

Final Report
(to be completed by NGO/CBO grant recipient)

Project Number : SLR/03/38

Project Name : **ENHANCING THE AGRICULTURAL BIODIVERSITY OF HOME GARDENS AS AGRO-FORESTRY SYSTEMS IN MARGINAL LANDS OF THE DRY ZONE VILLAGES IN SRI LANKA THROUGH RAINWATER HARVESTING**

Grant Recipient : Lanka Rain Water Harvesting Forum

Project Director or
Person Responsible : Tanuja Ariyananda, Project Director

Grant Recipient
Address : 28/3 A, Subadrarama Lane, Nugegoda, Sri Lanka

Location of Project : Meewellawa & Palugolla villages in Kotawehera Divisional
Secretary area in Kurunegala District

Project start & end dates (as originally proposed) : Starting date : 2003-12-01
Ending date : 2005-03-31
Extended till : 2005-06-31

Financial Summary/Disbursement Request	Local Currency
SGP Grant amount	2,813,600.00
SGP Funds received to date for this grant	2,534,476.84
SGP Funds spent to date	2,833,165.43
Funds balance	0.00
SGP Grant disbursement requested	279,123.16

Project Co financing Received

Source	Type (In-kind or cash)	Amount	
		Local Currency	

Report submitted by:

Name

Title

Signature

I Narrative Report (Please use as much space as needed). Include an account of the participatory evaluation of the project and describe modality of participation. Highlight whenever possible the individual and collective voices of project participants and other stakeholders.

Brief description of project objectives:

There were three main project objectives.

- 1) Bio diversity conservation through capacity building of partners
- 2) Creating awareness on the importance of agriculture biodiversity to respective stakeholders
- 3) Promotion of agro-forest systems in home gardens to maintain the agriculture biodiversity.

Were these objectives met?

Yes

The following narrative report describes the activities which were completed during the period of 10th November 2005 to 30th June 2005 to meet the above project objectives.

Activity 01

1.1. Sub Activity: *Strengthening the partnership with existing actors who are working in the area through capacity building on bio diversity conservation.*

Lanka Rain Water Harvesting Forum (LRWHF) is working with 18 partner organizations in Meewellawa & Palugolla villages. Through the Rural Coordinating Committees of the both villages LRWHF have addressed to all the partners in the project area. The field officer of the project attended to all the Rural Coordinating Committee (RCC) meetings, Sub Divisional Agriculture Committee (Sub DAC) meetings and Divisional Agriculture Committee (DAC) meetings in every month. During those meetings have conducted several awareness lectures to the participants about the importance of biodiversity conservation.

1.2 Sub Activity: *Strengthening the net working & advocacy of the partners.*

LRWHF has handed over two reusable iron frame sets to Grama Sevaka of the two villages, which use for the construction of 5000 liters Ferro cement rainwater harvesting (RWH) tanks. Any person who wish to do a RWH tank by his own means can borrow the frame set from the Grama Sevaka and construct the tank since the technology is available in the villages after the mason training programs. LRWHF has completed the five workshops under this activity during the previous quarter.

1.3 Sub Activity: *Designing & printing the awareness leaflets and two posters*

A poster in Sinhala language was printed to promote biodiversity conservation and enhance the productivity of marginal home gardens in dry zone. Printing materials for distribution for the project activities have been completed.

Activity 02

2.1 Sub Activity: *Awareness creation program on agricultural biodiversity conservation to the*

community and the school children.

Four school awareness programs on agricultural biodiversity conservation were conducted on 26-01-2005 and another four school awareness programs were conducted on 19-05-2005 at Nikaweratiya. Five books of “Home gardening in dry zone”- Sinhala version was given to each above schools.

2.2 Sub Activity: *Awareness creation on concept of agro-forestry to promote the home gardens as agro-forest system.*

Awareness creation programs conducted under this for this quarter have listed below.

No	Date	Description of Awareness program	For whom	No. of Participants
1	22-02-2005	Training on plant nurseries & budding at Wariyapola Agricultural Department by U.G Jayasena - Manager	Beneficiaries	30
2	21-04-2005	Training on post crop technology at Girilla ASC by Institute for post crop technology	Beneficiaries	18
3	21-04-2005	Workshop on Indigenous seeds & protecting agro resources at Girilla ASC by Tholangamuwa, Jathika Govi Sammalanaya	Beneficiaries	18
4	20-05-2005	Workshop on seed preservation, at Girilla ASC presented by Mrs.Thamara Thennakoon - AI, Centre for Seed & Plant materials	Beneficiaries	28
5	08-06-2005	Visit to Institute for post crop technology, Anuradhapura	Beneficiaries	25

With these five programs already 15 programs have been conducted under this activity.

Activity 03

3.1 Sub Activity: *Identification of suitable home garden sites through an assessment*

All the 16 direct beneficiary sites and Ground Water Recharging research beneficiaries were selected during the 01st quarter. Two direct beneficiaries were changed due to their poor performance for the project and two beneficiaries were newly introduced with the consultation of RCC and Grama Sevaka. The dropped two direct beneficiaries are still in our indirect beneficiary list getting advices and other benefits to develop their home gardens.

3.2 Sub Activity: *Provide technical assistance/training on agro-forestry practices in home gardens. (Mapping, consultation in land preparation, contouring and planting)*

The nine trained villager on Home Garden Designing by the project were employed to design the home gardens of 25 beneficiaries in the project area. They prepared the Base Line Map of the home garden, Development Map for the home garden and required plant list to incorporate to the home garden of each and every beneficiary with the consultations given by the beneficiaries.

3.3 Sub Activity: *Establish multi layer home gardens*

25 home gardens belong to 16 direct beneficiaries and 09 indirect beneficiaries in the project area (Meewellawa & Palugolla) have been designed with the given technical assistant. Soil conservation and moisture conservation techniques have been adapted by the beneficiaries. Fruit plants, timber plants and medicinal plants are been introducing to the home gardens according to the plan. Part of the plants has been given by the project and the rest have been introduced by the beneficiaries themselves. Vegetable cultivation has started with the seeds given by the project. Pitcher irrigation like efficient irrigation practices for perennial plants has been started with the pots provided by the project (10 pots for each beneficiary). Beneficiaries are practicing compost preparation for manure and mostly adopting organic farming practices integrating the traditional techniques in farming.

3.4 Sub Activity: *Provide seed materials of indigenous varieties to maintain the home garden and promote the indigenous seed banks including indigenous grain storage structures at domestic level.*

Seeds of improved vegetable varieties were provided to 25 beneficiaries. Seeds of traditional varieties found from the villagers were distributed among the beneficiaries.

Improved Vegetable varieties provided to each beneficiary:

<u>Vegetable Variety</u>	<u>Quantity given for a beneficiary (g)</u>
1. Brinjoles (Padagoda)	10 g
2. Bitter Gourd (MC 43)	20 g
3. Snake Gourd (MI Short)	20 g
4. Luffa (LA 33)	20 g
5. Chilies (Arunalu)	10 g
6. Maize (Ruwan)	100 g

3.5 Sub Activity: *Demonstration of Traditional and modern rainwater harvesting tanks in home gardens*

All 16 Modern Ferro cement above ground dome shaped 5000 liters capacity RWH tanks have been completed. During the 01st quarter 16 traditional surface runoff rainwater harvesting tanks ("Pathaha") were excavated (9 in Meewellawa, 7 in Palugolla).

3.6 Sub Activity: *Provide economic incentives to maintain the nurseries of indigenous plant and medicinal plants*

Beneficiaries started vegetable nurseries in their home gardens with provided guidance at the nursery establishment & management workshop and further they have been given training on plant nurseries & budding.

3.7 Sub Activity: *Provide planting materials & subsidies to owners of home gardens to encourage them to cultivate local timber, fruits and medicinal plants that are having high economic value for their income generation.*

The following plants were given to 25 beneficiaries by the project and beneficiaries have cultivated some other plants which can be easily found to them in the project area.

No	Plant Type & Variety	No. of plants per beneficiary	No	Plant Type & Variety	No. of plants per beneficiary
01	Mango (Bud) Karthakolomban	05	11	Ash plantains	02

02	Improved Orange	05	12	Improved Coconut	05
03	Large Guava (Bud)	05	13	Pepper (Paniwoor)	10
04	Cashew	03	14	Papaw (Rathna)	10
05	Goraka	03	15	Teak	02
06	Improved Lime	03	16	Mella	02
07	Murunga (Hybrid)	03	17	Pehibiya	02
08	Delum	03	18	Kaluwara	02
09	Jack fruit	02	19	Palu	02
10	Improved King Coconut	03	20	Godakirilla	03
	Total	35			40

Total number of plants given to a beneficiary by the project is 75 plants. And also essential nursery equipments like budding knives were given to the beneficiaries.

3.8 Sub Activity: *Research study on impact of traditional rainwater harvesting technology for ground water recharging.*

Three “Pathaha”, three cylindrical groundwater recharging (GWR) structures, and three direct GWR modified structures are been monitored by the employed trained village boy daily. Ground water tables of adjoining nine wells and water tables of 03 “Pathaha”, 03 cylindrical GWR structures and Village tank are been taken daily by that boy. A wet & dry bulb thermometer was taken to measure the relative humidity of air and to get daily temperature readings. Daily evaporation rate and Rainfall readings are also been taken using instruments. These daily records were collected till end of May. Final survey was done by a surveyor at the beginning of June.

A training workshop on construction of Ferro cement dome shaped 5000 liters capacity RWH tanks was conducted at Girilla and Meewellawa for a group of 12 selected masons in the project area. After the class room theory lectures, on the job training was given for the participants with the tank construction.

3.9 Sub Activity: *Sharing experience through workshop/ seminars with partners & other stakeholders.*

Symposium was held at the “Paradise Inn”, Wariyapola on 30th June to disseminate project experience, outcome and ground water research findings. More than 50 invitees including beneficiaries, government officials, other institutional officials were participated. Mr. Abenayake from IDEA represented UNDP.

Ms. Tanuja Ariyananda, Director, LRWHF presented the project out come and its experiences. Dr. Shanthi de Silva, senior lecturer, Open University, Nawala presented the research findings and prof. C.S. Weeraratna presented the impact assessment of the project. Most of the participants reviewed their ideas and opinions on project activities.

4. Activity: *Outcomes & the planned activities presented to the District Steering Committee and the National steering Committee of the “Community Network Project” (CNP).*

The Field Officer attended to the DAC to report the progress of the project and share the experiences of the project in every month. The CARE-Nikawaratiya Project officers have reported the outcomes and planned activities of the project to the National Steering Committee meetings of CNP regularly.

5. Activity: *Monitoring & evaluating the activities.*

Regular monitoring was carried out by the Project Director, Coordinator, Field Officer according to the monitoring and evaluation plans outlined. Also CNP staff of CARE-Nikawaratiya, Divisional Secretary, Development Officer of Girilla, Two Grama Sevaka officers in two villages and Agriculture Officers in two villages also involve in monitoring and report to the DAC in every month.

6. Activity: *An impact assessment study of the project.*

The impact assessment was done by Dr. Aruni Weerasinghe, Head, Plant Science Department, Faculty of Agriculture, University of Rajarata and Prof. C.S. Weeraratna, Chairman, Sugar Cane Research Board. Most of the beneficiaries were interviewed at their sites and all sites were inspected by the assessors. And also the social economic survey done by the LRWHF was rechecked by this assessment.

7. Activity: *Publicity for Project*

Activities for project publicity have already been completed. The printed T-shirts, Stickers, caps and books will be given for the winners of the essay and drawing competitions on Biodiversity. The books, leaflets and poster and caps have been shared with the member organizations of UNDP/GEF/SGP funded projects and also with other interesting groups.

8. Activity: *Erection of boards at project site*

A banner was prepared to use in project functions with the project details and donors information.

Two sign boards were erected in the project sites (Meewellawa & Palugolla) during the first quarter.

If not, what were the principal obstacles?

Not relevant

How could these obstacles been avoided? What advice would you give to other organizations designing similar projects?

What were the principal positive aspects of the project?

Basically project was focus to give mass awareness on rain water harvesting and concept of biodiversity conservation. Mainly these concepts were introduced to Meewellawa and Palugolla villagers. Apart from that government officials such as Agriculture Offices, Grama Seva Niladhari, Agricultural Instructors at Nikaweratiya were invited for all project workshops and training programs. To spread these concepts, several school awareness programs were held at Nikaweratiya divisional secretariat.

Number of training programs and workshops were held to capacity building of partners. Nine young trainees were trained as Trainers of Home Garden Designing. This training was conducted at Neo Synthesis Research Centre, Bandarawela. They helped to design 16 models of home gardens as agro forestry systems. They are willing to continue promote agro forestry systems in the same area as well as the other areas.

What were the principal deficiencies of the project?

Benefits achieved for/by participants during implementation:

All participants got familiar with the concepts and more aware of what they can do to for preserving biodiversity while having benefits (income) from the agricultural biodiversity. Participants were given different types of trainings mainly on constructing RWH tanks, Seed preservation, nursery establishment, Designing home gardens, ect. From these programs participant gain practical skills as well as the knowledge so far unknown to them.

16 RWH tanks were given to the direct participants(beneficiaries) in the project.

Products generated by the project:

Most of the beneficiaries gain significant improvement through agricultural products after the project implementation. Average income level was increased by 70% after implementing the project.

Some beneficiaries started to get income from fish which they had used to prevent mosquito breeding in “Pathaha”. Success beneficiary, Mr.Upali Weerasekara explained his experience at the symposium. He said that he was gained economical benefits from agricultural products and by fish, in his “Pathaha”.

Assessment of impact of project in the GEF focal area:

Future plans (if any) to continue, expand or replicate project activities:

There is a huge demand for project replication for the same project area.

Additional remarks: