This case study showed that the prioritization of watersheds is efficient in quickly providing decision makers with information that can be easily understood and can represent a valid starting point for setting policy at regional level. However, while a watershed-level analysis informs the user about which watershed globally deserves more urgent restoration, it does not provide information on the specific conditions within the watershed. This requires on-site analysis of the selected watersheds, so as to identify the most suitable restoration interventions, as well as their location.

Box 9.4 Priority areas for implementing the CDM to forest restoration projects in conservation corridors of the Andes

W. Lara., V. Gutiérrez, B. Zapata-Arbeláez, A.M. Santacruz, W.G. Laguado, A. Sierra, C.M. Bustamante, A. Yepes, T. Black, F. Arjona

Afforestation and reforestation projects are two of the measures included in the Kyoto Protocol within the Clean Development Mechanism (CDM) framework. These measures appear to be a very cost-effective strategy for mitigating climate change. Furthermore, they have great potential in neotropical countries owing to the large amount of land available and suitable for reforestation, and the many benefits they can bring in social and environmental terms. Significant opportunities have been created with the launch of the international market for emission reduction of greenhouse gases (GEI), which led to this study. The study aims were to identify and develop criteria for selecting priority areas for the implementation of CDM, which could also contribute to the restoration of biological corridors in the Andean hotspots (Fig. 1).

Potential areas were selected by using specific regulatory, eco-physiological and socio-economic evaluation criteria. In addition, the technical and economic viability of CDM projects was evaluated, for those that are going to contribute to biodiversity conservation in the chosen areas. The proposed work is the first step of a top-down approach, where strategic areas are identified based on coarse-scale information to reach potential sites for pre-feasibility studies with more detailed information. The indices of potential priority areas for the CDM projects identified four locations with potential to evaluate the pre-feasibility. For the Norandean hotspot the chosen places were located in the north zone of the Department of Cundinamarca (Colombia). This zone includes important areas for
Identifying priority areas for dryland forest restoration such as The Natural National Park of Chingaza, The Natural National Park of Sumapáz and El Páramo de Guerrero. For the Cóndor Kutukú the chosen places were located in the north zone of San Martín Province (Peru), which includes the Awajun and Nueva Cajamarca Regions, and the central zone, which is located in La Paz Province and to the west of El Beni Province in Bolivia. The regions of Sabanas de Apolo and Caranavi were also taken into consideration in the study area (Fig. 2).

Box 9.4 (cont.)

Within the selected areas a feasibility exercise was carried out, which enabled determination of the potential of eligible areas within each region. A cost-benefit analysis provided different market scenarios relating to the price of a tonne of carbon. The forestry model for determining the carbon sequestration potential of the regions was based on reports of the Intergovernmental Panel on Climate Change (IPCC). It was generally concluded that most market scenarios evaluated for the establishment of a forestry project under the CDM have a high possibility of being viable ecologically, economically and socially.

Figure 1 Geographical location of hotspots in study: (1) Choco-Manabi, (2) Norandino (3) Guiana, (4) Tumbes, (5) Condor-Kutukú, and (6) Amboró Vilcabamba (Source: Conservation International) (Source vegetative cover: Eva et al. (2004)).

Figure 2 Distribution of potential priority areas (IAPP) for CDM forestry projects in hotspots: (a) Norandino, (b) Guyana Shield, (c) Choco-Manabi, (d) Tumbes, (e) Condor-Kutukú, (f) Amboró Vilcabamba.