

❖ Standard 11: Design ecoregional portfolios/biodiversity visions to best meet goals for all conservation targets/ biodiversity elements, using the principles of efficiency, representation, irreplaceability, and functionality.

## Case Study: The Final Biodiversity Vision for the Southwest Amazon

*From: WWF (2002) Ecoregion Conservation: Securing Living Landscapes through science-based planning and action. A users guide for Ecoregion Conservation through examples from the field. Washington, DC.*

### Purpose and region of analysis

The combination of the priority areas with the results of the connectivity analysis completed the drafting of a biodiversity vision for the Southwest Amazon (figure 1). The vision delineates what, according to the best information available, will be required in terms of amount and distribution of natural habitats, to insure that the full complement of biodiversity will persist in the ecoregion for the long term.

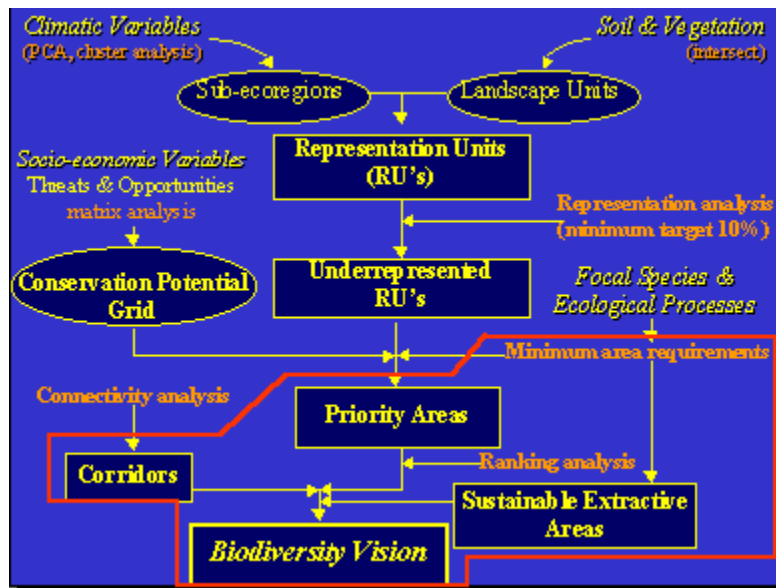


Figure 1. An outline of the approach to producing a biodiversity vision highlighting the immediate elements that help build the final vision.

### Criteria/Methods

The final vision map (Figure 2) is based on the results of the prioritization steps (for identifying and ranking the priority areas).

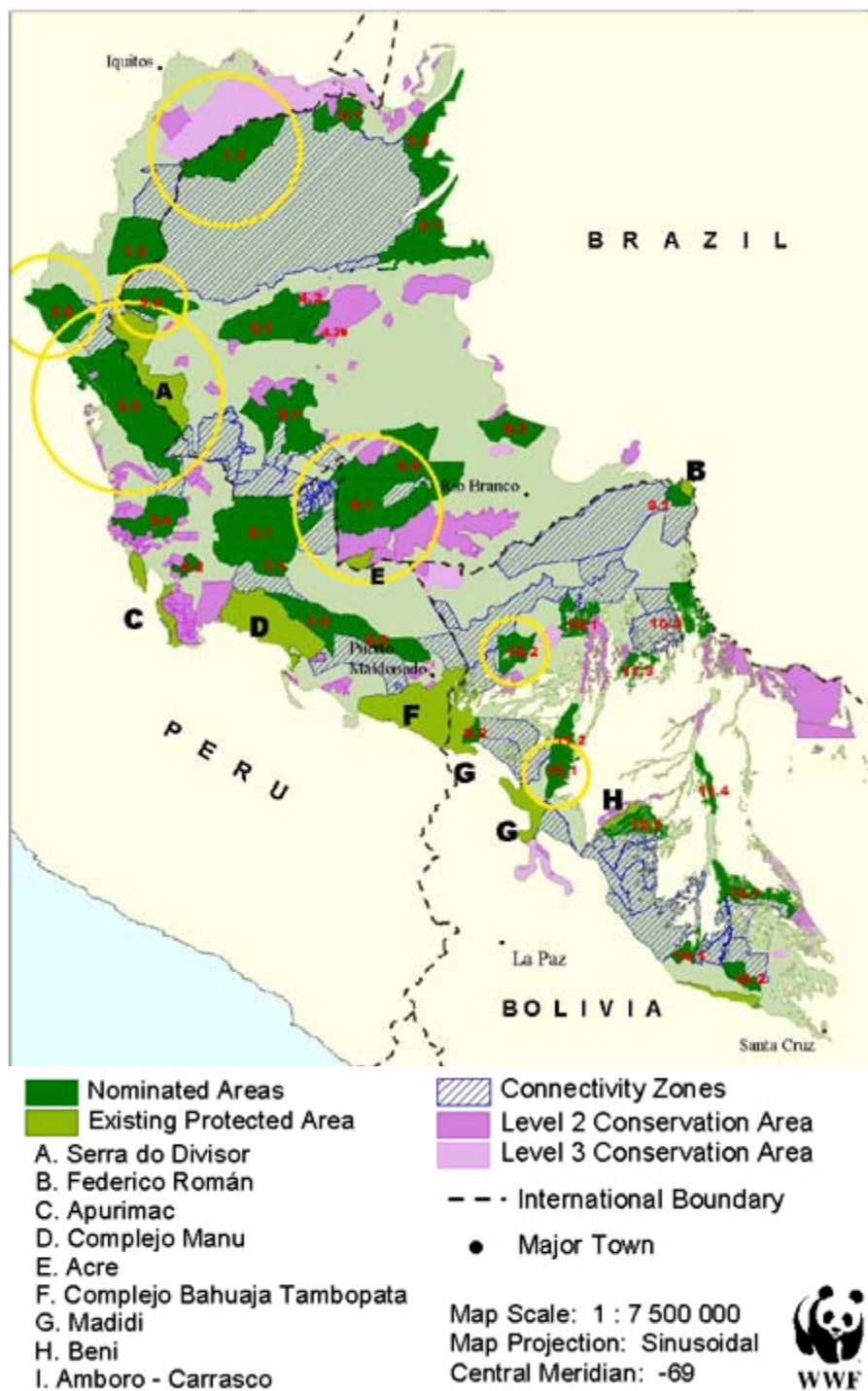


Figure 2. This map presents a general conservation landscape for the SWA, created with four basic types of units: Levels 1-3 and connectivity zones.

The biodiversity vision is composed of four basic units:

- **Level I** (Nominated areas): Areas limited to strict uses: education, scientific research, and/or tourism.

- **Level II:** Managed areas for resource use and extraction of non-timber forest products.
- **Level III:** Commercially managed areas for resource extraction (including timber).
- **Connectivity Zone:** An area that consists of a mosaic of sustainable uses that do not destroy the integrity of the forest canopy.

This configuration best meets the basic goals of the SWA vision- habitat representation, large intact habitat blocks, and ecological connectivity.

### *Recommendations for achieving the vision*

#### Global recommendations:

Other political, biological, and socioeconomic actions will need to reflect these fundamental activities, addressing issues at the local, national and international levels to promote the legislation, legalization, and local cooperation necessary for conservation impacts.

#### Ecoregional recommendations:

The goals and recommendations of this vision aim to maintain the large scale phenomenon of water cycle maintenance. Studies have shown that at least 25-50% of the canopy cover in tropical forests in large blocks is required to maintain water cycling, and this humidity is essential to maintaining ecoregional diversity and integrity.

Implementation of this vision will maintain 67% of the forest ecosystem under closed canopy as protected areas and resource management reserves and will connect ecologically the protected areas and proposed priority areas.

Maintaining large blocks of habitat is also required to provide ecological connectivity required for the large home ranges typical of focal species and top predators in lowland forests.

Watersheds are considered to be essential to maintaining ecoregional integrity, including the Mamoré basin that drains the Beni savannahs, and is essential to the maintenance of the water table in both the SWA and the Beni grassland ecoregion. Many of the priority areas are designed to encompass important river basins (Purús, De los Amigos and Juruá basins), so their implementation will help to conserve this essential process.

The major focal species (jaguar, white-lipped peccary, harpy eagle, giant otter) are targeted as important keystone species for determining habitat integrity and impacts of human disturbance, and landscape planning throughout the SWA must take the habitat needs of these species into consideration.

#### Priority area level recommendations:

At the scale of individual landscapes (protected areas, priority areas, and multiple-use corridor zones), the biodiversity vision recommends:

1. Establishment of new protected areas
2. Consolidation of existing protected areas
3. Resource management in national reserves and indigenous territories
4. Forestry management in forestry reserves and concessions

The main recommendation to address the ecoregion-wide goal of habitat representation is to diminish or eliminate fragmentation of habitats through a range of protection strategies that maintain intact forest in all Representation Units. Priority areas have an average size of 439,000 hectares (with 11 of 33 maintaining over 500,000 hectares) and are connected by the proposed connectivity zones, creating potentially large expanses of intact habitats for ecoregional conservation.

Implementation of the proposed priority areas will improve the representation in a conservation landscape (priority areas & protected areas) of distinct communities, habitats, and species assemblages, as symbolized by the Representation Units (the biodiversity proxy described above). Protected areas alone included only 19% of the total Representation Units, while the vision system of protected and priority areas provides over 55% coverage of the total Representation Units in some conservation landscape.