

## **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 economic use of land for agricultural purposes.
- v. To carry out socio-economic research relating to agricultural and rural development.
- vi. To provide or undertake 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 hold 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 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 into agrarian questions.
- ii. To liaise closely with planners and policy makers in the government, business and research communities.
- iii. To make policy formulation and implementation process more effective through knowledge generation and timely dissemination.
- 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.

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Mr. H.P.S. Somasiri		-	Director General of Irrigation (from May 2010)
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Mr. A.M. Gunawardena Banda		-	Secretary, Board of Governors

**BOARD OF GOVERNORS MEETINGS  
2010**

	<u>Date of the Meeting</u>	<u>No.of Members Attended</u>
1.	12 January 2010	08
2.	01 March 2010	08
3.	22 April 2010	06
4.	16 July 2010	09
5.	14 October 2010	07
6.	23 December 2010	08

## Overview

HARTI entered its thirty eighth year of operation with the onset of 2010. This anniversary which was on 22 February was marked with a series of events including a research seminar, farmer convention, public lectures and press conferences. Our main task is researching agrarian issues to enhance knowledge required for policy formulation and problems solving for the benefit of the farming community. The Institute has served the country by conducting over 380 research studies and 280 training programmes during the 38 year period of its existence.

During the year under review the Institute had planned to carry out 17 research studies which were indentified in consultation with stakeholders. One study titled “Performance of state owned tea estates operated by the private companies” had to be abandoned due to lack of access to information. All other 16 studies commenced and 11 studies were completed during the year as scheduled. Out of the rest, two research studies are to be completed in 2011. Only three studies were not completed due to other urgent commitments. But over 75 percent work of even these studies were completed by the end of the year. Details of the research studies including findings and recommendations are explained under the respective divisions.

Besides regular research studies, various special studies were conducted on request during the year. Ministry of Economic Development requested two studies, namely paddy/rice situation in 2010 and organization and operation of the Colombo vegetable wholesale market. In the report on paddy/rice situation, variation in rice consumption by varieties and by districts was highlighted. Similarly, paddy production by varieties was analyzed. Report on vegetable wholesale market highlighted the relationship with the grain market located in 4<sup>th</sup> cross street. It was recommended to move both markets together for efficient functioning.

In addition to research, a total of 43 training programmes were conducted during the year and 3573 persons including farmers were trained. The institute also organized the international training programmes on Management of Rural Drinking and Sanitation Projects in collaboration with the Center on Integrated Rural Development for Asia and the Pacific (CIRDAP) and National Institute of Rural Development (NIRD) in India. With regard to training, especial attention was placed on inclusion of farmers in decision making processes and in solving their problems. This was necessary because farming community did not get benefits from the open economy due to lack of strong farmer organizations. Considering this situation, the training programme on empowerment of farmer organizations was initiated. Another popular training programme implemented by the institute was educating farmers on nature farming. In this programme, emphasis was on traditional farming practices adopted by our ancestors successfully. In India, traditional farming practices are tested in research institutes and recommended to farmers to adopt them if they are successful. It is necessary to follow this type of approach in Sri Lanka too, because traditional technology is environmentally friendly and cost effective.

Agricultural market information service (AMIS) which has been implemented since 1979 continues to publish weekly/monthly bulletins regularly, send daily prices to the media and

update daily prices on the institute website. In addition, commodity prices were regularly sent to the Presidential Secretariat. The Institute identified the need of providing prices through mobile phones which gives easy access to users. The Institute intends to implement this project in collaboration with a private entity. The mobile based market information service is successfully implemented in many countries including India, Bangladesh and several African countries. A recent research done by World Bank reveals that paddy farmers in Tanzania were able to get US \$ 600 per MT of paddy. Earlier it was US \$ 100 per MT. The increase was after implementation of the mobile based market information system. Analysis of market prices is also a part of the AMIS. An analysis of annual paddy/rice prices shows a decline in 2010 compared to the level of 2009 resulting hardships to the farmers. This happened due to inadequate management. The paddy production in 2010 is a record. It is the highest paddy production so far achieved and is adequate to feed the nation for 15 months. The bumper harvest is harmful to the farmers if supply is not properly managed because a sharp decline in prices with the production increase is a natural phenomena for agricultural crops. Encouragement of storage at farm level by providing credit facilities to farmers/farmer organizations to control the distress sales is the best solution to manage the supply. That will help increase their incomes through selling at a higher price.

A sharp increase in vegetable prices was noticed in the year 2010. The annual price of many vegetables registered over hundred rupees per kg. A severe shortage of red onions in the market was also observed in the latter part of the year and hence prices went up over Rs.400 per kg. Prices of green gram and cowpea were extraordinarily high during the year under review. Requirements of potato, onions, green gram were largely met by imports. Performance of non-rice sector was not impressive. The sector review indicates that lack of quality seeds and poor extension services were the two major bottlenecks that hinder the development of this sector. The seed village program of the government needs to be strengthened. Yield gap between potential and actual is huge in Sri Lanka showing poor crop management at farm level. To reduce this gap, reestablishment of the extension system is urgently required. Research carried out in Sri Lanka and elsewhere shows that yield is higher for those who have links with extension officers than others.

Building of partnerships with other agencies is one of our strategies for improvement of the institute activities. During the year under consideration, the Institute was able to establish a partnership with the World Food Programme (WFP) through collaborative work on food security assessment of internally dispersed persons (IDP) in Northern Province. In addition, a joint project on establishment of food security surveillance system for Sri Lanka is being planned. During my visit to Afghanistan to participate in the technical committee meeting of CIRDAP, I had the opportunity to discuss with officials from National Institute of Rural Development (NIRD) in India matters related to exchange of staff and undertaking joint research. Initial discussions were successful and probably in 2011 the NIRD will be the third international partner of HARTI next to CIRDAP and WFP.

The activities carried in 2010 are described in the following pages.

**Lalith Kantha Jayasekara**  
**Director**

## AGRICULTURAL POLICY AND PROJECT EVALUATION DIVISION

### COMPLETED STUDIES

#### 1. Assessment of Rural Credit Market of Selected Commercial Crops

**Research Team :** Mr. J.K.M.D. Chandrasiri - Co-ordinator  
Ms. B.A.D.S. Bamunuarachchi - Co-researcher

**Source of funding:** Consolidated Funds

#### **Scope:**

Credit is an important input to enhance productivity and income of smallholder farmers who can't afford to invest in advance technology. This is more applicable to commercial food crops such as chillie, b'onion and potato in which production cost is substantial. According to evidence, many farmers cultivating commercial food crops are likely to depend on informal credit sources despite the availability of concessionary credit schemes. This study was conducted in order to examine the credit market associated with chillie, b'onion and potato and to develop certain guidelines to enhance Farmer Bank credit scheme which has been emphasized in the Mahinda Chintana Policy Document. The study was based on an empirical survey of farmers cultivating relevant crops in selected districts.

#### **Objectives:**

The main objective of this study was to examine, how rural financial market operates in relation to selected commercial crops, with special focus on informal credit sources.

The specific objectives were:

1. To examine the nature and magnitude of credit sources used by commercial crop farmers.
2. To investigate inter-relationships of credit with input and output markets and their social and economic implications.
3. To suggest and provide principal guidelines in order to create better credit systems so that there will be smooth flow of credit on a sustainable basis, to the smallholder farmers.

#### **Output:**

The first draft report of the study with findings and recommendations was prepared.

## Findings:

1. A great majority of farmers growing commercial crops such as b' onion (85%), chilli (90%) and potato (95%) had obtained credit which indicates the importance of credit in farming.
2. The average loan number per farmer was 3 for chillie and potato and 2 for b' onion. This picture did not change according to rural and urban districts.
3. Average loan amount obtained by a farm family changed with crop, district and rural-urban setting. It was Rs.261, 128 for chilli, Rs.70, 629 for b' onion and Rs.177, 477 for potato.
4. The farmers cultivating all three crops (chilli, b' onion and potato) had obtained three types of credit such as cash, kind and services. About 79 percent of the amount of loans of each crop was cash loans. The amount of commodity loans was about 20 percent while the service loans were one percent.
5. Among different sources of credit from which farmers had obtained loans, formal credit institutions were predominant indicating over 85 percent of the number and over 90 percent of the amount of loans obtained from those sources for all three crops.
6. Among different institutions that disbursed credit, the government commercial banks such as Bank of Ceylon and Peoples Bank had been more popular than private banks because the small farmers had greater access to government banks. Government banks have been somewhat flexible regarding collateral; allowing two fellow farmers of the farming community to appear as guarantors.
7. The Farmer Bank has not been accepted by the farmers as a suitable mechanism to obtain credit mainly because of its low credit ceiling of Rs.25,000/- per farmer. Some had not become members of the farmer bank due to ignorance of the functions and its benefits.
8. Community organizations had played a vital role in providing credit only for chilli and b' onion farmers. About 16 percent of chilli and 8 percent of b' onion farmers' credit requirements were supplied by these organizations. Death Donation Societies, Farmer Organizations, Women's Societies and other welfare societies had respectively played a vital role in granting credit.
9. Pawning gold as a method of obtaining credit to be utilized in production purposes had become popular among all farmers cultivating all three crops. Over 25 percent of the number and over 35 percent of the amount of cash loans under all three crops had been obtained by pawning gold. Non availability of proper collaterals for the farmers to obtain other loans and comparative ease to

obtain pawning loans in a shorter period and their lower cost had been reasons for its popularity.

10. Most of the informal sector credit was interlinked with input as well as output market, but they did not harmfully affect the farmers because the farmers were able to obtain the due price for their products under available marketing arrangements.
11. Pawning gold appeared to be a comparatively more advantages credit source for commercial food crop farmers when considered about credit cost, time spent, less procedures and the amount obtainable.
12. The sample farmers suggested improvement of the farmer bank to a level that their credit requirements will be fulfilled, because they felt farmer bank is the most convenient source to obtain loans at low cost and within a short period.

### **Recommendations:**

1. Farmer bank credit scheme should be reformulated by creating awareness about the farmer bank and its benefits among non member farm families in order to provide a better alternative (credit supplier) for the commercial food crop farmers who face certain problems in obtaining production credit from other formal sources. Some of these problems are waiting for a long period of time to obtain credit and spending time for procedural matters and bearing high credit cost etc.
2. Farmer Bank should be strengthened to a level so that it can provide some satisfactory amount of credit required by commercial food crop farmers. Increasing the number of members, promoting savings and share holdings are required for this purpose.
3. The small group formation should be well done by creating awareness and by mobilization of people adequately so that each and every member of the group will be accountable for the whole activities of the group.
4. The active involvement of the Krupanisas should be made compulsory to strengthen day today operations of the Farmer Bank. They can arrange less cost credit for farmers within a short period.
5. The present maximum credit limit of Govijana Bank credit scheme for any crop is Rs.25, 000/-. This should be changed to suit the crop and the location. At present this rule has become a deterrent to granting more credit by some branches of the farmer Bank which have satisfactory amounts of funds.
6. The farmer banks should not be made compulsory for obtaining credit in the form of inputs. It will be a burden for the farmers who use inputs in their own ways

(perhaps by using particular kind of inputs like pesticides and by mixing them with some others.)

7. The farmer organizations and other community organizations like death donation societies in areas where potato is cultivated should be mobilized as savings and credit organizations

## **2. Present Situation of Tenant farming System**

**Research Team:** Mr. R.L.N. Jayatissa - Co-ordinator  
Ms. M.W.A.C.S. Wijetunga - Co-researcher

**Source of Funding:** Consolidated Funds

### **Scope:**

Tenant farming system is a controversial issue in the small holder farming system which has led to an acute problem in Sri Lanka during the recent past. This system which operates in 13% of total paddy lands area has become controversial due to execution of Agrarian Development Act No. 46 of 2000. Problems have arisen among the land owners and tenant farmers regarding the inheritance of deceased tenants' rights by their dependents as there is no provision regarding this aspect in the Act. There is no adequate information in order to take accurate decisions regarding this matter. This study was carried out to fill this knowledge gap. The study was conducted in Matara, Hambantota and Anuradhapura districts through questionnaire survey of tenant farmers and land owners. Further information was gathered from group discussions and key informant interviews.

### **Objective:**

This study attempts to broadly investigate the existing tenant farming system in Sri Lanka with the objective of proposing suggestions to draft a new Agrarian Development Act in order to avoid the problems faced by both farmers and land owners.

### **Specific Objectives:**

1. To examine the general socio-economic characteristics of tenant farmers and land owners
2. To identify the problems and issues in tenant cultivation at the field level after enacting the Agrarian Development Act No. 46 of 2000
3. To obtain views of the agrarian community regarding the newly drafted Agrarian Services Act in order to find out the solutions to their problems.

**Output:**

A research report was prepared using the findings of the study. In addition an article was prepared for the Agrarian Journal published by the institute. Findings and recommendations of the study were also forwarded to the relevant policy makers.

**Findings:**

1. Most of the tenant cultivators (79%) of the study sample were above 52 years old. 61% of land owners were above 55 years old.
2. The majority (57%) of the tenant farmers of the sample were under one land owner.
3. Farming was the primary occupation of most of the tenant farmers in Hambantota and Anuradhapura districts which indicated 93% and 77% respectively. However, number of farmers who did farming as a primary occupation in Matara is relatively low (69%) due to small size of their paddy lands and they engaged themselves in paddy cultivation as a part time job.
4. There was no uniform agreement among the tenant cultivators and land owners in different areas regarding rent to be paid by the tenant cultivators.
5. As there is no provision in the Agrarian Development Act of 2000 to nominate a successor after tenant cultivator's death, the tenant cultivators had faced insecurity. Meanwhile the land owners had to face conflicts.
6. Disputes were reported among tenant cultivators and land owners due to two reasons; one was the eviction of tenant cultivators by the land owners from their paddy lands and the second was the improper rent payment by the tenant cultivators to the land owners.

**Recommendations:**

1. Implementation of Agrarian Tribunals as soon as possible to solve the problems faced by the tenant cultivators and land owners.
2. Improving the provisions of the Act of 2000.
3. Granting rights to cultivate the extent of paddy lands already cultivated by tenant farmers without determining a new maximum cultivable limit.
4. Giving opportunity to nominate a successor with the cooperation of tenant cultivator and land owner.
5. Giving opportunity to buy the land under tenancy to one of the two parties (tenant cultivator or land owner) under the government assessed value.
6. Establishment of a land bank to give concessionary loans to tenant farmers to buy the paddy lands they already cultivate under the tenancy system.

7. Devolution of powers of the Commissioner General of Agrarian Development regarding tenant lands among the grass-root level officers to take legal actions regarding tenant lands.

### **3. The Impact of using ICT for Agricultural Extension in Smallholder Farming Sector with Special Emphasis on Cyber Agricultural Extension Units**

**Research Team:** Ms. M.D. Susila Lurdu - Co-ordinator  
Ms. H.M.S.J.M. Hitihamu - Co-researcher  
Mr. S. Epasinghe - Co-researcher

**Source of Funding:** Consolidated Funds

#### **Scope of the Study:**

Department of Agriculture has started 55 Cyber Extension Units in 21 districts in 2004 using information and communication technology methods to fulfill the requirements of the agricultural information and knowledge of the rural farmer. This study was conducted to evaluate the present progress of these Cyber Extension Units in order to make suggestions to improve them. The study was carried out with 181 farmers at 9 cyber units in 3 selected districts where cyber agricultural extension units are established. The sample consisted of two groups of farmers: one group was those who acquired the services (90 farmers) and the other was those who did not acquire the services (90 farmers) from these units.

#### **Objective:**

To study the progress of Cyber Agricultural Extension Units and their impact on the rural farming community.

#### **Specific Objectives:**

1. To find out the success of operation of already established cyber agricultural extension units
2. To examine the farmers' awareness about these units and to understand the extent to which farmers use them.
3. To study the type of knowledge farmers had obtained from these units and their importance.
4. To investigate problems faced by each group of farmers and officers when they obtain the services from these units and supply the services respectively.

5. To obtain the views of the officers and farmers regarding how these cyber units can be implemented gainfully.
6. To give policy recommendations to improve the productivity of rural extension system through successful operation of Cyber Extension units.

### **Output:**

Research report was prepared using the information and findings of the study. Policy markers of the Ministry of Agriculture were informed about the findings.

### **Findings:**

1. Among the farmers who did not acquire the service, 58% were not aware of the existence of cyber unit in the Agriculture Instructor office in their Agrarian Development Center.
2. Out of farmers who were aware of the existence of those units, 64.4% were not aware of the fact that they could obtain information through them.
3. As much as 64.6% of those in charge (Agricultural Instructors) of the Cyber Extension Units have revealed that these units are not functioning well.
4. Of those in charge of Cyber Extension Units 96.7% pointed out that the lack of farmer participation was due to their ignorance about these centers.
5. 97% of those farmers who acquired the services from those centers expressed that the service was beneficial to them. Out of those farmers, 68% accepted that their income increased due to qualitative as well as quantitative increase of their production as a result of the new knowledge gained from the center.
6. 51% of farmers who acquired services have mentioned that they had faced problems regarding consultation, due to the fact that the responsible officer of the unit was involved in field work when they went to the unit.

### **Recommendations:**

1. Implementing an islandwide awareness programme regarding the cyber units.
2. Appointing a separate person with agricultural and computer knowledge to supply efficient and effective service to the Cyber Extension units.
3. Preparing a scheme to obtain immediate funds required to repair equipments and do other maintenance work and appointing a high level officer to supervise cyber units.

4. Setting up the Cyber Extension Units in farmer friendly places by providing infrastructure facilities.
5. Facilitating these units to provide daily market prices and other important information such as the production demand.

## **OTHER ACTIVITIES**

In addition to involvement in research, the researchers have prepared articles for journals published by HARTI and other institutes. These are mentioned below. The details about local training programmes in which they participated are also included.

1. Mr. J.K.M.D. Chandrasiri published a paper on Policy Integration through Economic Liberalization and Micro Credit: Review of Smallholder Paddy Farming Sector in Sri Lanka in Journal of Gender and Social Issues, Vol. 6, No.1, 2007.
2. Ms. M.W.A.C.S. Wijethunga presented a paper on Review of Public Expenditure in Agriculture Sector in Sri Lanka; 1998 -2009 at the Annual Scientific sessions of the SLAAS held at the University of Colombo – 10<sup>th</sup> December 2010
3. Mr. R.L.N.Jayatissa and Ms. M.W.A. C.S. Wijethunga prepared an article on “The Present Ande Farming System in Sri Lanka: Threats and Solutions” for Govi Katayuthu Adyayana.
4. Ms. Susila Lurdu Prepared an article titled “Is Agricultural Research and Production Assistant a Suitable Representative to fulfill the requirements of farmers” for the Govi Katayuthu Adyayana., Vol 8, No 1, 2009.
5. Ms M.W.A. C.S. Wijethunga, Ms. B.A.D.S. Bamunuarachchi and Ms. K.P.I. Priyadarshini participated in a Training programme on Training of trainers organized by SLIDA from 25 to 29 October 2010.
6. Ms. B.A.D.S. Bamunuarachchi and Ms. K.P.I. Priyadarshini participated in a short course on Research Methodology conducted by Population Association of Sri Lanka, Department of Geography, University of Colombo, from 3<sup>rd</sup> to 5<sup>th</sup> December, 2010

## AGRICULTURAL RESOURCE MANAGEMENT DIVISION

### 1. Adoption of Parachute Technology by the Farmers in Anuradhapura District

<b>Research Team:</b>	Ms. P.R. Weerakkody	-Co-ordinator
	Ms. S. K. Kumara	-Co-researcher
	Dr. W. D. Wickramasinghe	-Co-researcher

**Source of Funding:** Consolidated fund

#### **Scope:**

Understanding the adoption behaviour of parachute technology by the farmers in Anuradhapura district, and the factors determining the dissemination of technology into other areas of the country.

#### **Objectives:**

1. The main objective of this study was to assess the present status of transfer of selected technologies in the North Central Province.

#### **Specific objectives:**

1. To study the attitudinal and behavioural aspects of the transfer of selected technologies in the North Central province.
2. To identify constraints and weaknesses in the transfer of above technologies and to suggest appropriate policy recommendations.

#### **Findings:**

1. The adoption of seedling broadcasting method (parachute technology) by *Mahaweli* farmers is satisfactory. The binary logistic analysis used to find the impact of various factors on adoption decision shows that of the six variables used for the analysis, farmer skills, labour source, total land availability and raw material availability have a significant effect on adoption of parachute technology.
2. Availability of raw materials, particularly plastic trays, is a prerequisite for the adoption of this technology. Farmer skills is an essential factor for field application. Operators with access to sufficient labour tend to adopt the technology which demands labour for nursery management. Total land availability is a significant determinant of the adoption means. Large scale operators appear to be progressive and innovative so that they had shown increased interest to take up new technologies.

3. Water availability is an essential factor for parachute method which demands water during nursery period. However water is not a limiting factor in *Mahaweli* areas. Therefore it is insignificant. Inter-provincial areas water scarcity is a key constraint for the adoption of parachute technology.
4. Seedling vigour, increased tillering and high yield are the preferred characteristics of the parachute technology. In the *Mahaweli* area there is a significant yield difference at 95% confidence interval compared to broadcasting method indicating a 79% yield increase from parachute method.
5. Lack of knowledge and skills and drawbacks in the extension service including inadequacy of demonstrations, lack of broader interests given to awareness creation programmes, delays in conducting awareness programmes, poor farmer knowledge in obtaining inputs and raw materials, staff shortages, large area coverage by agriculture instructors, limited farm visits, lack of regular training on field application technologies, and obtaining feedback have constrained technology adoption.
6. Negative attitudes of the end user both general and specific to the parachute technology has also constrained the dissemination.
7. In the general practice of extension service, demonstrations are conducted in the fields of progressive farmers who adopt the technology with minimum failures. Survey findings uncover this as a successful process for dissemination of technologies throughout the farming community.
8. Overall, weak extension service, inadequate attention to educating farmers through individual, group and mass methods, less access of farming community to input markets and market information, inadequate dissemination of new technologies are the major weaknesses in the present extension management system.

**Outcome:**

The department of agriculture had decided to release the technology based HARTI findings.

**2. Present Status of Rice Flour Industry**

**Research Team:** Ms.P.R. Weerakkody - Co-ordinator  
 Ms. S. K. Kumara - Co-researcher

**Source of Funding:** Consolidated fund

**Scope:**

By interviewing selected large, medium and small scale rice flour entrepreneurs, the study intended to explore the potential for the promotion of rice flour industry.

## **Objectives:**

This study had four objectives.

1. To identify rice flour products and entrepreneurs involved in the rice flour industry.
2. To gather information on knowledge of the entrepreneurs, technology and production
3. To understand the processes of rice flour industry and related industries.
4. To identify issues and problems related to rice flour industry.
5. To suggest appropriate recommendations that would help promote the rice flour industry.

## **Findings:**

1. The rice flour industry in the country constitutes few large scale entrepreneurs and many medium and small scale entrepreneurs. The industry has progressed to a certain extent during the past decade.
2. Red and white string hopper flour and wet rice flour used as hopper mixture are the main pure rice based products found in the market. Rice noodles (100%) are seldom found in the market. But, there are many other products mixed with rice flour which are now available in the market. The quality and the price of these products vary by entrepreneur but none of them possesses certification of standards.
3. The rice flour industry processes is twofold; wet flour production and dry flour production. The flour yield is at the rate of 115% and 95% respectively. The data indicates that the cost of processing one kg of wet and dry flour amounts to Rs. Rs. 2.44 and 4.35.
4. Both small and medium scale entrepreneurs find local markets by themselves without incurring any cost for advertising, whereas large scale entrepreneurs supply their products to both local and foreign markets through agents who bear cost of advertising the product.
5. Several state sector organizations are involved in training entrepreneurs and dissemination of information on rice flour industry. Some of the institutes are the Institute of Post Harvest Technology, Industrial Technology Institute and Sri Lanka National Freedom from Hunger Campaign Board. The Kathie Rich Foundation is a private sector institution which has been contributing to the popularizing of rice flour. These institutions face a range of constraints related to human and financial resources in delivering an effective service.

6. 'Vidatha' resources centers have made specific attempts to promote rice flour products among bakers. However the number of existing bakers are very few due to lack of demand for rice flour bakery products. Further, unavailability of pure and finer rice flour in sufficient quantities in the market suited to bakery products is a severe constraint that hampers the rice flour bakery industry.
7. Unavailability of information and high maintenance cost of machinery, lack of sufficient capacity are the key problems faced by the entrepreneurs. Fluctuation of rice prices is a huge constraint to the progress of the rice flour industry. Often a scarcity of rice exists when the prices are increased. This has an adverse effect on the livelihood of small scale entrepreneurs.
8. The nation building tax, inadequate technical knowledge, insufficient infrastructure facilities, poor demand for rice based bakery products are among the other constraints relating to the rice flour industry.

**Outcome:**

Created awareness among different stakeholders including ministry of agriculture on the subject.

**3. Understanding Anthropogenic Processes of Land degradation**

**Research Team:** Ms.P.R. Weerakkody - Co-ordinator  
Ms. S. K. Kumara - Co-researcher

**Source of Funding:** Library research, No financial allocation

**Scope:**

The study addressed the information gap on understanding anthropogenic processes of land degradation through literature review.

**Objectives:**

The overall objective of this study was to improve the understanding of the dynamics of anthropogenic processes of land degradation. The study had some specific objectives.

1. To elucidate different interpretations for anthropogenic processes of land degradation.
2. To produce information on diverse land-man relationships.

3. To provide an explanation for anthropogenic processes of land degradation.
4. To improve the understanding of researchers, development practitioners, policy makers and policy analysts about anthropogenic processes of land degradation.

### **Findings:**

1. A set of primary and secondary level socio-economic factors lead to anthropogenic processes of land degradation.
2. Anthropogenic processes of land degradation begin from a range of structural variables which could be termed as socio-economic drivers of land degradation. These primary level structural factors include poverty, unequal distribution of land, insecure tenure, population growth and employment needs.
3. Stemming from the above socio-economic factors, mankind intervenes on land in different forms leading to misuse, mis-management and neglect.
4. Many of the forces that can contribute to significant changes in land resources originate from socio-economic factors at macro level that may have little to do with land resource sector. Therefore changes in regulatory policies are likely to be important in mitigating degradation.
5. Given the extreme dependence of people on land, it is compelling to assume that both the poor and rich contributes to land degradation. However, the cross sectional data available on poverty and land degradation is not sufficient to establish the causality between poverty on land degradation.
6. A key conclusion has emerged from this study to combat land degradation. The conclusion is that it requires intervention both at primary and secondary levels.
7. At primary level poverty reduction strategies, generation of income avenues, especially within the non-farm sector, addressing insecure land tenure problems, well planned alienation programmes are important aspects.
8. At the secondary level, coordinated approaches integrating research-extension-land users are vital. To ensure land dependent communities to maintain sustainable sources of income the range of choices available to poor needs to be increased. Agro-forestry value addition through commercial scale non-timber forest products is an example of such strategies.

**Outcome:**

The findings of the study to be published as a journal article to create awareness among the relevant scientists in the field.

**4. Eco-friendly Farming in Sri Lanka**

**Research Team:** Ms. S. K. Kumara - Co-ordinator  
Ms. P.R. Weerakkody - Co-researcher

**Source of Funding:** Library research, No financial allocation

**Scope:**

The study explored the existing eco-friendly farming practices in Sri Lanka and potential for its further promotion.

**Objectives:**

The study had two major objectives.

1. To elucidate different perspectives on eco-farming techniques in Sri Lankan agriculture.
2. To explore the national context of eco-farming in the country and to suggest appropriate recommendations aiming at further promotion of eco-farming in the country.

**Findings:**

1. Eco-farming has shared aims as that of organic farming and green farming and is grounded within the concept of sustainable agriculture. Pure form of eco-farming or organic farming is not often practiced in Sri Lanka. But utilization of organic matters alone with chemical fertilizers is well known and adopted by many farmers. This practice can be considered as low external input farming method.
2. Indigenous land use systems, soil fertility management practices, indigenous pest management practices such as kem methods, and traditional paddy farming systems, integrated pest management and integrated farming system constitute eco-farming in the local context. There does not seem to be any attempt to promote a pure system of agriculture termed as eco-farming or any other similar form of cultivation.
3. Considerable attention has been paid to implement programmes and projects that are consistent with eco-farming in the recent past. It is of crucial importance to assess the

impact of these contributions towards promoting eco-farming in the country for future planning.

4. In formulating policies relating to eco-farming benefits not could be reaped by the local communities should be taken into consideration.
5. Substantial efforts should be made to implement of integrated pest management (IPM) programme which are implemented with minimum backing from the government. Farmers are key players in further developing the IPM programme at local level. They take roles as trainers, researchers and organizers in community in promoting IPM.

**Outcome:**

The findings of the study to be published as a journal article to create awareness among the relevant scientists in the field.

**5. Study of the Behaviour of Marketed Surplus and Paddy/Rice Price in Sri Lanka**

<b>Research Team:</b>	Dr. W.D. Wickramasinghe	- Co-ordinator
	Mr. W.A.N. Wijesuriya	- Co-researcher
	Mr. W.H.D. Priyadarhsana	- Co-researcher

**Source of Funding:** Consolidated Funds

**Scope:**

The study has explored the role played by different market participants in different regions and the behaviour of marketed surplus in determining paddy prices through an islandwide survey.

**Objectives:**

A comprehensive study has not been undertaken to understand the price determination process of paddy in Sri Lanka considering the behaviour of marketable and marketed surplus and the marketing mechanism of different market participants. Therefore, this study focuses on specific objectives. It was expected that the study would elicit the price determination process of paddy in Sri Lanka to help policy makers to reduce price volatility in the paddy market.

**Specific Objectives:**

1. To estimate the marketable surplus and marketed surplus at farm level
2. To study the pattern of marketing prevalent at the farm/village level or the disposal mechanism in the area

3. To identify the buyers of marketed surplus and the purchase mechanism operated by them
4. To investigate the factors affecting the determination of marketed surplus and storage decisions by paddy farmers
5. To ascertain the factors affecting farm gate price
6. To test the oligopsony power in the regional paddy markets

### **Findings of the Study:**

1. Of the total production 61- 94 % constitute the marketable surplus in districts considered in the study and it varies from the lowest in Kurunegala to the highest in Ampara.
2. The average marketable surplus of an individual farmer ranged from 3,760 kg in Kurunegala to 10,320 kg in Ampara during 2009/10 *maha* season. It was 2,143 kg in Anuradhapura to 5,730 kg in Polonnaruwa in 2010 *yala* season.
3. Disposal of the marketable surplus takes place as distress sales, sales due to lack of storage and price responsive sales. Price responsive sale is the common way of disposing the marketable surplus. During *maha* season 91 % of farmers stored paddy speculating a favourable price in Anuradhapura while during *yala* season 83% of farmers stored paddy speculating a favourable price in Polonnaruwa and it was about 88% in Ampara. Distress sales in Kurunegala and Hambantota districts where small farmers are predominant were primarily to pay loans. In these districts, 40- 45 % of farmers sold their marketable surplus soon after harvesting. Due to lack of storage facilities, more than 10 % of farmers had disposed their surplus soon after harvesting in Ampara.
4. When the 2009/2010 *maha* marketable surplus was analysed it was shown that only 30 % of the marketable surplus was sold soon after harvesting in Anuradhapura whereas it was about 66% and 49% in Hambantota and Kurunegala respectively. When the 2010 *yala* marketable surplus was analysed it was found that only 16 % of the marketable surplus was sold soon after the harvesting in Ampara. In Hambantota 61% of the marketable surplus had been sold soon after harvesting.
5. At farm level, village level collectors and millers were operative in buying paddy. Village level collectors played a prominent role in Anuradhapura and also to some extent in Polonnaruwa. When a village level collector was operative in buying paddy, stocks were sold to the miller through a broker and he acted as an intermediate in the marketing channel. It is commonly observed that millers are operative in buying paddy in the areas such as Hambantota, Kurunegala, Ampara and Polonnaruwa.

6. The demand for paddy arises in the market due to three main buyers; large scale millers who sell branded paddy and operate through out the year, small and medium scale millers who purchase paddy based on the prevailing market conditions and the government purchases at GPP. Accordingly, there are three kinds of demand in the market.
7. Millers function not only as a processor but also as the buyer and as the wholesaler and retailer too in many cases. Particularly, large scale millers function from farm gate up to the consumer. This vertical integration, scale of the operation, mechanisation and use of modern technology, tend to result in non-constant return to scale by the large scale millers.
8. Based on the physical concentration of the mills, 3 regions can be distinguished as major price determining places of paddy.

**Outcome:**

Created awareness among policy makers on paddy price determination in Sri Lanka for price stabilization.

**6. The Socio Economic and Environmental Impact of Mechanization at the Stage of Harvesting in Paddy Cultivation**

**Research Team :** Mr. S . Epasinghe - Co-ordinator  
Ms. S. K. Kumara - Co-Researcher  
Ms. K.P.I. Priyadarshani - Co-researcher

**Source of Funding:** Consolidated Funds

**Scope:**

The study covered environmental and economic impacts of paddy harvesting mechanization in major irrigated areas.

**Main objective:**

To study the impact of mechanization of harvesting of paddy cultivation, on social, economic, environmental and cultural factors and to make policy recommendations that are necessary for social progress.

**Specific objectives:**

1. To investigate the use of machinery which help to minimize cost of production.
2. To Investigate the nature of the impact of machinery on the quality of the products and the supply of seed paddy.
3. To Investigate how labor has been displaced by mechanization.
4. To study the impact of mechanization on the environment.
5. To identify the importation and maintenance of machinery used at the stage of harvesting.
6. To Inquire into social benefits and negative impact of the use of this machinery.
7. To make policy proposals for the use of machinery more efficiently.

**Findings:**

1. The reason for the use of combined harvesters is labor scarcity and low cost of using machines than the cost of using labor. The drawbacks of using combined harvesters is the compacting of soil reported by 71% of the sample population and a higher moisture content of the paddy reported by 90% of the farmers. It has also been stated that for 1 acre there is a loss of 1-5 bushels of paddy. Another deterrent has been the yearly increase of cost of hiring of the machine.
2. The use of the combine thresher is also due to the problem of scarcity of labor in most paddy producing areas. 70% of the sample population reported scarcity of labor, cost consideration for the use of the machine and the reduction in the time period as reasons for use of the thresher for harvesting. Due to wear and tear of the machines there have been damages to the crop.
3. As in the case of combined harvester and thresher, the mini combined harvester was used due to labor scarcity and low cost as compared to using only labor for harvesting. One disadvantage was that this machine required more time compared to the combined harvester and combined thresher. As in the combined harvester, the paddy harvested was also damp.
4. The agrimec machine was used in areas where it was not possible to use other machines as soil was muddy in these fields. Farmers who intended to use the paddy as seed paddy for the next season also preferred to use the agrimec machine for threshing paddy.
5. With the advent of the new machines, the workload of housewives had been reduced and in some cases more or less non existent as they were not involved in harvesting

or preparing meals for the laborers' during harvesting season. The use of these new machines had also drawn the younger generation to agriculture to some limited extent.

6. In the production of seed paddy there were problems due to the use of these machines. The dampness had created problems with regard to storage and cost of paddy at the time of selling the produce.

**Outcome:**

Created awareness among the policy makers on the shortcomings of the technology and its operation for further improvement

## ENVIRONMENT AND WATER RESOURCES MANAGEMENT DIVISION

### COMPLETED ACTIVITIES

#### 1. Informal Land Fragmentation in Settlement Schemes

**Research Team:** Ms. G.G.de.L.W.Samarasinha - Co-ordinator  
Mr. M.M.M.Aheeyar - Co-researcher

**Source of Funding:** Consolidated Funds

#### Scope of the Study:

There is an increasing demand for land in the settlement schemes and subdivision of existing land allotments have been intensified with increasing population pressure. According to the Land Development Act of 1935 and the subsequent amendments, an original allotment given to an allottee cannot be sub-divided into less than 1.5 acres in case of low lands in irrigated settlements and into not less than a parcel of 5 acres for high land settlements. However, in the current context the original allotments have been informally sub-divided into smaller parcels disregarding the Act. In these circumstances, there is a growing pressure from beneficiaries to amend the existing Act allowing further fragmentation in a formal manner.

The study was aimed to assess land fragmentation in irrigated settlement schemes and its implications on allottees' livelihoods, agrarian economy and environment and also to elicit the opinions of the settlers about the existing Act and proposals for amendments to the Act.

#### Objectives:

1. To find the extent of land fragmentation
2. To examine the procedures followed in subdividing lands in colonization schemes
3. To investigate underlying reasons for land fragmentation
4. To document the criteria adopted in gifting lands among children
5. To ascertain consequences of land fragmentation and the related issues
6. To ascertain the opinions of the settlers about the existing Act and the proposals for amendments to the Act.

#### Findings:

1. About 28% of the lowland plots in the study areas are informally fragmented into less than 1.5 acres in extent. However 57% and 30% of the lowlands and highlands farmers respectively do not possess any legal document to prove their ownership inherited from parents.
2. Primary reason for land fragmentation is to provide the settlement land for children, which is considered by the farmers as their social obligation to treat all the children equally. Therefore, most of the farmers are willing to divide the land equally among all their children disregarding minimum size specified in the act.
3. Inability of formal method of transferring land ownership of less than 1.5ac has not been a problem or created any serious social and economic problems for over 60% of

the settlers though most of them preferred to transfer their land ownership legally to their children or next generation. About 20% of farmers expressed that they are experiencing problems due to inability of legal transfer of land rights to their children.

4. More than 85% of the farmers are aware of the illegality of sub division of lowland into less than 1.5acres in settlement schemes under the existing law. Nevertheless 70% of the farmers have proposed to amend the law allowing them to divide their allotments according to their own wish, but about 12% farmers preferred to limit the subdivision up to one acre as there should be an end to unlimited fragmentation.
5. About 55% of the beneficiaries showed an intention to divide their land rights among all the children equally, but 17% of the interviewees were willing to transfer their land rights to youngest in the family while 13% had not decided about the future.
6. Formal subdivision of land into small plots is expected to create problems in water management and irrigation system operation and maintenance (O&M) because of higher resource requirement (physical and human) for the O&M of increased number of legal land holdings and higher irrigation water requirement due to more drainage from each land block. Irrigation officials believed that, legal transfer of small pieces of land will pave the way for farmers to sell their allotments outside their family which could create conflicts in managing water between small plots disturbing the harmony prevailed within family members.

### **Recommendations:**

1. As informal land fragmentation had not been recognized as a barrier by majority of the farmers and had not created any serious social and economic consequences, it is not recommended to amend the existing act to allow the beneficiaries to unlimited land fragmentation.
2. Some amendments to the existing act is recommended to allow the family members to fragment land up to a minimum size of 1.5ac in the event of death of original land owner (parents) without a nominated successor. The amendment will provide entitlement not only to the eldest son, but to many children of the family within the minimum size limit of 1.5ac.
3. Pressure on land in the settlement schemes should be minimized by creating off-farm employment opportunities and providing priorities for new generation people of the old settlement schemes in allocating land under new land alienation programmes.

## ON-GOING STUDIES

### 1. Farmer Participation in Irrigation System Management: Achievement and Drawbacks

<b>Research Team:</b>	Mr. M.M.M. Aheeyar	- Co-ordinator
	Mr. M.A.C.S. Bandara	- Co-researcher
	Ms. M.T. Padmajanee	- Co-researcher

The concept of participatory irrigation management (PIM) has been recognized all over the world for improving irrigation management as a measure for the sustainability of the system. Participation of farmers in the irrigation system construction, operation and maintenance is not a new concept for Sri Lankan farmers. However, the concept was institutionalized as the national irrigation system management policy in Sri Lanka since 1988.

Though the GOSL envisaged that this policy would help solve the problems in irrigated agriculture and water resources management, research observations show that long term sustainability and success of the management transfer programme have raised doubts on the effectiveness of the policy. Participation has costs as well as benefits and that the appropriate level of participation is problematic.

The failure to mobilize adequate resources for O&M leads to deterioration of irrigation systems and necessitate pre-mature rehabilitation costing huge amount of investment from public money. Therefore, it is important to study the achievements and drawbacks of PIM policy in the present contexts and the performance of institutional arrangements established for PIM under different management models to make necessary recommendations for future policy formulation.

#### Objectives:

The principle objective of the study is to assess the problems and prospects of the PIM policy under different management models. In order to achieve this broad objective, the following detailed objectives have been defined;

1. To assess the performance of major components of PIM, i.e.; performance of the FO's, performance of JMCs and performance of IMT.
2. To examine the role of line agency and effectiveness of other institutional arrangements to fulfill the entrusted PIM task.
3. To estimate the level of resources mobilized for system O&M by the stakeholders and its implications on sustainability.
4. To Formulate recommendations for each management models to make them more effective in O&M.

The field data collection for the project has been completed and the final draft of the report is expected to be submitted by end of March 2011.

## **2. Assessment of Solar Powered Drip Irrigation Project Implemented by Ministry of Agriculture (Phase -1)**

**Research Team:** Mr. M.M.M. Aheeyar - Co-ordinator  
Mr. M.A.C.S. Bandara - Co-researcher  
Ms. M.T. Padmajanee - Co-researcher

One of the methods available to improve efficiency of water usage is the adoption of micro irrigation technologies. The solar power drip irrigation system has the ability to solve the problem of increasing fuel cost. Therefore an agreement was signed between then Ministry of Agriculture, Livestock, Lands and Irrigation and BP Solar (PVT) Ltd of Australia in December 2004 to supply and install 5000 units of solar powered drip irrigation units to the farmers in selected districts throughout the country. The company also had to provide services for maintenance of the system through their technical staff and train the famers on operation and maintenance (O&M) of the system. The company had to provide training for the district officers and Agricultural Instructors on O&M and improved method of agriculture. It was agreed to provide another 5000 units in the second phase of the project after successful completion of phase 1.

The project was implemented by the “Sustainable Agriculture Water Management Project (SAWMP)” operated under the Ministry of Agriculture. The aims of the project were to increase farm productivity, increase farmers’ income and enhance livelihood of the beneficiary farmers. Another objective of the project is to demonstrate the viability of using renewable energy with drip irrigation kits among rural farmers. The use of irrigation kit is expected to save water, fuel and fertilizer while improving crop yield and the quality of harvest.

### **Objectives:**

The major objective of this evaluation is to assess the achievements of the aims of providing solar powered drip irrigation kits and the initial impacts of the project to formulate the strategies for the future similar projects. The specific objectives of the study are;

1. To study the approach of intervention adopted in selecting beneficiaries and delivering and monitoring the progress
2. To find out the effectiveness of institutional mechanism adopted and the capacity building
3. To assess the performance of fulfilling roles and responsibilities of different stakeholders of the project
4. To examine the performance of solar powered irrigation kits.

5. To estimate the level of usage of solar powered micro irrigation kits
6. To identify the prospects and problems in using micro irrigation systems
7. To assess the impacts of micro irrigation kits in improving crop cultivation, crop yield, quality of harvest, reducing cost of production and enhancing family income and welfare
8. To Make policy recommendations for the future promotion of solar powered micro irrigation systems

The project is at the initial stage of implementation and is expected to be completed by the end of April 2011.

### **OTHER ACTIVITIES**

The EWRM division successfully conducted an International Training Programme on “Management of Rural Drinking Water and Sanitation Projects”, from 1-10 November 2010, at HARTI, Colombo with the collaboration of Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP) and the National Institute of Rural Development (NIRD) of India. The programme was attended by 21 participants from 10 regional countries.

## **MARKETING FOOD POLICY AND AGRIBUSINESS DIVISION**

The Marketing, Food Policy and Agribusiness Division – MFPAD (ex 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 relevant data and information to the policy makers, entrepreneurs, traders and farmers and students.

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

### **Regular Work Programme**

#### **Food Information Project**

##### **Research Team**

Mrs. C.P.Hathurusinghe	Co-ordinator
Dr. T.A. Dharmaratne	Co-researcher
Ms. R.Y.D.M.R.N.K. Rambukwella	Co-researcher
Ms. R.P. Vidanapathirana	Co-researcher
Mr. T.G.Somaratne	Co-researcher
Mr. W.H.D. Priyadarshana	Co-researcher
Mr. N.P.G. Samantha	Co-researcher
Mr. W.A.N. Wijesooriya	Co-researcher
Mr. H.M.J.K. Herath	Co-researcher

##### **Assisted by:**

Statistical Officers	- 02
Statistical Assistants	- 11
Casual Investigators	- 28

The MFPA Division provides timely and accurate data and information to policy makers. As usual, prices and relevant market information of food commodities were collected from 9 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 24 markets in major food producing districts and food consuming districts.

Data collection was done by 02 Statistical Officers, 07 Statistical Assistants and 20 Casual Investigators. For the data collection in outstations both Statistical Officers/Assistants and 15 Casual Investigators were employed.

The locations covered in year 2010 were Kurunegala, Nikaweratiya, Dambulla, Matale, Anuradhapura, Thambuttegama, Polonnaruwa, Nuwara Eliya, Kandy, Hanguranketha, Badulla, Kappetipola, Ratnapura, Embilipitiya, Hambantota, Tissamaharamaya, Matara, Galle, Kalutara, Moneragala, Dehiattakandiya, Ampara, Puttalam, Marandagahamula, Meegoda and Narahenpita.

In addition, Wholesale Prices of food commodities were collected daily from Pettah, Kandy, Dambulla, Noroichcholai, Marandagahamula, Meegoda and Narahenpita markets. At the request of Ministry of Trade and Consumer Affairs, daily retail price collection of major food commodities has started in October 2010. These data were disseminated daily through electronic media, to enable producers and traders to be aware of commodity prices in main wholesale markets and also in Pettah retail market in time. By analyzing both wholesale and retail prices in Colombo and outstations and also producer prices in major producing areas, the Weekly Food Commodities Bulletin is issued every Friday. 52 Weekly Food Commodities Bulletins and 12 Monthly Food Information Bulletins were issued in time.

### **Progress for the Year 2010**

- Weekly Food Commodities Bulletin – 52 Bulletins were issued.
- Daily Food Prices provided to the relevant authorities – for the whole year.
- Monthly Food Information Bulletins – 12 Bulletins were issued.
- Provided daily and weekly information to the media in time.
- Provided price data and other market information to the requested government and private sector agencies throughout the year.

### **COMPLETED STUDIES**

#### **1. Marketing of Vegetables through Supermarkets: Implications of Procurement Practices for Farmers**

**Research Team:** Ms. R.P. Vidanapathirana - Co-ordinator  
Mr. W.H.D. Priyadharshana - Co-researcher  
Ms. R.Y.D.M.R. N.K. Rambukwella - Co-researcher

**Source of Funding:** Consolidated Fund

In Sri Lanka, the supermarket sector is growing at a faster rate and is firmly established. Supermarkets not only change the way we shop, but also radically change food supply chains and producer-retailer relations through new procurement practices. In the long run, supermarkets will increasingly influence the structure and conditions of agri-food system throughout the country. It creates new opportunities for farmers who are able to supply what supermarkets demand. Hence, it is important for the government to be aware of these changes; opportunities and challenges facing farmers as it can enhance small producer

livelihood. This study was aimed to fill this gap with a particular focus on procurement of vegetables by supermarkets. Therefore, this study attempted to examine the organization and functioning of vegetable supply chains systems of supermarkets and their implications on farmers compared to conventional marketing channels. Two surveys were conducted interviewing supermarket-channel farmers (100) and conventional-channel farmers (100) in Nuwara Eliya, Bandarawela and Thambuththegama. A one-way analysis of variance was used to compare the retail prices of vegetables at different supermarkets and to compare that with conventional channels. Further, the prices received by supermarket-channel farmers and conventional channel farmers were analyzed.

### **Objectives:**

1. To examine the organization and functioning of supermarket supply chain systems with a particular focus on procurement practices of vegetables and to identify their limitations.
2. To identify problems of farmers in supplying vegetables to supermarkets.
3. To compare the farmers' views in supplying vegetables to supermarkets against the conventional marketing channels.
4. To study the variation of retail prices of vegetables at different supermarkets and conventional retail markets.

### **Findings:**

1. Study has found that farmers who supplied vegetables to supermarkets had a slightly higher income than those who supplied to conventional markets. Therefore, the participation in the supermarket channels had a positive impact on farmers' income and thereby enhance their livelihood.
2. Study clearly shows that most of the farmers selected the supermarket channel, expecting a higher producer price compared to that of traditional channels. About 71 percent of supermarket-channel farmers selected supermarkets due to high producer prices paid by them, whereas 75 percent of conventional-farmers selected their marketing channels as it was easy to access them.
3. There are certain agreements between supermarkets and farmers in supplying vegetables in other countries. But this study reveals that there was no such agreement between supermarkets and farmers in Sri Lanka.
4. More than 87 percent of the supermarket-channel farmers in all the study areas revealed that they had not changed supermarkets from time to time. A notable proportion of the farmers in all the study areas had supplied vegetables to supermarkets for more than 3 years. According to farmers' experience, they revealed that, the farmers who supply vegetables to supermarkets had increased over a period of time. Also, farmers had supplied vegetables to supermarkets, continuously. This shows that the farmers had built-up trust dealing with supermarkets.

5. Majority of supermarket farmers sold less than 50 percent of their total production to supermarkets as the amount purchased by supermarkets was limited compared to conventional channels. Most of the supermarket farmers had to find other ways of selling too while selling limited amounts of their produce to supermarkets.
6. Study has found that more than 75 percent of the farmers in all the studied areas brought their vegetables to the collecting centers within a distance of less than 10km. It means that most of the sample farmers could transport their vegetables easily and quickly to the collecting centers and they also could minimize the losses of vegetables when transporting. If producers were scattered and infrastructure was weak, collection costs tended to be high. Monitoring and tracing requirements add substantially to these costs. Hence, supermarkets tend to procure from farmers close to collecting centers and the supermarket itself.
7. Study reveals that farmers do not cultivate vegetables according to standards or advises given by the supermarkets. However, at the point of selling, supermarkets do grading and sorting of vegetables according to the standards and those not up to the standards are rejected.
8. Majority of supermarket farmers have been satisfied with the amount of money they received, whereas most of the conventional-farmers were not satisfied with the prices they received. This shows that supermarkets are reliable with respect to their terms of payment.
9. In other countries, supermarket-farmers obtain certain benefits such as loans, inputs and extension services and assured markets at high prices from supermarkets. However, this study has found that 69 percent of the supermarket farmers in Sri Lanka did not receive benefits from supermarkets other than higher producer prices.
10. Local suppliers face challenges when they supply vegetables to supermarkets. Unlike supplying to the open market, suppliers to the supermarkets have to ensure that the quality of their products is compatible with the needs of the high-income customers. This poses a challenge because the farmers have to ensure that their products are of the required quality right from the nursery stage of the gardens. At the moment quality agricultural inputs (such as fertilizers and seeds) are very expensive and agricultural extension services are weak. Therefore farmers lack knowledge of good husbandry practices. In this study the major problems highlighted by the farmers were supermarkets order only a limited amount of vegetables at a time. Therefore they have to find out other sources of selling. The amount of purchase by supermarket is low when the production is high. Farmers also have to bear the transport cost.

11. Farmers attached to supermarket channels received high prices compared to conventional farmers. On an average supermarket farmers in Thambuththegama and Nuwara Eliya had received 47 percent and 26 percent higher prices than the prices received by conventional farmers.

### **Recommendations:**

1. Supermarkets or their suppliers should guide farmers on what to produce, when to produce and the time to harvest. They have a role to play in facilitating agricultural inputs, extension services, training etc. Both the public and private sectors have roles to play in promoting the participation of small producers in supermarket supply chains in a sustainable manner.
2. Further, they have a role to play in facilitating compliance through programs that, enhance the capacity and self-reliance of producers. Public authorities must provide a policy environment that promote mutually beneficial partnerships between supermarkets and small producers and a legal framework that protects the economic interests of the parties.
3. Farmers should be organized as groups to facilitate supermarkets by operating collecting centers that creates win-win situation to both parties where farmers can obtain higher prices while supermarkets can reduce their transaction cost.
4. Government should develop programmes that will help farmers to upgrade their pre and post harvest practices in order to meet the requirements of these new markets and need to investigate possible tripartite arrangements between banks, supermarkets and input companies to assist farmers.
5. Farmers need to have the resources and training to be able to actively participate in the rapidly transforming domestic food market. In particular, the government can work in partnership with the private sector, non-governmental organizations and international development organizations to provide assistance to small farmers. The assistance can take the form of helping to organize cooperatives and effective associations in order to be able to meet the scale and volume needed to supply to a supermarket. Credit schemes need to be introduced for the farmers so that they are able to obtain the technology required to meet the stringent quality and safety standards demanded by supermarkets. The third form of assistance could be in the form of knowledge dissemination to place farmers in a stronger position.

## **2. Impact of High Food Prices on Sri Lankan Households**

**Research Team:** Mr. T.G. Somarathne - Co-ordinator  
Mr. H.M.J.K. Herath - Co-researcher

**Source of Fund :** Consolidated Fund

### **Scope of the Study:**

World food prices had been increasing rapidly since 2006 and they had accelerated during 2007 and 2008. The rate of price increase was higher than the average. In line with this global situation, the food prices in Sri Lanka had also increased during these years. As a result, households of each sector i.e. urban, rural and estate had to adjust their budgets to cope up with the increase of food prices. Since their purchasing power had decreased, they had fallen into food insecurity. The possible alternatives to cope with the impact of high food prices vary according to the livelihoods within each group.

Therefore, this study was undertaken with the purpose of investigating alternative strategies to cope with the increase of food prices and to study the impact of high food prices on food security of the households in each sector.

### **Objectives**

1. To review the price behavior of food- sub sector in 2007 and 2008;
2. To assess the coping strategies followed by each sector households with high food prices;
3. To study the impact of increase of food prices on food security of each sector households (Urban, Rural and Estate);
4. To identify an appropriate food supply mechanism to ensure food security in each sector.

### **Findings:**

1. Rising trend of food prices had adversely affected the purchasing power of households. The degree of effect is most severe in the estate sector as well as urban slums and fisheries sector.
2. The study shows that the price of rice has increased by 100% between 2007 to 2009. Also, the prices of wheat flour have increased by 89%, bread by 71%, pulses by 56%, potato by 65% and vegetables by 21%. Prices of milk powder and sugar have increased by 71% and 31% respectively.

3. Figure of the Food Consumption Score (FCS) at the household level was relatively low in state sector urban slums and fisher community, when compared to the other sectors when applying the model of World Food Programmes. Further, FCS has indicated that out of the sample population of the study, 14% fell in to the food insecurity condition. However, the levels of food insecurity in other sectors were 42% in state 40% urban slums and 28% among fisher communities.
4. Due to increase of food prices, all household of the sample had followed different “coping strategies to adjust their budget. Major coping strategies are the reduction of buying quantities of food items (80%), purchase on credit(66%) and low daily consumption (66%). In addition borrowing food from friends, relatives and neighbours (57%), and selling or mortgaging various items were also coping strategies.
5. Rising food prices, illnesses and increase of health care expenses were the biggest difficulties face by the households during the last two years. They were 32% and 29% respectively.
6. Currently the implementation of the home garden development program is not progressing well enough to enhance food security and it was found that only 55% of households in the sample have developed their own home garden.
7. Samurdhi program was the major food assistance program implemented by the government and it covered 24% of households of the sample. It covered 35% in the rural sector and among the state, urban slums and fisher households, it was 20%, 24% and 24% respectively.

### **Recommendations:**

1. The current food assistance program should be re- organized by focusing on poorest people among the state sector, urban slums and fisher community as the major food assistance program was not targeting these households.
2. Special programs are needed for the development of home gardens in all sectors for improving their own food supply, by introducing suitable extension service mechanisms and awareness programs for housewives.
3. Participation of poor people in the rural development program is essential to create opportunities for income generation so as to enhance the purchasing power and to assist in overcoming their indebtedness.
4. Creation of a food enhancing program on regional basis and reduction of food prices and upliftment of the purchasing power of the poor people are pressing needs.

5. Regional food market in less urbanized areas have to improve infrastructure and reduce the marketing cost and establish proper food distribution net-works.

### **3. Issues in Big Onion Seed Production and Marketing in Sri Lanka**

**Research Team :** Mr. N.P.G. Samantha - Co-ordinator  
Ms. R.P. Vidanapathirana - Co-researcher  
Ms. R.Y.D.M.R.N.K. Rambukwella - Co-researcher

**Source of Funding :** Consolidated Fund

Commercial cultivation of big onion in Sri Lanka was started in early 1980's and the cultivation extent increased with annual fluctuations. Though, it has been popular among the farmers, scarcity of quality seeds is a major bottleneck in promoting the domestic production. The total seed supply of big onion consists of local production as well as imports. The local seed supply is estimated at 20 percent of the total seed requirement. Therefore, it is time to develop local seeds production. Though, the local seed production programme of big onion seeds has started in 1990s, its progress is not at a satisfactory level. Hence, this study was undertaken to identify the system of production and marketing of big onion seeds in Sri Lanka and to review the problems and constrains faced by the farmers in producing big onion seeds.

The specific objectives were;

1. To identify and review various distribution channels of big onion seeds in Sri Lanka.
2. To assess the present status of imported big onion seeds in Sri Lanka.
3. To identify the problems and constraints faced by farmers in producing big onion seeds.

Three interrelated data collection mechanisms such as literature review, key informant discussions and questionnaire survey were used to collect information for the study. This study covered 212 farmers in the major big onion seed producing areas; Galewela, Dambulla and Kimbissa in Matale district and Ipalogama and Maradankadawala in Anuradhapura district.

## **Findings:**

1. The study revealed that there is a high risk in the production of big onion seed. Hence farmers have a tendency to cultivate small plots. Survey found that 58 percent of sample farmers had produced less than 5kg of big onion seeds.
2. Cultivation in *Yala* is more profitable than that of *Maha*. But the storage of mother bulbs until *Yala*, is a major problem in the study areas. Only 30 percent of farmers had proper storage facilities for mother bulbs while the rest had used conventional methods such as hanging or spreading on floor.
3. Most of the farmers (67 percent) had used their own mother bulbs for cultivation. Most of the farmers (55 percent) who had excess production of seed in 2010 had sold their produce directly to other farmers within or outside the area.
4. Only 10 percent of seed producers had been registered under the seed act. There is a high demand for local genuine seed and its price is five times higher than that of the imported seeds.
5. Few private companies are engaged in big onion seed production and the major problem they face is lack of foundation seeds of recommended varieties and shortage of skilled labour.
6. Private companies import big onion seeds from India and 39,210 kg were imported in 2010. Farmers revealed that the traders sell imported seeds mixed with expired seeds.

## **Recommendations:**

1. The study recommends giving more training to farmers on pest and disease control. to increase the big onion seed production.
2. Farmers who are willing to produce on a large scale should be selected and they should be given more facilities such as storage of mother bulbs and finance.
3. Production of basic seed programme should be accelerated to cater to the demand of private sector.
4. Seed import permits should be given only to the recognized private sector companies to avoid importation of low quality seeds and seed certification process should be strengthened to ensure farmer's access to good quality seeds.

#### **4. Evaluation of Youth Contribution Programme for Self-Employment in Polonnaruwa District**

**Research Team:** Mr. W.H.D. Priyadarshana - Co-ordinator  
Mr. W.A.N. Wijesooriya - Co-researcher

**Source of Funds :** Ministry of Agriculture and Agrarian Development

##### **Scope of the Study:**

The purpose of this study was to assess the self employment projects supported by the Ministry of Agriculture and Agrarian Development under the accelerated food production programme.

##### **Objectives:**

1. To identify the conduct and performance of the Self Employment Programme
2. To examine the living standards of the beneficiaries
3. To understand the problems faced by the beneficiaries
4. To identify potential areas to improve the programme
5. To make necessary recommendations for the sustainability of the programme.

##### **Findings:**

A total of 183 entrepreneurs had received loans under this programme and 151 of them were selected for the study. It was found that 51 were newcomers and the rest had been already in the business. It was found that 70 percent of the beneficiaries were less than 50 years old and nearly 40 percent were women entrepreneurs. Dairy/livestock, ornamental fish and rice processing projects had been successful while cultivation of green gram, pineapple and beetle leaves projects have been failures. At the time of the survey 13 beneficiaries had given up the ventures. Approximately 80 percent of beneficiaries had paid their loan installments. Inadequacy of training and absence of follow up monitoring are weaknesses observed in the programme. Overall, the project appears to be successful.

##### **Recommendation:**

Inclusion of practical training, increase of loan and rechecking whether the first installment has been paid before releasing the second installment are suggested measures for the success of the project.

## 5. Value Chain of Pineapple and Banana

<b>Research Team :</b>	Ms. C.P.Hathurusinghe	-	Co-ordinator
	Mrs. R.P. Vidanapathirana	-	Co-researcher
	Mr. T.G.Somaratne	-	Co-researcher
	Ms. R.Y.D.M.R.N.K. Rambukwella	-	Co-researcher

**Source of Funding :** Consolidated Fund

The value chain concept entails the addition of value as the product progresses from input suppliers to producers and from producers to consumers. Hence a value chain incorporates productive transformation and value addition at each stage of the value chain. At each stage in the value chain the product changes hands through chain actors incurring transaction costs and some form of added value. Value addition results from diverse activities including cleaning, grading, packaging, transporting, storing and processing.

Since 1990 the producer prices of banana have increased gradually and annual averages have increased considerably during the last two decades. The producer prices of both Mauritius and kiwi have increased considerably during the last two decades and the demand is fairly high for Mauritius type fresh fruits. Three channels for banana and four channels for pineapple was identified according to the market surveys conducted by the Marketing Food Policy and Agribusiness Division of the HARTI.

### **Problem:**

Value chain analysis for this sector is lacking in Sri Lanka. The marketing process from farm-gate level to retail must convey information not only about prices but also must ensure the transmission of credibility. As the distance between the farmer and the consumer widens, the level of credibility becomes more difficult to establish. Therefore, a number of interesting value chain issues have arisen in connection with the distribution of agricultural foods.

### **Objective:**

The main purpose of the study was to identify ways to improve competitiveness through three strategies: producing and delivering goods and services more efficiently; differentiating products through processing, improving quality standards, branding; and exploiting new market demand.

More specifically the objectives were formulated as: identifying specific varieties with high value domestic and export potential, identifying the actors for each step of production and marketing using the value chain approach, identifying key input suppliers including technology and services, identifying productivity issues at farm level, identifying current market outlets and alternatives, analyzing the factors affecting performance of the value chains, analyzing the roles and relationships of actors in the industry for implementation of

the interventions, making recommendations useful for the policymakers to economic development through the growth of rural poor and stakeholders in agricultural sector.

### **Conclusion:**

Some of the issues identified throughout the analysis require policy as well as public sector action. In addition many challenges faced by the sector can be addressed directly by the private sector and/or in partnership with the Government. The actions required to address the issues raised throughout the analysis are presented to alleviate or reduce the negative impact on the competitiveness of pineapple and banana marketing.

Farmers have requested a reduction of fertilizer prices to minimize cost of production. The cost of agro chemicals and labour has increased considerably. Crop management, harvesting, processing and packing need skilled labour. At present the government decision to provide fertilizer subsidy for coconut cultivation has considerably benefited pineapple farmers because pineapple is cultivated under coconut lands and almost all the growers use coconut fertilizer for pineapple cultivations.

Internationally recognized private companies engaged in export of banana, use methods for the proper maintenance of crop and proper techniques for harvesting, packaging and handling to fulfill the needed quality. However some other exporters tried to meet those requirements by using low cost techniques according to their practical knowledge that suited to the domestic conditions.

The domestic market growers harvest their crop when the fruits are matured. Then the harvested fruits are supplied to the nearest wholesale market. Some of the small scale farmers used to sell their harvest at the nearest collecting centre or to the mobile collectors. It was observed that the way of handling banana, damages the bottom of the bunch. It is necessary to consider post harvest damages and significant improvements should be made to improve quality and product presentation. Reduction of loss and waste can be achieved through simple training and attention to proper handling in harvesting, transporting, and storing to reduce bruising and damage. When the growers try to increase the weight of fruits ripened fruit was affected. This is due to high moisture in pineapple and in banana skin. Especially the high moisture content pineapple is not tasty and this can be identified by looking at the outer skin of the fruit. These fruits have no demand in the export market.

Global demand for fruits has increased and year-round availability of a broader line of high-quality fresh produce is increasing the trade of fresh fruits. Fresh fruits represent the highest value potential to agriculture producers. But it was observed that the price of fresh pineapple does not differ significantly whether it is exported or sold at the domestic market. Only difference is that pineapple is harvested before ripening stage for export. Our pineapple and Cavendish banana production is highly export oriented. In the pineapple production and marketing the growers and exporters have interconnected roles. Exporters are able to collect fresh pineapple throughout the year. The growers who supply pineapple to the domestic market harvest their crop on the request of wholesalers in open market. They sell the

product to retailers and supermarkets. These wholesalers select the fruits according to the need of the supermarkets and other contract buyers.

### **Recommendations:**

1. Strengthen public-private dialogue to pursue a medium and long term strategic vision and plan to expand the current market coverage of these fruits. To achieve this, it is necessary to build trust among various players along the value chain.
2. Strengthen public-private dialogue to produce healthy seedlings to satisfy farmer needs and implement a plant distribution programme with varieties that are in demand in target markets.
3. Improve access to short and medium term finance to develop the processing sector.
4. Improve farmer and producer access to the latest information on international standards and types of certifications required for target markets.
5. Develop and strengthen the supply chain to help small farmers to link with larger producers and processors to get access to expand distribution.
6. Implement a program to address the problems in the post harvest activities including training programs in proper handling techniques and pack house operations.
7. Strengthen the sustainable capacity and access to both public and private sectors on-farm extension services to mitigate the present extension problems.
8. Finally it is needed to strengthen Research and Development capacity to develop new varieties to capture new markets and compete with the other exporting countries.

### **6. Pre-Feasibility Study of the Sugar Project in Anuradhapura and Trincomalee Districts**

**Research Team:** Dr. L.P.Rupasena - Co-ordinator  
Dr. T.A.Dharmaratne - Co-researcher

**Source of Funding :** Sugar Cane Research Institute

#### **Scope of the Study:**

The policy statement presented by the President of Sri Lanka, (*Mahinda Chinthna: 2005*) has placed high priority to the development of the sugar industry and set the target to reach 50 percent of the national requirement. If the target could be achieved, sugarcane cultivation could play a major role in transforming agriculture and boosting agricultural GDP. In order to realize these goals, the Ministry of Supplementary Plantation Crops Development has planned the establishment of new sugar factories in Bibile, Siyambalanduwa, Anuradhapura, and Kurunegala areas. Since land is a key factor for sugarcane cultivation and establishment of new factories, it is compulsory and necessary to review, and work out a plan to determine the land availability for the proposed projects in those areas.

As a result, the Sugarcane Research Institute (SRI) under the Ministry of Supplementary Plantation Crops Development requested Hector Kobbekaduwa Agrarian Research and Training Institute (HARTI) to conduct a pre-feasibility study on the proposed Anuradhapura and Trincomalee sugar projects. The factory is expected to be set up at Kahatagasdigiliya and supply of sugarcane is expected from the 13 Divisional Secretariat (DS) areas of these

two districts. Of this; 10 divisional Secretariats are located in the Anuradhapura district and other three Divisional Secretariats are in the Trincomalee district.

### **Study objectives:**

The socio economic survey was carried out in 341 Grama Niladari divisions within 13 Divisional Secretary areas in Anuradhapura and Trincomalee districts. Locations were identified in consultation with the officials of the Ministry of Supplementary Plantation Development. Objectives of the survey were 1) to ascertain demographic characteristics, education levels, employment, unemployment, land ownership and land use pattern; 2) to examine the prevalent infrastructure facilities; 3) to work out competitive profitability and 4) to estimate potential land for sugarcane cultivation. Indirect oral examination method, which is widely used in pre-feasibility studies where a quick assessment is required, was employed to gather information from the study locations from December 2009 to March 2010. Under this method Grama Niladaris, village headmen who has thorough knowledge about the study area and maintain the village data base, were selected for data collection. Simple tabular techniques including frequency distribution and cross tabulation were applied for data analysis.

### **Major Findings:**

1. Total population in the command area of the project was 367,599 and distributed evenly among gender. The number of households was 89,325 of which 75 percent were agricultural households. 96 percent of the population were literate and over two third of them had received at least secondary education. Further 11 percent had passed GCE (O/L). It was also found that nearly 45 percent of the households were below the poverty line. This implies that present cropping/farming systems do not support upliftment of the incomes of the farmers. Nearly 60 percent of the employed population works in agriculture. Unemployed population exceeds hundred thousand and the majority are the youth.
2. Total land area in the command area amounted to 266,059 acres. Of this total area, 16 percent are reserved for wild life and forest; privately owned land was only 42 percent; encroached land accounted for 17 percent and state lands represented 24 percent. Holding sizes of the lands were relatively big compared to the national level. Nearly 16 percent of the extent under home gardens were above 5 acres in size. 69,000 acres were identified as potential lands for sugarcane cultivation.
3. Major seasonal crops grown in the area were maize, gingerly, black gram and chillies.. A series of focus group interviews revealed that farmers prefer sugarcane to other crops due to convenience, assured market and low risk in production.
4. Over 70 percent and nearly 45 percent of the households had electricity and telephones respectively. Total length of roads was 5332 km of which 45 percent were connective gravel roads. Nearly 73 percent of the total road length needed to be repaired. Public utilities such as schools, medical centers, post offices, banks and communication centers appear to be inadequate.

## **Conclusion:**

Study concludes that lands for cultivation of sugarcane to meet the requirement of the proposed factory could be obtained from the existing agricultural lands. It should be mentioned that relatively large holding size is an advantage to cultivate a crop like sugarcane. Also, labor required for cultivation and functioning of the factory is available in the project area itself. Education level of the population is an added advantage for commercial cultivation of sugarcane. However, infrastructure facilities especially roads need to be improved.

## **Special reports submitted to the Ministry of Agriculture and Agrarian Development and to the Ministry of Agriculture.**

1. Present Distribution Patterns and Requirement of Vegetables to the Colombo District – R.P. Vidanapathirana
2. Paddy surplus and deficit situation in 2010 for the Ministry of Economic development - W.A.N. Wijesooriya
3. Determination of Maximum Retail Prices of Rice - October 2010 - C.P. Hathurusinghe, W.A.N. Wijesooriya and U.A.S. Edussooriya
4. Paddy & Rice Price Review 2000-2010 – October 2010  
C.P. Hathurusinghe
5. Poultry meat and Egg Marketing in Sri Lanka - October 2010  
C.P. Hathurusinghe, T.G. Somaratne and U.A.S. Edussooriya

## **Training Programmes – Participated as Resource Personnel**

In 2010 the following Training Programmes on Marketing Extension were conducted.

<b>Duration</b>	<b>Venue</b>	<b>Participants</b>	<b>No. of Participants</b>
20 <sup>th</sup> -22 <sup>nd</sup> March	Mahaweli Development centre - Girandurukotte	Agricultural extension Staff of Mahaweli System “B” area	38
08 <sup>th</sup> -12 <sup>th</sup> November	District Agriculture Training Centre Trincomalee	Agricultural Extension, Staff in Trincomalee District	42

21 <sup>st</sup> - 25 <sup>th</sup> November	District Agriculture Training Centre Ampara	Agricultural Extension, Staff in Ampara District	33
28 <sup>th</sup> Nov - 02 <sup>nd</sup> December	District Agriculture Training Centre Batticaloa	Agricultural Extension, Staff in Batticaloa District	38

The Research staff participated as resource personnel for the above mentioned Training Programmes:

Dr. T. A. Dharmaratne	Research Fellow
Mr. W.H.D. Priyadarshana	Research Officer
Mr. N.P.G. Samantha	Research Officer
Mr. W.A.N. Wijesooriya	Research Officer

## **OTHER ACTIVITIES**

### **Mrs. C.P. Hathurusinghe**

1. Actively participated as a member of the Cabinet Approved Standing Technical Evaluation Committee on Government Food Procurement
2. Actively participated as a member of the Food Security Committee Meetings held at Ministry of Trade and Consumer Affairs.
3. Edited Weekly Food Commodities Bulletin and Monthly Food Information Bulletin
4. Comments were incorporated and prepared Final Draft of Review on Other Field Crops Sector

### **Dr. T.A. Dharmaratne**

1. T.A. Dharmaratne presented a paper on “Application of the New Institutional Economics Approach to Enhancement of Agricultural Statistics: Problems of Measuring Transaction Cost on Agricultural Commodities in Sri Lanka” at the seminar on Fifth International Conference on Agricultural Statistics (ICAS – 5): Integrating Agriculture into National Statistical System, organized by National Statistics Bureau of Uganda, FAO, World Bank and International Institute of Statistics, October 12-15, 2010, Kampala, Uganda.
2. “Wonder of Dragon: New Economic Reforms and Recent Economic Development Trends in China Economy in the Period of New Millennium” the article was written by T.A. Dharmaratne and published in the felicitation book in honor of Prof. Dayananda Somasundara – Department of Economics, University of Sabaragamuwa, Sri Lanka, 14th October 2010.

3. As a visiting lecturer T.A. Dharmaratne conducts a series of lectures on topics such as “Role of Agriculture, Agricultural Marketing in Sri Lanka “Financial Issues in Domestic Agriculture, Supply Chain Management and Commodity prices” for different Postgraduate programs (MA in Financial Economics, Development Economics and Diploma in Economic Development) in the Department Economics University of Colombo in year 2010.
4. As a visiting lecturer, T.A. Dharmaratne conducts a series of lectures on the topics such as “China Economic Development” and “Project Management” for the undergraduate program (Special Degree Program in Economics, Department of Economics, University of Sri Jayawardanepura, Nugegoda in the year 2010.
5. As a Trust Board Member T.A. Dharmaratne continuously participate in the Trust Board meetings at the Meegoda Economic Centre in Homagama in year 2010.
6. T.A. Dharmaratne prepared the special report on the “Crop Situation Report for Paddy Sector in Maha Season 2010/11” for the Ministry of Finance and Planning, December, 2010
7. T.A. Dharmaratne served as research supervisor as well as examiner for undergraduate and postgraduate dissertations prepared by the students in the Department of Economics, university of Colombo and university of Sri Jayewardenepura.
8. Celebrating 38 anniversary; the HARTI issued a special magazine of “ Govi Janatha” and the article written by T.A.Dharmaratne on the topic “Contribution of the Marketing, Food Policy and Agri-Business Division: Providing data and information of Agricultural Markets, to the policy makers, traders and farming communities in Sri Lanka” was published in volume 14, February 2010.

**Mr. W.A.N. Wijesooriya**

1. Delivered a lecture entitled "" Price Behaviour of Lentils in Sri Lanka" on request of Department of Agricultural Economics and Business Management of University of Peradeniya, to the student delegation of Rutgers- State University of New Jersey, USA on 20<sup>th</sup> August, 2010 at HARTI

## **HUMAN RESOURCE & INSTITUTIONAL DEVELOPMENT DIVISION**

The division mainly conducts short term Training Programs, Workshops, Seminars, Symposia and research based study circle Seminars. Most of the resource persons for these programs are from the institute but some are also drawn from Universities and Government and non government Institutes, according to specific needs. In addition research studies are carried out by the division.

### **COMPLETED TRAINING PROGRAMS.**

#### **1. Training Programs on Participatory techniques ( RRA, PRA and PCM ) for planning and management of Rural / Community development Projects. (“Gama Negumata Sitata Saviya”)**

<b>Training Team:</b> Mr. N.S.B. Epakanda	- Co-ordinator
Dr. M.S. Senanayake	- Head of the Division
Mr. S.M.A. Samarakoon	- Senior Research Officer
Mr. R.L.N. Jayatissa	- Research Associate
Mr. S. Epasinghe	- Research Officer
Mr. P.C.J. De Silva	- Research Officer
Mr. N.S.W. Navarathna	- Senior Statistical Officer

The division conducted 04 Programs in the second half of the year 2010. These programs were designed to advocate and create awareness among officers who were directly involved in the rural & Community Development programs. Main objective is to enhance knowledge on preparing community Action Plans. The other objective is to enhance the participant’s knowledge on the concepts and methods used in participatory planning and Management.

The first four day program was conducted from 09 – 12 July 2010 for the field officers of the Hadabima Authority in the Central Province. Special attention was paid in this program to draw participants from Hadabima Authority who were involved in activities in the Rural and Community Development Sector. After the training program a selected village was set up to conduct an action program of Hadabima Authority.

HARTI has developed an agri-village development model based on the research experience and decided to implement it in Moneragala district under dayata kirula programme in 2011.

Six Villages were identified by former Deputy Minister of Agriculture as sustainable Agro villages under Deyata Kirula 2011 in consultation with the Director (Policy Planning ) Moneragala.

The Selected Villages are :-

- i. Maduruketiya and Kubukkana in Moneragala D.S. Division of Moneragala Electorate.
- ii. Puhulkotuwa and Yatiellatota in Buttala D.S. Division of Wellawaye Electorate. and
- iii. Amunekadura and Rattanadeniya in Moneragala in D.S. Division of Bible electorate.

This Program was conducted for field officers in Government Sector directly involved in Rural and Community development activities in these 06 villages. 45 officers participated in the program. They are Grama Niladaries, Agricultural Instructors, Agricultural Research and Production Assistants, Samurdhi Development Officers, Pradesiya Sabha Members and other relevant Officers. Under this program 06 Community action plans were prepared. According to these Community Action Plans, HARTI and the other relevant Government Organizations agreed to undertake those activities to implement, prior to the Deyata Kirula Program in Buttala. This Training Program was conducted from 14 to 18 Sep. 2010.

The third Program was conducted in Matara District on the instructions of the Ministry of Agriculture. Forty field officers were trained. Four villages in Weligama D.S Division of Weligama electorate were selected for field exercises. Four Community Action Plans were submitted to the Minister and relevant officers for implementation. The program was conducted from 22 to 27 November 2010.

The Forth program was conducted at the request of Sabaragamuwa Provincial Council. This program was specially designed as a Training Of Trainers program for the newly appointed field officers of livestock & agricultural sector. Program was conducted from 06 to 09 Dec. 2010.

## **2. Training Program on Marketing Extension.**

### **Training Team :-**

Dr. L.P.Rupasene	- Co-ordinator
Dr. T.A.Dharmarathna	- Research Fellow
Mr. W.H.D.Priyadharshana	- Research Officer
Mr. E.A.C.Priyankara	- Research Officer
Mr. N.P.G.Samantha	- Research Officer
Mr. W.A.N.Wijesooriya	- Research Officer
Mr. N.S.W.Nawarathna	- Senior Statistical Officer

This programme was designed to enhance knowledge of agricultural extension staff on marketing extension to advise farmers on what to grow, when to grow, how to sell, when to sell, and at what price.

The objectives of the program were -

1. To enhance participant's knowledge about the concepts on marketing extension.
2. To understand organization and operation of commodity markets.
3. To understand the role of the Extension Officer in the 21<sup>st</sup> century agriculture.
4. To enhance knowledge on use of market information on decision-making.

The Training Program was designed for agricultural extension staff working at divisional / Village level. The Program was conducted in Girandurukotte, Ampara, Baticaloa and Trincomale.

The output of the program was 160 training officers in the relevant districts.

### **3. Training Program on Social Mobilization and participatory development.**

**Training Team :** Mr. N.S.B. Epakanda - Co-ordinator  
Dr. M.S. Senanayake - Head of the Division  
Mr. S.M.A. Samarakoon - Senior Research Officer  
Mr. R.L.N. Jayatissa - Research Associate  
Mr. S. Epasinghe - Research Officer  
Mr. P.C.J. De Silva - Research Officer  
Mr. N.S.W. Navarathna - Senior Statistical Officer

This program was held from 21<sup>st</sup> to 24<sup>th</sup> December on the request of the Rural Development Ministry of North West Province. The program was conducted for the field level officers of the Ministry who were directly involved in "Wayamba Gemi Saviya" Program. These officers played the catalyst role in the said project. Participants consisted of rural Development officers and Probation Childcare Officers. The output of this program was training 60 social mobilizers under the Gemisaviya Program in the NWP.

### **4. Training Program on Empowerment of farmer Organizations.**

**Training Team :** Mr. N.S.B. Epakanda - Co-ordinator  
Dr. M.S. Senanayake - Head of the Division  
Mr. S.M.A. Samarakoon - Senior Research Officer

On the request made by the District Sectary - Puttalam district, this program was conducted for the farmer leaders of Tabbowa and Inginimitiya major irrigation schemes. The program was designed in order to strengthen the farmer organization. This program was held from 26<sup>th</sup> to 29<sup>th</sup> October and about 100 famer leaders attended.

## **5. Training Program on Empowerment of Farmer Leaders using Appropriate Farming Technology ( Nature Farming Techniques)**

<b>Training Team</b>	: Dr. M.S. Senanayake	- Co-ordinator
	Mr. N.S.B. Epakanda	- Research Officer
	Mr. S.M.A. Samarakoon	- Senior Research Officer
	Mr. N.S.W. Navarathna	- Senior Statistical Officer
	Mr. Thilak Kandegama	- Chairman of Jatika Govi Sammelanaya

This program was designed for Farmer Leaders to re-think about time and season of cultivation as a team ( Kalata, Kanneta and Kaiyata ) for development of successful and sustainable agriculture. The program had high responses from Various Organizations and Farmer Organizations.

From July 2010 to 30<sup>th</sup> December 2010, 32 programs were conducted in Hambanthota , Galle, Matara and Monaragala Districts. The Financial assistance was provided by the Ministry of Agriculture. The total output was training of more than 3000 field level officers who were involved in Rural Development Activities and farmers leaders.

### **COMPLETED RESEARCH STUDIES**

#### **1. Partnership Network for Ministry of Agriculture**

**Researcher :** Mr. P.C.J. De Silva

This study was undertaken at the request of the ministry of agriculture. The Ministry wanted to identify the stakeholders with whom it should build up partnerships for better and efficient implementation of its duties. Further it also expected to examine attitudes of the stakeholders about the nature of the prevailing relationship they have with the ministry, and to find out means to develop it. The stakeholders in the partnership network were expected to build up individual entities and groups who have a significant relevancy to agriculture sector of the country. As a result the range of stakeholders in the particular network becomes highly diverse.

#### **The Objectives:**

The main objective of this study was to identify and prepare a network of the Ministries, Departments, NGOs, Private Companies and the Media institutes with which agriculture ministry for better execution of its duties.

Specific objectives were

1. To draw a network diagram to show the nature of relationship of the identified entities and the agricultural ministry.

2. To find out the nature of existing relationship between the agricultural ministry and the identified entities to the net work
3. To make suggestions for better or improved relationship with those entities

### **Findings of the study:**

1. Majority of the identified partners belong to agriculture ministry. Others were not satisfied with the nature of present relationship of the agriculture ministry with them.
2. Some institutes under the ministry was worried over lack of monitoring, evaluation, and appreciation of their work by the ministry
3. Ministry was reported to be not working to the satisfaction of the institutes belonging to it in certain cases. In case of providing finance and giving priorities needed at times to carry out the mandate of its own institutions ministry seems to have overlooked its responsibilities.
4. IT unit of the ministry seems to have reduced to a work house for repairing broken computers of the ministry. It has made no contribution towards building or maintaining relationship with others.
5. Ministry is not maintaining a data base of even closely related institutes under it.
6. Ministry's attitude on the private media needs to change for better
7. Ministry has no watch on the working of NGOs as to what they do in the agriculture sector of the country or to provide them with required support if needed.
8. Over the years ministry had not exploited the advantages of the working in cooperation with other public institutes closely related to the agricultural sector of the country
9. On the whole it was found that agriculture ministry so far had not cooperated well with others in carrying out the mandate assigned to it.
10. Ministry does not give adequate and equal share of opportunities to institutes under it
11. Ministry had not exploited properly the advantages of the banking sector to the betterment of country's agriculture.
12. Ministry had not made sufficient efforts to get the best out of universities, specially from the agriculture faculties

### **Suggestions:**

1. The ministry of agriculture should decide categories of partners with whom it should start building up closer relationships

2. The Ministry should prepare a data base of those partners and update it regularly
3. The Ministry should make contact with the partners when required to obtain their opinions, get their support and assistance to avoid unnecessary misunderstanding or resolve conflicts.
4. The Ministry should make genuine attempts for collaborative works with relevant partners when ever possible
5. The Ministry should provide partners with easy access to communication with the ministry,
6. To achieves above purposes a hotline should be put into operation with an officer knowledgeable on information.
7. Improve the IT unit of the ministry so that it can maintain the partnership network
8. Conduct an annual or half yearly meetings with the all identified partners to strengthen cooperation and collaborations
9. Make use of the developed, modern day today technology to get the maximum advantage of the partnership network .
10. Inexpensive methods like online discussions by relevant officers with the required partners using free on line communicative methods should be strengthened
11. Develop uninterrupted and easy communication between and among the institutes belonging to the ministry
12. Establish more stronger cooperation and cohabitation with the ministry and the institutes belongs to it (Network will be the main supporter for this as it will narrow any gap existing)
13. Required background should be prepared and the institutes should be encouraged to deal with the other partners of the network.
14. Give an adequate hearing to the grievances (as those mentioned above) of the institutes attached to agriculture ministry
15. Pay adequate attention and maintain communications with the Provincial agricultural ministries and take possible actions and make arrangements to resolve the problems they face
16. Develop a friendly and welcoming attitudes towards private media to win over them. This can be done through developing friendly outlook and attitude towards them
17. Monitor and regulate NGOs and Agrochemical companies dealing in the sector. This could be achieved by getting them to join the network. Relevant institutes of agriculture ministry should be vigilant of their activities.
18. Encourage research and development activities by the universities and strengthen their relationship with the ministry of agriculture by getting them involved adequately in collaborative works.
19. Encourage and provide facilities for the banking sector to easily engage in agriculture activities

**2. An action Research program on six sustainable agricultural village developments under “Deyata Kirula - 2011” – Monaragala District.**

**Team** : Dr. M.S. Senanayake - Co-ordinator  
Mr. N.S.B. Epakanda - Research Officer  
Mr. S.M.A. Samarakoon - Senior Research Officer  
Mr. N.S.W. Navarathna - Senior Statistical Officer

This Action Research Program was initiated in Moneragala District as a part of the “Deyata Kirula” development program.

Six villages were selected for the program.

<b>Electorate</b>	<b>D.S. Division</b>	<b>Village</b>
1. Moneragala	Moneragala	1. Maduraketiya 2. Kumbukkana
2. Wellawaya	Buttala	3. Puhulkotuwa 4. Yatiellatota
3. Bibile	Medagama	5. Rattanadeniya 6. Amunekandura

These six villages were selected by the Director Planning, Moneragala.

At first, Participatory Rural Appraisal training for the officers of these six villages were conducted. In this program the problems and solutions for the development of these villages were identified.

The report was prepared after the training highlighting all problems, solutions and project proposals. Reports were presented to the progress review meeting of Agriculture in Monaragala District. Subsequently, those project activities were handed over to relevant Departments and Organizations. HARTI is responsible for monitoring the programs of the above organization activities.

## OTHER ACTIVITIES

### 1. Sanwardana Kathikawatha ( discussion for development ) Public Lecture Series.

- Coordinator :** Dr. M.S. Senanayake
- Team :** Mr. Thilak Kandegama - Chairman, Jatika Govi Sammelanaya.  
Mr. Mangala Thissa - Senior Assistant Secretary to the Prime Minister.  
Mr.I.R.Perera - Team Leader, Practical Action.

This is a new program initiated by the Human Resource and Institutional Division (HRID) to conduct a kind of public lecture and discussion. Timely important issues are discussed at the sessions. The first program was “Nature Farming” How people do correct and sustainable farming. Specially “Kalata, Kanneta, Kaiyata” and how to get a successful harvest from farming.

The second one was the Positive thinking for rapid development. Specially interpersonal relationship was discussed. (The third one was Timely and very important topic). “ The simple Solution for human elephant conflict”. (More than 150 senior and middle level officers were trained under the program)

## **Statistics and Data Processing Unit**

The Statistics and Data Processing Unit functions as a National Centre for Information on Agricultural Development (NACIAD) in Sri Lanka. In collaboration with the USAID, the Centre was established in 1979 aiming to contribute to national development by establishing agricultural management information system at the HARTI. The main users of the centre are researchers, planners, policy makers, undergraduates, farmers and other interested individuals. Data Analysis related to research studies conducted by the Institute is the other major task carried out by the unit.

### **Data Bank**

The Data Bank has been conceived of as a facility for social science research, planning and policy making for development in the Agrarian Sector. It is ideally located within a social science oriented research environment, where researchers collect data from diverse sources and also generate data through their own studies. Collecting and restoring of data relating to agrarian situation in Sri Lanka is routine of the Data Bank.

### **Data Bank Activities**

The Data Bank activities were carried out in three categories such as data appending, data verification and system developments. During the year, the data-retrieving program was further modified to produce easy accessible formats. The entire database was checked for verification of newly updated data. Indexes were regenerated to check the availability of data. The unit collects data from primary and secondary sources and maintains a database on agricultural crops, livestock, demography and the vital statistics.

### **Data Indicators Updated During the Year**

1. Average producer prices of food crops – 2008/2009
2. Paddy Statistics (extent sown, extent harvested, average yield and production)  
–
3. 2009 and 09/10 Maha
4. Extent of paddy by cultural practices – 2009
5. Extent and production of other field crops -2009
6. Average retail prices of food crops – 2009
7. Cost of cultivation of paddy and other field crops – 2009 Yala and 08/2009 Maha
8. Related information of Income and return in paddy cultivation –2009 Maha and 2009 Yala.
9. Average wholesale prices of food commodities – 2009
10. Quantity and value of imports and exports of food commodities – 2009
11. Monthly average rainfall by stations –2008
12. Maximum and minimum temperature by stations – 2008

During the year 102505 number of records were collected and verified. Total number of records appended to the computerized database was 98,882.

Total number of requests met by the unit during the year 2010 was 133. Out of the total requests, 79 requests were made by the users within the Institute while the balance 57 was made by external users.

The requests made by users are given below.

	<b>No. of Requests</b>	<b>%(Outsiders)</b>
HARTI Staff	79	
Government Institutions/Departments	15	0.26
Private institutions/Companies	13	0.23
University staff/Students	25	0.44
Individuals	4	0.07

### **Data Processing Activities of Research Studies carried out by the Division**

The data analysis of following studies were carried out by the unit during the year.

01. Survey conducted for local and imported varieties of Rice.
02. R 353 - Use of Plastic Craters for Vegetables and Fruits.
03. R 373 - Development of Fruit Crop Sector in Sri Lanka.
04. R 374 - The Impact of using ICT for Agriculture Extension in Small Holding Sector.
05. G 22 - Present Situation of Tenant Farming System in Sri Lanka.
06. R380 – Assignment on Rural Financial Market of selected commercial crops.
07. R 375 - Impact of Mechanization in the Paddy Sector on Rural Labour Market.
08. R 377 – Farmer Participation in Irrigation System Managements.
09. R 381 - Informal Land Fragmentation in Settlement Schemes.

### **HARTI Website**

As a regular job, daily prices coming from the Marketing Food Policy and Agri Business Division were uploaded in the website.

### **Other Activities**

1. Responded to the requests made with regard to problems of software and hardware in computer.
2. Involved in preparation of technical specifications and evaluation reports for purchasing of computer and related accessories.
3. Mr. E.N.R. Fernando, Mr. S.S.J. Rosa and Mr. H.P. Yasarathne participated in the field data collection.
4. Mr.M.D.L. Senarath participated in a workshop on ‘Developing of Websites using Joomla’, conducted by Information and Communication Technology of Sri Lanka.
5. Mr. E.N.R. Fernando has been appointed as a responsible officer to send research and development information about HARTI staff.
6. Important necessary work have already been done to conduct survey on Rice consumption, sample selection, questionnaire preparation.

## **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 agencies. During the year, the staff borrowed 1024 books and 211 issues of journals for their reference requirements. The number of visitors to the library during the year was 169.

### **Acquisition of Books, Journals and Reports**

During the year 281 books were added to the book collection, consisting 43 purchased books, 114 bound volumes and 124 books received on complimentary basis and under exchange of publications program. A large number of periodicals, newsletters, annual reports from foreign and local institutions were also received on a complimentary or on an exchange basis. The library subscribed to 11 foreign journal titles (which included 125 issues) and 10 local journal titles.

### **Library Services**

Requests for information and documentation services as literature searches, reference services, current awareness services and photocopying services were provided to the research staff and also to the outside users. Current awareness services were provided with circulating Recent Acquisitions lists containing titles of latest books and displaying new books and journals.

Access to internet based information facilities have been further extended for the research staff with the ADSL facility in the Library.

Collection of newspaper articles on various subjects and indexing of the articles for quick-reference were continued for the use of research staff and outside users.

### **Inter Library Cooperation (ILC)**

The library is a member of the Agricultural Libraries Information Network (AGRINET) and the CARP. Library functions as the focal point. Library continued to participate in AGRINET SDPC scheme (Selective Dissemination of Content Pages Data Base). Member libraries requested photocopies of 288 content pages of 11 journal titles and institute research staff requested 55 content pages of 06 journal titles from member libraries.

Supplied bibliographical references from the library collection to the following data-bases maintained by AGRINET :-

1. National Agricultural Bibliography (NAB)
2. Bibliography on Indigenous Knowledge (with reference to agriculture)

Sixteen (16) library books were borrowed by other libraries on Inter Library Loan Service.

### **Publications Exchange Programme**

Thirty three (33) institute publications (books/journals) were sent to five libraries on exchange and in turn library received 30 publications.

## PUBLICATIONS UNIT

The Publications Unit, which functions under the Deputy Director (Research), is engaged in editing and publishing of Research Reports, Occasional Reports, Journals, Newsletters, Bulletins, Manuals, Brochures and other informational materials in all three languages. Also during the year, unit was involved in the publicity campaign in the print and electronic media.

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

1. Aquaculture for Rural Development and Poverty Reduction in Sri Lanka: An Assessment of Potentials and Constraints.
2. Natural Resource Management Perspectives in Up-country Vegetable Production Farmers Knowledge Attitudes and Responses.
3. Mid-term Evaluation of Dairy Village Development Project.
4. Impact of Informal Land Transactions in Settlement Schemes in Sri Lanka.
5. *Sri Lankawe Teth Kalapaye Wagakarana Kuburu Edan Pramanaya.*
6. *Kabanika Pohora Bawithaye Ethi Wibawathawan*
7. *Sri Lankawe Grameeya Wewe Wikasaya.*

In addition the following seasonal publications were also released during the year.

1. Annual Report – 2009 (Sinhala)
2. Annual Report – 2009 (Tamil)
3. Annual Report – 2009 (English)
4. Sri Lanka Journal of Agri. Studies Vol. 13.1
5. *Govijanatha* 2010 Jan-June
6. *Govijanatha* 2010 July – September
7. Sri Lanka Journal of Agri Studies Vol. 13.2 (2009)
8. *Govikatauthu Adyanaya* 2009-1
9. *Govikatauthu Adyanaya* 2010-1x2

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

1. “*Govisathiya*”, National Agriculture Exhibition Bataatha Agricultural Technical Garden, 2010 September 01-05.
2. “*Dayata Kirula*”, National Development Exhibition Pallekale, Mahanuwara 2010 February 04 -10.

**STAFF POSITION AS AT 31<sup>ST</sup> DECEMBER 2010**

	<b>Position as at 31.12.2009</b>	<b>Termination, Resignation During the year</b>	<b>Appointment</b>	<b>Position as at 31.12.2010</b>
Director	01	01	01	01
Deputy Director (Research)	01	-	-	01
Head of Division	03	-	02	05
Research Staff	28	01	-	27
Administrative Staff	06	02	02	06
Senior Staff of Library	02	-	-	02
Data Development Unit	01	-	-	01
Computer Unit	02	-	-	02
Publications Unit	02	02	01	01
Statistical Staff	19	01	-	18
Technical Staff	01	01	-	-
Clerical, Secretarial & Parallel Grades	51	03	-	48
Operative & Allied Grades	37	02	-	35
<b>TOTAL</b>	<b>155</b>	<b>13</b>	<b>06</b>	<b>147</b>

## **STAFF DEVELOPMENT**

### **Post-Graduate Degree Programmes**

The following Research Officers were engaged in post-graduate studies

- Mr. P C J de Silva - M Sc in Human Resource Management at the Huazhong University of Science and Technology (from 2007 to 2010)
- Mr. W H A Shantha - M Sc in Environmental Science and Technology Faculty of Agriculture University of Ryukyus, Japan (from April 2008 to March 2011)
- Ms M K N Damayanthi - M Sc in Public Policy and Governance North South University Dhaka, Bangladesh (from August 2009 to July 2011)
- Mr. E.A.C. Priyankara - Post Graduate Diploma in Rural Development Management 2010 -2011 Organized by NIRD, Hyderabad, India (from August 2010 to July 2011)

### **Participation at International Training Programmes/ Seminars/ Workshops/ Conferences/Meeting etc.**

Ms. M.D. Susila Lurdu – Research Officer attended the International Training Programme on “Monitoring and Evaluation of Rural Development Project” held in Hyderabad, India from 21<sup>st</sup> February to 4<sup>th</sup> March 2010.

Mr. H.M.J.K. Herath - Research Officer attended the International Training Programme on “Geo-Informatics Application in rural Development for Sharing Innovative and Best Practices” held in Hyderabad, India from 22<sup>nd</sup>- 31<sup>st</sup> March, 2010.

Mr. R.M.G.K.B. Ratnayake – Research Associate participated in the Visit to Sugar Industry held in India from 1-6 August, 2010

Dr L P Rupasena – Deputy Director (Research) attended International Conference on Agriculture Education and Knowledge Management held in Agartala, India from 23-26 August, 2010.

Mr. J.K.M.D. Chandrasiri - Research Fellow attended Invitation to food and Policy Workshop held in Siam Reap, Cambodia from 29 August -5 September 2010.

Ms. P.G.S.P. Nanayakkara – Senior Assistant Registrar attended “Results Based Management Performance Indicators Monitoring and Evaluation” held in Hyderabad, India from 30 August – 8 September 2010.

Mr. S. Epasinghe – Research Officer attended Study Meeting on “Reforming Agricultural Extension System Through Knowledge Management held in New Delhi, India from 6 – 11 September, 2010.

Mr. M.M.M. Aheeyar – Research Associate attended the 13<sup>th</sup> International River Symposium held in Perth, Australia from 11-14 October 2010.

Mr. M.A.C.S. Bandara – Research Officer attended the International Training Programme on “ Management of Rural Drinking Water and Sanitation held in Sri Lanka from 01-10 November, 2010.

Ms. M.T. Pathmajani – Research Officer attended the International Training Programme on “Management of Rural Drinking Water and Sanitation” held in Sri Lanka from 01-10 November, 2010.

Mr. Lalith Kantha Jayasekera – Director attended the “Twenty Sixth Meeting of CIRDAP Technical Committee” held in Kabul, Afghanistan from 11- 16 December 2010

## Final Accounts

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 2010 in terms of Section 14(2)(c) of the Finance Act No.38 of 1971.**

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The audit of financial statements of the Hector Kobbekaduwa Agrarian Research and Training Institute for the year ended 31 December 2010 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 Hector Kobbekaduwa Agrarian Research and Training Institute Act No.05 of 1972 and Section 13(1) of the Finance Act No.38 of 1971. 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. The detailed report under the Section 13(7)(a) of the Finance Act was issued to the Chairman of the Institute on 31 March 2010.

**1:2 Responsibility of the Management for the Financial Statements**

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Management is responsible for the preparation and fair presentation of these financial statements in accordance with Generally accepted accounting Principles. This responsibility includes; designing, implementing and maintaining internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatements, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

### **1:3 Scope of Audit and Basis of Opinion**

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My responsibility is to express an opinion on these financial statements based on my audit. Audit opinion, comments and findings in this report are based on review of the financial statements presented to audit and substantive tests of samples of transactions. The scope and extent of such review and tests were such as to enable as wide an audit coverage as possible within the limitations of staff, other resources and time available to me. The audit was carried out in accordance with Sri Lanka Auditing Standards to obtain reasonable assurance as to whether the financial statements are free from material misstatements. The audit includes the examination on a test basis of evidence supporting the amounts and disclosures in financial statements and assessment of accounting policies used and significant estimates made by the management in the preparation of financial statements as well as evaluating their overall presentation. I believe that my audit provides a reasonable basis for my opinion. Sub sections (3) and (4) of the Section 13 of the Finance Act No.38 of 1971 give discretionary power to the Auditor General to determine the scope and extent of the Audit.

## **2. Financial Statements**

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### **2:1 Opinion**

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So far as appears from my examination and to the best of information and according to the explanations given to me, I am of opinion that the Hector Kobbekaduwa Agrarian Research and Training Institute had maintained proper accounting records for the year ended 31 December 2010 and except for the effects on the financial statements of the matters referred to in paragraph 2.2 of this report, the financial statements have been prepared in accordance with Generally Accepted Accounting Principles give a true and fair view of the state of affairs of the Hector Kobbekaduwa Agrarian Research and Training Institute as at 31 December 2010 and the financial results of its operations and cash flows for the year then ended.

## **2.2 Comments on financial statements**

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### **2.2.1 Non-compliance with Sri Lanka Accounting Standards**

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The following observations are made.

(a) A statement of accepting the responsibility for financial statements had not been presented along with the financial statements presented to audit in terms of Sri Lanka Accounting Standard No. 03.

(b) Sri Lanka Accounting Standard No. 18

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(i) Nine motor vehicles at a cost of Rs.4,990,323 which are continuously used by the Institute had been fully depreciated and the net value had been shown in the financial statements and also those vehicles had not been revaluated.

- (ii) The total expenditure incurred on scholarships given for the development of knowledge and capacity building of the officers of the Institute amounted to Rs.20,691,656 and it had been brought to accounts as non-current assets in the name of employees development in the balance sheet.

### 2.2.2 Accounting Deficiencies

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A recoverable insurance indemnity of Rs.173,700 had been shown under other debtors without showing as recoverable indemnity in the financial statements.

### 2.2.3 Unreconciled Control Accounts

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There were instances where the balances included in the financial statements had not been reconciled with the balances in the schedules/ registers presented to audit along with the financial statements. Details are given below.

Item	Balances per financial statements	Schedule/ register	Balance as per schedule/ register	Difference
-----	-----	-----	-----	-----
	Rs.		Rs.	Rs.
Publications and Journals	1,456,482	Schedule	1,467,052	10,570
Consumables	1,161,989	- do -	1,159,364	2,625
Marketing Centre	332,329	- do -	329,427	2,902
Purchase of computers and computer equipment in the year under review	830,294	Register of fixed assets	712,274	118,020

#### 2.2.4 Lack of Evidence for Audit

---

The following items of accounts could not be satisfactorily vouched or accepted in audit due to non availability of evidence stated against each item.

Item	Value	Evidence not made available
-----	-----	-----
	Rs.	
Furniture and Fittings	11,474,394	(i) Detailed schedules (ii) Board of Survey reports (iii) Fixed assets registers including the value of assets purchased prior to the year 2009
Computers and accessories	2,571,807	
Motor Vehicles	2,633,449	
Library Books	2,207,253	(ii) Fixed assets registers including the value of assets purchased prior to the year 2009.
Bad debts written off	386,902	Approval of the Ministry
Motor vehicles and Motor cycle Loans	2,400,000	Documents to prove the purchase of vehicles

#### 2.2.5 Accounts Receivable and Payable

---

The following observations are made.

- (i) A balance of Rs.234,732 recoverable from 2 officers who had vacated their posts had remained unrecovered for more than 4 years.
- (ii) Advances of Rs.660,758 given to 20 employees during the year under review had not been settled even by 31 December 2010.

- (iii) A sum of Rs.461,742 receivable from 8 institutions and persons was due for the period from 01 to 06 years.
- (iv) Unidentified debtors (bonds) of Rs.110,374 brought forward since 2008 in the financial statements had been deducted from debtors of the year under review and brought to accounts.
- (v) Even though the balance of Rs.5,102,707 remained after the completion of 14 research projects had been shown under creditors since 2009 in the financial statements, this money had been used for the recurrent expenditure of the Institute. Thus the Director of the Institute had informed by his letter dated 07 April 2011 that, there was no sufficient money to settle these creditors in the Institute.
- (vi) A sum of Rs.453,955 was due from 18 debtors as at the end of the year under review. Out of them, confirmation letters had been sent only 6 debtors.
- (vii) The outstanding amount as at 31 December 2010 was Rs.98,991 due from one employee whose service was suspended had not been recovered.
- (viii) The loan balance and due from five employees to whom loans had been granted under loan scheme amounted to Rs.120,237.
- (ix) The debtor balance of scholarship holders outstanding as at 31 December 2010 amounted to Rs.22,331,454, out of which a sum of Rs.11,438,649 had been recoverable from 6 persons. Any money whatsoever had not been recovered during the year under review.

## 2.2.6 Non-compliance with Laws, Rules, Regulations and Management Decisions etc.

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Instances of non-compliance with the following laws, rules, regulations etc observed in audit are given below.

Reference to laws, rules, regulations etc., -----	Non-compliance -----
(a) Financial Regulations (F.R.) of the Democratic Socialist Republic of Sri Lanka F.R. 371(2)	Ad-hoc sub imprest of Rs.130,000 had been given in 10 instances in excess of Rs.20,000.
(b) Circulars -----	
(i) Public Administration Circular No. 41/90 of 10 October 1990 paragraph 2	Fuel consumption of vehicles in running condition should be tested once in 6 month. Nevertheless, the fuel test had not been carried out since 01 February 2005.
(ii) Public Administration Circular No. 01/2002 of 25 February 2002 Paragraph 9.3.1	The official emblem on 7 vehicles belonging to the Institution had not been stenciled.

- (c) Procurement Guidelines 2006  
Paragraph 2.14.1
- (i) Quotations for vehicle repairs had not been called for and a sum of Rs.1,391,197 had been spent for the repairs of 11 vehicles from an unregistered supplier.
- (ii) Twenty eight Air Conditioners had been purchased by paying a sum of Rs.1,509,206 without following the proper tender procedure.

### **2.2.7 Transactions without Authority**

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An initial deposit of Rs.2,000,000 had been made in a Bank for the implementation of a housing loan scheme for employees without the approval of the Treasury and an agreement had been entered into grant loans on the basis of that deposit in the year 1993.

Accordingly, the loans granted in excess of the deposit balance of Rs.2,361,944 existed as at the end of the year, amounted to Rs.1,629,394 and it had been shown as a current liability in the Balance Sheet. The loan scheme operated from the fund of the Institute had not been disclosed in the financial statements.

## **3. Financial and Operating Review**

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### **3.1 Financial Results**

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According to the financial statements presented, the operation of the Institute had resulted in a deficit of Rs.13,298,964 for the year under review as compared with the deficit of Rs.3,647,506 for the preceding year. As compared with that of preceding year increase in administrative expenditure and the receipts of lesser amount from the Treasury had been the reasons for the deterioration of financial results by Rs.9,651,458.

### **3.2 Performance**

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Fifteen projects indicated in the year under review by the Institute and four projects of the preceding year had been implemented. Of that 14 projects had been completed during the year 2010. However, 2 projects valued at Rs.5,572,435 had been abandoned due to unavailability of necessary of funds and information.

### **3.3 Management Inefficiencies**

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The following observations are made.

- (i) Even though all loan balances should be settled before proceeding abroad on no pay leave, a loan balance of Rs.99,362 had to be recovered as at 31 December 2010 from an officer who had gone abroad on no pay leave in the year 2009.
- (ii) Without assessing the required amount of advanced 14 officers had obtained advances of Rs.270,000 and a sum of Rs.199,497 had been returned after periods ranging from 4 to 14 days.
- (iii) Before settling the previous advances the advances had been paid again to 3 officers in 08 instances.
- (iv) A proper course of action had not been taken by the Institute in respect of 285 Library books borrowed by persons but not returned and the damaged books of 129.
- (v) Action had not been taken to acquire the Pajero vehicle bearing No. 65-1280 belonging to the Food and Agricultural Organisation.

### **3.4 Assets Management**

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Even though 6 years had elapsed after handing over the circuit bungalow operated by the Ministry of Agriculture and Livestock to the Institute, the legal ownership thereof had not been acquired by the Institute.

### **3.5 Human Resources Management**

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The following observations are made.

- (i) The Institute had not got its cadre approved.
- (ii) Three posts which were not in the list of cadre maintained by the Institute had been recruited and 3 persons overaged had been recruited on casual basis .
- (iii) Even though the service period of 4 employees who employed on casual basis had been completed had been employed without being terminated or extended the period of service.
- (iv) Even though an National Diploma in Technical certificate holder should have been recruited as at the date of recruiting the maintenance officers post, the maintenance officer recruited in the year 2008 had been recruited , despite he had not qualified as at that date.
- (v) Without recruiting for the seven permanent posts in the Institute, acting appointments had been made for the periods ranging from 7 to 41 months and made a payment of Rs.367,360.
- (vi) Twenty two employees had been recruited on assigned of duties basis and casual basis since June 2010 and only the approval of the Board of Directors had been obtained without the approval of the Treasury.
- (vii) Thirty three employees had been recruited outside the recruitment procedure during the year 2010 and 15 employees had been recruited in excess of the approved cadre.

### **3.6 Budgetary Control**

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Significant variances were observed between the budgeted figures and actuals thus indicating that the Budget had not been made use of as an effective instrument of management control.

## **4. Systems and Controls**

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

- (a) Personnel Management
- (b) Advances
- (c) Staff Loans
- (d) Fixed Assets Management
- (e) Income Accounts

H.A.S.Samaraweera  
Acting Auditor General

Sc/LA

***The Report containing replies on the Auditor General's Reprt made in terms of Section 14 (2) © of Finance Act No.38 of 1971 with regard to Financial Statements for the year ending 31<sup>st</sup> December 2010 of the Hector Kobbekaduwa Agrarian Research and Training Institute***

2.2 Comments on Financial Statements

2.2.1 Non- Compliance with Sri Lanka Accounting Standards

- (a) Noted to make this rectification in terms of Accounting Standard No.3 under Accounting Principles in the preparation of Accounts for 2011.
- (b) Sri Lanka Accounting Standard No.18.
  - (i) 09 motor vehicles were revalued for accounting in 2011 and action taken to make adjustments in accordance with Accounting Standard No.18.
  - (ii) Noted to rectify the total amount of provisions made available for development of knowledge and skills of officers of the Institution in the preparation of Accounts for 2011.

2.2.2 Accounting Deficiencies

It has been decided to account the recoverable insurance compensation of Rs.173,700/- in the financial statement under insurance compensation that should be recovered.

2.2.3. Non reconciled Control Account

Non reconciled accounts of purchasing computers and computer accessories have been corrected through journal entries.

2.2.4. Lack of Evidence for Audit

- (i) Furniture, equipments, computers and accessories
- (ii) Motor vehicles
- (iii) Library books  
(copies of the Board of Survey reports have been submitted to the Auditor General on 25.04.2011)

Writing off bad debt

Whereas these bad debts have been written off with the approval of the Board of Directors it has been noted to obtain the Ministry approval in future write offs.

## Motor Vehicles and Motor Cycle Loan

In this regard it was decided to implement the Office Order No.365 dated 18.08.2010.

### 2.2.5. Accounts Receivable and Payable

- (i) As these balances are very old, the relevant particulars are not with the Institution. Hence recovery has been impossible.
- (ii) All these advances were recovered and internal controlling systems on Advances have been regularized.
- (iii) Out of the amount of Rs.461,742, Rs.111,156.86 are very old balances of which relevant documents are not with Institution. The sum of Rs.40,000/- recoverable from the APO and the sum of Rs.12,434.43 recoverable from Mr.Paranawitana have been recovered in 2011 and necessary steps taken to recover the balances.
- (iv) In the preparation of Accounts for 2011, rectifications are being made in respect of the sum of Rs.110,374/- which being the debtor's bond.
- (v) These funds have been invested in Fixed Deposits. Of the Institution's Bank Deposits as Imprest, Rs.5.8 mn were obtained for recurrent expenditure in December 2010 as per instructions of the National Budget Department. As the Treasury approval has been received to buy 02 vehicles utilizing the balance deposits remained for research activities of the Institution, a sum sufficient enough to get this settled is not available with the Institution, after such purchases are made. However it has been noted to settle this soon after the financial position of the Institution become satisfactory.
- (vi) As these balances are very old, the details of which are not with the Institution.
- (vii) K.B.Anuratilake, being suspended employee has now reported for duty since 01.06.2011 and his loan will be recovered in installments.
- (viii) The bank has been informed in writing to recover the amount recoverable from employees. R.M.R.Bandara, T.G.Someratne and R.W. Dissanayake.

The legal proceedings between Mrs.K.P.S.Wanigasinghe and the Institution have not yet over. The loan inadvertently referred to in the name of Mr.A.A.S.R.Abeysirwardena is a loan issued to Mrs. Deepika Rupasinghe who is serving the institution.

(IX) Balance in the scholarship debtors recoverable as at 31<sup>st</sup> Dec. 2010 was Rs. 22,331,454.49, of which the total recoverable from 06 debtors from whom nothing is being recovered amounts to Rs. 11,473,649.60, the details of which are as follows;

- Mrs S.D Abeyratne - Rs. 501,392/=

The Case against M.R.S. Abeyratne remains not being heard in courts due to inability to find her overseas address. The Ministry of External affairs is taking action to find the address while taking efforts to find same through the office of Sri Lanka High Commission in India.

- Dr (Mr) Gamini Wickramasinghe – Rs. 5,231,878.10

Hearing of the Case against Mr Gamini Wickramasinghe is over and the verdict given on 24.11.2010 in favour of the Institution. He has filed an appeal against the verdict. Until the order of the Court of Appeal is received, recoverable couldn't be effected.

- Mr. C.D.R. Kumarasiri – Rs 499,302.98

The legal action has been taken against the respondents of his Case. The next date of hearing is 01.06.2011. Until the verdict is given, no recoverable could be made.

- Mr.U.L.J.K.Perera- Rs.569,487.71

The legal proceedings are still going on and recoverable depends on the verdict

- Mr.R.B.Senakaarachchi- Rs.3,421,942.70

The legal proceedings against Mr.Senakarachchi are over. According to the court verdict dated 17.08.2006, he had been ordered to pay a sum of Rs.3,421,943/- to the Institution. However he has appealed against the verdict on 12.01.2007. No dates have been fixed for hearing yet by the Civil Appeal High Court. No recovery could be effected until the verdict is issued.

- Mrs.A.D.K.Sepala – Rs.1,249,646.11

According to the Court Verdict dated 21.06.2006, she had to pay a sum of Rs.1,249,641.00 to the Institution. However Respondents have appealed against the Order. No dates have been fixed by the Civil Appeal High Court for hearing the appeal. No recovery could be effected until the Verdict is issued.

The Case against the above-mentioned 06 scholarship debtors is pending. No progress in the recovery could be shown until the verdict is given

#### 2.2.6. Non Compliance with Laws, Rules Regulation and Management Decisions

##### (a) F.R.371(2) of the Democratic Socialist Republic of Sri Lanka

It is essential to engage Field Officers in short term and long term activities such as collecting data and educating relevant parties for facilitating research and training activities of the Institution. Therefore in view of the high expenditure incurred on those field activities those Advances have been given.

##### (b) Circulars

(i) In terms of Section 2 of the Public Administration Circular No.41/90 dated 10<sup>th</sup> October 1990, non effecting fuel testing on vehicles.

As many of the vehicles had not been in running condition, they were not used. The reason is higher repair cost involved for which no treasury provisions received. As road worthy vehicle had been deployed for field duties, subjecting them to fuel test couldn't be effected. However action has been taken in future to effect fuel testing once in 06 months as per P.A. Circular No.41/90 dated 10<sup>th</sup> October 1990.

(ii) Non-painting of the name and emblem of the Institution on 7 vehicles as per Section 9:3:1 of the P.A.Circular No.10/2002 dated 25<sup>th</sup> Feb. 2002.

The name and emblem of the Institution on 07 vehicles out of 16 vehicles owned by the Institution have been erased in a subsequent painting made during 2008/2009. Early action will be taken to paint the institution's name and emblem on those vehicles.

##### (c) Procurement 2006

(i) Section 2.14.1 of the Procurement Guideline.

With regard to repairs of vehicles, the institution has always called quotations as per Section 2.14.1 of the Procurement Guideline except only a few instances where it was required to provide vehicles to Research Officers within a short time to engage in their field activities and when it

was required to put some vehicle into running for the same purpose by effecting urgent repairs only in instances where quoted prices were at higher value. (Institution would have to incur higher expenditure if the necessary vehicles were obtained on hiring basis)

(ii) Tender procedure has been followed. However high standard machines, (SingerAir Conditioners) with low capacity had to be purchased from M/s. Jayasekara Enterprises who had quoted the lowest prices whereby gaining higher advantage to the institution.

#### 2.2.7 Transactions not supported by Adequate Authority

Noted to include all Accounting Errors and non revelation in financial statements in the preparation of Accounts in 2011.

### 3.0 Financial and Operation Review

#### 3.1 Financial Results

In December 2010 a sum of Rs.5-8 mn. was obtained from Bank Deposits for Imprest on the instructions of the General Treasury. This shortfall has had effects on the increase.

#### 3.2. Performance

The number of projects implemented in 2010 was 19 of which 14 has been completed during the year. 02 of the remaining 05 projects have been planned for completing during 2011. The reasons for abandoning 02 projects estimated at Rs.5,572,435/- are given below;

01. Study on the prevailing status of the paddy cultivation at Divisional Secretariat Level undertaken at the request of the Ministry of Agriculture had to be abandoned due to non-receipt of the Ministry Fund (Rs.5,310,470)

02. Study on the effects of privatization of state-owned tea estates undertaken at the request of the Ministry of Agriculture was suspended due to non-receipt of required information from the Ministry of Plantation Industries. The estimated cost of the project was Rs.261,965/-.

The above-mentioned 02 studies were commenced outside the Action Plan 2010. The study on paddy cultivation commenced in December 2010 and the study on tea estates in August 2010..

In addition to 14 projects completed in 2010, 21 special projects were undertaken at the request of various Ministries, Departments and Institutions, following which submitted reports.

### 3.3. Management Inefficiencies

- (i) Necessary action has been taken to recover dues from Mr.L.G.Ariyaratne.
- (ii) Advances were obtained for field surveys in remote areas. The field activities include visiting formers, and visiting several times is required if the formers are not in their houses at the time of field visiting. Therefore these fuel advances have obtained and acted under approved Laws and Regulations. In addition to the fuel advances, a certain amount of money is obtained for break downs of vehicle for which pre-assessment couldn't determined. Due to many of the vehicles owned by the Institution having not in satisfactory condition, obtaining of additional funds is required.
- (iii) Advances were given to 03 officers in the following manner.
  - Mr.N.P.G.Samantha  

Following the settlement of the Advance of Rs.20,000/- issued on 30.07.2010, the second Advance of Rs.20,000/- was issued on 11.08.2010 under cheque No.000835.
  - Mr.M.A.C.S.Bandara  

Following the settlement of the Advance of Rs.15,000/- issued on 14.06.2010, the next Advance of Rs.20,000/- was issued on 28.06.2010 under cheque No.000673.
  - Mrs.G.G.de L.W.Samarasinghe  

Following the settlement of the Advance of Rs.15,000/- issued on 23.08.2010, the next Advance of Rs.12,000/- was made available on 09.09.2010 under cheque No.000977.
- (iv) The Institution has taken suitable measure to prevent the keeping of borrowed library books for long time without returning. The Officer Orders No.351 of 04.01.2008 were enforced in this regard.  

As per those Orders the maximum period of keeping a borrowed by Research Officers is one month and in respect of non Research Officers it was 02 weeks. Accordingly in instances where a borrowed book is lost, the borrower is required to pay the value of the book plus 30% of the value of the lost book. Charging of late returning fee resulted in timely returning of borrowed book. In order to ensure the timely returning of books the Library either send reminders or informed through Inter com net-work. of the date of returning.

Subsequently the new office order No.366 effective from 02.09.2010 has issued by revising the contents of the previous 02 Orders to that effect.

When an officer retires from Govt. Service or resign from the service, they should return the borrowed books failing which, the charged officer is required to pay the value of the lost book plus 30% additional charge in terms of Section 6.

The following measures have been taken in respect of 129 destroyed books.

having decayed or torn due to long use since the opening of the library, books destroyed or damaged by insects or natural hazards, books considered unusable due to expiration, unnecessary copies or multi copies.

- (v) The FAO informed in writing the necessity of transferring the Pejaro Jeep bearing Reg. No.65-1280

### 3.4 Assets Management

Legal action has been initiated to take over the pelwehera Circuit Bungalow by the Institution.

### 3.5 Human Resources Management

- (i) Cadre of the Institution has been got approved on 13.07.2011
- (ii) With the expansion of functions of the Institution, it was necessary to obtain the services of individuals having proficiency and skills on the respective subjects. Those positions have been included in the new Scheme of Recruitment and Promotion now being formulated. Action will be taken in the near future in this regard after deciding basic qualifications.
- (iii) Although Letters of Appointments had been issued to these employees inability of sending a copy thereof has now been corrected
- (iv) Following the receipt of the Board approval the post of Maintenance Officer was down graded.
- (v) Appointment on Acting Basis to these 07 permanent posts has been entirely done away with and action taken to appoint officers in terms of the Scheme of Recruitment.
- (vi) Action has been taken to get the Treasury approval.
- (vii) In instances where the existing cadre is found insufficient for engaging in new project planning activities, the necessary services have been obtained

on assignment-handing over basis, and upon the completion of those projects they will be released from their assignments.

### 3.6 Budgetary Control

The Institution has taken every effort to control actual expenditure within the Budgetary expenditure. However in certain instances the actual expenditure may exceed the Budget due to unavoidable reasons. However the responsible officers have been educated to pay more attention in this regard in future.

### 4.0 Systems and Control

- (i) Payment of Advances
- (ii) Payment of Loans to employees
- (iii) Fixed Assets Management
- (iv) Housing Loan Schemes
- (v) Accounting of Income

The following measures have been taken to do away with the above-mentioned shortcomings. Steps have been taken issue advances only upon the settlement of previous advances.

- Measures will be taken to update the Fixed Assets Register having identified all fixed Assets of the Institution.
- The Bank has been informed in writing not to issue housing loans further.
- The responsible officers have been educated on income accounting
- The payment of employee loans has been subject to strict monitoring..

