

INFRASTRUCTURE AND BIODIVERSITY

Supporting human well-being through conservation principles



project profile

primary outcome Integrating biodiversity conservation as part of infrastructure decision-making process in Colombia, Ecuador and Venezuela

strategy develop a Decision Support Tool for each country so that decision-makers contemplating development projects will be informed of the project's potential impact on biodiversity

activities

Identify:

- primary stakeholders
- status of biodiversity conservation in each nation and
- plans for new infrastructure development

Develop:

- a decision support tool technological platform
- a monitoring tool

Strengthen national offices in charge of the integration of biodiversity conservation into infrastructure development.

Promote national regulations regarding biodiversity conservation

Replicate the initiative countrywide in all three countries involved

budget five million dollars during five year for three countries.



Fisheries are an important economic sector in Ecuador coasts © Mark Godfrey/TNC

South America is a continent in motion. Since the turn of the century, many of its economies have achieved budget surpluses and the countries are investing, now more than ever, in improving infrastructure to face the challenges of the 21st century. For South American governments, building better roads and ports for global trade, exploring lands and waters in search of domestic sources of oil and gas, and improving livestock and food production are activities essential to the continued expansion of their economies and to meet the challenges posed by growing populations and shrinking natural resources. Northern South America is no exception. Venezuela, Colombia and Ecuador all experienced a high annual growth in their national economies in the last five years. Achieving such

growth requires collaboration between all economic sectors, as well as the creation of strong policies and legislation. The governments understand that their natural resources are an invaluable treasure and essential source of well-being for people in both cities and rural communities. As these countries continue to progress it is crucial that decisions be made with resource conservation and biodiversity preservation in mind.

The Nature Conservancy has been supporting innovative conservation projects in all three countries for more than 20 years. Although there has been marked success, as new challenges arise, the Conservancy must continue to work with national and local governments to conserve each country's natural heritage.



Oil and gas industry generates impacts on biodiversity. © Diego Ochoa/TNC

One such example is a 2005 Conservancy supported project with PDVSA, Venezuela's state-owned oil company. PDVSA teamed up with the Conservancy in order to identify sensitive marine ecosystems and propose marine conservation measures to regulate oil and gas exploration in the Caribbean Sea. It was the first time that a large development project and conservation efforts teamed up to predict areas of potential biodiversity loss and enact measures to conserve, rather than lose, important species habitat and natural resources.

A Decision Support Tool

The PDVSA project was so successful that the oil company is incorporating conservation principles and best practices into its off-shore-concession contracts with private oil companies in Venezuela. PDVSA will also duplicate the process in other oil-drilling areas such as the Llanos and the Orinoco River Delta. The Conservancy, encouraged by such success, is now seeking to replicate similar projects across Northern Tropical Andes by working with sectors that represent the greatest threats to biodiversity: oil and gas exploration; roads construction; mining; industrialized fisheries, forest plantations, hydroelectric projects, irrigation projects and large-scale agriculture production. To achieve this sort of continent-wide expansion, the Conservancy is working to develop a Decision Support Tool that would allow governments, private companies and conservation organizations to learn in advance of planned infrastructure projects that

might impact biodiversity preservation or natural resource conservation. When they know ahead of time, conservation organizations can work with development project managers to include biodiversity conservation guidelines, recommend best practices, and minimize the impact large-scale projects have on natural landscapes.

The Conservancy has already begun working with the National Hydrocarbon Agency of Colombia, in charge of the country's oil and gas industry, to produce geographic information identifying high-priority conservation areas that are also of interest to oil companies. The geographic information being produced includes maps delineating conservation objectives, relevant guidelines, and best practice recommendations for parties engaged in the oil drilling process (oil companies, environmental authorities, conservation organizations and scientists). Monitoring tools to evaluate the oil drilling have also been developed. A joint effort between all parties involved, the project brings conservationists, scientists, oil companies, and government together to make important decisions that will shape Colombia's most pristine landscapes.

The Conservancy is identifying primary stakeholders in Colombia, Ecuador and Venezuela in other economic sectors, relying on information provided by national governments, productive companies, local and regional organizations and community members. The Decision Support Tool should be a national effort carried out on a

regional scale. Ultimately, information and recommendations about biodiversity conservation will be integrated into decision-making processes at all levels of the public and private sectors, and alternative, ecofriendly development scenarios will be provided in order to avoid, mitigate and compensate impacts.

Science and policy applied

Once the stakeholders (ministries of infrastructure and environment, national park agencies, environmental authorities, provincial and national governments, private companies, and local communities) have been identified and experiences have been shared, the Conservancy will develop a web database that will include raw information about the various development sectors, their past projects, perspectives, and future plans. This information will be overlapped with conservation data associated with particular locations, including, but not limited to biodiversity status, species distribution patterns, and priority conservation areas. Although technical support is imperative for the success of this project, the Conservancy also understands that policy decision-makers play a unique role in achieving lasting conservation results. For this reason, it will join efforts with governments to promote regulations that guarantee the inclusion of environmental considerations in decision-making processes.

With the implementation of a Decision Support Tool, any time an infrastructure project will require changes in land use, biodiversity conservation concerns will be taken into account. The Conservancy will replicate Decision Support Tool initiatives on local, national and continental scales by strengthening governmental organizations and offices in charge of planning processes and by giving them access to the tools to implement such systems.

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