

COURSE REPORT

Rainforestation: Trainer's Training

Visca, Baybay, Leyte, the Philippines

Course 1: April 22-27, 2009

Course 2: May 18-22, 2009

Course 3: December 1-6, 2009

A series of courses jointly sponsored by:
Environmental Leadership & Training Initiative (ELTI)
Institute of Tropical Ecology (ITE), Visayas State University (VSU)

Background: It is estimated that the Philippines has lost approximately one-third of its forest cover since the early 1990s and that primary forests now account for less than three percent of the country's total land area. This dramatic transformation in the country's landscapes has been driven over many decades primarily by legal and illegal logging, agricultural expansion, mining, and widespread fuel-wood collection by rural communities. Critical environmental goods and services have been lost, disasters such as landslides and flashfloods attributed to deforestation have become more common, and the livelihoods of many rural and indigenous communities have been compromised. To counter these problems, national and local reforestation projects have been implemented throughout the country, starting as early as the 1960s, but most of them have used fast-growing, exotic tree species, which are not particularly well-suited to the conditions of the country's ecosystems.

Starting in the 1990s, Visayas State University (VSU), a highly-respected academic institution in the Philippines, and the German Agency for Technical Cooperation (GTZ) started to develop an agro-forestry system know as "rainforestation farming", which uses native species to rehabilitate degraded landscapes, restore key ecosystem services and functions, while providing forest-dependent communities with an alternative source of livelihood. Subject to extensive research and experimentation, "rainforestation farming" has been refined into a very cost-effective and widely-applicable method for reforestation. Since then, other approaches, known simply as "rainforestation", have also been developed to rehabilitate areas, including land slide areas, critical watersheds, and denuded portions of protected areas, where income generation plays a less important role.

Although the national-level, Philippines Department of Environment and Natural Resources (DENR) has endorsed "rainforestation" as the country's official reforestation strategy, dissemination of this approach to the provinces has been limited and technical capacity remains far from adequate. In order to overcome these hurdles, ELTI and VSU joined forces to develop a series of field-based courses on "rainforestation" aimed at ramping up and scaling out the adoption of this conservation strategy throughout the country. It is also expected that through this partnership, further research on landscape-level restoration with native tree species will be promoted, making use of and building upon the experience and expertise of VSU, the Yale School of Forestry & Environmental Studies (F&ES) and the Smithsonian Tropical Research Institute (STRI). To date, ELTI and VSU have offered three courses on "rainforestation" as described below.



Course objectives: The courses were designed to develop and strengthen the capabilities of local government authorities, representatives from non-governmental organizations (NGOs), peoples and community organizations, and local academic institutions to design, implement, monitor, and train others about “rainforestation” initiatives throughout the Philippines. The courses were structured to provide participants with a solid understanding of the importance and value of forest ecosystems and restoration activities, the theory and principles underlying “rainforestation”, its application in various land tenure and management regimes, and to teach them through hands-on, experiential-based learning the process and practice of establishing a “rainforestation” project. The courses were meant to stimulate concrete efforts to rehabilitate degraded landscapes and catalyze further training on the subject throughout the Philippines.

Course format: All three courses were field-based training events that provided participants first-hand contact with the theory and practice of “rainforestation” in the Philippines. The courses employed a variety of pedagogical strategies and tools, including classroom lectures, case study analyses, independent and group work, and field-based activities and trips. In this latter case, the participants not only saw the various stages involved in establishing a “rainforestation” project during visits to VSU sites, but also learned-by-doing. They executed every step in the process, including the collection of tree seedlings, construction of nurseries using existing local materials, laying out of the planting area, and the transplanting of the seedlings, among other steps. In addition, participants were required to prepare and present a work plan for concrete actions they will undertake over a three-year period in developing “rainforestation” projects and conducting further training on the subject. Participants received feedback from the course coordinators and instructors, and their fellow classmates, which will allow them to polish and improve their plans.

Course modules: The courses were structured around five modules, following a general introduction to the history and evolution of “rainforestation”:

- **Module 1: Exploring the biodiversity of the Philippines**
This module explored the state of biodiversity in the Philippines and the major threats and impacts to biodiversity in the country. It stressed the importance of conserving tropical ecosystems, especially tropical rainforests.
- **Module 2: Introduction to Philippine Forest Ecosystem**
Participants were introduced to the 12 forest ecosystem types found in the Philippines and their characteristics, followed by an analysis of their values and uses, and the main threats and impacts they face.
- **Module 3: Dendrological Characteristics and Phenological Observation of Indigenous Tree Species**
During this module, participants learned in the field about the collection of seeds from “mother” trees, the phenology of rainforest trees, the adequate timing for

seed collection, and the most appropriate techniques for collecting seedlings. They also learned to identify some key native tree species.

- **Module 4: Nursery Establishment and Seedling Production**

Through hands-on training, participants learned the different techniques in preparing the potting medium, constructing the seedling recovery chamber and shed beds, as well as proper site selection, and planting layout. In addition, they learned through field exercises about sowing and transplanting in open beds, the care and maintenance of seedlings, the preparation of planting stock for field planting and the culling and grading of nursery plants.

- **Module 5: Rainforestation Site Establishment**

This module was comprised of four sections, starting with an overview of what “rainforestation” entails, which are its key objectives, and what are the main implementation strategies and procedures employed. In the second section, participants learned about the establishment of a “rainforestation” site and how to conduct ocular surveys of the land, develop site plans, and create plantation records and maps. The ecological aspects and characteristics of some rainforest tree species were also examined. In the third section, the steps in the establishment of a “rainforestation” plot were considered, with an emphasis on tree planting techniques. Finally, the economic viability of “rainforestation” technology was explored, along with tools and methods to do so.

Participants: The three courses were attended by representatives from local governmental units (LGUs), NGOs, regional universities, and people’s organizations that are actively involved or have plans to develop land rehabilitation programs, including “rainforestation”, throughout the Philippines. The first course was attended by 29 individuals, mostly from the central island region of Visayas, including Leyte, Samar, and Negros, along with some participants from Mindanao. The second course had 21 participants from the Luzon region –Quezon, Mindoro, Camarines Norte and Camarines Sur, Cagayan, among others. Meanwhile, the third group had 23 participants from all over the Philippines. All three groups demonstrated great interest in the topic, continuously engaged in lively discussions, and appeared eager to return to their respective areas and apply the knowledge they acquired during the course.

Coordinators and instructors: The courses were coordinated by Dr. Paciencia Milan, Dr. Maria Juliet Ceniza, and Ms. Pia Noriel-Labastilla from VSU, as well as Dr. David Neidel and Ms. Hazel Consunji from ELTI. In addition, a team of highly-qualified instructors and resource staff led several modules and field activities including Mr. Marlito Bande (VSU professor), Mr. Leonard Co (Conservation International and the Center for Tropical Forest Science –STRI), and Dr. Edwino Fernando (University of the Philippines, Los Baños). During the field visits, the participants also had the opportunity to meet and interact with a number of community leaders and individuals that have already implemented “rainforestation” projects, and who shared their very valuable experiences and lessons learned.



Course location: All courses took place at the VSU campus in Baybay on the island province of Leyte, Philippines, where the technique of “rainforestation” was first developed by Dr. Milan of VSU and Dr. Josef Margraf of GTZ. Field visits were conducted to various sites that are representative of different land uses on which “rainforestation” can be developed, including former coconut and sugar cane plantations. The courses also visited ongoing “rainforestation” efforts on VSU lands and in nearby communities.

Course follow-up: All participants from the three trainings developed and presented work plans as part of the training, so that ELTI and VSU can monitor their progress, and provide technical and logistical support along the way, if the need arises. Mrs. Alicia Calle, ELTI’s Leadership Program Coordinator, and Mr. Javier Mateo-Vega, ELTI’s Director, who took part in the second course, gave short presentations about ELTI’s overall mission and work, and particularly the various post-course and additional professional development opportunities that ELTI offers in order to catalyze concrete actions. Several participants met with and have continued to communicate with Mrs. Calle to explore options to take the lessons they learned during the course to the implementation phase. Others have already started implementing their work plans, coordinating with VSU for technical support in initial site assessment.



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