



Agrarian Newsletter

2018

Vol 42

No 4

ISSN - 1391 - 040X

Managing Crop Losses
Caused by Wild Animals



IK for Food Security



Ministry of Agriculture



Hector Kobbekaduwa Agrarian Research
and Training Institute



Managing Crop Losses Caused by Wild Animals is a Big Challenge for Farming

**Minister of Agriculture Hon Mahinda
Amaraweera**

One-day seminar on "Identifying Sustainable Solutions for the Management of Crop Losses Caused by Wild-animals" organized by Agriculture Resource Management Division of Hector Kobbekaduwa Agrarian Research and Training Institute (HARTI) was held on October 10, 2018, at the Institute premises.

The inaugural ceremony was held under the patronage of Minister of Agriculture Hon Mahinda Amaraweera who held that lack of proper prices for the products, post-harvest losses and crop losses caused by wild animals are in the forefront of the problems faced by farmers.

Around 30-35 percent of food production destroyed due to the damages caused by wild animals such as monkey, langur, wild boar, peacock, giant squirrel and elephant, he said. The Minister further stated that the issues of crop damages caused by wild animals still persist although the problems such as post-harvest losses and low prices for the products of farmers have addressed. The Minister noted that if these three problems could provide with solutions, the country can be developed only by agriculture. Hence, aligning to discuss the most prominent issue of wild-life

damage is timely, further highlighted Minister of Agriculture Hon Mahinda Amaraweera.

The objectives of the workshop were, getting multilateral consultation about the suggestions of the institutes of agriculture sector to manage wild animal conflicts that has caused harvest losses of crop cultivation, economic losses and life-risk of farmers and making solutions with multilateral agreement to manage human-wildlife conflict while combining solutions and revisions regarding the proposals. Scholars representing the fields of Agriculture, Economics, Zoology, Forestry, Lands, Social Welfare and State Policy and 40 members representing institutes contributed the preparation of this strategic proposal.

Short-term, mid-term and long-term suggestions and recommendations were presented under the agreement of multilateral expert committee. The research team believes that the use of suggestions and recommendations will be a basic foundation to prepare strategic proposals for the management of crop losses caused by wild animals as well as life-risk and economy of the farmers.

Sustainability of Maize Production System in South East Dry Zone of Sri Lanka

The study was designed to identify the sustainability of the Maize Farming System (MFS) which is challenged by the increasing climatic changes based on economic, social and environmental components. The purpose of the study is to identify the extent to which sustainable farming system is based on the social and environmental impact of the crop, in addition to the traditional economic outlook of the crop and present the recommendations for the development of the entire agricultural system.

Cultivating maize by 77 percent of farmers in unauthorized lands, excess usage of chemical fertilizer and herbicides and low usage of pesticides for the cultivation, un-noticeability of the cultivated land size although the machinery and labour costs of farmers have increased with the ban on glyphosate, comparative proceeding of maize cultivation through private sector and growing structures and satisfaction of 83 percent of farmers for the maize farming system as it provides even credit facilities than raw-materials were among the findings of the study.

Enhancing the environmental sustainability of MFS, increasing profit margin, regulating the growing structure to ensure social sustainability and empowering farmer entrepreneurship were recommended.

The study was coordinated by Senior Research Officer Mr. S. Epasinghe and co-researchers were Senior Research Officer Ms. Susila Lurdu and Research Officer Mr. Amal Dissanayaka of Agricultural Resource Management Division of Hector Kobbekaduwa Agrarian Research and Training Institute.





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

Examining the decision-making process of farmers on selling paddy, problems faced by them and their suggestions for future planning is vital for the development of paddy marketing in Sri Lanka. Hence, the study was designed to examine the factors influencing the choice of public and private sector marketing channels by the farmers and identify the key policy initiatives needed to increase the efficiency of the overall process of paddy marketing as the main objective.

Specific objectives were examining the factors affecting the selling of paddy either to the government or private traders by the farmers, identifying the problems faced by farmers and their suggestions in each marketing channel and identifying key policy initiatives needed to increase the efficiency of the government as well as the private sector intervention on paddy marketing.

Data was collected from Ampara, Anuradhapura, Batticaloa and Polonnaruwa districts from 350 farmer respondents.

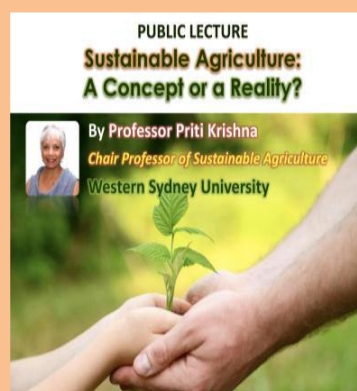
The study was coordinated by Research Officer Mr. W. A. N. Wijesooriya and co-researchers were Research Officers Ms. Champika Jayamini and Mr. Virajith Kuruppu of Marketing Food Policy and Agribusiness Division of Hector Kobbekaduwa Agrarian Research and Training Institute.

Public Lecture

Sustainable Agriculture: Concept? Reality?

A public lecture on “Sustainable Agriculture: A Concept or a Reality?” was conducted by Prof. Priti Krishna, Western Sydney University for the research officers of the institute.

It was held on December 5, 2018, at Mahinda Silva Auditorium, Hector Kobbekaduwa Agrarian Research and Training Institute.



Study on High Sedimentation on Tank Beds Over Human Activities and its Impact on Agriculture

The prime objective of this study was identifying the magnitude of the minor tank sedimentation in the dry zone area of Sri Lanka and its impact on the livelihood of farmer households in affected areas. Other specific objectives were identifying the level and means of encroachments in the tank reservation areas, mapping the intensity of encroachments, identifying and assessing the causes and rate of sedimentation and reduction of storage capacity of the tanks over time, studying the impact on crop production system and proposing policy recommendations for sustainable tank systems for crop production.

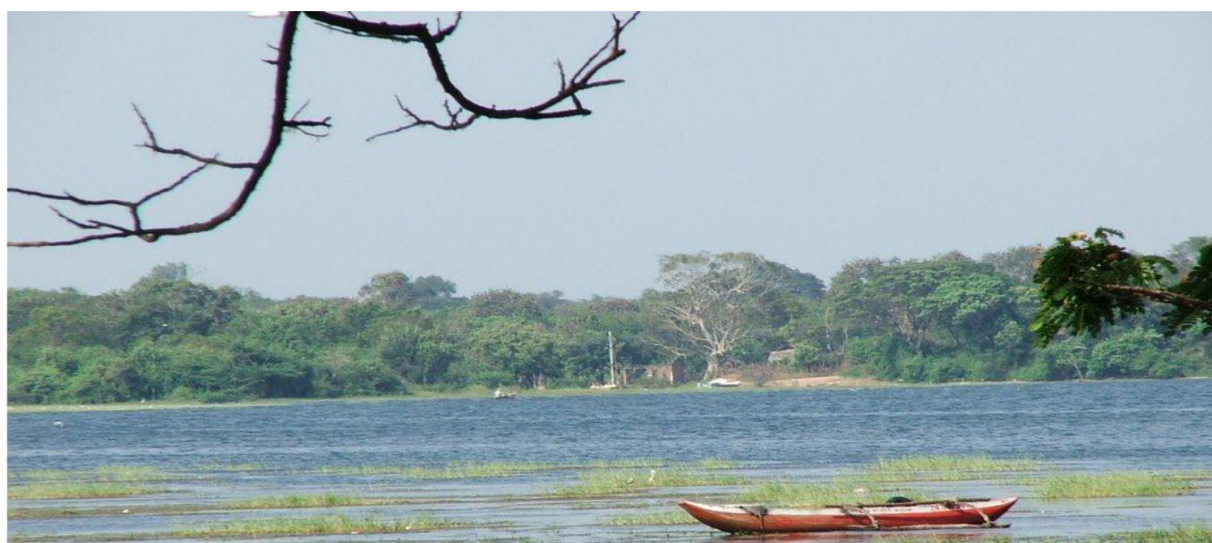
The study found that the village catchment areas have gradually diminished, average per capita land size has become very low, capacity to irrigate in the command area has shrunk, tank sedimentation has affected the crop cultivation undertaken with agro-wells and long-term negligence and lack of attention to village tanks has accelerated deteriorating the irrigation efficiency of village tanks.

Primary data were collected with a total of 312 farm households representing seven farmer organizations across 11 Grama Niladari Divisions of Kurunegala and Anuradhapura districts.

The study was coordinated by Senior Research Officer Mr. W. H. A. Shantha and the co-researchers were Eng. D. D. Prabath Vitharana of Department of Agrarian Development and Senior

Research Officer Ms. G. G. de L. W. Samarasingha of Environment and Water Resource Management Division of Hector Kobbekaduwa Agrarian Research and Training Institute.

The study recommends to promote rainwater harvesting, create suitable criteria to select tanks for rehabilitation, strengthen farmer organization with capacity building and providing physical and financial facilities to undertake tank rehabilitation and subsequent monitoring and operating stages and make farmers aware of crop diversification and climate-smart agriculture.





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

Indigenous Knowledge (IK) is a precious national resource, and blending IK with science and technological methods will open avenues for cost-effective and sustainable agricultural development in Sri Lanka.

Objectives of this study were,

- identifying the importance of Indigenous Knowledge practices in crop cultivation,
- identifying existing IK practices in crop cultivation,
- identifying the barriers and constraints in using IK,

- assessing the impact of IK practices in crop cultivation,
- Providing policy recommendations on the use of IK in crop cultivation.

Data were collected from 60 farmers representing 13 districts. Coordinator of the study is Senior Research Officer Mr. R. L. N. Jayatissa and co-researchers were Research Officers Ms. A.K.A. Dissanayake and Ms. Dilini Perera of Agricultural Policy and Project Evaluation Division of Hector Kobbekaduwa Agrarian Research and Training Institute.





‘Science and Technology 70’, Exhibition

‘Science and Technology 70’, Exhibition on Science and Technology to celebrate 70 years of independence to Sri Lanka and collaboratively organized by the Sri Lanka Association for the Advancement of Science (SLAAS), the Faculty of Science and University of Colombo School of Computing (UCSC) was held on 5-8 December, 2018 at the Faculty of Science and UCSC premises.

SLAAS, founded in 1944, is the premier organization of scientists in Sri Lanka and implementing programmes with the objective of giving scientific and technological knowledge for the development of the country.

The exhibition was organized parallel to the 74th Annual Session of SLAAS and many fields of science including Physics, Chemistry, Plant Science, Zoology and Environmental Sciences, Nuclear Sciences, Mathematics, Statistics and Computer Science were exhibited. Hector Kobbekaduwa Agrarian Research and Training Institute also presented a stall and a large crowd including many school children and the public attended the exhibition.



‘Harvest 2018’ Agriculture Exhibition

‘Harvest 2018’ modern agriculture exhibition in order to build up agricultural concepts organized by the Ministry of Agriculture was held at Bandaranaike Memorial International Conference Hall (BMICH) from 11-16 December 2018 under the patronage of President Maithripala Sirisena.

The event was primarily focused on the modernization of Sri Lanka's agriculture sector and portray activities spearheaded by the "Agriculture Sector, Modernization Project of the Ministry of Agriculture. The Objective of the exhibition was to introduce modern agro-technology to

farmers in the agricultural sector. It is expected to generate high demand in the international market for vegetables, fruits and other crops in this country.

There was a separate stall for the Hector Kobbekaduwa Agrarian Research and Training Institute and many research reports were exhibited and sold.

The event was compromised with both domestic and foreign agri-business stalls showcasing their products and technology, food stalls, vegetable, and fruit stalls, seeds and plants stalls, agriculture machinery stalls and agri-consultation stalls. The exhibition was opened for the public from 9.00 am to 9.00 pm, free of charge.



HARTI – Friendly Annual Trip

The annual trip of Hector Kobbekaduwa Agrarian Research and Training Institute was organized by the welfare society of the institute with the objective of fostering employee cooperation, unity and cordiality.

HARTI enjoyed visiting the beautiful southern coastal line of the island especially, *Maadu* river, Sea Turtle Hatchery and Rescue Centre and *Kande Viharaya* (Mountain Temple), Aluthgama.

The trip to Galle was super fun with the Director, Hector Kobbekaduwa Agrarian Research and Training Institute and all the participated colleagues.



AGRARIAN NEWSLETTER

HARTI Newsletter is a quarterly publication published by the Publication Unit of the Hector Kobbekaduwa Agrarian Research and Training Institute. It reports new findings and policy issues pertaining to research and action programmes of the Institute and other organizations concerned with agrarian development.

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Advised by
Keerthi B. Kotagama
Director/Chief
Executive Officer

Supervised by
S.A.C.U. Senanayaka
Senior Information and
Publication Officer

Compiled by
Sandunma Kekulawala

Designed by
Udeni Karunaratne

Printing, Publishing and Distributing of Agrarian Newsletter

Hector Kobbekaduwa Agrarian Research and Training Institute
114, Wijerama Mawatha,
Colombo 07
Contact us: 0112 696981
Fax: 0112 692423
Website: www.harti.gov.lk