

## COURSE REPORT

**RAINFORESTATION TRAINING FOR  
CLIMATE-RESILIENT RECOVERY**

October 17-20, 2017

Cabucgayan, Biliran, and Baybay City, Leyte, Philippines

A field training organized by:

Environmental Leadership &amp; Training Initiative (ELTI)

Institute of Tropical Ecology and Environmental Management of Visayas State University (ITEEM-VSU)

Municipality of Cabucgayan, Biliran



Participants and organizers

**Background:** On November 8, 2013, one of the strongest tropical cyclones ever recorded hit central Philippines. Super typhoon Haiyan, locally known as Yolanda, wreaked havoc particularly to Eastern Samar and Leyte provinces, causing casualties and damages in the millions. International and local aid immediately focused on relief operations to provide for the basic needs of the 4.1 million people displaced by the disaster, such as relocation and temporary shelters, clean drinking water, food assistance, medical supplies and sanitation facilities. Rehabilitation efforts followed with the rebuilding of homes, community infrastructures and livelihoods.

ELTI is an initiative of: **Yale SCHOOL OF FORESTRY & ENVIRONMENTAL STUDIES**



Dr. Marlito Bande teaching the proper technique for planting seedling

Typhoon Yolanda also damaged a total of 33 million coconut trees, with an estimated 13 million totally destroyed in Eastern Samar and Leyte provinces, the 2<sup>nd</sup> highest coconut-producing region in the country. This has greatly impacted over a million coconut farmers who are already among the poorest and most vulnerable in the country. Some of the farmers have replanted their lands with seedlings provided by aid groups and the national coconut agency, however, they still need to wait several more years for the trees to become productive. Other farmers have sold their land due to a lack of resources available to rehabilitate the land.

Rehabilitating natural ecosystems is crucial in post-disaster recovery to support human livelihoods and sustain the delivery of ecosystem goods and services, including a steady supply of water and protection from future extreme weather events. This is an integral part of a climate-resilient recovery strategy, where communities are not only provided with assistance to recover from climate change events but are also equipped to deal with future disasters better. Many communities, however, have received little support for this purpose, especially those areas that did not suffer from the highest level of devastation. Moreover, government departments and aid agencies have moved on to address more pressing and immediate issues of concern, including areas hit by subsequent typhoons.

Realizing the need to address this gap in rehabilitation efforts, ELTI and ITEEM-VSU are conducting a series of site-based trainings in Eastern Samar and Leyte. The training series aims to rehabilitate damaged watershed areas and augment the current farming system in the surrounding areas using the Rainforestation approach – a participatory, native species-based reforestation/agro-forestry strategy developed by ITEEM-VSU. This particular training, which was organized in collaboration with the Municipality of Cabucgay, focused on assisting both individual farmers and people's organizations on Bilaran, a small island province located between Samar and Leyte.

**Objectives:** The course was designed to develop and strengthen the capabilities of local government authorities and other stakeholders to design, implement, and monitor Rainforestation initiatives. The course was 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 the process of establishing a Rainforestation project.



Dr. Guraldo Fernandez presenting to the participants



Participants laying out the planting site



Participants passing seedlings from the truck to the planting site

## Program

### Day 1

The first day of the training took place at the Cabucgayan Municipal Office Complex. The training officially started with a formal Opening Program, including a prayer, the Philippines National Anthem, a Welcome Message by Ms. Maria Suson (Municipal Agricultural Officer), an inspirational message from Hon. Edwin Masbang, Mayor of Cabucgayan, and a leveling of expectations by Dr. David Neidel (ELTI). The training continued with a presentation on Philippine biodiversity by Ms. Lyra Chu (ELTI Philippines Program Assistant), which highlighted the status of the Philippines as a biodiversity hotspot, outlined the 12 primary forest formations found throughout the country, and discussed the economic value of the ecosystem services provided by Philippine forests. This was followed by a presentation by Dr. Guraldo Fernandez (Head of VSU Department of Liberal Arts & Behavioral Sciences), who discussed the relationship between environmental conservation and human well-being from a religious perspective. Finally, there was a presentation by Ms. Angelita Orias (Lecturer at ITEEM-VSU), which described the drivers of deforestation, the origins and main objectives of Rainforestation, and the process of Rainforestation site establishment.

Following lunch, Dr. Marlito Bande (Associate Professor at ITEEM-VSU) gave a presentation on developing a climate-resilient agro-ecological production system, which discussed the problems with monocultures, outlined approaches to conservation farming, and described several different approaches to integrating economically valuable crops, like abaca and cacao, with local forest trees. Engr. Jimmy Pogosa (Lecturer at ITEEM-VSU) then gave a presentation that covered nursery establishment, fruiting phenology, seed treatment, collecting wildlings, and the development of a recovery chamber.



Participant describing her farm plan

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## Day 2

The second day of the training took place at an upland site in Barangay Baso, which had been designated by the Mayor of Cabucgayan as a 6.1 hectare upland agro-ecological training center and demonstration area. The participants first learned how to layout a reforestation site before being divided into four teams to complete the layout of half a hectare site. After lunch, participants were taught how to plant trees and proceeded to plant the entire area with 1000 individual trees, representing 11 timber species and 5 fruit trees (see Appendix). VSU staff also laid out an area specifically for fruit trees, which they planted the following day.



Dr. Martio Bande discussing combining dipterocarp seedlings with abaca

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## Day 3

During the morning session, each participant gave a presentation on their individual or group farm plans, for which they received feedback from Dr. Bande. Afterwards, participants travelled 4 hours by bus to Visayas State University.

## Day 4

Participants were given a tour of two Rainforestation demonstration sites. At a site in Barangay Patag, they learned about a timber stand established by a people's organization on private land. Afterwards, participants travelled to Barangay Marcos, where they learned about the establishment of a Rainforestation agroforestry site. Participants then met at the Rainforestation Research & Training Center, where Jimmy Pogosa led hands-on activities geared towards teaching participants how to start their own nursery. Participants first learned how to prepare potting mixes and then went into a nearby timber plantation to collect wildings of *Terminalia microcarpa*, which they prepared, transplanted in polybags, and installed in a recovery chamber. After lunch, participants went to the agroforestry demonstration area, where they learned about a variety of intercropping techniques, including mixing native timber trees with Abaca and fruit trees. Participants were then provided with 10 to 100 seedlings each to take back to their farms for planting.



ITEEM-VSU staff preparing seedlings for the participants

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Group photo of participants and organizers

The training ended with a course evaluation, a presentation on the ELTI Leadership Program by Ms. Lyra Chu, closing remarks by Dr. Efren Saz, and the distribution of training certificates.

### **Participants:**

The training participants included 40 individuals from the municipality of Cabucgayan on the Island of Bilir. The majority of the participants were area farmers, but there were also several representatives from the Local Government Unit.

### **Follow-up:**

On Day 4 of the training, Hon. Edwin Masbang, Mayor of Cabucgayan, signed an MOU with President Edgardo Tulin of Visayas State University solidifying the collaborative relationship between Cabucgayan and VSU. The municipality assumes responsibility for the newly planted demonstration site. VSU & ELTI staff will work with the LGU and course participants to further develop and monitor their Rainforestation sites through the ELTI Leadership Program.



MOU signing



Seedlings ready for planting

## Appendix: Tree Species Planted in Cabucgayan

### Long-lived Early Successional Species

- Banuyo (*Wallaceodendron celebicum*)
- Molave (*Vitex parviflora*)

### Mid Successional Species

- Lambunaw (*Aglaia everetti*)
- Anislag (*Flueggea flexuosa*)

### Late Successional Species

- Yakal yamban (*Shorea falciferoides*)
- Yakal saplungan (*Hopea plagata*)
- Yakal malibato (*Shorea malibato*)
- Bagtikan (*Parashorea malaanonan*)
- White lauan (*Shorea contorta*)
- Tanguile (*Shorea polysperma*)
- Manggachapui (*Hopea acuminata*)

### Fruit Trees

- Jackfruit (*Artocarpus heterophyllus*)
- Marang (*Artocarpus odoratissimus*)
- Mangosteen (*Garcinia mangostana*)
- Durian (*Durio zibethinus*)
- Lanzones (*Lansium domesticum*)

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