

Table 1. Criteria and information needs for designing the Masoala National Park.

<i>Design criteria</i>	<i>Information needs^a</i>
<i>Ecological sustainability^b</i>	
(1) Largest continuous area consisting of natural habitats must be protected.	satellite image analysis and ground-truthing
(2) Area to be protected should consist largely of primary or relatively undisturbed habitats.	
(3) Area should contain several representative examples (at a minimum) of the existing habitat types, including the spectrum of environmental gradients.	
(4) Corridors that link natural habitats should be protected. Corridors must be wide enough to encourage animal movement or include a zone where forest regeneration can be actively encouraged. Habitat mosaics and transitional zones should be protected.	
(5) Special consideration must be given to rare and threatened habitats or endangered habitats and species and to locally endemic species, particularly those not protected elsewhere in Madagascar.	biodiversity surveys; population studies; threats analyses
(6) If there is a choice between two areas, choose the one that will contribute the maximum number of species of interest not already found within the park.	
(7) Park limits should be as simple as possible to minimize the edge-to-area ratio.	mapping of park limits
<i>Socioeconomic sustainability^c</i>	
(8) Human settlements must not exist within the park (Malagasy law).	mapping of human settlements
(9) Wherever possible, the park boundaries should be placed outside of currently cultivated lands and traditional harvest zones, including room for expansion.	mapping of land-use and tenure; projection of future land use
(10) Forest buffer outside of the park must be large enough to meet the human population's commercial and subsistence needs for forest products.	forest inventories; socioeconomic surveys; economic feasibility analyses and projections of resource use
(11) Headwaters of rivers should be included in the park.	topographic maps
(12) Limits should be easy to see and respect, following geographic features when possible.	
(13) There should be points of access for ecotourism and patrolling.	

^aEach information need is listed once; blanks indicate a previous listing.

^bEcological sustainability criteria devised from Pickett and Thompson (1978), Shaffer (1981), Soulé and Simberloff (1986), Usber (1986), Noss (1987), Pernetta et al. (1994), and Polis et al. (1997).

^cSocioeconomic sustainability criteria derived from Hough and Sherpa (1989) and Western and Pearl (1989).