**Promoting Environmental Security and Poverty Alleviation in Virunga-Bwindi, Great Lakes - Africa**

**IES EnviroSecurity Assessments**

A major proportion of the world’s ecosystems and the services they perform for society and nature is being degraded or used unsustainably. This process affects human wellbeing in several ways. The growing scarcity of natural resources creates a growing risk for human and political conflicts and hinders sustainable development and the poverty alleviation that depends on it. Situations involving resource abundance can also be related to serious environmental degradation, increased community health risks, crime and corruption, threats to human rights and violent conflicts – in short, to a decrease of security.

The overall objective of IES EnviroSecurity Assessments is to secure the natural resource livelihood basis on the local, regional and international level. IES pursues this objective along the following mutually related lines: (1) the conservation of ecosystems and their related services, (2) the implementation of the international legal order, (3) the provision of economic incentives for maintenance of ecosystem services, and (4) empowerment of relevant actors and dissemination of results.

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**Recommendations from the Virunga-Bwindi region Case Study**

**A. ON MAPPING AND MONITORING**

1. While the focus of these recommendations is to strengthen the peace park functions of especially the transnational Virunga parks complex, the first recommendation is to have a full analysis of all ecological values of the region and to determine the whole set of ecosystem services (as defined by the Millennium Ecosystem Assessment) which the region is providing to its immediate surroundings, the wider region and river basins, and the global community. The area is important as the habitat for the last population of mountain gorillas, for other unique biodiversity, and for the strategic hydrological role of the Virunga Massif. The analysis of the USA Forest Service and of the GEF-funded Global International Waters Assessment (and any others) should be continued, also with special attention to the relevance for the Nile Basin Initiative.

2. The threats to the maintenance and delivery of ecosystem services should be identified on the various levels: local (e.g. population pressure), regional (tribal conflicts, migration, etc.), international (mining and logging for export markets), and global (impact of climate change is highest in Africa ‘where poverty limits options for adaptation.’)

3. Ecological assets and threats should be laid down on maps so as to give policy-makers on the various levels a direct and integrated view of the issues to be addressed.

4. A system of continuous monitoring of the ecology (and the threats there-to), based upon (digital) remote sensing with systematic ground-tracing by local authorities and counterparts such as IGCP should be set up. There should be periodic reporting of this monitoring, for example, on the occasion and for the benefit of the quarterly tripartite meetings of the park authorities to discuss the joint management of the parks. The results of the monitoring should also be made available to the governments and all other relevant decision-makers in order to allow them to take adequate action in time.

**B. ON DIPLOMACY AND LAW**

5. Informal channels of communication should be established with MONUSCO to prevent invasions of the parks or using them as shelter and to strengthen park protection if needed. (See also the recommendations by the International Crisis Group of 14 September and 19 October 2005.)

6. The pertinent international legal regimes should be identified so as to define the responsibilities, obligations and rights of the various actors and relevant for the region. It is recommended strongly to take the responsibilities and obligations of the countries in the Virunga-Bwindi region under the international environmental conventions, sensibly and work together as Parties to these binding law agreements. There is great need for adequate capacity to translate the international obligations into national, enforceable, law and to fully participate in the meetings of the international conventions. The UNEP Environmental Law Centre in Paris should carry out a needs assessment of the countries in relation to the implementation of these conventions on the national, regional and international level.

7. Triparite consultations among Virunga Massive ranges and park authorities facilitated by the IGCP may benefit from updated remote sensing monitoring reports. The Tripartite Declaration on the Transboundary Resources Management between the Three States of October 2005 could be upgraded to a “legal framework for a Triangular Board” applying a funding treaty between the three states. The steps towards such an agreement should be very carefully planned and built upon concrete progress of the on-going consultations between the three park authorities.

8. Adequate, long term financing for monitoring and management is an absolute requirement for the Virunga-Bwindi area to be successful as a peace park, as habitat for unique biodiversity and as “water tower” for the surrounding regions and the connected river basins. It is therefore recommended to critically review the performance of the Mipango and Bwindi Impenetrable Forest Conservation Trust Fund (AMFIT) and to design a mechanism which would also include the involvement of local communities at the peace park area, looking at all ecological values. A model for a new multi-donor trust fund construction can be found in the World Bank/GEF trust fund construction for the protected areas in Colombia.

9. To lessen pressure on the Virunga region and the ecology in general, the highest priority has to be given to generate sources of income and employment outside the subsistence agriculture in which 90% of the population is working. Support for small to medium industries and to the ICT sector, and energy (in the form of electricity) is an absolute requirement. A country like Rwanda learns a lesson, when water in the Volcanoes is diverted towards agriculture, thus increasing the need to use “dirty diesel” to produce electricity and discouraging the options to earn income from producing carbon credits under the Clean Development Mechanism (CDM) of the Kyoto Protocol. Building on existing (UNIDO/GEF) initiatives, Dutch development cooperation through its bilateral and multilateral channels should strongly support a clean energy strategy for the countries sharing the Virunga Massif, including creating options for CDM projects. Research aimed to prevent erosion and sedimentation of water bodies suitable for hydroelectricity could at the same time qualify for the CDM. The Dutch CDM office at the ministry of Waternet should be consulted to see whether now or in the future the obligation Dutch greenhouse gas emission reductions via the CDM could be modified, for example, through energy and/or forestry projects in Rwanda.

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**C. ON FINANCE AND ECONOMICS**

10. Special attention should be given to the integration of the environmental management needs in the Poverty Reduction Strategy Papers (PRSP). With further deterioration of the environment, poverty and conflicts will increase. The embassies in the region and the Executive Directors of the Netherlands at the World Bank and the IMF will have to scrutinize the PRSPs when they come up for decision-making.

**D. ON EMPowerMENT AND Training**

11. After demobilisation and rehabilitation, the rebels, militia and refugees need to be trained in skills outside subsistence agriculture, such as for example environmental protection and direction, wildlife and park management, and as tourist guides, managers of lodges, etc. The international donor community should assist with providing incentives and training modules.

12. Empowerment of women is key to the necessary demographic transition. To provisions like in Rwanda where a minimum percentage of civil servants should consist of women, the promotion of educational, health and social services especially for women in the rural areas should be added.

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The Great Lakes region in Africa is a war zone where tribal conflicts mix with the aftermath of the Rwandan genocide, power struggles in the Eastern part of the Democratic Republic of Congo, the control over precious and strategic minerals, such as diamonds, gold, coltan and the illegal trade in timber and protected species. Many other African countries and their armies were involved and the humanitarian consequences are dramatic.

The war, both directly and indirectly (by causing refugee streams) caused widespread environmental destruction and so does the mining, logging and poaching. The protection of mountain gorillas in the border area of Rwanda, Uganda and the DRC, however, brings the three countries together, by creating employment, income, and basic health and education services for the local communities out of tourist revenues, creating incentives for co-operative protection.

The full report, legal analysis, and related documents for this case study are available on-line. Also the ‘Vision’ interactive GIS Interface can be used to select and view maps with various analytical indicators for different time periods in this study area. Go to: www.envirosecurity.org/espa