



A local NGO dedicated to the support of sustainable socio-economic development through research, training, education and community development by promoting farmer-led activities, networking, sustainable agriculture, and natural resources management.

## Sustainable Land and Biodiversity Conservation Project

### Background

The Ou Reang Ov and Tboung Khmum districts of the Kampong Cham province include both a rich diversity of ecosystems as well as a high degree of dependence on subsistence farming among the population, and traditional harvest exchange practices among farming communities. Ever-increasing unsustainable land practices have strained the traditional system of natural resources management and exchange between subsistence farmers and the environment, with important implications for village inhabitants, ecosystem health and biodiversity. Farming communities generally lack understanding and awareness on the importance of farmland biodiversity as well as responsive educational programs to suit these local needs.

Poor rural families in the 10 target villages within the Kampong Cham province make use of a variety of sources of income and subsistence activities to make their livings. However, the majority of their income comes from agro-ecosystems which are directly based on nature - like subsistence commodity crops, small-scale farming and livestock rearing, home gardens, some aquaculture, hunting, and collecting of firewood and other natural products. These activities are generally concentrated on subsistence income generation without paying attention to their environmental implications including biodiversity and natural resource conservation.

For example, in the Kampong Cham province, 48% of farm land is under cultivation and this is subjected to high levels of pesticides, herbicides and chemical fertilizer applications in mainly mono-cropped rice fields, resulting in farmland biodiversity being severely reduced. The decline of natural systems through factors such as these has led to soil erosion, deforestation, pesticide contamination including the 'biological magnification' of pesticide levels resulting in a reduction of species, overexploitation and pollution which represents a direct threat to the environment and its nature-based income and contributes to reduced food security and increased poverty in the area.

Community-based Natural Resource Management, as experienced through Sreer Khmer's Integrated Farmer Field Schools (IFFS), offers these villagers the chance to participate directly in decisions about local agro-ecosystems and to benefit economically from their efforts. This can be achieved by educating the people of the importance of sustainable natural resource use including biodiversity conservation and providing or revealing information directly relevant to their sustainable agricultural livelihoods.

### Purpose of Project

#### Project Goal:

To improve the livelihoods of the community through educating farmers in the basic principles of sustainable natural resource management thereby protecting both the long-term productivity of their agro-ecosystems and the environment upon which it relies.

#### Specific Objectives:

- To build and strengthen the capacity and competency of 20 -24 Farmer Trainers for TOT (training of trainers) training in NRM and sustainable agriculture.
- To improve agricultural productivity and diversification through IFFS on NRM and Sustainable Agriculture for 10 farmer groups of 25 farmers from 10 Villages in the Ou Reang Ov and Tboung Khmum districts in Kampong Cham for IFFS Training.

- To continue build the capacity of farmer trainers and farmer association members through organizing additional training (short course training), exchange visit and farmer forums.
- To capture all the lessons learnt and share with relevant stakeholders including community, other NGOs, and donors through conducting the participatory monitoring and evaluation.

## Key Results

The proposed project will directly benefit some 250 participants with an estimated 1250 indirect family and other beneficiaries in a positive manner in that they better understand their environment, on the farm, forest, land and air and how to better maintain it, and how to avoid or at least reduce risks to health from the careless use of pesticides.

The training provided by the IFFS is the proven FFS method of learning by doing, by demonstration and problem solving by the farmers themselves and as such belongs to the participants.

Individual Action Plans allow every participant to focus on what they can do to improve their environment e.g. use botanical pesticides, make compost to improve the soil structure, plant trees, use cover crops green manure etc.

The Formation of Farmer Associations should allow farmers to continue to monitor their environment and improve their agriculture after the project finishes.

## Main Activities

**Objective 1:** to build and strengthen the capacity and competency of 20 -24 Farmer Trainers for TOT (training of trainers) training in NRM and sustainable agriculture.

**Activity 1.1.** Select 20 -24 Farmer Trainers for TOT (training of trainers) training in NRM and sustainable agriculture. The concept is to have 2-3 farmer trainers (FTs) deliver the IFFS training to the farmer groups monitored as well as providing technical backstop by Srer Khmer.

This activity will involve meeting with the Farmer Trainers to gain a common understanding of the concept of sustainable natural resource management and farmland biodiversity including the concepts of 'farmscape' and 'habitat'. This will form the basis of an understanding of the inter-relationship between the environment and the impacts that their farm livelihoods are having on it. This will form the foundation of what is used to take action on enhancing environmental protection on the farm.

Important concepts will include: biodiversity protection, pollution control, soil conservation, organic farming techniques, rice intensification, pesticide and fertilizer use, water control including run-off prevention, and forestry harvesting techniques.

**Activity 1.2.** Conduct Training of Farmer Trainers (TOT) in NRM and sustainable agriculture. This TOT is a 3 week residential course to prepare FTs to lead and manage the IFFS. The training will be conducted by using the resources from Srer Khmer.

**Objective 2:** to improve agricultural productivity and diversification through IFFS on NRM and Sustainable Agriculture for 10 farmer groups of 25 farmers from 10 Villages in the Ou Reang Ov and Tboung Khmum districts in Kampong Cham for IFFS Training.

**Activity 2.1.** Conduct baseline survey to determine the extent of natural resource use and degradation in the 10 target project villages and the participant's situation and establish an understanding and awareness of the concepts of sustainable agro-ecosystem management with a view towards improved food and income security.

This activity involves assessing the level of interest in environmental awareness at the farmscape level. This process will involve identifying negative changes which have occurred in recent years regarding natural resource degradation including the extent of biodiversity loss, land degradation, pesticide use, water contamination etc.

The important concepts will include: biodiversity protection, pollution control, soil conservation, organic farming techniques, rice intensification, pesticide and fertilizer use, water control including run-off prevention, and forestry harvesting techniques.

**Activity 2.2.** Organize village meetings to select participant Farmer Groups. Therefore, 10 village meetings held to select participant Farmer Groups by using Participatory Research Appraisal (PRA) methodology. It is proposed to achieve a gender balance of participants in so far as that is possible.

**Activity 2.3.** Select 10 Farmer Groups of 25 farmers (250 farmers) from 10 targeted villages in the Ou Reang Ov and Tboung Khmum districts Kampong Cham Province for IFFS Training in NRM and sustainable agriculture.

**Activity 2.4.** Conduct 10 IFFSs with 25 participants each which is conducted by the FTs with the 10 selected Farmer Groups over 22 weeks.

Course content will be finalised after the Baseline Survey so as to address and give relevance to the environmental matters raised by the survey. The course will be delivered by 2-3 Farmer Trainers at each venue supported by Srer Khmer as a backstop and monitor of course management, content and quality.

**Activity 2.5.** Farmer participants while at the middle of IFFS course, develop Individual Action Plans (IAP).

Individual Action Plans allow every participant to focus on what they can do to improve their environment eg use botanical pesticides, make compost to improve the soil structure, plant trees, use cover crops green manure etc

The Farmer Trainers and Farmers will be assisted in the IAP process by Srer Khmer.

**Activity 2.6.** Distribute of Rabbit Water Filters delivered to all participants (250) completing IFFS and Individual Action Plans.

As a small incentive for the participants successfully completing the IFFS and their Individual Action Plans it is proposed to give each participant a Rabbit Water Filter. The Filters at only \$8.50 each offer clean safe water for family health and for the environment by saving on firewood needed to boil water every day. The Rabbit Water filters will

demonstrate a positive environmental effect in saving firewood and time spent collecting timber to boil water every day

**Activity 2.7.** Establishment of 10 Self – Help Groups/ Farmer Associations in order to facilitate discussion and the formal organisation of villagers to maintain their agricultural systems in a way that benefits both the long term sustainability of their agro-systems and the environment itself; and to identify the major environmental threats that exist at the farmscape level and develop community action plans to manage those threats.

**Activity 2.8.** Organize farmer association meetings which are run principally by the newly trained Farmer Trainers. Activities will be undertaken with members from each Farmer Association to identify the specific environmental problems that exist at the village level. This is when the villagers themselves will be introduced to the different types of environmental problems that they may have and how to address them.

Farmer Association members will be encouraged to put together plans based on S.W.O.T. analysis which identifies the major threats and opportunities for the environmental problems being planned for. Specific activities will be planned to take advantage of opportunities and minimise the threats to the environment and the farmer's environmental income.

**Objective 3:** To continue build the capacity of farmer trainers and farmer association members through organizing additional training (short course training), exchange visit and farmer forums.

**Activity 4.1.** Organize exchange visit or cross visit. The cross visits are to stimulate networking, interest and discussion in NRM matters and sustainable agriculture, problems and solutions. All 10 Farmer Groups should make at least one cross visit.

**Activity 4.2.** Provide additional training as needed as part of Post IFFS Training. These are short courses delivered to the FTs and Key members of the Farmer Associations to assist with association development.

The additional training courses may include Farmer Association Management, Business/Project Planning, Small Grant Proposal Writing, and Participatory Monitoring and Evaluation.

**Activity 4.3.** Organize farmer forums so that the farmers, community leaders, local authority and other relevant stakeholders can share and learn from this project. With 250 participants it is proposed to hold 2 workshops/Forums, thus giving participants more opportunity to have their say on the project.

**Objective 4:** To capture the lessons learnt and share with relevant stakeholders including community, other NGOs, and donors through conducting the participatory monitoring and evaluation.

**Activity 4.1.** Form a PME team at the project site

**Activity 4.2.** Conduct internal PME orientation among the members.

**Activity 4.3.** Conduct PME exercise to the project every six month with the involvement from different stakeholders

**Activity 4.4.** Write up a report and share with the project staff and relevant stakeholders.

**Activity 4.5.** Write up a KM paper as lessons learnt from the GEF funded project

**Contributing Donors**

UNDP GEF SGP

**Duration**

August 2007 to July 2009.

**Total Budget**

50,000.00USD plus community and organizational contribution of amount 14,950.00USD

**Location**

Kampong Cham province

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