Environmental Leadership & Training Initiative

COURSE REPORT

Rainforestation Training for Watershed Managers

Baybay, Leyte, Philippines
May 9–13, 2011

A course jointly organized by:
Environmental Leadership & Training Initiative (ELTI)
Visayas State University (VSU)
National Power Corporation (NPC)
Rain Forest Restoration Initiative (RFRI)

Background: The Philippines has suffered widespread deforestation and forest degradation over the last century as a result of logging, conversion to agriculture, mining, infrastructure development, and other unsustainable land use practices. This forest loss has resulted in a reduction in the ability of these ecosystems to conserve biodiversity and provide a wide array of ecosystem services, including soil stabilization, water regulation, and carbon sequestration. This impact is particularly felt in watersheds which supply downstream communities with water for domestic consumption, irrigation, and power generation. Hydroelectric and geothermal power plants, in particular, rely on healthy watersheds to help regulate water supply for their day-to-day operations and limit soil erosion and sedimentation from entering the plants' reservoirs.

The National Power Corporation is a state-owned company which was until recently the largest provider and generator of electricity in the Philippines. NPC has been vested with complete jurisdiction over the watersheds surrounding the reservoirs of eleven power plants and power projects scattered all over the country. The watershed areas range in size from 9,550 to 412,000 hectares and total well over 1,000,000 hectares. Serving as critical lifelines to major cities and agricultural centers across the country, these lands also provide sanctuary to endemic and endangered flora and fauna, and are home to several indigenous tribes. Although some of the power plants have been sold to private companies in recent years, NPC remains responsible for watershed rehabilitation and management for all the areas, which is partially and inadequately funded by the environmental charge equivalent to one-fourth of a centavo per kilowatt-hour sales. On top of financial constraints, NPC is also faced with a gamut of environmental and socio-political issues, such as dealing with huge tracts of mosaic landscapes with overlapping administrative boundaries, making its watershed rehabilitation efforts all the more daunting.

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NPC employs a number of watershed management strategies, programs mostly endorsed by the Department of Environment and Natural Resources, which rely heavily on a handful of readily available exotic species. This dependence on exotics is compounded by the fact that there is limited technical capacity among the field staff to identify the existing native tree species in their areas and properly collect, grow, and propagate them. Some watershed managers have started planting natives but need to adopt a wider array of species and refine their management techniques. In all cases, a major challenge for NPC has been how to better integrate local communities into its rehabilitation efforts. Recognizing the limitations in its technical capacity, NPC approached ELTI to develop a training program for its watershed managers on community-based, native species reforestation (i.e., Rainforestation), and agreed to cover a portion of the training expenses to show its commitment to using these techniques to protect and restore these critical watershed areas.

Course Objectives:

1. To provide participants with a solid understanding of the importance and value of forest ecosystems and restoration activities, the theory and principles underlying Rainforestation, and its application in various ecosystems and land tenure and management regimes,

2. To teach participants through hands-on, experiential learning the process and practice of establishing a Rainforestation site and native species nursery,

3. To stimulate concrete efforts to rehabilitate degraded landscapes and catalyze further training on the subject throughout the Philippines,

4. To foster an exchange of experiences, lessons learned, and best practices for applying Rainforestation in critical watershed areas.

Course Format: The first half-day of the five-day course focused on lectures on Rainforestation, including information on its history and development, basic principles and techniques, typology of approaches, and watershed management, including basic concepts in watershed hydrology, species selection for watershed restoration, and soil and water conservation methods. These sessions created a shared understanding of the importance of forest ecosystems to watershed management. The next three-and-a-half days were then devoted to teaching the participants about the development of native species nurseries and establishment of Rainforestation sites through hands on training, field visits, and dialogues with different local Rainforestation adopters. Dendrology, wildling collection, and site assessment were conducted in the Silago region of Southern Leyte, where there is a substantial patch of primary forest. The last day of the training was set aside for participants to present Action Plans which they developed for each of the watershed units. The Action Plans included information on how they plan to implement Rainforestation, including how many hectares they plan to reforest with natives, how they plan to work with local communities and other local partners, what specific activities were planned, what resources they would need to execute their plans, and within what particular time frame.

Coordinators and Resource People: The event was organized by ELTI-Asia Program staff, Ms. Hazel Consunji and Dr. David Neidel, with significant input from VSU and NPC. Resource people for the training consisted of Dr. Juliet Ceniza, Mr. Marlito Bande, Dr. Renezita Sales-Come, and Dr Art Pasa from VSU; Mr. Peter Balzer, an independent consultant who had conducted research on Rainforestation in the 1990s and who has worked internationally on watershed management projects; and Dr. James LaFrankie, who spent many years setting up and conducting research in the Center for Tropical Forest Science permanent plots in the Philippines, Singapore, and Malaysian Borneo. The training was facilitated by Dr. Ceniza, Ms. Hazel Consunji, and Ms. Metchie Arnaiz from RFRI.

Participants: The course was attended by 28 representatives from the National Power Corporation, the vast majority of whom were watershed managers from the 11 watershed field offices. Representatives from NPC's Training & Development Department also participated to provide support in disseminating this training to other field staff or interested partners. The Senior Manager of NPC's Watershed Management Department attended the last day of the training in order to provide comments and input on his staff's Action Plans.

Outcomes and Course Follow-Up: The training was well-received by the participants. NPC staff felt that Rainforestation provides them with an effective way to restore the forest cover of their watershed while meeting the economic needs of the local communities. Each of the Action Plans that they presented were thoroughly discussed during the last day of the training, with the Senior Manager insisting that these plans be incorporated into the Watershed Management and Development Plans as soon as possible, which would facilitate the allocation of more funds to their rehabilitation initiatives. The Senior Manager also welcomed the proposal for a Memorandum of Understanding between VSU, ELTI, and NPC to promote ongoing cooperation in the implementation of Rainforestation and secure the follow-up, monitoring, and adaptive management of such efforts in the NPC-controlled watersheds. He also expressed interest in NPC becoming an organizational member of RFRI, a request that will be considered at the upcoming RFRI biannual meeting in June.

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