



Conservation for Development Professionals: Strategies for Implementing Biodiversity Action Plans for the Private Sector

August 7-11, 2017

Course Format:

This Smithsonian course is a residential program of lectures, discussions, and exercises. The course is held at the Smithsonian-Mason School of Conservation located at the Smithsonian Conservation Biology Institute's (SCBI) 3,200 acre facility in Front Royal, VA, USA.

Primary instructors:

From the Smithsonian Conservation Biology Institute's Center for Conservation and Sustainability:

Francisco Dallmeier, Ph.D., Director
Alfonso Alonso, Ph.D., Managing Director of Field Programs
Jessica Deichmann, Ph.D., Research Scientist
Tremaine Gregory, Ph.D., Research Scientist
Ana Maria Sanchez, Ph.D., Research Ecologist

External instructors:

Representatives from the Inter-American Development Bank, World Bank, US Treasury Department and the International Finance Corporation have been confirmed.

Course Description and Goals:

The Smithsonian Conservation Biology Institute's Center for Conservation and Sustainability strives to understand the influence of mega-infrastructure projects on biodiversity and ecosystem services. We provide the global expertise of the Smithsonian, integrating conservation needs with sustainable development priorities. We seek to advance effective and sustainable strategies to avoid, minimize, and offset environmental impact. Our programs have resulted in world-class conservation and development practices, which have had a proven benefit for both people and biodiversity.

The "Conservation for Development Professionals: Strategies for Implementing Biodiversity Action Plans for the Private Sector" course focuses on the introduction and implementation of biodiversity management practices by the private sector. Course participants will be introduced to a rich diversity of case studies and to conceptual frameworks which demonstrate management of industry-related biodiversity impacts, such as the mitigation hierarchy, biodiversity offsets, biodiversity assessments and monitoring and management plans.

Biodiversity management will be incorporated through the development of Biodiversity Actions Plans (BAPs), which will provide a framework for the implementation of monitoring, management, and mitigation actions at any stage of project development. The usage of the term "BAP" varies considerably between industry, private, and public sectors. The course will focus on frameworks for the development of BAPs for projects within the private sector to provide on-the-ground conservation actions.

Participants will also be introduced to the Business Case for Biodiversity and how biodiversity and ecosystem services play a role in mega-infrastructure projects. We will address evolving trends, as

development organizations, conservation organizations, IUCN, and the Convention on Biological Diversity (CBD) are increasingly recognizing the role that industry can play in managing and protecting biodiversity across landscapes.

Biodiversity-related impacts and mitigation practices will be introduced through case studies. Additionally, other important aspects of the course include mainstreaming the mitigation hierarchy into project design, construction and operation. Biodiversity offsets are an important focus of some extractive industries. This course will offer perspectives on best practices for offset case studies from developing countries, including conservation actions.

The course instructors have a wide range of expertise in conservation and development of a variety of infrastructure projects in challenging and critical habitats from the Smithsonian, financial institutions, development organizations and the private and public sectors. Course participants will receive a broad understanding of the complexity of integrating biodiversity into development projects, and the best practices that are shaping the sustainable infrastructure dialogue.

Schedule

Lunch is served from 11:30 to 1:00 PM and dinner is from 5:30 – 7:00 PM. Timing of the breaks will be flexible to accommodate discussions.

Day 1 – August 7, 2017

Introductions, Course overview, Smithsonian Conservation Biology Institute
Biodiversity Action Plans: Framework and Concepts <ul style="list-style-type: none"> • Significance and Importance • Cumulative Impacts • Legal Framework
Business Case for Biodiversity
Mitigation Hierarchy and Adaptive Management
Participant Discussions

Day 2 – August 8, 2017

International Financial Corporation Performance Standard 6
Case Study: Peru Wandari Biodiversity Action Plan <ul style="list-style-type: none"> • Impact Quantification Program • Ecosystem services and landscape scenario planning
Case Study: Biodiversity Actions Plans and Large Scale Agriculture/Agroforestry Development
<i>Optional SCBI Evening Walk</i>

Day 3 – August 9, 2017

Case Study: Peru BAP and Biodiversity Monitoring & Assessment Program (BMAP)
Case Study: Canopy Bridges as a Mitigation Tool
Case Study: Gabon Biodiversity Action Plan
Workshop: Implementing Biodiversity Action Plans in Sensitive Habitats; Case studies and group exercises

Day 4 – August 10, 2017

Case Study: Canada Kitimat Biodiversity Action Plan
Biodiversity Offsets as an Environmental Management Tool Case Study: Mitigating Biodiversity Impacts from a Large Scale Development Project
Biodiversity Actions Plans and Large Scale Agriculture/Agroforestry Development: Framework and Case Study <ul style="list-style-type: none">• Multilevel Approach for Biodiversity Friendly Infrastructure• Towards Biodiversity Friendly Roads• Sustainable Hydropower

Day 5 – August 11, 2017

Participant presentations
Case Studies: Framework for Improving Environmental Sustainability in Road Projects
Course Wrap up and Closing
<i>Optional Shenandoah National Park Visit or outdoor activity</i>

Introduction to Instructors

Alfonso Alonso, Ph.D., Managing Director of Field Programs, Center for Conservation and Sustainability, SCBI

Dr. Alonso is a conservation biologist with the Smithsonian Conservation Biology Institute. He is passionate about finding how species of plants and animals are distributed in different ecosystems and implementing monitoring programs to assure their persistence. Dr. Alonso focuses on integrating conservation needs with development priorities to sustain biodiversity by developing assessment and monitoring programs to minimize impacts on biodiversity during oil and gas mega-infrastructure projects. For this, he organizes expeditions and assembles teams of researchers with specialties in different animal and plant groups. These conservation and development partnerships work towards avoiding, mitigating, restoring and offsetting project impacts and develop best practices to protect biodiversity and maintain ecosystem services. Dr. Alonso has developed and implemented various Biodiversity Action Plans (BAP), Biodiversity Monitoring Programs (BMAP), and Impact Quantification Studies throughout his tenure at SCBI. He received his Masters and PhD degrees at the University of Florida.

Francisco Dallmeier, Ph.D., Director, Center for Conservation and Sustainability, SCBI

Dr. Francisco Dallmeier is the Director of the Center for Conservation and Sustainability. He has been instrumental in forging numerous partnerships between the Smithsonian and the energy industry in Latin America and Africa to integrate biodiversity conservation into mainstream project development. Additionally, he has been influential in various Smithsonian partnerships such as the Smithsonian and George Mason University to create the Smithsonian-Mason School of Conservation, the Smithsonian and World Bank partnership for the World Global Tiger Initiative, and the Smithsonian and National Science Foundation continental National Ecological Observatory Network. Dr. Dallmeier has been an advisor for the public and private sectors, as well as for lending institutions, in integrating the needs of infrastructure development projects with conservation priorities to sustain biodiversity. He has developed and implemented Biodiversity Action Plans (BAP) and Biodiversity Monitoring Programs (BMAP) globally. He has over 100 publications and has worked professionally in over 80 countries.

Jessica Deichmann, Ph.D., Research Scientist, Center for Conservation and Sustainability, SCBI

Dr. Jessica Deichmann is a Research Scientist at SCBI and a founding member of the Women in Nature Network. She received her PhD in Biological Sciences from Louisiana State University in 2009. Dr. Deichmann has over 15 years of experience working in a number of different countries and ecosystems, primarily in Latin America. At SCBI, she leads a team of biologists designing and implementing innovative research to address questions of species and ecosystem resilience in the face of anthropogenic change. More specifically, her work aims to quantify the impacts of industrial operations, such as oil and gas development, on biodiversity and ecosystem services and to develop mitigation strategies to minimize impacts. Although trained as a herpetologist, she engages with collaborators to work on a broad spectrum of taxonomic groups and to incorporate different methods including passive acoustic monitoring and DNA barcoding to address conservation challenges. Her most recent work involves using soundscape analysis to evaluate the impact of anthropogenic change driven by energy development on sound-producing animals in natural and critical habitat.

Tremaine Gregory, M.A., Ph.D., Research Scientist, Center for Conservation and Sustainability, SCBI

Dr. Tremaine (Tremie) Gregory is a conservation biologist and tropical ecologist. Dr. Gregory's work focuses on the impacts of development activity on wildlife and ecosystems, with an emphasis on tropical forests. Recent studies of hers in Peru include evaluating the impacts of exploratory natural gas well construction on floral and faunal communities in a highly biodiverse protected area and understanding the impact of the construction of a natural gas pipeline on arboreal mammals. Dr. Gregory's groundbreaking research on arboreal mammal use of natural canopy bridges revealed the extreme effectiveness of this canopy fragmentation mitigation method and has served as a guide for projects across Peru. She is also a pioneer in the development of camera trapping methods to monitor arboreal mammals. She received both her M.A. (2006) and her Ph.D. (2011) from Kent State University.

Ana María Sánchez Cuervo, Ph.D., Research Ecologist, Center for Conservation and Sustainability, SCBI

Dr. Ana María Sánchez Cuervo is a Research Ecologist at SCBI since 2015. Her current work focuses on participatory scenario planning and environmental modeling to identify relevant ecosystem services, analyze drivers of land change, and develop future scenarios of landscape change to inform management and strategic decisions to promote biodiversity conservation in tropical areas. Her work also includes topics related with landscape ecology, fragmentation and connectivity, biological and conservation corridors design, management and monitoring. Previously, Dr. Sánchez Cuervo conducted field and laboratory research in various ecosystems ranging from Tropical to Tundra, including ecological and biological conservation studies in Puerto Rico, Costa Rica, Colombia, Peru, and Paraguay. In one of her most recent research projects she has assessed the effects of the Colombian armed conflict on forest cover change and the implications for species richness patterns and protected areas planning. Dr. Sánchez Cuervo received her doctorate degree from the University of Puerto Rico-Rio Piedras.