

COURSE REPORT

Forest Landscape Restoration in the Tropics

April 24 to June 9, 2017

An online course organized by:
Environmental Leadership and Training Initiative (ELTI)
International Union for Conservation of Nature (IUCN)

Background: Forest Landscape Restoration (FLR) provides an opportunity to transform large areas of degraded and deforested land into landscapes that produce numerous ecological, economic, and social benefits. Many countries have made large-scale commitments to restore millions of hectares of degraded and deforested land under the Bonn Challenge, which is an international effort to restore 150 million hectares around the globe by 2020 and 350 million by 2030. Achieving these large-scale commitments, however, requires that decision-makers address the diverse ecological, socio-political, and economic factors that impact restoration efforts at different scales.

The Restoration Opportunities Assessment Methodology (ROAM) provides a framework for countries and regions to identify, analyze, and prioritize restoration opportunities in order to develop a suite of restoration strategies for particular contexts. By situating ROAM within a broader framework of academic knowledge on tropical forest and landscape ecology, socio-political and economic processes related to restoration, and restoration strategies, individuals involved with FLR policy, planning, and implementation can develop the foundation needed to achieve a range of objectives, such as economic growth, food security, biodiversity conservation, and carbon sequestration.



Artificial canal in peat area originally intended for irrigation and now used for water transportation in Central Kalimantan, Indonesia, which was the focus of participant, Iwan Gunawan's final project. Photo credit: Iwan Gunawan

ELTI is an initiative of the Yale School of Forestry & Environmental studies supported by Arcadia, a charitable fund of Peter Baldwin and Lisbet Rausing (www.arcadiahfund.org.uk). IUCN is a membership Union composed of both government and civil society organisations. It harnesses the experience, resources and reach of its 1,300 Member organisations and the input of some 15,000 experts. IUCN is the global authority on the status of the natural world and the measures needed to safeguard it.



At the end of the course, participants submitted a project document detailing an approach to FLR in a specific local context. This map shows the focal regions for participants' final projects in the course. Image Source; Google Earth

This online course was designed to provide participants with a solid foundation on FLR and develop capacity of FLR practitioners on how they can identify, analyze, and prioritize FLR opportunities using the Restoration Opportunities Assessment Methodology (ROAM). The course included a series of presentations, live discussion sessions, and activities designed to help them to develop a restoration plan, to apply what they learned during the course, and to discuss strategies to unlock finance and scale up FLR. The course was offered to World Bank staff directly involved in FLR-related activities. Participants exchanged experiences with other peers and shared concepts and tools with each other, the ELTI facilitators, and guest experts.

Course Objectives:

- Present the basic principles of forest tropical ecology, restoration ecology, and natural and anthropogenic disturbance, as well as how those disturbances affect the potential for regeneration;
- Provide the knowledge needed to identify, evaluate and compare an array of forest landscape restoration opportunities and how the biophysical and socio-economic conditions of a site influences the decisions about which strategies to employ, including trade-offs;
- Provide guidance on stakeholder engagement and how to analyze the enabling conditions that are needed to successfully implement and scale up FLR;
- Present an array of relevant information needed to develop a strategic plan for FLR, including an overview of ROAM, related case studies, and associated tools and finance strategies;
- Support participants to plan for FLR nationally, or in a specific region or area, by helping them to analyze the ecological conditions, disturbance history, socio-political factors, and monitoring plans in their local context; and
- Provide the opportunity for participants to engage in critical discussions on a weekly basis and connect with a global network of practitioners working on FLR.

Format: This six-week course was offered in English and was divided into the following thematic modules, each one lasting a week:

Module 1. Ecology, disturbance, and regeneration potential in tropical forest landscapes

Module 2. The Restoration Opportunities Assessment Methodology

Module 3. Socio-political and cultural aspects of FLR

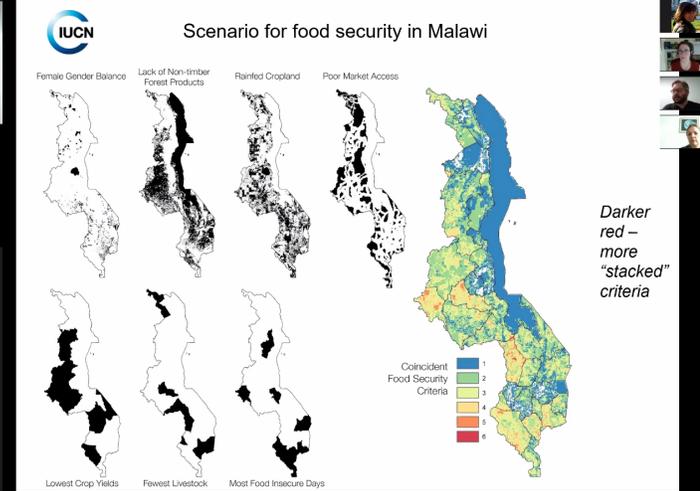
Module 4. Effective FLR practices and strategies

Module 5. FLR for production purposes

Module 6. Scaling up and Monitoring FLR

Degradation Proxy	Erosion	Soil Fertility	Slope
Criteria:	Severity	Cation Exchange Capacity	Degrees
FLR Interpretation	Severe/Moderate	<10 CEC	> Very strong (16.5°)

Video lecture on mapping in ROAM, presented by Craig Beatty of IUCN.



Live discussion sessions gave participants the opportunity to interact with the lead professor, ELTI staff, guest experts, and each other. (Left) Introductory live discussion session with guest experts Julia Bucknall (the World Bank), Carole Saint-Laurent (IUCN) and Eva Garen (ELTI). (Right) Live discussion session with Mirjam Kuzee and Craig Beatty of IUCN on the topic of ROAM.

Educational Tools:

- Pre-recorded guest lectures that include video of the guest speaker and their corresponding PowerPoint slides;
- Interactive presentations that synthesize the core concepts of each module;
- Suggested readings to complement the presentations;
- Case studies of restoration projects and examples of FLR and ROAM from a range of countries, including Colombia, Indonesia, Myanmar, Panama, the Philippines, Rwanda, Sri Lanka, Uganda, Vietnam and the Central America region;
- Weekly online live discussion sessions with the lead professor and invited guest experts;
- Weekly discussion forums, during which participants are asked to share their thoughts and questions about the weekly material; and
- Targeted discussion sessions to review individual work on the final project, which is an outline of the approach participants would take to accomplish FLR in an area, region, or country.

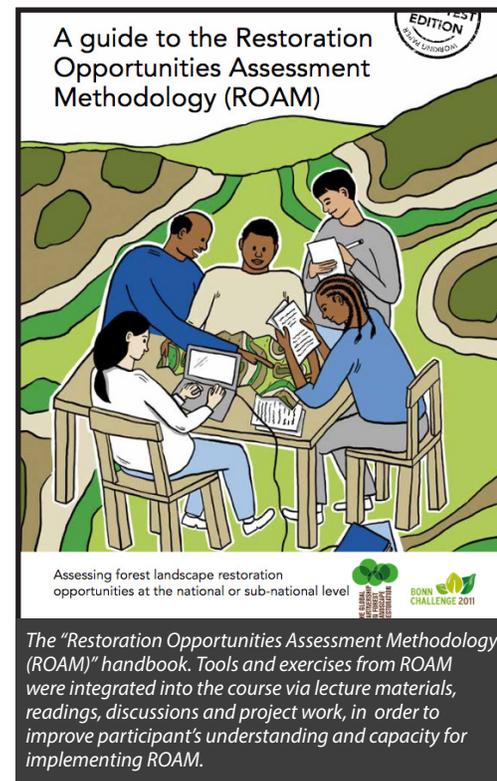
In addition to the discussion forums, participants also completed literature searches and peer-to-peer feedback assignments as part of the final project. At the end of the course, participants who completed all of the course requirements received a certificate of participation.

Participants:

This course was offered for seventeen World Bank personnel involved with FLR in tropical Asia, Africa and Latin America. Most participants were located in United States, however some individuals were based in Asia (Indonesia, Vietnam), Africa (Rwanda, Tunisia, Uganda), or Latin America (Colombia).

Instructors and Coordinators:

Dr. Mark Ashton from the Yale School of Forestry & Environmental Studies (F&ES) served as lead professor for this course. He participated in three live sessions and provided feedback on project work at several points during the course. **Karin Bucht**, ELTI's Online Training Program Associate, and **Gillian Bloomfield**, ELTI's Online Training Program Coordinator facilitated the delivery and management of the course, with teaching assistance from **Asha Bertsch** (M.F. 2017, Yale F&ES). **Mirjam Kuzee**, IUCN and **Paola Agostini**, the World Bank provided support related to the invitation of guest speakers, selection of module components, and facilitation throughout the course.



The "Restoration Opportunities Assessment Methodology (ROAM)" handbook. Tools and exercises from ROAM were integrated into the course via lecture materials, readings, discussions and project work, in order to improve participant's understanding and capacity for implementing ROAM.



A range of guest experts provided pre-recorded video lectures and/or participated in live video conferences. These guest experts included:

- **Mark Ashton**, Yale University, School of Forestry & Environmental Studies, United States
- **Craig Beatty**, International Union for Conservation of Nature, Washington DC
- **Gillian Bloomfield**, Environmental Leadership and Training Initiative, United States
- **Julia Bucknall**, The World Bank, United States
- **Kathleen Buckingham**, World Resources Institute, United States
- **Zoraida Calle**, Fundacion CIPAV, Colombia
- **Miguel Calmon**, International Union for Conservation of Nature, Washington DC
- **James Close**, The World Bank, United States
- **Amity Doolittle**, Yale University, School of Forestry & Environmental Studies, United States
- **Eva Garen**, Environmental Leadership and Training Initiative at Yale University, United States
- **Ange Imanishimwe**, BIOCOOP Rwanda
- **Bob Kazungu**, Ministry of Water and Environment, Uganda
- **Mirjam Kuzee**, International Union for Conservation of Nature, Washington DC Office
- **Ronald McCarthy**, International Union for Conservation of Nature, ORMACC Office
- **Pamela McElwee**, Rutgers University, United States
- **Florenca Montagnini**, Yale University, School of Forestry & Environmental Studies, United States
- **Adrie Mukashema**, Rwanda Natural Resources Authority, Rwanda
- **Melinka Najera**, International Union for Conservation of Nature, ORMACC Office
- **Gerhard Mulder**, International Union for Conservation of Nature, Netherlands Office
- **Maeve Nightingale**, International Union for Conservation of Nature, Asia Office
- **Luciana Ludlow Paz**, International Union for Conservation of Nature, ORMACC Office
- **Chuck Peters**, New York Botanical Garden, United States.
- **Leander Raes**, International Union for Conservation of Nature, ORMACC Office
- **Carole Saint-Laurent**, International Union for Conservation of Nature, Washington DC
- **Mike Verdone**, BBC Research and Consulting, United States
- **Satrio Wicaksono**, World Resource Institute, Indonesia

Outputs and Follow-up: The majority of participants were actively engaged throughout the course and indicated that they benefited from their interactions with instructors, guest experts, and peers. As part of their homework, participants developed and submitted detailed FLR and ROAM planning documents for 12 different countries. Each project included an outline of: (1) the ecological, historical, social, and political context of the area; (2) a “Roadmap to ROAM,” detailing steps needed and actors involved; (3) discussion of FLR strategies; (4) a cost-benefit analysis; (5) approaches to scaling up; (6) a monitoring strategy; and (7) proposed actions following ROAM. In coming months, ELTI will follow up with participants to see how the course and project assignments have influenced their professional development, and how they are managing and planning FLR in their respective regions.

For more information: please contact Gillian Bloomfield, ELTI's Online Training Program Coordinator: gillian.bloomfield@yale.edu or Karin Bucht, ELTI's Online Training Program Associate: karin.bucht@yale.edu.