

COURSE REPORT

Tropical Forest Restoration Strategies

February 20 to April 2, 2017

An online course organized by:
Environmental Leadership & Training Initiative (ELTI)



Native species planted under a Eucalyptus plantation in Gunung Gede Pangrango National Park, West Java, Indonesia.

Background: As the damaging effects of deforestation are being observed in Tropical Asia and around the world, there has been increasing interest in the restoration of tropical forests. Forest restoration aims to increase the ability of degraded lands to provide ecosystem services, such as hydrological cycling, the conservation of biodiversity, carbon sequestration, and support for forest products industries. However, many restoration projects fail over time because the species and methods employed do not match the biophysical and social conditions of the restoration site.



Studi Kasus: Penghijauan dan Kesehatan

Kalimantan Barat, Indonesia



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Case study about the Alam Sehat Lestari restoration site in West Kalimantan used in the online training.

In Indonesia the term “forest restoration” is not widely known. On a small scale, restoration is intended to restore degraded land by using natural processes to return the forest to earlier conditions. At a broader landscape scale, restoration has been adopted as the term for a process through which stakeholders decide on land use patterns that optimize the distribution of ecosystem services for the benefit of society. According to this broader perspective, restoration can be used to return land to an earlier state (like in the narrow definition), but can also aim for improving land use management practices so the land is more productive while still being sustainable.

This online course provides an introduction to the concepts and techniques needed to develop and implement strategies for the restoration of tropical forests and ecosystem services in multi-use landscapes in Asia, and especially Indonesia. The course, which is being held in Indonesian, is designed for practitioners and professionals looking to advance their knowledge about forest ecology and restoration through a series of presentations, discussions, readings, and case studies.

Course Obejctives:

- Provide the knowledge needed to evaluate and compare an array of tropical forest restoration methodologies, as well as to assess how different biophysical and social economic factors at the site affect decision making about what strategy to use;
- Provide an opportunity for participants to analyze ecological conditions, the history of disturbance, social political factors, and monitoring planning in order to conduct adaptive management at the restoration site; and
- Provide an opportunity for participants from different parts of Indonesia to meet and share their experiences with other course participants, ELTI instructors, and other experts.



Raymon Silaban

Restoration site of course participant Raymon Silaban in the Sungai Lesen Protection Forest, Berau, East Kalimantan.



Yanti Sofia

Coal mine restoration site of course participant Yanti Sofia in Bukit Soeharto protected area, Kutai Kartanegara, East Kalimantan.



Subyantoro Tri Pradopo

Coal mine restoration site of course participant Subyantoro Tri Pradopo in the Mandor Nature Reserve, Pontianak, West Kalimantan.



Wiguna Rahman

Restoration site of course participant Wiguna Rahman in Taman Nasional Gunung Gede Pangrango, West Java.

Course Format:

This six-weeks course is divided into thematic modules, each one lasting a week. The thematic modules are:

Module 1: An Introduction to Deforestation, Restoration, and Ecosystem Services.

Module 2: Disturbance and Regeneration in Tropical Forests.

Module 3: Strategies to Catalyze Restoration in the Tropics.

Module 4: Social and Political Aspects of Restoration.

Module 5: Monitoring and Evaluation.

Module 6: Development of a Restoration Management Plan.

Educational Tools: All course materials are available online on Yale University's Canvas Platform. The material components that can be accessed anytime throughout the course are:

- Interactive presentations without audio;
- Pre-recorded videos of guest lectures with audio;
- Case studies providing restoration examples from a variety of projects;
- Recommended readings and references;
- Five optional live discussion sections where participants are encouraged to interact directly with guest experts;
- Weekly short answer assignments which evaluate the participant's understanding of the content; and
- A final project in the form of a management plan which is the accumulation of weekly assignments, as well as feedback from course instructors and other participants, that connect the course material to the participants' restoration site.



Participants of the online training course.

Course Participants: ELTI selected participants from 218 applicants based on their potential to involve themselves directly in forest landscape restoration in Indonesia. The 22 participants were also chosen to reflect a diversity of geographical regions and employers, including government institutions, research and academic institutions, NGO practitioners, and even an environmental journalist.

Course Instructors: The delivery and management of the course was facilitated by Dr. Arbainsyah, the ELTI Indonesian Program Assistant, Pangestuti Astri, MSc., and Dr. David Neidel, Ph.D, the ELTI Asia Program Coordinator. Substantive feedback was provided on the written homework by all instructors. Guest experts who provided pre-recorded video lectures, recorded interviews, case studies, and/or live video conferences included:

- Ishak Yassir, Ph.D., Balai Penelitian Teknologi Konservasi Sumber Daya Alam-Samboja, Indonesia.
- Mark Ashton, Ph.D., Yale School of Forestry & Environmental Studies, USA.
- Marlito Bande, Ph.D., Visayas State University, Philippines.
- Stephen Elliot, Ph.D., Chiang Mai University, Thailand.
- Petrus Gunarso, Ph.D., Perkumpulan Sarjana Kehutanan Indonesia.
- Nimal Gunatileke, Ph.D., Department of Botany, University of Peradeniya, Sri Lanka.
- Savitri Gunatilleke, Ph.D., Department of Botany, University of Peradeniya, Sri Lanka.
- Muayat Ali Muhshi, Konsultan Lingkungan untuk Perhutanan Social, Indonesia.
- Tukirin Partomihardjo, Ph.D., Lembaga Ilmu Pengetahuan Indonesia.
- Erica Pohnan, MSc., Alam Sehat Lestari Indonesia.
- Satrio A Wicaksono, World Resource Institute, Indonesia.

Course Outcomes and Follow-up: The majority of participants were actively engaged throughout the course, benefited from the feedback they received from the instructors and their peers, and successfully completed their preliminary management plans. In the months following the course, ELTI will follow up with the participants to see how the course and their site management plans have influenced their professional development and the management of their individual restoration sites. ELTI will also follow up with participants who expressed an interest in applying for follow-up support for their projects through the Leadership Program.

This event was possible thanks to Arcadia Fund, whose Environmental Conservation grants support programmes that protect and enhance biodiversity, and provided field training and academic research.