CRITICAL ECOSYSTEM PARTNERSHIP FUND

CEPF and Poverty Reduction:
A Review of the CEPF Tumbes-Chocó-Magdalena Portfolio

December 2006

The benefits from intact habitats and healthy ecosystems extend well beyond biodiversity. This report is part of an ongoing effort by the Critical Ecosystem Partnership Fund (CEPF) to analyze the relationship between the projects it supports and poverty reduction.

This analysis includes a socioeconomic study across the CEPF geographic funding area and a project- and portfolio-specific study performed through administering questionnaires to grantees. The socioeconomic information provides CEPF with more detailed information about the areas where it invests and can be layered with existing biodiversity data to present a more comprehensive picture of the priority areas. Project-specific information, collected through questionnaires, provides specific data on key indicators agreed upon by the CEPF donor partners. In addition, this report incorporates narrative examples of how CEPF-supported conservation projects contribute to poverty reduction.

The project-level information is presented in a standard format agreed upon with the CEPF donor partners that is then globally aggregated as a part of the regular quarterly reporting to the partners. This approach has so far been completed in ten regions: Atlantic Forest, Cape Floristic Region, Guinean Forests of West Africa, Madagascar and Indian Ocean Islands, Philippines, Southern Mesoamerica, Succulent Karoo, Sundaland, Tropical Andes, and Tumbes-Chocó-Magdalena. The following report presents the results from Tumbes-Chocó-Magdalena, emphasizing the Chocó-Manabí biodiversity conservation corridor in that hotspot.

CEPF's Tumbes-Chocó-Magdalena ecosystem profile focuses on supporting existing conservation efforts in the Chocó-Manabí biodiversity conservation corridor, located in Colombia and Ecuador (Figure 1). The emphasis of CEPF funding in this corridor is on promoting the engagement of a wide range of private and public institutions to address conservation needs through coordinated regional efforts.

Data from various complementary sources were used for the analyses presented in this report. For the entire region and the corridor, we compiled and examined available socioeconomic data from Colombia and Ecuador. For individual projects, we collected and analyzed data from CEPF grantees. This report summarizes the data analysis at a regional scale, at a corridor scale, and for individual projects.

Figure 1. Map of the Chocó-Manabí Corridor within the Tumbes-Chocó-Magdalena Hotspot

Initiative-Wide (Regional) Level

The Tumbes-Chocó-Magdalena Hotspot includes parts of four countries in Central and South America: Colombia, Ecuador, Panama, and Peru. CEPF attention focuses specifically on the Chocó-Manabí Corridor, which occurs partially in Colombia and partially in Ecuador. In 2000, Colombia accounted for nearly 50 percent of the hotspot population, whereas more than 36 percent of the region's population lived in Ecuador that same year. Both countries are characterized by considerable poverty, a proposition borne out by standard development indicators such as the Human Development Index and the Human Poverty Index (Table 1). Based on all indicators listed in that table, poverty is slightly greater in Ecuador than Colombia.

Table 1. National development and poverty levels for Colombia and Ecuador

	Colombia	*Ecuador*
Human Development Index: value (rank [a])	0.785 (#69)	0.759 (#82)
Human Poverty Index: value (rank [a])	7.4 (#8)	10.6 (#22)
% population living on less than $2 per day [b]	22.6	40.8
% population living on less than $1 per day [b]	8.2	17.7

a: Rank among less developed countries globally, 2003
b: Average, 1990-2003
Source: United Nations Development Programme-Human Development Reports online: http://www.undp.org/reports/

Corridor Level

To explore the socioeconomic context of CEPF corridors in the Tumbes-Chocó-Magdalena Hotspot, this study examined measures of poverty available for Colombia and Ecuador. In the case of Colombia, we used data from the 1993 census of population and housing for municipalities to measure poverty within the Chocó-Manabí Corridor and beyond, focusing on housing units lacking adequate water sources (those lacking piped and well water), housing units lacking adequate waste treatment (those without toilets), housing units using charcoal, firewood, or refuse as cooking fuel, and persons lacking any formal education. This information is dated, but when we prepared this report, municipality-level data for poverty indicators from the 2005 census remained unavailable.

In the case of Ecuador, efforts by the World Bank to estimate and map poverty in small areas enabled the direct analysis of poverty, again measured at the level of the municipality. Poverty measures used are percentages of population below the national poverty line, poor persons (below the poverty line) per square kilometer, and the *poverty gap* (a measure of the cost of eliminating poverty relative to the national poverty line, with higher values indicating greater poverty). Mapping the percentages of housing units in Colombia lacking access to piped or well water, toilets, and modern cooking fuel, and Colombians lacking formal education, indicates that many of the municipalities occurring in the corridor exhibit poor conditions (Figures 2 and 3). Similarly, mapping the percentage of population below the national poverty line, density of poor persons, and poverty gap in Ecuador reveals the large amount of poverty in the southern part of the Chocó-Manabí Corridor (Figures 4 and 5).

Figure 2. Poverty Indicators for Colombia, 1993: (a) Percent of Housing Units Lacking Piped or Well Water, (b) Percent of Housing Units Lacking Toilets (Data source: Sistema de Consulta del Censo/93, Departamento Administriva Nacional de Estadística, http://www.DANE.gov.co)

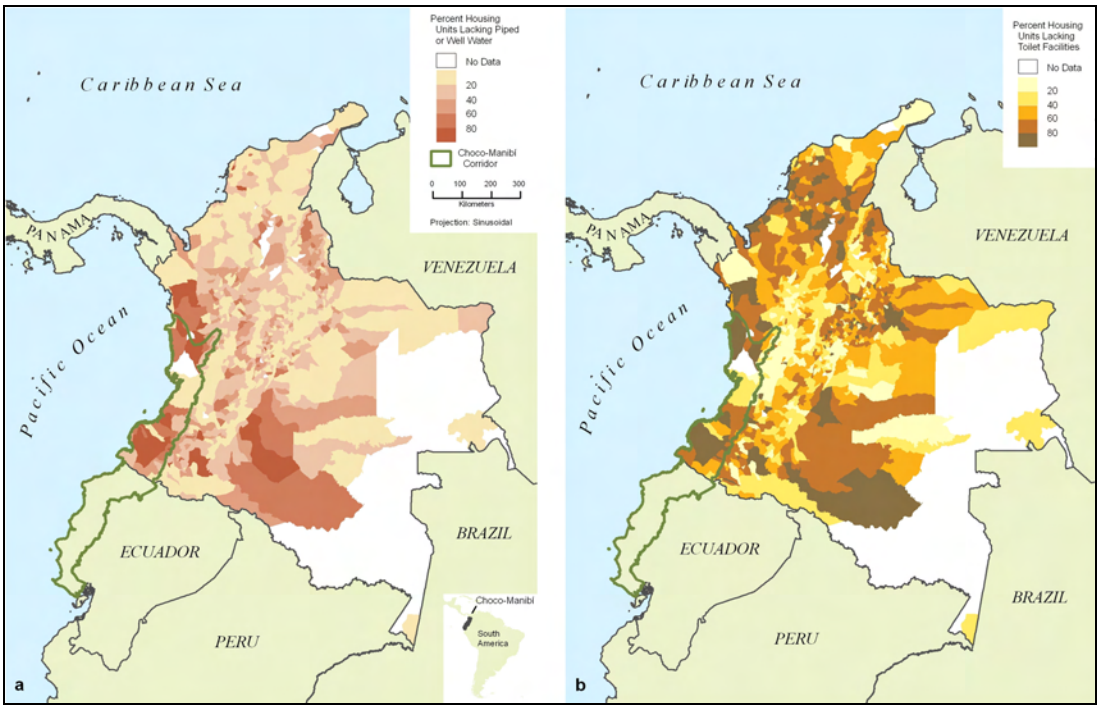


Figure 3. Poverty Indicators for Colombia, 1993: (a) Percent of Housing Units Using Charcoal, Firewood, or Refuse for Cooking, (b) Percent of Population Aged 12 Years and Over Lacking Education (Data source: Sistema de Consulta del Censo/93, Departamento Administriva Nacional de Estadística, http://www.DANE.gov.co)

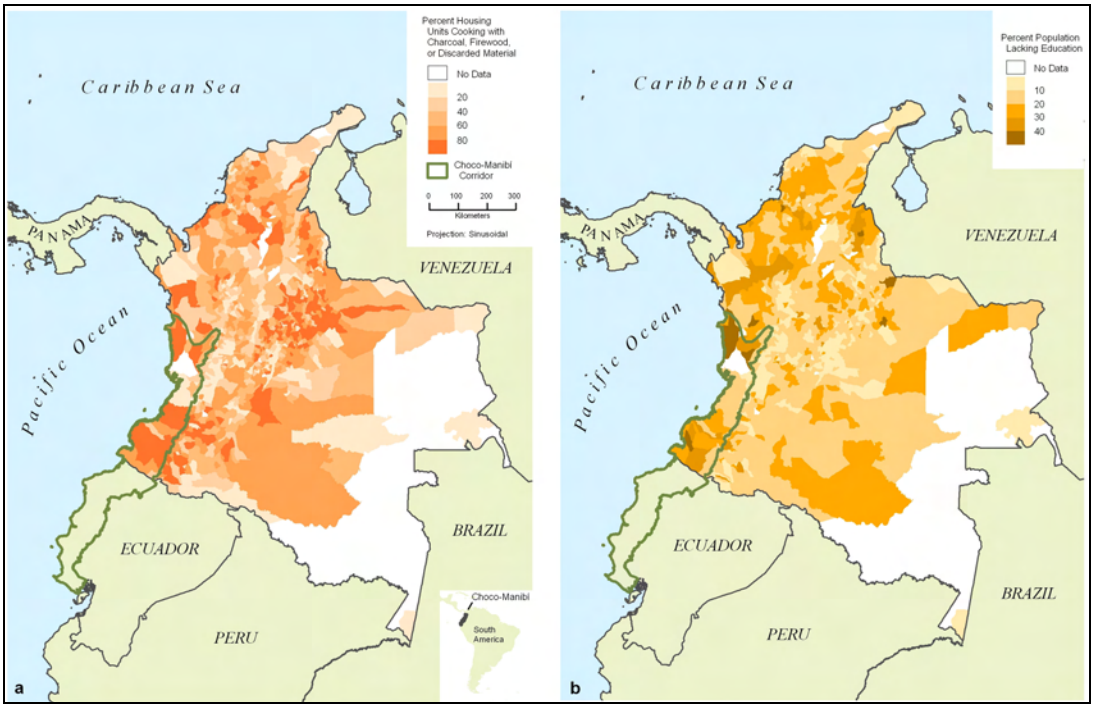


Figure 4. Poverty Indicators for Ecuador, 2001: Percent of Population Below Poverty Line (a), Number of Persons Below Poverty Line per Square Kilometer (b) (Data source: Poverty Mapping Project: Small Area Estimates of Poverty and Inequality, http://www.ciesin.columbia.edu/povmap/)

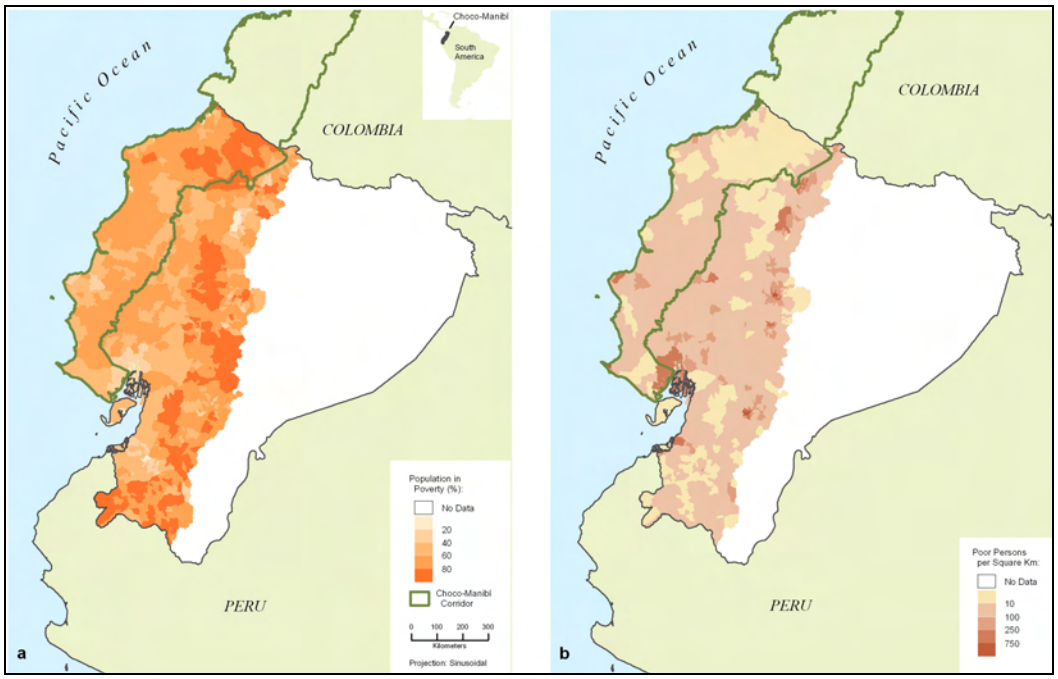
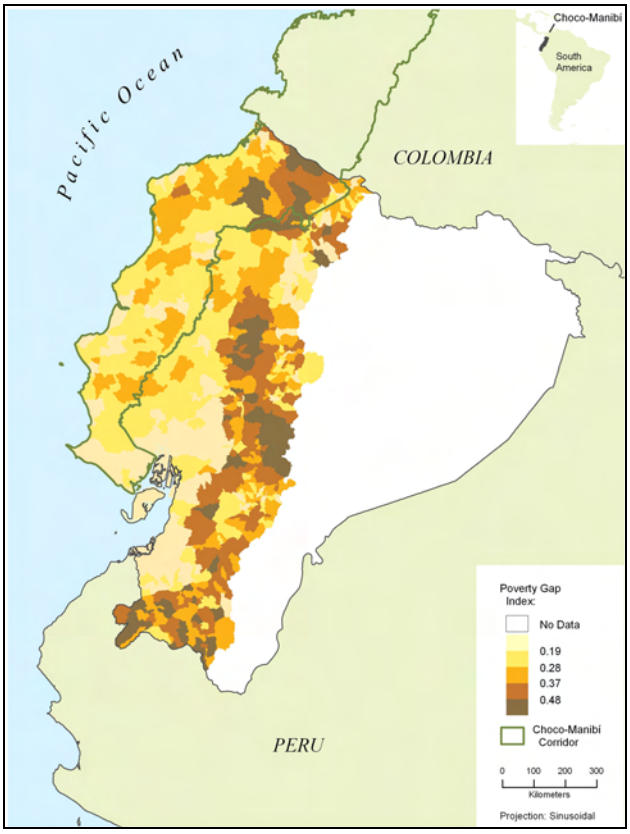


Figure 5. Poverty Gap Index for Ecuador, 2001(per capita cost of eliminating poverty) (Data source: Poverty Mapping Project: Small Area Estimates of Poverty and Inequality, http://www.ciesin.columbia.edu/povmap/)



To place the analysis of socioeconomic variables in context, we tabulated results for Colombia and Ecuador to enable comparisons within and beyond the Chocó-Manabí Corridor. For Colombia, we compared the four indicators examined—lack of access to adequate water, lack of toilet facilities, lack of access to modern fuel for cooking, and lack of formal education—for municipalities occurring at least partially within the Chocó-Manabí Corridor to municipalities lying outside the corridor (Table 2). Results indicate that conditions in the corridor are worse than elsewhere in Colombia for three of the four variables considered, even in a nation where poverty is widespread. In Ecuador, we compared two of the indicators examined—percent of the population falling below the poverty line and density of poor people— for municipalities occurring at least partially within the Chocó-Manabí Corridor to municipalities lying outside the corridor (Table 3). Once again, we see evidence of considerable poverty within the corridor, with the percentage of the population of each municipality higher than the national average in nearly all of the municipalities for the two variables considered. Compared to Chocó-Manabí, municipalities outside the corridor more often have densities of poor persons in excess of the national average, though this reflects the sparse population densities among the largely rural settlements occupying the corridor compared to other parts of the country.

Table 2. Selected poverty indicators for municipalities in Colombia that occur at least partially in the Chocó-Manabí Corridor compared to the remainder of the country: 1993 (based on data from Sistema de Consulta del Censo/93, Departamento Administriva Nacional de Estadística, http://www.DANE.gov.co)

		Worse than National Average			
Geographic Area	Total Municipalities	Inadequate water [a]	Lack toilet	Lack modern fuel [b]	Illiterate
Within corridor	82	76.8%	69.5%	85.4%	80.5%
Outside corridor	955	62.6%	80.0%	82.6%	80.0%

a: Housing units lacking piped water or well water
b: Housing units using charcoal, firewood, or refuse as cooking fuel

Table 3. Selected poverty indicators for municipalities in Ecuador that occur at least partially in the Chocó-Manabí Corridor compared to the remainder of the country: 2001 (based on data from Poverty Mapping Project: Small Area Estimates of Poverty and Inequality, http://www.ciesin.columbia.edu/povmap/)

	Calculated Value Greater than National Average	
Geographic Area	Percent Poor	Poor Persons per Square Kilometer
Within corridor	99.5%	67.0%
Outside corridor	96.4%	80.1%

Individual Project Level

To examine how CEPF projects contribute to poverty reduction in the Tumbes-Chocó-Magdalena Hotspot, we surveyed CEPF grantees to gather project-level data. To date, 49 percent of the 39 region-specific projects in the portfolio have completed questionnaires (Table 4). The data in the table below represent the information collected from the 19 projects that responded to the questionnaire.

Table 4. Summary from CEPF questionnaire responses, Tumbes-Chocó-Magdalena Hotspot

	Strategic Direction [a]			
Indicator	**1**	**2**	**3**	**Total**
No. Projects Reporting	11	3	5	**19**
CEPF Funding [b]	2,331,830	156,996	1,109,440	**3,598,266**
No. Projects Offering Training	5	2	4	**11**
Workshops Offered	71	30	72	**173**
Jobs Created	26	19	40	**85**
Persons Trained	770	37	1,484	**2,291**
Organizations Created or Strengthened	69	18	12	**99**
Network or Alliance Organizations	84	11	23	**118**

a: Strategic directions for the Tumbes-Chocó-Magdalena Hotspot:
1. Establish/strengthen corridor protection
2. Improved management, species/protected areas
3. Sustainable development

b: US dollars

A key finding of this study is that CEPF grantees report both direct and indirect contributions to poverty reduction. Direct contributions include job creation and training. Indirect contributions to poverty reduction include the creation or strengthening of local organizations. Several indirect contributions are difficult to summarize statistically. Other indirect effects, such as indirect job creation or economic multiplier effects, were beyond the scope of this study.

We used the three-heading framework on the links between biodiversity conservation and poverty reduction, presented to the 7th Meeting of the Donor Council in November 2004, as the basis for information-gathering from individual projects. Selected results of analyzing the questionnaire data appear below under those same headings: Building Income or Assets for the Poor, Facilitating Empowerment of the Poor, and Reducing Vulnerability and/or Enhancing Poor People's Security.

Building Income or Assets for the Poor

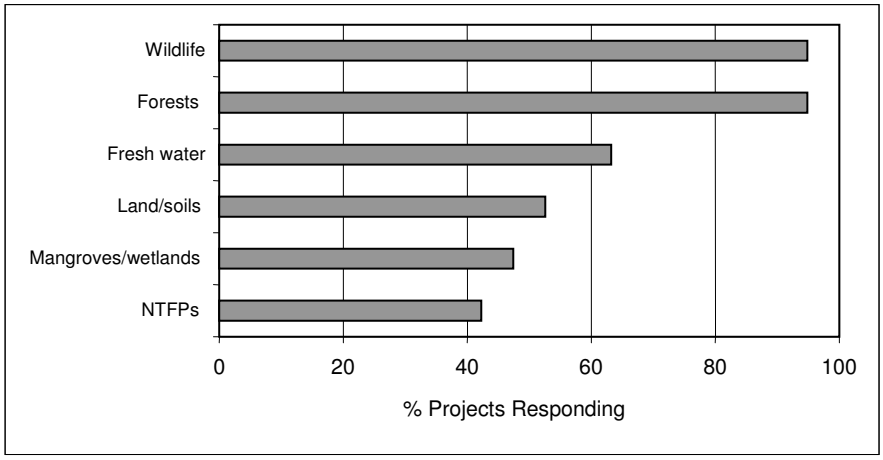
To obtain information from CEPF projects on building income or assets for the poor, the questionnaire focused on the following issues:

- biological and natural resource assets;
- human resource assets;
- conditions for secure management: household or community; and
- conditions for secure management: civil society.

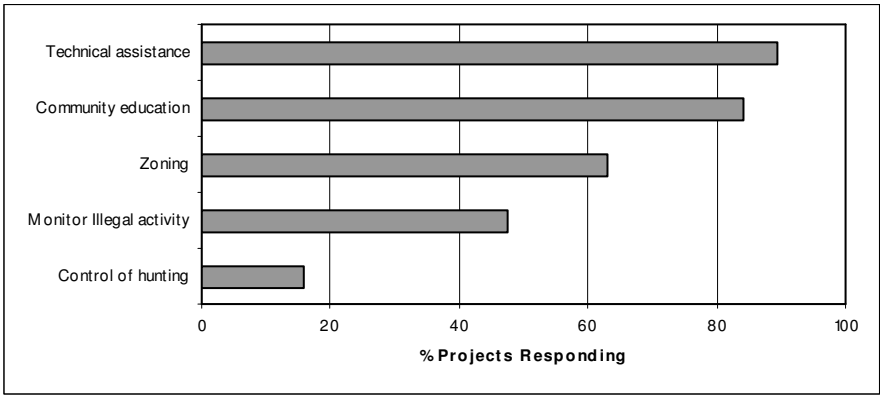
In the Tumbes-Chocó-Magdalena portfolio, project support to improve resource management focused most frequently on wildlife and forests, though more than half the projects responding also worked on fresh water and on land and soils (Figure 5a). Fewer projects involved mangroves and wetlands or nontimber forest products (NTFPs). Projects used a variety of methods to engage communities in resource management, with an emphasis on providing technical assistance and community education about the consequences of wise and unwise management and zoning (Figure 5b). Management of natural and biological resources is extremely important for poor rural communities that depend on the products of healthy ecosystems for much of their food, fuel, clothing, medicine, and shelter.

Figure 5. CEPF projects and the management of natural and biological resource assets in the Tumbes-Chocó-Magdalena Hotspot

(a) Natural/biological resource focus of CEPF projects

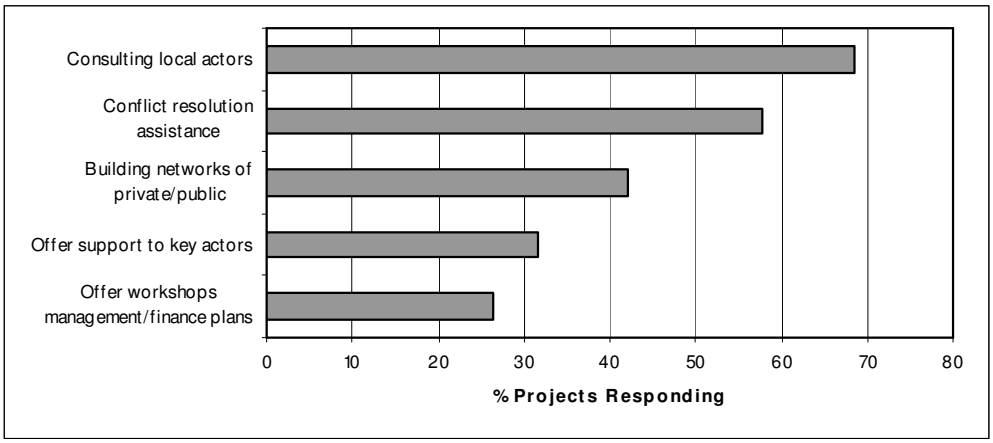


(b) Principle method used for community engagement



CEPF's focus in the Tumbes-Chocó-Magdalena portfolio is on conservation at a regional scale, approached through coordinated actions among multiple organizations. Such regional actions included engaging local actors and offering training to them, and resolving conflicts associated with conservation activities, with an ultimate aim of helping to safeguard threatened species and their habitat (Figure 5c). These and other related actions help to develop civil society and build alliances, components of the greater social order that not only contribute to conservation, but also can be used to improve human conditions in poor areas through strengthening local organizations and the people that lead them.

(c) Ways projects aid civil society or build alliances



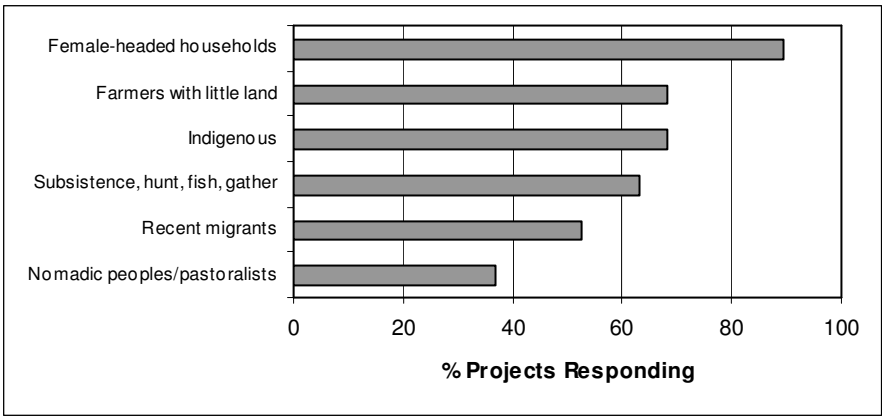
CEPF projects in the Tumbes-Chocó-Magdalena Hotspot contributed to secure management at both the household and community levels; questionnaire responses indicated the creation or strengthening of 99 local organizations and the building of alliances among 118 institutions. All of these efforts to create or strengthen local organizations and networks help empower local rural communities by increasing the information flowing to them and their capacity to respond to markets, government, projects, the legal system, or other sources of change. Effective local institutions have been shown to use such capabilities to help reduce poverty in the communities where they work.

One example of an initiative supported by CEPF in the region that helped aid civil society and build alliances, in addition to providing jobs and training, was the project of the Ecuadorian ecotourism group Asociación Ecuatoriana de Ecoturismo (ASEC). ASEC helped create a manual of best ecotourism practices for operators in the Machalilla National Park. In order to take advantage of recent reforms in Ecuador that decentralized responsibility for tourism and park management, ASEC worked with a comprehensive range of local stakeholders—including tour operators, national park staff, community representatives, and local government officials from the Ministry of Tourism and Environment—to develop the manual. In addition to researching and publishing the manual, approximately 200 people from local businesses and communities attended workshops organized by ASEC, covering topics such as garbage treatment, environmental education for children, laws and regulations for tour operators, the environmental and cultural impacts of tourism, and whale-watching tours. A new law based on the project's results is now being drafted at the national level to regulate ecotourism within national parks and protected areas throughout Ecuador.

Facilitating Empowerment of the Poor

CEPF investments in biodiversity conservation often help empower the poor. Many CEPF investments directly support civil society efforts to help communities and local people participate in and benefit from conservation efforts. The questionnaire collected data on the categories of poor people engaged by CEPF projects. Nearly all projects that responded to the questionnaire worked with female-headed households (Figure 6). More than 60 percent of the projects responding also engaged farmers with little land, indigenous peoples, and people involved in subsistence activities. All of these groups rely heavily on natural resources for their survival.

Figure 6. Categories of poor families engaged by CEPF-funded projects in the Tumbes-Chocó-Magdalena Hotspot



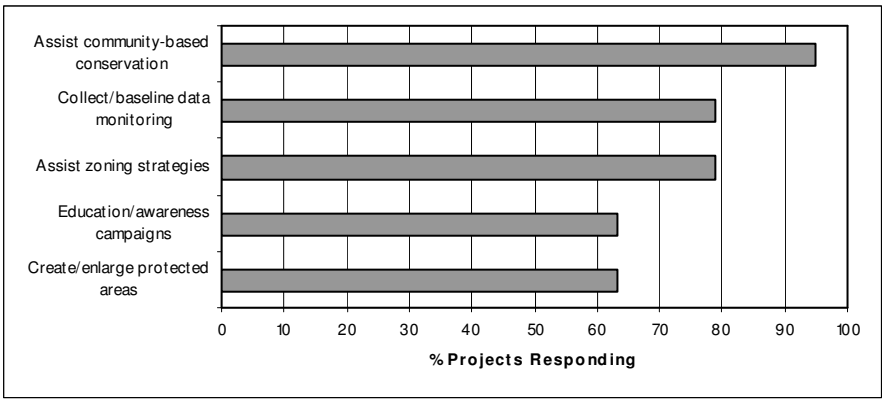
One project supported by CEPF that helps local people of limited means participate in and benefit from conservation efforts involved coffee farmers in the Valle de Cauca, a richly biodiverse region that connects two protected areas in the south of the Tumbes-Chocó-Magdalena Hotspot. Federación Nacional de Cafeteros de Colombia (FNC) encouraged more than 700 growers to take up best-practice guidelines for sustainable cultivation of coffee. Farmers directly receive 80 percent of the coffee's $6.50/pound retail price and, with training from Conservation International-Colombia, have planted 30,000 shade trees in the area. Under their agreement with FNC, coffee growers invest some of their revenue in biodiversity conservation including restoring degraded watersheds, reducing their use of agrochemicals, and carrying out regular surveys of species on their land. FNC also has helped to develop strategic alliances between coffee growers, local government, and conservation NGOs.

Reducing Vulnerability and/or Enhancing Poor People's Security

The questionnaire obtained information on reducing resource depletion, resource degradation, and effects of shocks and disasters. Nearly all respondents reported that their projects addressed resource depletion. The primary means of achieving this goal was through community-based conservation, a feature of almost all CEPF-funded projects (Figure 7a). More than two-thirds of the projects responding stated that they assisted in baseline monitoring/data collection and helped to develop zoning, with a majority engaging in education and awareness campaigns and in the creation or expansion of protected areas as well.

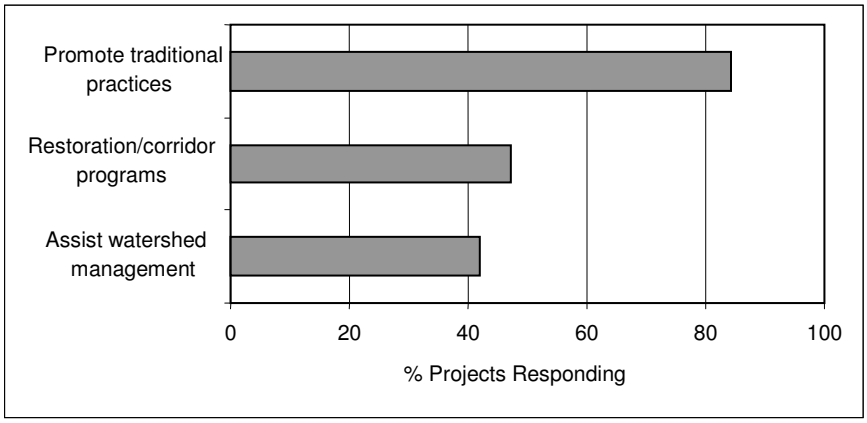
Figure 7. CEPF projects and reducing vulnerability in the Tumbes-Chocó-Magdalena Hotspot

(a) Methods used to reduce resource depletion



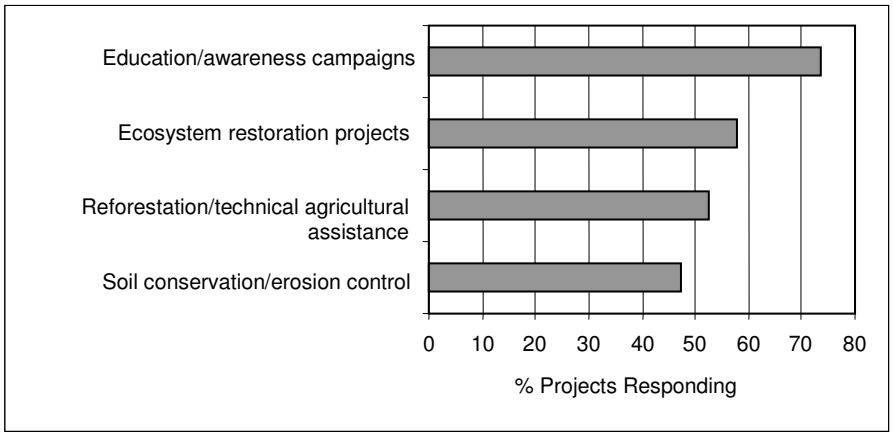
The most common methods of reducing resource degradation were through promoting traditional practices and implementing restoration and corridor programs (Figure 7b). These activities not only support better resource management in wildlife corridors, but they are also extremely important for the poor. Projects also sought to reduce resource degradation through watershed management. Once again, actions that improve local resource management are vital to the poor, as maintaining the quality of these resources is essential to the survival of rural people with limited means.

(b) Methods used to reduce resource degradation



Several CEPF grantees reported that their projects helped to reduce community vulnerability to shocks and natural disasters. Projects reduced vulnerability most often through education and awareness campaigns, though ecosystem restoration and technical assistance in reforestation and agriculture also occurred frequently, thereby informing local peoples about the importance of conservation in the context of community vulnerability and creating (or conserving) habitat that reduces the impacts of severe natural events (Figure 7c). Such measures are important in areas where the challenge of meeting basic human needs can lead people toward activities that increase their vulnerability to severe events—such as broad deforestation that increases susceptibility to impacts from storms or the effects of drought—and where other types of protection from shocks and disasters, and assistance following such events, are unavailable.

(c) Methods used to reduce vulnerability to shocks and natural disasters



One project that helped to maintain the natural environment and reduce local vulnerability was managed by Oro Verde, a sustainable development group based in Colombia. Inspired by the success of fair-trade tea and coffee, Oro Verde worked with local people in 12 sites in the municipalities of Tadó and Condoto in the Chocó-Manabí Corridor to develop a set of environmental and social criteria for small-scale gold mining. By charging a premium for its gold, Oro Verde can use the extra revenue to help miners work sustainably, restoring degraded areas using analog forestry techniques and establishing conservation zones within community territories. Almost 200 Afro-Colombian mining families have signed up to a cooperative established by Oro Verde that now sells the gold to jewelers and consumers nationally, in North America, and in Europe. Another Colombian group, the Association of Responsible Mining, is now using Oro Verde's approach to develop a framework for responsible small-scale mining which can be applied in other regions of the world.

Conclusion

Available socioeconomic data indicate that CEPF-supported projects in the Tumbes-Chocó-Magdalena Hotspot—notably in the Chocó-Manabí Corridor located in Colombia and Ecuador—occur in areas of considerable poverty. Within these areas of poverty, CEPF projects directly and indirectly contribute to poverty reduction and improve human conditions while achieving their primary objective of biodiversity conservation. Direct impacts include creating jobs and providing training to local peoples. Indirect impacts include creating local organizations, strengthening civil society, and other activities that maintain and restore the ecosystems upon which many poor people in the corridor rely.