41.7%) and main road (41.1%).
- vii. About 31.4% of the cases related to paddy land filling are obstructions to irrigation canals.
- viii. Majority of cases in paddy land filling (84%) were done illegally. About 77.7% of them not even have applied for permission from Agrarian Service Center (ASC) and the rest 22.3% used to engage in illegal filling following their request to ASC being rejected. On average it takes about 1 year to grant permission as the request should go through 10 responsible government institutions.
- ix. A greater part of cases (51%) in paddy land filling was stopped by ARPAs by warning to them. About 23% of cases were reported to court and 6% were stopped by an order of Police. In many cases the court has issued enjoying orders preventing further filling/construction (56%) while 44% were ordered to remove the soil and restore paddy lands.
- x. Floods (61%) and obstruction of irrigation canal (20.6%) are the main issues faced by villagers due to paddy land filling.

- xi. In general, ARPAs or ASCs are reluctant to grant permission for paddy land filling except in an unavoidable reason. If they issue permission based on the reasons that, (i) No other land is owned by the individual- 40%, (ii) Cannot grow paddy in those lands practically- 25% and (iii) that land is a highland (20%).
- xii. As ARPAs stated, people engage in illegal filling as there is no justifiable reason behind it (78%) and they are not willing to afford a huge investment of time and efforts on it (51%).
- xiii. About 20% of officers cannot take any action against illegal filling of paddy lands due to political interference.
- xiv. When ARPAs act against such an illegal case they have to face serious personal issues such as contend/ forced to neglect the case (55.6%), assault (1.6%), criticisms in public (19%), deplore of official duties (27%) and loss of goodwill of villagers (30.2%).
- xv. Opposition from farmer organizations (46%), unnecessary influence from a third party (44%), property right issues (36%) and defining of land as *Owita/Deniya/"Goda-Mada Idama"* are the issues faced by officers when acting on paddy land filling.
- xvi. Incompatibilities in rules and regulations (50.8%), absence of alternative legal provisions with regard to paddy lands where farming is difficult (41%), inadequate powers for police to act (39.7%) and harsh nature of rules (30.2%) are the matters that officers mentioned as the weaknesses in the Paddy Land Act.

Recommendations:

- i. The Government needs to act promptly and take practically reliable action to re-cultivate abandoned paddy lands to stop further filling of those lands.
- ii. There should be alternative legal provisions in Paddy Land Act for paddy lands where farming is not practical. Those lands should be identified and alternative uses with conditions should be defined for those lands.
- iii. It is needed to create a proper linkage among different institutions related to paddy land filling. When the Road Development Authority is implementing a project near a paddy field, it should be directed to get the recommendation from ASC of relevant area. Further, when the government is issuing license for sand/clay mining, the responsible institutes should get approval from ASC to ascertain that no harm is done from that task on paddy farming of that area.
- iv. Officers at ASC come across serious issues when they act against paddy land filling. Thus it is noteworthy to establish a separate unit to take immediate action on illegal filling under the strict supervision of Development Officers and ARPAs (eg: Forest Department).

OTHER ACTIVITIES

1. Publications & Presentations

Ms. A.M.S. Perera presented a paper titled “Study on Fruit and Vegetables Export Growth, Instability and Diversification” at SLCARP International Agricultural Research Symposium 2014 held in August 2014 at the Sri Lanka Foundation Institute.

Research Officers Ms. J. A. U. P Jayasinghe, and R. M. M. H. K. Rambodagedara presented a paper “Cardamom cultivation in the Knuckles Conservation Forest: Socio-economic and Environmental Perspective”, at the Eighth Annual Research Forum, Sri Lanka Agricultural Economic Association.

Mr. E.A.C Priyankara, Research Officer Presented a research paper on “Direct Marketing of Vegetables in Sri Lanka: Possibilities for Women Participation as an Income Diversification Strategy” at the 28th National Conference on Agricultural Marketing held on 4th, 5th and 6th December, 2014 at Agro- Economic Research Center, Sardar Patel University, Anand, Gujarat, India.

Mr. W.A.N. Wijesooriya, Research Officer Presented a paper on “Forward Contracts as Pre-harvest Commodity Marketing: The case of Maize Forward Contracts in Sri Lanka. International Research Sessions (IPURSE), University of Peradeniya, on 5th July, 2014.

Mr. W.H.D.Priyadarshana, Research Officer presented a paper titled “Government regulation of Rice Marketing of Sri Lanka: Special reference of minimum rice price policy ” at the International Research Conference, Faculty of Business and Economics , University of Monash, Melbourne, Australia on 24th October, 2014.

Mr. W.H.D.Priyadarshana, Research Officer published a paper on “Evaluation studies of Horticulture sector in Sri Lanka; Especial reference to super markets marketing channel in vegetables” in the International Conference on Agriculture, Science and Engineering (ICASE), July 1-4, Federal College of Education (Technical) Umunze-Nigeria. Available on, http://www.ijsr.net/ijsrcp/nso_ng/2.pdf

Ms. A.M.S. Perera presented a poster of the study on “Growth and Instability of Inter – Agro climatic Zones Paddy Production in Sri Lanka” at 4th International Rice Congress held in Bangkok, Thailand, in October 2014, organized by International Rice Research Institute.

2. Serving in Expert Committees

Dr .T. A. Dharmaratne, Head of the APPE Division is serving as a Trust Board Member of the Trust Board meeting of the Meegoda Dedicated Economic Centre, under the Ministry of Trade, Commerce and Co-operatives Development since 2014.

Dr .T. A. Dharmaratne continues to be a member of the Technical Evaluation Committee (TEC) for the procurement of Food Items to the three Armed Forces, Food Procurement Unit, The Presidential Secretariat office, Sri Lanka.

Mrs. G.G.de.L.W.Samarasinha, Senior Research Officer acted as a steering committee member to the Lanka Water Partnership from June, 2014.

Mr. H.J.C.Jayasooriya, Research Officer served as a member of the mission in “The future we want; safer Sri Lanka” DM Conference, Sri Lanka, Sep. 24-26, 2014.

3. Special Reports

Ms. J.A.U.P. Jayasinghe, Research Officer and Ms. R.M.M.H.K, Rambodagedara, Research Officer prepared a policy brief on Cardamom Cultivation in Knuckles Conservation Forest: Socio-economic and Environmental Perspective.

Mr. E.A.C Priyankara, Research Officer, prepared a report on “Causes Affecting the Abnormal Increase of Rice Prices at the Beginning of the Year 2014” in February 2014 to present to the Minister of Agriculture

Mr. W.A.N. Wijesooriya - Research Officer Prepared a report for the Minister of Agriculture on “Root Causes affecting the abnormal price increases of rice” in January, 2014

Mr. W.A.N. Wijesooriya - Research Officer Prepared a report to the Ministry of Agriculture on “Present Situation of Rice Market” in December, 2014

Mr. W.H.D.Priyadarshana, Research Officer Prepared the report on “Abnormal price increase of rice” a report to the Ministry of Agriculture in April, 2014.

Mr. W.H.D.Priyadarshana, Research Officer Prepared and submitted a report on “High price of rice” to the Ministry of Agriculture in November, 2014.

4. Live Radio Programme

Mr. W.H.D.Priyadarshana, Research Officer participated in a live radio program titled “Govegederin Mahagedarata” conducted by Sri Lanka Broadcasting Cooperation in connection to the Imported price behavior and food market situation from 6.30 to 7.30 pm in 2014.

Mr. W.H.D. Priyadarshana, Research Officer involved in providing news items on “Marketing problems of major food commodities “for three Fm radio channels throughout the year 2014.

5. Training

Dr. T. A. Dharmaratne, coordinated and conducted a series of lectures, final exams and other evaluation activities for the course on “Development Planning and Project Management” to the fourth year students in the special degree program of the Economics conducted by the Department of Economics, University of Sri Jayewardenepura, in the academic year of 2014.

Mrs. C.P. Hathurusinghe. Research Fellow/Head/MFPAD, coordinated the CIRDP/HARTI Collaborative International Workshop¹ on “Reduction of Post-harvest Losses in Fruit & Vegetables Supply Chains” held on 17-20th March 2014 at HARTI and all the researchers in the division assisted her to conduct it.

Mrs.G.G.de.L.W.Samarasinha, Senior Research Officer acted as a resource person for the lecture series conducted jointly by HARTI and the University of Colombo for university students.

Ms. J.A.U.P. Jayasinghe, Research Officer Conducted a validation workshop for the research study “Cardamom Cultivation in Knuckles Conservation Forest: Socio-economic and Environmental Perspective, 2014.

Mr.H.J.C.Jayasooriya, Research Officer served as resource person in a (2 day) training programme for extension officers conducted by CICI Agribusiness (crop guard)

Ms. J.A.U.P. Jayasinghe, Research Officer attended as a resource person for the workshop of “Case Study progress Presentation Workshop and Biodiversity and Ecosystem Services Valuation Session (2014)”, organized by the Biodiversity Secretariat, Ministry of Environment and Renewable Energy, Sri Lanka.

Mr. E.A.C Priyankara, Research Officer contributed to the “National Dialog Workshop on Global Environmental Facility” as a resource person organized by the Ministry of Environment and Renewable Energy from 17th-18th July 2014.

Mr. E.A.C Priyankara , Research Officer Delivered two lectures in December, 2014 on “WTO and related issues” for undergraduates (2nd year), Department of Economics, University of Colombo.

Mr. E.A.C Priyankara, Research Officer Delivered a lecture in December, 2014 on “Socio-Economic Research in the Policymaking Process” for the final year undergraduate students, Department of Economics, University of Sri Jayawardenapura.

Mr. W.A.N. Wijesooriya, Research Officer delivered a lecture on “Millennium Development Goals” for the third year BA (Economics) students of University of Colombo.

Mr. W.H.D.Priyadarshana, Research Officer delivered a lecture at the workshop on “Developing Research capacity for Sustainable Development in Sri Lanka: Evidence Based Research into Practice in Policy, conducted by the Sri Lanka Council for Research Policy (SACARP) entitled “Hints for Academic Writing & an Abstract”, at HARTI, 15th December.

Mr. W.H.D.Priyadarshana, Research Officer delivered a lecture for the business conference titled “Organization and Operation of Vegetable production and Marketing in Sri Lanka” on request of Nation Trust Bank on 06th of June, 2014 in Nuwara Eliya.

Ms. A.M.S. Perera had contributed to organize the “8th Agricultural Economics Association Annual Research Forum 2014 at HARTI, December, 2014, collaboratively organized by Sri Lanka Agricultural Economics Association, HARTI, International Water Resource Management and International Food Policy Research Institute.

Ms. B.A.D.S.Bamunuarachchi, Research Officer, participated as a resource person in the Training Programme on Developing Research capacity of the Agricultural Scientists to formulate Evidence based Policy organized by Sri Lanka Council for Agricultural Policy (SLCARP) on 15th December 2014 in Colombo.

Ms. A.D.S.Bamunuarachchi, Research Officer coordinated and was a resource person for workshop on contribution of Socio Economic Research on Policymaking for Undergraduate students of University of Sri Jayewardenepura on 22nd December 2014.

DATA AND INFORMATION MANAGEMENT (DIM) UNIT

This unit comprises two sections namely, the Agrarian Data Bank and The Data processing unit. The Data Bank has been conceived as a facility for social science research planning and policy-making for development in the agrarian sector. The basic principles underlying the establishment of the data bank are:

- i. To facilitate ready and equal access to the existing quantitative data; such data should be centrally located and the services should be automated.
- ii. Serving as a coordinating agency for quantitative data to identify gaps in information and new data needs and activate generation of new series of data.
- iii. Data collected through special surveys and studies can be used for various purposes in addition to those for which they were collected, and thus, be valuable resources to social scientists both in the present and the future and that the value of the data is enhanced when information regarding the characteristics of the data is also available.
- iv. The database is ideally located within a social science oriented research environment where researchers collect data from diverse sources and also generate information from their own studies.
- v. The Department of Census and Statistics, Department of Agriculture, Department of Customs and The Central Bank are major sources from which the data is currently collected.

The activities related to the Data Bank fall into the following six categories.

- i. Data collecting
- ii. Coding
- iii. Verification
- iv. Storing
- v. Retrieving
- vi. Analyzing

Data collection is carried out from the above sources together with their websites and text books published by respective organizations. Some of the data coming under prices of food commodities is collected from the Marketing and Food Policy Division of HARTI.

During the year, the Data Bank information system was further updated for better performance. The following indicators were updated during the year.

Land use : Asswedumised extent of paddy 2011/2012 year
Cultivated extent of paddy and other field crops 2012/13
Maha, 2013 Yala

Crop care	:	Gross extent harvested and net extent harvested of paddy 2012/2013 Maha, 2013 Yala
Marketing	:	Average retail prices of Food Items 2012 Average Producer prices of Food Items 2012 Average wholesale prices of Food Items in Colombo and outstations 2013
Production	:	Production of Food crops 2012/13 Maha, 2013 Yala Average Yield of paddy 2012/13 Maha , 2013 Yala
Cost of Production	:	Cost of Production of paddy (Irrigated & Rain fed) 2011/12 Maha & 2012 Yala Cost of Production of other field crops (Irrigated & Rain fed) 2011/12 Maha & 2012 Yala Cost per unit of produce in paddy & other field crops 2011/12 Maha & 2012 Yala
Income	:	Gross return per acre of paddy (Irrigated & Rain fed) 2011/12 Maha & 2012 Yala Net return per acre of paddy (Irrigated & Rain fed) 2011/12 Maha & 2012 Yala

Provision of data on request

The breakdown of the requests received from both internal and external users for agricultural information by the unit is as follows.

Number of internal requests attended	= 78
Number of external requests attended	= 45
Total number of requests	= 123

Participation at field level data collection in Institute surveys

- a) R 472 Identification of Socio –economic Factors Affecting Poor Mechanization in Other Field Crops
- b) R 476 Industrial Uses of Spice Crops and Prospects for Development

Books referred to collect data

- a) Annual Report of Central Bank -2013
- b) Economic and Social Statistics of Central Bank – 2013
- c) Statistical abstracts of Department of Census and Statistics -2012
- d) Cost of cultivation of paddy and other field crops 2011/12 Maha & 2012 Yala
- e) External trade statistics of Department of Customs – 2013

Apart from maintaining an agrarian data bank, analysis of data collected from sample surveys carried out by the institution has also been done by this unit.

Project code and the Title of the project

- R 473 - Problems & challenges of Vegetable Producers/Suppliers for the Export Market
- R 484 - Socio-economic Impact on Mau Ara Project
- R 478 - Traditional Rice sub sector in Sri Lanka: Present Status, Constraints and Future Prospects
- R 476 - Industrial Uses of Spice Crops and Prospects for Development
- R 485 - Assessment of Backyard Poultry Promotion Programme
- R 472 - Identification of Socio –economic Factors Affecting Poor Mechanization in Other Field Crops

In addition to data processing of internal research studies, a funded project titled “Joint Needs Assessment Survey” conducted by the GOSL and UN was also undertaken by the division.

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 576 books, 29 reference books and 100 issues of journals for their reference requirements. The number of visitors to the library during the year were 230.

Acquisition of books, Journals and Reports

During the year, 130 books were added to the book collection which consisted of 42 purchased books and 88 books received on complimentary basis and under the publication exchange program. 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 08 foreign journals titles (which included 96 issues) and 06 local journal titles during the year.

Library Services

Information and documentation services such as literature searches, reference services, current awareness services and photocopying services were provided to the research staff and also to outside users.

Access to internet based information facilities has been further extended for the research staff with the ADSL 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 the 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 continued to participate in AGRINET SDCP 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 2014 bibliographical references were supplied from the library database to the National Library and Services Board.

Digitization of Institute Publications

The National Digitization Project of the National Science Foundation digitized the institute's publications up to 2013 successfully and the 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 enhanced online access to the institute's publications.

Publication Exchange Programme

Hundred and twenty five (125) Institute's publications (books/journals) were sent to the **libraries** mentioned below on exchange basis.

- 1) Post Graduate Institute of Agriculture
- 2) Social Economic Center of Department of Agriculture
- 3) Department of Census and Statistics
- 4) Center of Department of National Planning (Development Information)
- 5) Center for Poverty Analysis (CEPA)
- 6) Parliament Library
- 7) National Library & Services Board
- 8) National Science Foundation
- 9) Forest Department
- 10) Jaffna Public Library
- 11) International Water Management Institute
- 12) Central Environment Authority
- 13) Mahaweli Authority of Sri Lanka
- 14) University of Colombo
- 15) University of Kelaniya
- 16) University of Ruhuna
- 17) University of Sri Jaywardenapura
- 18) University of Peradeniya
- 19) University of Jaffna
- 20) University of Uva- Wellassa
- 21) University of Rajarata
- 22) University of Sabaragamuwa
- 23) Eastern University
- 24) University of Moratuwa
- 25) University of Wayamba
- 26) Bhikshu University, Anuradhapura
- 27) Buddhist and Pali University.

We received eighty eight (88) publications from the above libraries.

PUBLICATION UNIT

The Publication Unit of the Institute, which functions under the purview of the Head, SOP/Publication/Library is engaged in editing and publishing of Research Reports, Occasional Reports, Journals, Newsletters, Bulletins, Manuals, Brochures and other information materials in all three languages.

A total of 12 research reports were released in Sinhala and English during the year. The details are as follows:

- i. Structure, Conduct and Performance of Rice Milling Industry in Polonnaruwa and Hambantota Districts of Sri Lanka (ER 163).
- ii. Assessment of Pesticide Usage in Up-country Vegetable Farming in Sri Lanka (ER 164).
- iii. An Evaluation of Samurdhi Banks in Poverty Alleviation (ER 165).
- iv. Evaluation of Solar Powered Drip Irrigation Project - Phase 2 (ER 166).
- v. Export Market for Organic Foods - Present Status- Constraints and Future Scope (ER 167).
- vi. Vegetable Collection Centres in Badulla and Moneragala Districts: Impacts and Lessons (ER 168).
- vii. An Overall Assessment of the Agricultural Marketing Systems in Northern Province of Sri Lanka (ER 169).
- viii. Impact and Lessons of Dairy Development Intervention: Dry Zone Livelihood Support and Partnership Programme (2006-2012) (ER 170).
- ix. Evaluation of Divinagama Agriculture Component – Home gardens (ER 171).
- x. Food Consumption Pattern in Sri Lanka (ER 172).
- xi. Workshop Proceedings on strengthening of OFC Seed System in Sri Lanka (EO 20).
- xii. Performance Evaluation of Farmer organization in Rain-fed Area under Small Tank Irrigation in Sri Lanka (SR 57) - (Sinhala Report).

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

- i. Sri Lanka Journal of Agrarian Studies Vol. 16 No.1 & 2
- ii. Newsletter - Vol. 35 No.1
- iii. "Puwath Hasuna" Vol. 35 No.1 & 2

The Unit participated in the following exhibitions during the period concerned.

- i. "Dayata Kirula" National Programme
- ii. National Farmers' week ("Govi Sathiya")
- iii. Exhibition for CARP
- iv. Exhibition for the Science Week

Institutional Earnings

HARTI offers conference facilities and residential accommodation on hire for training and other related programs. The facilities include Main Auditorium, Conference halls, Lecture halls and Committee rooms as conference facilities. There are 15 double and single rooms with AC as residential facilities. Hiring the said is concerned as the major source of income of HARTI apart from treasury funding.

The earning of the Institute has increased significantly since 2010. In 2010, earning of the Institute was Rs. 15.5 million and it was Rs. 26.03 million in 2014.

The reasons identified for this improvement were positive changes in attitudes of employees, improvement in residential and conference facilities, and market strategy applied to conference and hostel facilities. This is being further improved and more financial gain is expected from future.

With 40 years of experience in researching on agrarian matters, HARTI is able to perform as an expertise hub of cognizance in agrarian affairs to share new knowledge among stakeholders and with interested parties. Therefore the physical structure provided within the institute would be strength to fulfill above objective. Existing human capital of the HARTI could be organized for dissemination of knowledge to the various stakeholders. So as to the institute is planning to conduct a Post Graduate Diploma course and different training programmes to cater the requisites of external personal. So the facility of hostel and conference will be used for the said purpose as well and also the remaining facility can be hired out for outsiders. It is demarcated that the 40% of occupancy of the hostel and 70% of the conference facilities not been utilized presently. Therefore the institute is heading a challenge to maximizing the utilization of the hostel and conference facility.

Staff Positions as at 31st December 2014

	Position as at 31.12.2013	Termination, Resignation during the year	Appointments	Position as at 31.12.2014
Director	1	-	-	1
Additional Director	1	1	1	1
Head of Divisions	5	-	1	6
Research Staff	30	4	-	26
Administrative Staff	8	3	1	6
Senior Staff of Library	2	-	-	2
Data Development Bank	0	-	-	0
Computer Unit	1	-	1	2
Publication Unit	1	-	1	2
Statistical Staff	24	5	-	19
Technical Staff	1	1	-	0
Clerical, Secretarial & Parallel Grades	47	5	9	51
Operative & Allied Grades	47	2	5	50
Total	168	21	19	166

STAFF DEVELOPMENT

In 2014, the Institute has invested Rs. 1.7 Mn for staff development. Seventy staff members had undergone local training and 14 staff members participated in foreign training.

The following Research Officers were engaged in Post-Graduate studies

- Mr. W.H.A. Shantha - Doctoral Course Student at the Department of Global Agricultural Sciences, the Graduate School of Agricultural and Life Science, the University of Tokyo, Japan.
12th April 2011 to 31st March 2014
- Ms. M.T. Pathmajani - Masters Degree in Environmental and Resource Economics, University of Canberra, Australia.
07th January 2013 to 31st December 2014
- Mr. M.A.C.S.Bandara - Masters Degree in Environment Science University of Melbourne, Australia
06th January 2014 to 07th January 2016

'Participation at International Training Programmes/Seminar/Workshops/Conferences/Meeting etc.

Ms. B.A.D.S. Bamunuarachchi, Research Officer attended the CIRDAP NIRD Collaborative International Training Programme in "Rural Technologies for Inclusive Growth" held in India, from 17th February – 28th February 2014.

Mr. M.M.M. Aheeyar Research Associate, and Mr. N.P.G.Samantha, Research Officer attended the CIRDAP – NIRD Collaborative International Training Programme in "Information Communication Technology (ICT) Application for Rural Development" held in India, from 9th March – 21st March 2014.

Mr. E.A.C. Priyankara, Research Officer attended the Training Course on "Greenhouse Vegetable Cultivation Technology for Asia and European Countries" held in China, from 01st April – 18th May 2014.

Mr. R.L.N. Jayatissa, Research Associate attended CIRDAP – NIRD – TERI Collaboration International Workshop-cum-Training Programme on "Food & Nutrition Security Assurance thro Efficient Response for Technology Management" held in India, from 18th May – 26th May 2014.

Mr. H.M.J.K. Herath, Senior Research Officer attended the CIRDP – NIRD Collaborative International Training Programme on “Application of Geo Informatics System (GIS) Mitigation and Adoption and Disaster Risk Deduction Management” held in the Philippines, from 30th June – 09th July 2014.

Research Officers Mr. W.H.D. Priyadarshana , and Ms. B.A.D.S. Bamunuarachchi attended the Australian Awards Fellowship (AAF) “Develop Report Writing and Publication Skills of Senior Public Officers/Researchers of Sri Lanka” held in Australia, from 31st August – 08th November 2014.

Mr. E.M. Abhayaratne, Director attended the 29th Meeting of CIRDAP Technical Committee (TC – 29) and International Workshop on” Best Practices of CMCs in Hanoi” held in Vietnam, from 13th September – 20th September 2014.

Ms. A.M.S. Perera , Research Officer attended the “4th International Rice Congress (IRC 2014) Bangkok, Thailand (Paper presentation) Held in Thailand, from 27th October – 02nd November 2014.

Mr. N.P.G. Samantha , Research Officer attended the “Invitation for the Cost of Diet Training, Bangkok, Thailand” held in Thailand, from 27th October – 01st November 2014.

Mr. E.A.C. Priyankara , Research Officer attended the “28th National Conference on Agricultural Marketing ” held in India, from 02nd December – 08 December 2014.

Mr. J.K.M.D. Chandrasiri , Addl. Director and Ms. M.D.Susila Lurdu Senior Research Officer attended the “Short Term Training in Agriculture Research Management Hyderabad India” held in India, from 20th December – 03rd January 2014.

Ms. I. K. Edirisinghe, Research Officer attended the training Course on “SME Approaches and Strategies at National Institute of Micro Small and Medium Enterprise” held in India, from 10th November – 2nd January 2015.

Participation at Local Training – Staff Officers

1. Ms. H.M.T.G.L. Herath - Librarian attended a Workshop on “Information Management Framework” (IMF) held in Institute of Policy Studies of Sri Lanka from 29th to 30th January 2014.
2. Ms. I.K. Edirisinghe - Research Officer attended a Workshop on “Livelihood Analysis Workshop held in Ministry of Economic Development from 27th to 28th January 2014.
3. Mr. K.T.U. Kamburugoda - Accountant, Ms. Dhanushi Perera – Account Officer attended the Workshop on “Annual Stock Verifications and Disposal Procedure” held in Ministry of Youth Affairs & Skills Development Fund, from 3rd to 4th April 2014.
4. Dr. M.S. Senanayake - Head/SDP, Mr. M.D.L. Senerath - Analyst Programmer , Ms. K.S.N. Perera- Editor, Ms. B.A.D.S Bamunuarachchi, Ms. K.P.I. Priyadarshani, Ms. G.G.de L.W. Samarasinghe (03 Research Officers) attended the Workshop on “Reviewing Research Articles by NSF” held in Industrial Technology Institute on 25th April 2014.
5. Ms. H.M.T.G.L. Herath - Librarian, K.Y.P. Weeraratne – Asst. Librarian attended the “National Conference on Library and Information Science (NACLIS) 2014, held in Sri Lanka Library Association on 19th June 2014.
6. Ms. M.D. Susila Lurdu- (SRO), Ms. Sagarika Hitihamu (SRO), Ms. K.P.I. Priyadarshani (RO), Ms. Subashini Perera (RO), Ms. Indika Edirisinghe (RO), Ms. P.A.J. Champika (RO), Ms. Rasika Wijesinghe (RO), Mr. I.P.P.M. Wijesinghe (RO), Ms. Malathi Rambodagedara (RO), Mr. H.J.C. Jayasooriya (RO) attended the Workshop on “ Social Sciences Research and Comprehensive Research Proposal Development” held in National Science Foundation, from 16th to 17th July 2014.
7. Ms. C.P. Hathurusinghe – Hd/MFPA, Mr. N.P.G. Samantha (RO), Mr. H.M.J.K. Herath (RO) attended the Food Security & Development Video conference, held at Distance Learning Centre from 16th July 2014.
8. Ms. R.M.M.H.K. Rambodagedera - (RO), Dr. Ranjith Wickramasinghe (SRO), Ms. I.K. Edirisinghe (RO), Ms. P.A.J. Champika (RO), Mr. I.P.P.M. Wijesinghe (RO), attended the SLCARP International Research Symposium held in CARP, from 11th to 12th August 2014.

9. Mr. K.P.K.I.U Fernando - Statistical Officer, Mr. M.,N.M. Nalim – Statistical Assistant attended the “ Short Course on Analysis of Count and Rank Data” held in University of Peradeniya, from 23rd to 26th September 2014.
 10. Ms. A.I. Pathirana – PA to Director attended the Workshop on Administration Procedures and Human Rights Managements held in CETRAC from 18th September 2014.
 11. Mr. N.P.G. Samantha, Ms. P.A.J. Champika, Ms. A.M.S. Perera (03 Research Officers) attended the training workshop on behalf of the Sri Lankan Agricultural Economics Association, held in University of Peradeniya from 15th to 17th September 2014.
 12. Mr. P.C.J. de Silva, Mr. H.M.J.K. Herath, Ms. Geethani Samarasingha, Ms. Ruvini Vidanapathirana 04 Senior Research Officers attended the workshop on “Ethics in Research” held in National Science Foundation from 27th November 2014.
 13. Sixteen members attended the workshop on “Policy Communication” held in CARP, from 12th December 2014.
 14. Fourteen members attended the training programme on “Evidence Based Research: Practice into Policy objective of the Training Programme, from 15th December 2014.
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Hector Kobbekaduwa Agrarian Research & Training Institute
Statement of Financial Position as at December 31, 2014

ASSETS	Notes		December 31, 2013 Expressed in Sri Lankan Rupees
Current assets			
Cash and cash equivalents	2	7,793,755.93	2,372,380.71
Receivables-Debtors	3	21,517,920.19	22,731,924.08
Receivables-Deposits	4	773,795.97	772,887.78
Inventories	5	4,536,001.56	4,903,677.91
Prepayments	6	173,642.65	204,158.26
Other current assets	7	155,920.00	13,561.32
		34,951,036.30	30,998,590.06
Non-current assets			
Other financial assets	8	5,497,130.79	4,964,396.35
Infrastructure, plant and equipment	9	65,628,113.77	37,573,081.01
Land and buildings	10	27,846,572.28	26,530,368.82
		98,971,816.84	69,067,846.18
Total assets		133,922,853.14	100,066,436.24
LIABILITIES			
Current liabilities			
Payables	11	9,454,972.84	10,386,014.59
State Mortgage Bank - Housing Loans	12	-	321,514.60
		9,454,972.84	10,707,529.19
Non-current liabilities			
Employee benefits	13	36,088,145.00	36,254,872.50
		36,088,145.00	36,254,872.50
Total liabilities		45,543,117.84	46,962,401.69
Net Assets		88,379,735.30	53,104,034.55
NET ASSETS/EQUITY			
Government Grant - Capital	14	160,092,835.19	153,617,505.19
Capital contributed by Ministry		2,342,835.00	2,342,835.00
Reserves	15	43,062,687.28	37,824,679.28
Revaluation Reserve		35,003,646.00	
Incentive and Training Fund	16	533,323.82	533,323.82
Accumulated surplus/(deficits)	17	(152,655,591.99)	(141,214,308.74)
Total net assets/equity		88,379,735.30	53,104,034.55

These Financial Statements are in compliance with the requirements of the Finance Act, No.38 of 1971, Public Sector Accounting Standards (Four Standards) and Generally accepted Accounting Principles.

J P Nanayakkara

ASST.ACCOUNTANT

Date March 25, 2015

The Board of Directors is responsible for preparation of these Financial Statement. Approved and signed on behalf of the Board of Directors

E.M.ABHAYARATNE
DIRECTOR

B. WIJAYARATNE
CHAIRMAN

Hector Kobbekaduwa Agrarian Research & Training Institute
Statement of Financial Performance for the year ended December 31, 2014

Revenue	Notes	December 31, 2013	
		Expressed in Sri Lankan Rupees	
Funds from government Treasury		124,782,000.00	121,834,803.00
Funds from Outsiders for Research and Training Activities		3,547,757.21	4,157,500.77
Other revenue	18	31,346,417.36	31,511,888.82
Total Revenue		159,676,174.57	157,504,192.59
Expenses			
Wages, salaries and employee benefits	19	(102,418,163.60)	(108,201,003.95)
Research and Training Activities		(15,791,268.14)	(20,612,304.28)
Funds to Outsiders for Research and Training Activities		(3,547,757.21)	(1,294,955.27)
Depreciation	9, 10	(17,430,152.30)	(12,545,598.64)
Other expenses	20	(31,870,481.60)	(28,817,118.91)
Bad Debt over/(under) Provision		50,583.49	(97,405.08)
Bank Charges		(80,900.00)	(96,452.98)
Total expenses		(171,088,139.36)	(171,664,839.11)
Deficit for the period		(11,411,964.79)	(14,160,646.52)

CHAIRMAN

DIRECTOR

ASST. ACCOUNTANT

Hector Kobbekaduwa Agrarian Research & Training Institute
Cash Flow Statement for the year ended December 31, 2014

	Notes	Expressed in Sri Lankan Rupees	
Cash flow used in operating activities			
Net deficit for the year			(11,411,964.79)
Adjustment for			
Depreciation		17,430,152.30	
Depreciation Adjustment		(29,330,113.03)	
Provision for Gratuity		4,180,890.00	
Investment Income		553,029.12	
Prior year adjustments		(29,318.46)	(7,195,360.07)
Operating loss before working capital changes			(18,607,324.86)
Working Capital Changes			
Receivables		1,214,003.89	
Inventories		367,676.35	
Prepayments		30,515.61	
Other current assets		(142,358.68)	
Payables		(931,041.75)	
State Mortgage Bank - Housing Loans		(321,514.60)	217,280.82
Cash used in operating activities			(18,390,044.04)
Payment of Gratuity			(4,347,617.50)
Net cash used in operations			(22,737,661.54)
Cash Flow from Investing Activities			
Receivables		(908.19)	
Other financial assets		(532,734.44)	
Infrastructure, plant and equipment		(15,143,868.61)	
Land and buildings		(2,327,406.88)	
Investment Income		(553,029.12)	(18,557,947.24)
Net cash used in investing activities			(41,295,608.78)
Cash Flow from Financing Activities			
Government Grant - Capital Received		6,475,330.00	
Reserves		5,238,008.00	
Revaluation Reserve		35,003,646.00	
Net cash from financing activities			46,716,984.00
Net Increase in Cash & Cash equivalents			5,421,375.22
Cash & Cash Equivalent at the Beginning of Period	I		2,372,380.71
Cash & Cash Equivalent at the End of Period	II		7,793,755.93
Notes:			
Cash & Cash Equivalent		1	11
		01.01.2014	31.12.2014
Cash at bank		2,362,380.71	7,783,755.93
Cash in hand		10,000.00	10,000.00
Total		2,372,380.71	7,793,755.93

Hector Kobbekaduwa Agrarian Research & Training Institute
Statement of Changes in Net Assets/Equity
for the year ended December 31, 2014

	Government Grant Capital	Capital Contribution from Ministry	Reserves	Revaluation Reserve	Incentive and Training Fund	Accumulated Surplus/(Deficits)	Total
Balance as at January 01, 2014	153,617,505.19	2,342,835.00	37,824,679.28		533,323.82	(141,214,308.74)	53,104,034.55
<u>Prior year adjustment</u>							
Interest Receivable on Call & fixed deposits						(26,857.43)	(26,857.43)
Hostel & Auditorium Income Receivable						(177,605.00)	(177,605.00)
Depreciation Correction For Previous Years						175,143.97	175,143.97
Adjusted Balance as at January 01, 2014	153,617,505.19	2,342,835.00	37,824,679.28		533,323.82	(141,243,627.20)	53,074,716.09
Revaluation Reserve				35,003,646.00			35,003,646.00
Funds received from Treasury	6,475,330.00						6,475,330.00
Computer purchased from Cost of Diat Project			1,438,008.00				1,438,008.00
Motor Vehicle donated from FAO			3,800,000.00				3,800,000.00
Income & Expenditure						(11,411,964.79)	(11,411,964.79)
Balance as at December 31, 2014	160,092,835.19	2,342,835.00	43,062,687.28	35,003,646.00	533,323.82	(152,655,591.99)	88,379,735.30

Notes to the Financial Statements For the year ended 31st December 2014

1. Accounting Policies

1.1 General

The Financial statements are prepared under the historical cost convention in accordance with the applicable SLPSAS (Four Standards). Generally accepted accounting principles were used in other instances.

1.2. Valuation of Assets

(i). Property, Plant & Equipment

- a) Depreciation - Property, Plant and Equipment are stated on the balance sheet at cost less accumulated depreciation. Depreciation is provided on the straightline 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) In the year 2014 all the vehicles owned by the institute has revalued and vehicle No. 65-1280 donated by Food and Agricultural Organization (FAO) in year 2012 has taken to a accounts in year 2014 base on the revaluation amount.

(ii). Debtors

Debtors are stated at the amounts at which they are expected to be realized. Adequate provision has been made in the accounts for bad and doubtful debts. Provisions for doubtful debts are made at 4% of debtors balance as at the date of reporting.

(iii). Stocks

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

1.3. Gratuity

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

In the year 2014 gratuity has been calculated base on Salary and Cost of Living Allowance.

1.4. 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. Charging all expenses incurred in the year.

1.5. Transport & 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 expenditure.

December 31, 2013

2 Cash and cash equivalents

Expressed in Sri Lankan Rupees

Cash in hand	10,000.00	10,000.00
Cash at bank - A/c No 2323292	735,015.44	629,378.52
Cash at bank - A/c No 2323293	1,929,973.28	372,454.42
Cash at bank - A/c No 2323315	538,787.59	15,593.83
Cash at bank - A/c No 2323317	4,579,979.62	1,344,953.94
	7,793,755.93	2,372,380.71

3 Receivables

Staff Debtors

Housing Loan	2,401,069.05	2,840,661.63
Consolidated loan	17,274,495.96	17,711,544.76
Special Advance	4,945.47	40,495.47
Festival Advance	154,929.05	175,429.05
Auditorium Income Receivable	411,412.50	547,107.50
Hostel Income Receivable	107,301.00	846,301.25
Due from displaced persons	6,723.32	6,723.32
Scholarship debtors	20,005,859.97	20,325,859.97
	40,366,736.32	42,494,122.95

Other Debtors

Investment income receivable	184,667.18	279,932.01
In-Services Training Institute	6,806.38	6,806.38
K N U Gunasekara	12,100.00	12,100.00
Ministry of Agriculture	85,527.16	85,527.16
Recoverable from resigned employees	558,866.21	568,622.71
Sarasavi Book Shop	4,272.25	4,272.25
Debtors - Welfare Society		99.00
Receivable From Election Department	54,592.24	
Debtors - Miscellaneous	123,332.65	123,332.65
R-481 Value of Ecosystems' Services Provided by the Jaffna Lagoon and Contribution of the Lagoon to the Livelihoods of Peripheral Villages	1,023,459.78	
R - 439-Training Programme Buduruwagala		430,132.44
	2,053,623.85	1,510,824.60
	42,420,360.17	44,004,947.55
Less:		
Provision for Bad & Doubtful Debtors	(896,580.01)	(947,163.50)
Provision for scholarship	(20,005,859.97)	(20,325,859.97)
	21,517,920.19	22,731,924.08

4 Receivables

Deposits

Fixed - Caterer	70,000.00	70,000.00
Fixed - Cashier	10,725.97	9,817.78
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 - MG Samsons & Sons	250,000.00	250,000.00
	773,795.97	772,887.78

5 Inventories

Publication and journals	2,393,087.00	2,367,712.00
Consumables	1,647,184.06	1,878,724.91
Sales Center	495,730.50	657,241.00
	4,536,001.56	4,903,677.91

6 Prepayments

Vehicle Insurance	149,826.71	180,239.22
Building Insurance	23,815.94	23,919.04
	173,642.65	204,158.26

7 Other current assets

Purchase Advance	100,920.00	13,561.32
Advance	55,000.00	
	155,920.00	13,561.32

8 Other financial assets

Call Deposits	1,500.00	1,500.00
Fixed Deposits at State Mortgage & Investment Bank	5,336,889.16	4,962,896.35
Fixed Deposits at State Mortgage & Investment Bank-Housing Loan Scheme	158,741.63	
	5,497,130.79	4,964,396.35

9 Infrastructure, plant and equipment

Schedule of Depreciation of Assets - December 31, 2014

Expressed in Sri Lankan Rupees

Particulars	Cost as at 01.01.2014	Additions/ Revaluation during the Year 2014	Total Cost as at 31.12.2014	Acc/Dep as at 01.01.2014	Adjustments	Dep.for the year 2014	Accu/Dep. ended 31.12.2014	Net Value as at 31.12.2014
Equipment/Furniture	42,108,144.33	2,101,382.17	44,209,526.50	29,369,366.05		2,515,763.76	31,885,129.81	12,324,396.69
Computer Installation	23,241,024.58	2,660,508.00	25,901,532.58	19,870,246.02	(175,143.97)	1,672,629.80	21,367,731.85	4,533,800.73
Motor Vehicles	48,655,488.06	9,677,176.94	58,332,665.00	29,276,631.06	(29,154,969.06)	11,642,200.00	11,763,862.00	46,568,803.00
Books	11,568,405.96	704,801.50	12,273,207.46	9,483,739.79		588,355.32	10,072,095.11	2,201,112.35
Welfare Equipment	3,734.55		3,734.55	3,733.55			3,733.55	1.00
Total	125,576,797.48	15,143,868.61	140,720,666.09	88,003,716.47	(29,330,113.03)	16,418,948.88	75,092,552.32	65,628,113.77

10 Land and buildings

Schedule of Depreciation of Assets - December 31, 2014

Particulars	Cost as at 01.01.2014	Additions/ (Disposals) during the Year 2014	Total Cost as at 31.12.2014	Acc/Dep as at 01.01.2014	Adjustments	Dep.for the year 2014	Accu/Dep. ended 31.12.2014	Net Value as at 31.12.2014
Land	1,716,667.00		1,716,667.00					1,716,667.00
Buildings	38,120,729.87	2,327,406.88	40,448,136.75	13,307,028.05		1,011,203.42	14,318,231.47	26,129,905.28
	39,837,396.87	2,327,406.88	42,164,803.75	13,307,028.05		1,011,203.42	14,318,231.47	27,846,572.28

Paliwehera circuit bungalow have been acquired on 12.12.2011 under the 30 years operating lease

Payables			
11	Accrued expenses	7,335,757.19	7,292,518.51
	Tender deposit refundable	124,462.20	121,462.20
	Canteen deposit refundable - Upatissa Paranamana	50,000.00	50,000.00
	Salary Advance	10,232.91	6,683.41
	Unpaid expenditure	179,728.18	219,331.65
	Payable to Resigned Employees	177,907.92	2,135,720.64
	Employees and restaurant deposit	13,084.50	13,084.50
	Stamp Fees Payable	11,975.00	7,900.00
	Retention	85,087.41	85,087.41
	Creditors	833,300.00	300,195.16
	Mobitel (Pvt) Limited	56,013.96	126,546.11
	Received in advance - Hostel		13,685.00
	Received in advance - Auditorium		13,800.00
	Welfare Society	4,321.00	
	Creditors against projects		
	R-470 Minimum Cost of Diet In Sri Lanka	573,102.57	
		9,454,972.84	10,386,014.59

State Mortgage Bank - Housing Loans			
12	Balance as at January 01,		321,514.60
	Adjustments	-	321,514.60
	Balance as at December 31,		

The housing loan account of the State Mortgage and Investment Bank which had a credit balance in year 2013, has become a debit balance by 31/12/2014 due to the recovery of loan installments from the staff.

Employee benefits			
13	Balance as at January 01,	36,254,872.50	30,596,875.00
	Payments during the year	4,347,617.50	(3,863,612.50)
	Provision for the year	4,180,890.00	9,521,610.00
	Balance as at December 31,	36,088,145.00	36,254,872.50

Government Grant - Capital			
14	Balance as at January 01,	153,617,505.19	164,638,986.00
	Capital Contribution During the year	6,475,330.00	5,462,300.00
	Amortization of Staff Development Cost		(16,483,780.81)
	Balance as at December 31,	160,092,835.19	153,617,505.19

Reserves			
15	Contribution from savings	1,102,372.79	1,102,372.79
	Project Capital Fund	20,254,150.59	15,016,142.59
	Capital Reserve	3,242,284.40	3,242,284.40
	Project General Reserve	16,301,977.47	16,301,977.47
	Incentive Fund - Institute share	2,161,902.03	2,161,902.03
		43,062,687.28	37,824,679.28

Incentive and Training Funds			
16	Incentive Fund	137,061.91	137,061.91
	Training Fund - Projects	396,261.91	396,261.91
		533,323.82	533,323.82

Accumulated deficits

17	Balance as at January 01,	141,214,308.74	129,620,097.62
	Depreciation Correction For Previous Years	(175,143.97)	3,922,454.92
	Prior year adjustment - Interest Receivable on Call & Fixed deposits	26,857.43	265,285.64
	Prior year adjustment - Receivable Hostel & Auditorium Income	177,605.00	
	Amortisation of Staff Development Cost		(4,323,710.10)
	Amortisation of Staff Development Cost		4,973,706.21
	Hostel Auditorium Income - 2012		(763,165.00)
	Funded Project Income Previous Years		(6,641,007.07)
	Expenditure over income as at December 31,	11,411,964.79	14,160,646.52
	Balance as at December 31,	152,655,591.99	141,214,308.74

Other Revenue

18	Hostel charges	12,410,375.33	14,008,822.48
	Conference hall charges	12,948,035.75	11,665,940.85
	Income From Mobitel Customer service	70,532.15	77,874.97
	Sales of publications	133,330.50	127,769.50
	Interest on investments	553,029.12	714,245.36
	Interest on staff loan	739,034.40	838,873.08
	Recurrent contribution from projects	3,510,935.03	2,786,853.43
	Scholarship Debtors	320,000.00	743,311.44
	Bungalow fees and room rent		24,765.17
	Palwehera Room rent	62,600.00	29,100.00
	Computer income	254.00	1,380.00
	Tender fees	9,750.00	4,500.00
	Consultancy Income	328,000.00	
	Computer Cost & Staff Time	94,628.93	
	Other income	165,912.15	465,528.04
	Data Collection Income		22,924.50
		31,346,417.36	31,511,888.82

Wages, salaries and employee benefits

19	Salary -Permanent staff	44,290,101.04	45,221,763.47
	Salary - Investigators	6,407,127.05	5,938,411.32
	Cost of Living Allowance, Special Allowance & other	32,686,338.66	27,129,676.63
	EPF	10,134,549.69	9,434,120.13
	ETF	2,026,883.45	1,906,603.99
	EPF Arrears		5,334,215.88
	ETF Arrears		640,105.90
	Overtime	2,692,273.71	3,045,857.80
	Holiday pay		28,638.83
	Gratuity	4,180,890.00	9,521,610.00
		102,418,163.60	108,201,003.95

Other expenses			
20	Local subsistence & Local transport	1,526,975.25	1,452,324.01
	Foreign Travel Allowance	327,619.60	618,382.00
	Stationery and office requisites	1,502,335.37	898,207.21
	Fuel and lubricants	2,161,253.33	2,404,132.70
	Uniforms	295,242.68	329,529.89
	Vehicle repairs	1,054,975.85	1,110,854.90
	Maintenance of Building	1,132,705.25	1,060,824.88
	Plant machinery and equipment repairs	1,973,887.88	1,628,852.40
	Telephone charges	1,468,786.30	1,508,317.23
	Electricity	5,679,232.06	5,551,447.57
	Water bills	834,980.43	851,155.07
	Taxes to local authorities	315,601.20	274,888.80
	Postal charges	401,070.00	402,500.00
	Transport	428,770.00	378,505.00
	Legal activities on defaulters	12,000.00	24,000.00
	Technical Advice for Vehicles	120,000.00	60,000.00
	Technical Advice for Construction	37,500.00	
	Newspapers	271,060.00	330,806.00
	License and insurance	889,379.10	918,589.79
	Security charges	2,133,107.20	1,918,592.23
	Cleaning services	705,650.00	633,520.00
	Laundry services	445,515.00	435,456.87
	Audit fees	330,000.00	330,000.00
	Medical charges	557,040.48	41,579.80
	Canteen charges	141,340.00	216,228.00
	Miscellaneous expenses - Others	357,389.76	442,357.08
	Legal charges	34,970.00	182,695.00
	Welfare	336,670.00	373,655.00
	Advertisement	1,365,759.99	1,582,940.80
	Interview charges	22,000.00	36,000.00
	Board of governors	582,500.00	336,000.00
	Printing & Publication	1,294,956.31	756,929.00
	Entertainment	5,841.00	11,841.06
	Dissemination of information	1,140,305.00	439,115.00
	Cost of Sales - Publications	133,330.50	107,477.50
	Withholding Tax	48,124.89	
	Audit & Mgt Committee	63,600.00	68,400.00
	Staff Development	1,739,007.17	1,101,014.12
		31,870,481.60	28,817,118.91

Hector Kobbekaduwa Agrarian Research & Training Institute
Notes to the Statements for the year ended December 31, 2014

Contingent Assets & Liabilities

Scholarship debtors

Dr.R.B Senakarachchi

21 Court decision given in favour of HARTI in 2006, appealed the case by defendant. Appeal case on going at Appeal Court.

Dr.G Wickramasinghe

Court order on 24.11.2010 to pay the total amount .Appealed by defendant (pending)

Ms.R Athukorala

Court is being processed. Summons not been served. Full bond value recovered from the guarantors

Ms.V.Sathgunarajah

Court is being processed. Summons not been served. Recovering from Mr.RLN Jayathissa, guarantor in monthly installments of Rs. 5,000.00

Mr.P.D.J Ananda

Court is being processed. Summons not been served. Full bond value recovered from the guarantor.

Dr.P.I.Tudawe

Settled before the court on 06.11.2007 to pay back Rs.2, 445,547.46 (paid back monthly installment basis and balance to be recovered is Rs. 92,539.87

Dr.W.G Somarathna

Settlement before the Board of Governors. Pay back monthly installments of Rs.10,000.00.

Ms.A.C.K Sepala

Settlement before the Appeal Court (Paid back Rs. 100,000/- as at 31st December 2013) And agreed to pay back quarterly installment of Rs.50,000/-

Mr.M.S Gowrisanker

Action has been taken filled the case by the Attorney Generals Dept. (Bond value is been recovered from Mr.RLN Jayathissa, guarantor in monthly installment of Rs.5,000.00)

Ms.S.D Aberathna

Court case is laid by due to non availability of the present address. AGD advised name to be taken away from the defaulters list

Dr.U.L.J.J Perera

Court case is laid by due to non availability of the persent address.

Mr.P.D.R Kumarasiri

Court decision given in favour of HARTI on Dec. 2011 against 02 guarantors

Cases against the HARTI

Ms. Shirani Wanigasinghe

The appeal made by Ms. Shirani Wanigasinghe against the verdict of the high court, is pending at the Colombo Supreme Court (Case no SC/SPL/LA/175/2013)

Vehicle Accident - Mr. J.Chandrawansa

The case on the vehicle accident (vehicle No. 53-3287) is pending at the District Court, Moneragala (Case No. 4269M)

EPF and Gratuity arrears

Mosgt of the employees resigned and got their retirement complained against the Institute regarding the EPF and gratuity arrears in Labour Secretariat.



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கணக்காய்வாளர் தலைமை அபிபதி திணைக்களம்
AUDITOR GENERAL'S DEPARTMENT



මගේ අංකය
எனது இல. }
My No. }

LP/E/HARTI/01/14/05

මගේ අංකය
உமது இல. }
Your No. }

දිනය
திகதி }
Date }

30 July 2015

The Chairman
Hector Kobbekaduwa Agrarian Research and Training Institute

Report of the Auditor General on the Financial Statements of the Hector Kobbekaduwa Agrarian Research and Training Institute for the year ended 31 December 2014 in terms of Section 14 (2)(c) of the Finance Act, No. 38 of 1971

The audit of financial statements of the Hector Kobbekaduwa Agrarian Research and Training Institute for the year ended 31 December 2014 comprising the statement of financial position as at 31 December 2014 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 Agrarian 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. A detailed report in terms of Section 13(7) (a) of the Finance Act will be issued to the Chairman of the Institute in due course.

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 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 judgment, 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 opinion.

1.4 Basis for Qualified Opinion

My opinion is qualified based on the matters described in paragraph 2.2 of this report.

2. Financial Statements

2.1 Qualified Opinion

In my opinion, except for the effects 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 Agrarian Research and Training Institute as at 31 December 2014 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

2.2.1 Accounting Policies

An Accounting Policy for amortization of Capital Grants had not been introduced.

2.2.2 Accounting Deficiencies

The following observations are made.

- (a) If an asset further remains in usable condition, that asset can be revalued to indicate its fair value. However, 08 motor vehicles identified by the Board of Survey and remained in unusable condition had been revalued at Rs. 1,081,000 and provisions for depreciation amounting to Rs. 216,000 had been made thereon in the year under review.
- (b) Even though the cash flow statements should be prepared by identifying activities so as to reflect the cash inflow and outflow during the year, the following weaknesses were observed in the cash flow statement presented.
 - (i) The surplus as a result of revaluation of motor vehicles not relating to the cash movement amounting to Rs. 35,003,646 and the value of accumulated depreciation of those motor vehicles amounting to Rs. 29,330,113 had been considered as cash inflow and cash outflow respectively.

- (ii) The computers and accessories valued at Rs. 5,238,008 received from a project in the year under review had been shown as cash receipts in the cash flow statement.

2.2.3 Un-reconciled Control Accounts

A difference of Rs.854,272 was observed in the reconciliation of the balances of 03 accounts shown in the financial statements with the balances in the schedules furnished with the financial statements.

2.3 Accounts Receivable and Payable

The total of the debtors and creditors balances existing over a period of 5 years had been Rs. 20,345,302 and 1,079,446 respectively and an effective arrangement had not been implemented for settlement of those balances.

2.4 Non-compliance with Laws, Rules, Regulations and Management Decisions

Instances of non-compliances with the following laws, rules, and regulations were observed.

Reference to Laws, Rules, Regulations, etc.	Non-compliance
-----	-----
(a) Public Finance Circular No. 449 of 21 February 2011 Paragraph 02 (a)(e)	Even though the maximum allowance which can be paid for services rendered by an outside person when an eligible person is not available with the Institute had been Rs. 30,000, a sum of Rs. 40,000 had been paid to one person and the prior approval of the Department of Public Finance had not been obtained.

(b) Paragraph 8.3.9 of the Public Enterprises Circular No. PED/12 of 02 June 2003

It was observed that a fuel expenditure amounting to Rs. 484,768 had been incurred by the Institute for 02 motor vehicles released to the Ministry and 05 vehicles owned by the Ministry.

3. Financial Review

3.1 Financial Result

According to the financial statements presented, the operations of the Institute for the year under review had resulted in a deficit of Rs.11,411,965 as compared with the corresponding deficit of Rs.14,160,647 for the preceding year. Increase in the Treasury Grants by Rs. 2,947,197 had mainly attributed to the increase of Rs. 2,748,682 in the financial result for the year under review, as compared with the preceding year.

3.2 Analytical Financial Review

Receipts from various parties in the form of cash and goods had been brought to account as Capital Reserves and the balance thereof as at end of the year under review amounted to Rs.45,938,855. Action had not been taken for the specific identification of assets generated from those grants and value thereof.

4. Operating Review

4.1 Performance

The total number of research projects implemented from the year 2009 to the end of the year under review had been 125 and out of that, reports of only 51 projects had been published by the end of the year under review. Even though 63 projects had been completed, reports thereof had not been published and the number of projects

abandoned amounted to 04. It was observed that 07 projects had not been completed further. It was observed in audit that the objective of giving the result of the researches to the society on timely basis is not fulfilled due to the delay in publishing the final reports of the researches.

4.2 Management Inefficiencies

The following observations are made.

- (a) A camera and a dongle valued at Rs.92,090 issued to the former Director had not been returned to the Institute.
- (b) The Institute had not introduced a proper methodology in selecting officers for foreign seminars, workshops and scholarships. Further, approval had been granted to two officers to go abroad on personal invitations received to them and incidental and combined allowances amounting to Rs. 177,767 had been paid to them.

4.3 Fruitless Expenditure

A motor vehicle had been repaired without a guarantee in September 2013 and a sum of Rs. 84,200 had to be spent in the year under review due to faults in repairs. As such, expenditure amounting to Rs. 66,458 incurred initially had become a fruitless expenditure.

4.4 Personnel Administration

- (a) Even though the approved cadre had been 235, the actual cadre had been 173 thus indicating 62 vacancies.

- (b) The post of Registrar of the Institute had been vacant over a period exceeding 04 years from January 2011 up to 31 May 2015, the date of audit. A Senior Assistant Secretary from the Line Ministry is serving on acting basis since February of the year under review and a sum of Rs. 105,957 had been paid as salaries as well in the year under review.

5. Accountability and Good Governance

5.1 Budgetary Control

The budget submitted for the year under review had been revised again on 08 December 2014 based on the actual expenditure as at 30 November of the year under review. The budget cannot be accepted in audit as an instrument of control made use for the financial management of the year due to the revision made at the end of the year under review.

5.2 Unsettled Audit Paragraphs

Cases had been filed against 10 Scholarship Holders who breached the bonds and followed postgraduate courses in Foreign Universities and it was observed that there was an uncertainty in the recovery of a sum of Rs. 8,539,799 from 06 Scholarship Holders of them.



6. **Systems and Controls**

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.

- (a) Financial Control
- (b) Research Projects
- (c) Assets Control
- (d) Personnel Administration

W. P. C. Wickramaratne
Acting Auditor General

2.2 Expressing views on Financial Statement

2.2.1 Sri Lanka Accounting Standards

Receipts from various parties in the form of cash and goods to the institute (1975) had been accounted as Capital Reserves and it is difficult to find the related documents. However, necessary measures are being taken to identify the recipients of the Capital Reserves. It is noted to adjust the amortization of capital grants in the accounts in the future.

2.2.2 Accounting Flaws.

- (a) The relevant alterations will be made when preparing 2015 Accounts.
- (b) (i),(ii) measures will be taken to avoid such flows when preparing the cash flow.

2.2.3 Non-reconciled Control account

Consumer Goods – difference Rs.78,471/-

This shortage was reported during the tenure of previous Storekeeper N.S Wikramacrachchi. This amount was recovered from his final account statements.

Sales Room – Difference Rs.62, 793/-

The transactions of the sales room are functioning smoothly now. The prevailing differences are being corrected.

Hostel and Conference Hall income

The balance is accurate according to the Financial Statement. There were several flows in the schedules submitted by the hostel. Relevant adjustments were made.

2.3 Payable and Receivable accounts

Following the debtors' and creditors' balances existing for over 5 years, the debt amount of scholarship holders is documented as Rs.20,005,859.97/- and the institute has implemented a proper method to recover those dues.

2.4 Non- Compliance with Laws, Rules, Regulations and Management Decisions

(a) As per the Public Finance circular No.449 the maximum allowance which can be paid for the services rendered by an outside person is Rs.30,000/-. The payee has agreed to return the excess amount to the institute, failing which measures will be taken to recover from the responsible parties.

(b) The former director had been authorized to provide fuel on the instructions of the Former Agriculture Minister on a written request from the personal Secretary to the Minister. The fuel orders are issued only for the institute vehicles since January 2015.

3. Financial Review

3.1 Financial Result

A decline in the expenses of wages , salaries and employee benefits had mainly resulted in narrowing the deficit reported in those expenses in the year under review, as compared to the preceding year.

3.2 Analytical Financial Review

Receipts from various parties in the form of cash and goods received to the institute (1975) had been accounted as Capital Reserves and it is difficult to find the related documents. However, necessary measures are being taken to identify the parties that received the Capital Reserves repeat the same line here.

4. Operating Review

4.1 Performance

Progress of the research projects is presented bellow.

Year	No. of Studies	Published	Reports submitted to the relevant institutions and unpublished	Abandoned	Delayed publishing but scheduled to be published
2009	10	07	03(R365,371,373)	-	-
2010	15	11	01 (R383)	02 (385,388)	01 (R 376)
2011	17	09	05(R 399,400,402,404,405)	01 (R404)	02 (R 395,396)
2012	38	13	17 (R406,407,410,414,417,418,419,425, 426,427,428,430,431,434,436,439,440)	-	08 (R409,422,424,432, 437,438,441,442)
2013	26	11	01 (R 467)	-	14
2014	19	-	04 (R 470,477,479,481)	01(R 475)	14

According to the relevant documents in 2010-2012 following studies have been abandoned

Year	Project No	Amount
2010	R 385	No cost incurred
	R 388	Rs.131,032.92
2011	R 401	No cost incurred
2012	No abandoned Projects	

4.2 Management Inefficiencies

(a) The due value of Rs.92,000/- for the camera and dongle issued to a former director has been recovered from his final account statement.

(b) The institute is following an accepted procedure when selecting officers for foreign trainings programmes. The selections are made through interviews considering the benefits that the institute and the relevant officer would receive from these programmes. Every file carries the due written approval of the Director obtained by the relevant officer. Therefore approval of the Director was granted to the officers and Rs.177,767/- had been paid to them as incidental and combined allowances.

The researchers are allowed to present their findings online or in any other personal means. Generally this is an open opportunity for all Research officers and since this institute is a research organization priority is given to the Research Staff.

When a Research officer receives the opportunity to attend a programme upon his/her ability or merit no injustice prevails. In such a situation to other members of the staff.

4.3 Futile Expenditure

This motor vehicle had been sent to the Lanka German Technical Training Institute to repair its Turbo Charger. Repairs were done twice during the warranty period after the first repair. It was sent to the German Tech again following the failures occurred even after the repairs. The vehicle was brought back to the institute since the vehicle was unattended for unrepaired for a long period. The vehicle was later repaired by a approved garage under the instructions of the Technical Officer.

4.4 Personal Administration

(a) The essential amount of staff is currently working and vacancies will be filled as per the requirement.

(b) A newspaper advertisement has been published to fill the vacancy of Registrar and future actions will be taken accordingly.

5. Accountability and Good Governance

5.1 Budgetary Control

The institution has taken every effort to maintain the actual expenditure within the limit of budgetary expenditure.

5.2 Unsettled Audit Paragraphs

Legal actions had been taken against 10 scholarship holders who breached the bonds and followed post graduate courses in foreign universities. By analyzing the recoveries of debt amounts and status of the legal actions we can explain the status as follows.

01. Due to difficulty in finding present addresses of 06 scholarship holders the cases are pending. However, of 06 debtors, recoveries have been made from two guarantors already and measures are being taken to recover from two others.

02. Court Verdicts in respects of 04 scholarship recipients have already been obtained in favour of the Institution and one of them is repaying upon agreement. However petitions have been filed in the Court of Appeal against those verdicts, and petitions are now being heard. Accordingly, a sum of Rs.19,832,413.13 has to be recovered as at 30.04.2015 from all 10 debtors and there is an uncertainty in the recovery of a sum of Rs.8,539,799.

In order to find their present addresses and to recover the debt amount the institute has taken following measures.

- (i) Recovering due value from guarantors.
- (ii) Informing the Department of Immigration and Emigration
- (iii) Getting details on them from the relevant Divisional Secretariat

This situation has been occurred due to the difficulty in finding current addresses of the 06 scholarship holders who breached the bonds. Therefore, the Crime Investigation Division has been informed to contact them.

Accordingly, from the amount to be recovered from the 06 scholarship holders the said uncertainty amount has to be corrected as not from 6 scholarship holders but from 10 scholarship holders.

06. Systems and controls

Personal Administration

The vacancies will be filled in order to fulfill the performance objectives of the institute.

Financial Control

Proper controlling methods have been introduced regarding the financial control and work accordingly.

Assets Control

Controlling methods are been in action in purchasing assets, maintaining assets and protecting assets.

Research Projects

Taking long period to publish a Research Report is a major deficiency that was brought in to the notice regarding the Research by the Audit. They assume that due to this, Policy makers would not be able to take policy decisions on time as the reports are not been sent to them at the proper time. The unpublished research reports due to various reasons were published by now and measures are now being taken to avoid the same mistakes again. Besides this the study circles, workshops and discussions are organized to aware the relevant institutions on findings and recommendations of the contemporarily important studies before the research report is published. Policy briefing is also carrying out for this. Attention was also drawn in the audit regarding

Limited number of meetings of the research and Training committee that guides the research and training activities in the institute was another area that the concern of the audit was drawn. The Research and Training committee has now being strengthened and reformed to include more members and increasing the participation of the members by selecting more members from nearby universities. Other than holding meetings steps are being taking to get the constant advice from its members in preparing final drafts of Research Reports by sending them to the members.