neoSelvas Network
An International Network on Tropical Secondary Forest Regeneration[1]

The rapid loss of old-growth tropical forests around the world signals an urgent need to understand the current and future importance of secondary (regrowth) forests for the conservation of biodiversity and ecosystem functions. Present and future societies and economies will depend on ecosystem services (such as carbon storage, regulation of water flows) offered by secondary forests that are now the dominant forest cover in many tropical regions. Understanding the isolated and interactive complex effects caused by local, landscape, regional, and global (e.g., climate change) factors on secondary forest structure, composition, dynamics, and functioning requires of a new comprehensive, comparative, multi-disciplinary approach across different regions, geographic settings, and landscape types.

To meet this challenge, an international workshop was held at the National Autonomous University of Mexico (UNAM), Campus Morelia, Michoacan, Mexico, on 28-30 October, 2009[2]. Over 60 participants from 7 countries attended the workshop, including graduate students, post-doctoral fellows, and junior and senior scientists. During an initial symposium, speakers presented a review of the state of the art of distinct areas of secondary forest research (biotic interactions, functional traits, species composition, management, and remote sensing) based on input from workshop participants. These talks provided a foundation for further in-depth discussions within small groups, leading to a synthesis of existing knowledge, uncertainties and challenges, as well as new research directions. In plenary sessions, these points were presented, followed by an integration of topics across all groups.

Five working groups highlighted the need for integrated, novel, conceptual frameworks to address the complex and dynamic interplay of local and landscape factors during forest regeneration. Group presentations articulated major gaps in our current understanding of tropical forest regeneration and restoration, such as the changing nature and role of plant-animal interactions and links between plant functional traits, functional diversity, species diversity, and ecosystem processes during different stages of succession. Participants expressed a need to incorporate a wider range of ecosystem processes and components in forest regeneration and restoration research, such as hydrology and soil properties. Workshop participants discussed the limitations of existing approaches to studying forest regeneration— e.g., plot-based monitoring and chronosequence studies—and the need to adopt integrated, larger-scale approaches focused on the complex set of global, regional, and landscape factors that affect forest regeneration and restoration. Further, workshop participants emphasized the need to integrate social science perspectives and a wide array of remote sensing tools into research efforts.

A major outcome of the workshop was the decision to form an international network on secondary forest regeneration and restoration, which will be named the neoSelvas Network. The global focus of the neoSelvas network will complement goals of existing tropical forest networks, such as the Center for Tropical Forest Science (CTFS network) of the Smithsonian Tropical Research Institution (focus on vegetation dynamics in mature tropical forest plots), the Tropi-Dry network (focus on ecological and human dimensions in Neotropical dry forests), and the Mexican Long Term Ecological Research Network (Mex-LTER).

A principal mission of the neoSelvas network is to promote a deeper socio-ecological understanding of secondary forest regeneration and restoration that will provide critical information for sustainable management, land-use and forest policy, assessment of ecosystem services, biodiversity conservation, and education. The neoSelvas network will foster communication among investigators on all aspects of tropical forest regeneration and restoration, by creating a platform for new research collaborations, and by promoting exchange of information regarding past and current research, available data, research methodologies, failures, and successes. Further, the network will strengthen linkages among a range of stakeholders by enhancing information exchange between investigators, policy makers, and local communities that utilize secondary forests. Future international workshops and training programs are being planned to advance these goals.

We wish to engage the scientific community and the general public to participate in our mission and to support future research and training efforts in the arena of tropical forest regeneration and restoration. Despite continued loss of old-growth tropical forests, we still have an opportunity to minimize further loss by allowing secondary forests to regrow or to restore forests in suitable deforested areas. The network provides a new way for the scientific community and the public to join together in creating a promising future for tropical forests, people, and societies that depend upon them.

For more information about the neoSelvas Workshop in Morelia, please visit http://www.oikos.unam.mx/neoselvas/index.html, which will provisionally serve as the neoSelvas Network website. A new neoSelvas Network website is currently under construction. To subscribe to the neoSelvas Network listserve, please send your contact information to Robin Chazdon (robin.chazdon@uconn.edu).

[1] This report was approved by the neoSelvas Network Steering Committee:
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