Organic Farming Success Story No . 3

Inle Lake Conservation and Rehabilitation Project

Doe Taung Thu Organization

Water Hyacinth Cutter initiation for management of local resources in Agriculture activity

Introduction

Inle Lake situated in Southern Shan State is well known by local populace and foreign visitors for the natural beauty of the lake waters, surrounding mountain ranges, tomato floating gardens and leg rowers of boats. The lake plays a vital role for the ecosystem and economy of Shan State, providing many important goods and services for the communities. It is an ASEAN heritage site and also on the tentative list of UNESCO World Heritage sites. It is the main water source for Lawpita hydroelectricity power plant, a major tourist attraction site and a habitant for rich biodiversity and traditional culture. The lake is now facing devastating effects of unsustainable practices in forestry, agriculture and fishing activities. The situation is accelerated by impact of climate change. Water surface area and sanitation is decreasing, fish and plant species are disappearing at a fast rate while water hyacinth species are increasing, blocking water ways and dominating other useful water cress that farmers use for building floating gardens.

Therefore with the collaboration of Ministry of Environmental Conservation and Forestry (MOECAF), UNDP and UNESCO, a fund has been provided from Norwegian Government to implement conservation and rehabilitation activities in the area. UNDP acting as the funding agency is working together with implementing partners to restore the area with the assistance of local communities. Due to the need of the communities, organic farming and market linkages activity has been implemented by Doe Taung Thu, a local non-government organization.

For Organic farming, farmers have been trained in compost making, vermiculture, production of agriculture organic inputs such as natural pesticides, plant juice, fruit juice containing indigenous micro-organisms. With these products farmers are utilizing natural resources in the area. In addition an attempt is made to utilize water hyacinth for agricultural use.

Objectives

- To collect water hyacinth from water ways and shred into small pieces for compost making
- To decrease water hyacinth in the lake and clear water ways for easy access to villages
- To use shredded water hyacinth for mulching crops in a form of composting
- To conserve moisture in soil by mulching, protect soil erosion and slow down rain run off so that moisture can penetrate deep down to the roots
- To prevent rain splashing onto leaves and minimize leaf diseases
- To suppress weeds and minimize weeding
- To use chopped water hyacinth to feed earth worms
- To increase chicken and duck feed for communities

Development of Water hyacinth Cutter

Farmers use either water cress or water hyacinth for mulching their tomato crops. They have discovered the advantages of using water hyacinth compared to water cress as shown below.

Water Hyacinth	Water Cress
*Available everywhere	*Not easily available
*Easy to collect large amounts quickly	*Not easy to collect, cannot obtain needed amount
*Can clear water ways by collection of the plants	*Removal can increase water pollution, can decrease food for aquatic insect and fish species.
*Women can easily collect	* Difficult for women to collect
*Lasts for over 12 days when used for mulching	* Dries up quickly within 6 days when used for mulching
*Takes only 30 minutes to fill up one boat(24')	* Takes 2 hours to fill up one boat(24')
*3 persons needed to collect & cover 27 feet length area	*8 persons needed to collect & cover 27 feet length area
*Labour charges for 3 persons is 6000 Kyats	* Labour charges for 8 persons is 16000 Kyats
*Boat is not always needed	* Boat is always needed

Ohnmar Myint from Min Chaung (E) village who has been trained in organic farming,has been collecting water hyacinth and cutting into small pieces with a knife. It takes one whole morning to cut and then use on her floating gardens. Water hyacinth therefore being the preferred resource material, abundant everywhere blocking water ways, may in time become a pest which cannot be controlled, has been considered for use in organic farming.

A meeting was held in Myay Ni Gone village with 20 village community members on whether they needed a cutter for their village on 15 October 2013. The village members decided they needed the cutter,so three members were given the responsibility of developing the cutter. A cutter was developed from a small model of onion and garlic grinder used in kitchens. It has a funnel where the water hyacinth is filled in and three cutters 2” apart fitted at the bottom of the funnel (see picture). This cutter is joined to a 5-6 horse power engine which operates on diesel oil. Once set up it can easily be operated with pressing the button on the diesel engine. The cutter can shred one boat load which can be used for one acre within 5 minutes.

The cutter is set up in U Phyo Aung’s home of Myay Ni Gone village and a proposal has been written on how the cutter will be managed by the responsible group.

Name	Designation	Responsibility
U Phyo Aung	Chairman of Development Committee	Maintenance of machine, overall management
U Htain Win	Committee member	Support management
MaThinzar Aung	Finance	Account keeping

Decisions have been made by the group members to hire the cutter to users for 2000 Kyats per day. The user will supply own diesel oil for running the machine. Up to present, 3 persons have hired the cutter for chopping water hyacinth and making compost. Another cutter will be developed for cutting smaller pieces. A wheel cart will be delivered to community to transport the cutter to places where it is needed.

Farmers from nearby villages are requesting for another cutter to share in Kyun Gyi and Min Chaung villages. Several farmers are making compost piles with the shredded water hyacinth. This activity will promote more farmers to grow organic crops in future.

Compiled by

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