

ANNEX 1. Environmental Analysis. USAID Rwanda Compliance with FAA Sections on Tropical Forests and Biodiversity (118(e) and 119(d))¹

This annex addresses several requirements of operating unit Strategy Statements as they relate to the Foreign Assistance Act (FAA) sections 118 (tropical forest conservation) and FAA section 119 (conservation of biodiversity). Sections 118(e) and 119(d) of the Foreign Assistance Act require that each country strategic plan analyze (1) the actions in that country necessary to achieve conservation and sustainable management of tropical forests and biodiversity, respectively, and (2) the extent to which the actions proposed for the supported by the Strategy meet the need thus identified. The specific requirements of FAA sections 118(e) and 119(d) are summarized herein.

To address the requirements, in 2003 USAID/Rwanda carried out an Environmental Threats and Opportunities Assessment (ETOA) that included a review of the condition and framework of forest and biodiversity conservation in Rwanda and the likely effects of the Mission 2004-2009 Strategic Plan. Rwanda's new 2006 Strategy Statement validates the three-SO structure approved for the 2004-2008 ISP and focuses on three strategic transformational development objectives: SO 5, Democracy and Governance (DG); SO 6, Health, including HIV/AIDS; and SO 7, Rural Economic Growth, including food security and agriculture. Some elements of fragility are related to environmental issues and have been identified in the Annex 2 Fragility Assessment. These include availability of arable land and population pressure on natural resources.

An updated ETOA is not planned until 2008. This annex updates and validates the Environmental Analysis for the USAID/Rwanda FY 2006 Strategy Statement. Also, USAID/Rwanda will support the launch of a new integrated program for Increased Rural Incomes through Improved Biodiversity Conservation around the Nyungwe National Park, consistent with the U.S. Congressional earmark on Biodiversity for Rwanda in 2006.

1.0 Overview of existing analyses:

This Environmental Analysis draws heavily on the USAID/Rwanda ETOA completed in March 2003, and which included the Mission's last FAA Section 118/119 analyses. That paper investigated the causes and severity of environmental problems in Rwanda and how these relate to the condition of tropical forests and to the conservation of biodiversity (TF&BD). The 2003 ETOA recommended how activities under the intermediate results (IRs) of the Mission's SOs could promote the conservation of TF&BD. Since that time there have been no revisions of the Section 118 / 119 analyses as the environmental conditions have not significantly changed.

The 2003 ETOA is still accurate from the standpoint of describing types of threats, pressures and practices that undermine the conservation of tropical forests and biodiversity, and sustainable environmental management. The downward trajectory predicted for biodiversity and environmental sustainability continues. Rwanda, with 26,338 km², is home to more than 8.2 million people and is the most densely populated country in Africa. While gains have been made in reducing poverty over the past decade, it is still pervasive with at least 60% of the Rwandan population falling below the poverty line. Approximately 90% of the population is dependent upon agriculture, with a growing need for land and access to natural resources. The particular social, political and economic situation in Rwanda has led to serious environmental problems posing significant challenges for achieving sustainable development, including dramatic soil erosion and loss of fertility, reduction in surface and ground water, a national energy crisis, and significant and rapid degradation of ecosystems and key habitats. Within the past 40 years, protected areas in Rwanda have decreased by more than 50% of their initial area, according to the Rwandan National Tourism Office in 2004. Overall, 80% of Rwanda's forests have been lost in these four decades.

Land and human settlement issues are perceived by many to be the most likely sources of potential conflict in Rwanda. (See Annex 2: Fragility Assessment) Indeed, these pose significant challenges to

¹ Re-worked and updated for the 2006 Rwanda Strategy Statement, Environmental Analysis Annex, by Walter Knausenberger, REDSO REA, based on the 2003 Rwanda Environmental Threats and Opportunities Assessment (Seyler.& Mugmana 2003).

sustainable environmental management today. This is in spite of the fact of the significant advances in the legal and policy framework governing environmental management during the last few years.

1.1 Status of Rwandan Policy and Institutional Framework

The organic law N° 08/2005 of 14/07/2005 determining the use and management of land in Rwanda has been passed and complementary legislation is being drafted. Forest, water, mining and resettlement bills along with ministerial application decrees of the organic law on environment are under preparation. Meanwhile there are GOR policies in place guiding medium term sectoral strategies (2005-2010) in many environment related areas: water and sanitation, land, mining and geology, forests and resettlement.

The Organic Law declares Rwanda's adherence to at least 10 international conventions concerning biodiversity, endangered species and habitat, climate change, persistent pollutants, pesticides, biosafety, etc. This law sets out to:

- conserve the environment, people and their habitats;
- set up fundamental principles related to protection of environment, any means that may
- degrade the environment with the intention of promoting the natural resources, to discourage
- any hazardous and destructive means;
- promote the social welfare of the population considering equal distribution of the existing wealth;
- consider the durability of the resources with an emphasis especially on equal rights on present and future generations;
- guarantee to all Rwandans sustainable development which does not harm the environment and the social welfare of the population; and
- set up strategies of protecting and reducing negative effects on the environment and replacing the degraded environment.

A State of the Environment Report is in preparation by the GOR as this is written (Nov. 2005) and will be completed by the GOR soon.

The Rwanda Environmental Management Authority (REMA) is now a functional agency beginning to forge roles at both the national and district levels, and it oversees the compilation of State of the Environment Reports and the development and implementation of Environmental Action Plans. Community-based organizations (CBOs) have become more numerous and active in their drive to manage and benefit from natural resources at the local level. Finally, there is a need for heightened donor coordination in the environment sector, and a willingness to collaborate on information sharing, joint implementation and funding.

In an on-going period of recovery from civil war and genocide, the Government of Rwanda (GOR) is focused on revitalizing the national economy across many sectors. In its Poverty Reduction Strategy Paper (PRSP) now being revised for a second phase, the GOR has identified rural development and agricultural transformation, and private sector development amongst its top priorities. Tourism, in particular, is identified as a priority sector to alleviate poverty. Notably, the tourism sector relies quite heavily on Rwanda's natural assets for its continued growth, specifically the biodiversity in its three National Parks.

Rwanda's national parks are not only a significant source of income for the country, but also provide invaluable ecosystem services for the Rwandan people, in terms of hydrological cycling to ensure clean water, erosion control, climate regulation, etc.. For example, the forests of Nyungwe National Park in southwest Rwanda shelter nearly 70% of the country's waters feeding into two critical watersheds, the Congo and Nile Basins. Nyungwe's forests also protect the source of the Nile, ensuring critical water supplies for upstream users in neighboring countries and as far away as Egypt. Clearly, the maintenance of healthy and functioning national parks, with their associated biodiversity and surrounding areas, is key to a sustainable future for Rwanda.

Home to the world's remaining mountain gorillas and many other endemic species of mammals, birds and plants, the Central Albertine Rift region will soon be the focus of joint conservation efforts by the governments of the Democratic Republic of Congo (DRC), Rwanda and Uganda. In October 2005,

ministers of the three countries came together to sign a Tripartite Declaration on the transboundary natural resource management of the unique ecosystem represented by the Central Albertine Rift Transfrontier Protected Area Network. This will involve the collaborative management of Volcano National Park, Mgahinga Gorilla National Park, Bwindi Impenetrable National Park, Queen Elizabeth National Park, Semliki National Park, Ruwenzori Mountains National Park, Kibale National Park, and Virunga National Park. The declaration aims at establishing a strategic management system that will enable sustainable conservation of natural resources for the benefit of the people of Rwanda, Uganda, the DRC, and the international community.

1.2 Rwanda's Tropical Forests

Rwanda's afro-montane forests include Nyungwe National Park (newly conferred status), the Giswati and Mukura Forest Reserves, and the Volcano National Park (PNV). Because Giswati and Mukura have been used for cattle grazing and resettlement, only small isolated patches of forest remain there, in inaccessible areas. Nyungwe Forest Reserve is globally as well as nationally important for the conservation of several restricted-range species found only in the Albertine Rift eco-region in Africa. The reserve is home to 13 species of primate, 1,068 plant species, 85 mammal, 278 bird, 32 amphibian, and 38 reptile species. In all 62 species of fauna and about 250 plant species are endemic to the Rift. Nyungwe's socioeconomic importance is as significant as its biological importance. The reserve is the watershed for over 70 percent of Rwanda; its streams feed both the Congo and the Nile basins. It thus protects the watershed of not only surrounding communities but also communities much further downstream. The buffer zone around the forest has been planted with economically important species and is a source of building poles and firewood for local populations. Honey production and the harvesting of medicinal plants are other important economic activities.

Nyungwe faces several major threats derived largely from population growth, pressure on land resources, lack of sustainable sources of income for local communities, and limited awareness and availability of economic incentives for sustainable use of biodiversity. Poaching of large mammals is high. The absence of large ungulates in the forest appears to have upset Nyungwe's ecological balance, especially in burned areas. The new designation as a national park makes human activity in the park illegal and provides greater opportunity for the lands therein to regenerate over time.

PNV, the Volcano National Park, is one of the oldest protected areas in Africa—established by King Albert of Belgium in 1929 in an effort to set aside the Virunga Mountains in the DRC, Rwanda, and Uganda to save the habitat of the last representatives of the mountain gorilla. Over half the current mountain gorilla population is found in the three national parks sharing the Virunga Mountains. The PNV contains 245 species of plants, 115 species of mammals, 187 species of birds, 27 species of reptiles and amphibians, and 33 species of arthropods. Among the plants, 17 species are threatened, of which 13 species of orchids are internationally protected. Many plant and animal species in the park other than the gorilla have gone unstudied.

Threats to the park include poaching of gorillas and other wildlife, wood cutting, bamboo harvesting, medicinal plant collection, and beehive placement. Local community options for alternatives to park use are very limited and costly. Though revenues generated by gorilla tourism are quite high, little if any is returned to the communities.

Gallery forests are strips of forest along watercourses or extending from wetlands. In Rwanda their area has been significantly reduced by clearing for agriculture, bush fires, and cutting for fire and construction wood. Gallery forests are now found only in the eastern along the Akagera River system, covering an area of about 163 ha. Gallery forests contain a number of rare, endemic species, some of which have potential for modern and traditional medicine, but their commercial exploitation could have negative environmental consequences on the few remaining gallery forests if no safeguards are put in place.

1.3 Biodiversity in Rwanda

From a biodiversity perspective, Rwanda boasts some of the most biologically significant areas on the African continent, with the majority of these areas found in three national parks. For vertebrate species, the Albertine Rift -- including Volcanoes and Nyungwe National Parks in Rwanda -- is the richest area in Africa. This region ranks first out of 119 terrestrial ecoregions of Africa for its endemic vertebrate

species (species that occur nowhere else) and second in terms of threatened species. The entire Albertine Rift, from northwest Uganda through Rwanda, Burundi, Western Tanzania and eastern Democratic Republic of Congo, is recognized as an "Endemic Bird Area" by Birdlife International and as a "biodiversity Hotspot" by Conservation International. The central Albertine Rift is the focus of the Tripartite Declaration for NRM mentioned above.

Rwanda shelters 2,150 species of plants, and the assumption is that the degree of endemism is quite high. The UNEP World Conservation Monitoring Centre lists eight species of trees as either threatened or others of "conservation concern" in its tree conservation database. The American Museum of Natural History lists 87 species of amphibians and reptiles in Rwanda. The only reptile species listed with concern is a tortoise. Rwanda is one of Africa's top birding countries; an incredible 670 different species have been recorded. Four species of birds are threatened of extinction: the shoebill stork found in Akagera; Grauer's rush warbler found in PNV, Nyungwe, and the swamps of Rugezi; the kungwe apalis found in the Nyungwe; and the African or Congo bay owl.

Rwanda contains 151 different types of mammal species, 11 of which are currently threatened and none of which is endemic. The country is particularly well known for its 14 to 16 species of primates, most prominent among them the world's most endangered ape, the mountain gorilla found in PNV. Others are the mountain monkey in the Nyungwe National Park, the endangered chimpanzee in Nyungwe and the golden monkey, endemic at a certain altitude in PNV.

2.0 Threats to biodiversity and forests in Rwanda

The principal threats stem from human influence, legal and institutional causes, and natural causes.

Human influence: There is a high degree of human disturbance in 66 percent of the area in Rwanda, and a medium degree in the remaining 34 percent. No piece of land has remained undisturbed. With the influx of more displaced persons and an increase in competition for arable land, the percentage of high disturbance is likely to increase. Deforestation was estimated at 2.3 percent per year between 1980 and 1990, and forested areas are still under attack. Nyungwe has lost more than 1,000 ha, PNV is being nibbled at, Akagera has lost more than 50 percent of its area, Mutara no longer exists, and Gishwati has practically ceased existing as a forest reserve. The losses in protected areas are both traditional and a reflection of the economic situation. The increases in population in Rwanda have brought increased demand for cleared land for cultivation and for fire and construction wood, as well as grazing and wildlife poaching. Poverty and the lack of alternative income-generating opportunities, fires (either natural or deliberate), and the introduction of exotic species (e.g., the water hyacinth) also undermine biodiversity.

Legal and institutional causes: There is a general lack of motivation and incentive to conserve biodiversity, particularly for communities near protected areas. The ministries that protect and manage protected areas are also institutionally weak, with overlapping mandates; shortages of equipment, resources, and qualified personnel; weak collaboration with local administrators, and minimal enforcement of the laws.

Natural causes: Erosion and landslides, drought, floods, and disease also have an impact, as does the proliferation of competitive species.

The GOR's biodiversity conservation efforts focus on protected areas. Of Rwanda's total territory, 12.42 percent, 3,270 km², is either totally or partially protected including PNV in the northwest, Akagera National Park in the east, and Nyungwe Forest—a 970km² tract of rainforest with unusually high biodiversity. After ratifying the Biodiversity Convention, the GOR drafted a *National Strategy and Action Plan for the Conservation of Biodiversity (2000)* that analyzes the current status and threats to biodiversity and proposes objectives, strategies, and an action plan. The GOR has made progress toward most of its objectives, but more work needs to be done in the following areas:

- Prioritizing a research program oriented to conservation and management of biodiversity
- Improving institutional, juridical, political, and human resource cadres to assure better management of protected areas and wetlands

- Improving the protection and management of critical areas outside the formal protected area system.

3.0 Updated Recommendations related to Rwanda's Tropical Forests, Biodiversity and Environmental Management.

- It is critical that the Rwanda Environmental Management Agency (REMA) function as an interministerial body to advise on and coordinate environmental management. REMA should also have a technical arm tasked with conducting and reviewing environmental assessments.
- Longer term, the GOR may need an environmental strategy for refugee relief and other emergency activities, as well as for village settlements. The strategy should: (i) ensure that both indigenous and refugee populations are involved in making decisions for the use and management of environmental resources; (ii) integrate activities to minimize environmental impacts; (iii) identify energy resources and attempt to mitigate local environmental impacts; and (iv) monitor environmental impacts. The strategy should be part of the National Environmental Action Plan.
- REMA has been established to improve coordination at the national level, and is beginning to reach out to the District and community levels to the extent it is able within its limited means and staffing levels.
- There is also a need to strengthen capacity in Ministries to ensure that they consistently integrate environmental concerns in everything they do. One example is the need for ORTPN (Rwandan Office of Tourism and National Parks) to improve cooperation among the NGOs working in National Parks and Forest Reserves to improve their effectiveness, reduce costs, and better serve local communities.
- ORTPN has a revenue-sharing scheme for PNV and other protected areas in place that is intended to return a percentage of tourism proceeds to proximity communities for investment in activities lost as a result of denied access to the forest. Revenue transfers so far have been less than expected.

The GOR should develop more coherent national strategies to raise public awareness of environmental and biodiversity issues, highlighting practical everyday linkages, such as those between environment and health. More effort is needed to bring in key partners, such as churches, the media, primary school teachers, and community leaders. USAID will explore ways in which SO5 Civil Society activity will take into account activities or organizations contributing to REMA's environment goals.

4.0 Program Recommendations for USAID/Rwanda and USAID's Response to Tropical Forestry and Biodiversity Conservation Needs

The assessment team identified activities that (i) might be modified to meet significant forestry, biodiversity conservation needs, (ii) promote synergy between its SOs, and (iii) integrate environmental management into its programs, beyond tropical forestry and biodiversity conservation. Integrating biodiversity and forestry issues into the Mission's general programs is the most promising approach to establishing the essential conditions for conservation while meeting the objectives of social and economic stability. The key responses are:

- A. Find ways to support **formulating the regulations and decrees** that will be needed to bring the new framework environmental law, the Organic Law, to bear on development in Rwanda.

USAID's response: Under the new Strategy, activities that build on previous interventions such as technical assistance to review Rwandan draft laws and policies for the environment will continue.

USAID will also continue to encourage international and local NGOs that work in conservation, natural resource management and environment to seek funding from USAID (through CARPE), the State Department (ESF) and other USG funding mechanisms (GDA) for activities in and around Rwanda's national forests that support biodiversity and protection of forest habitat.

Rwanda's high population density and growth rate result in increased pressure on forest habitat.

The efforts of the USAID Health SO 6 team to provide family planning services and reduce the infant mortality rate (a major cause of high fertility) will directly support biodiversity conservation efforts.

- B. Find ways to **engage the newly established Rwanda Environmental Management Agency (REMA) in the work of USAID/Rwanda's partners**, such as assistance via the new Civil Society, Governance and Reconciliation (CSGR) activity to engage communities in conflict mitigation through environmental awareness and analytical skill building.

USAID's response: USAID will encourage other donors (Netherlands, Germany, World Bank) to support REMA, since USAID will not be able to provide financial support. Under CSGR, USAID will encourage CBOs to apply for support from these sources.

- C. Continue to work with primary partners to assure that all projects addressing agribusiness development ensure that producers and processors are aware of supply chain requirements for environmental and social values.

USAID's response: Rural Economic Growth SO7 agro-business and FFP activities will proactively strive to improve the environment and will work to develop innovative economic growth activities related to good forest management that enhance the value and protection of Rwanda's forests. An example would be converting district-owned forest plantations to long-term leasehold status, to be managed by farmers associations. The recommendations of the valuable study done in 2002 for the SO7 Agribusiness Development Assistance in Rwanda (ADAR) program, entitled *Rwanda: Quality and Environmental Management Incentives for Agricultural Trade* have been applied to the agribusiness sector programs and is helping emerging Rwandan producers and processors meet the increasingly rigorous quality, health and safety, and environmental standards as a basic element of their competitiveness model.

It is understood that agricultural intensification programs have a positive impact on TF&BD by helping to curb the expansion of slashing and burning practices that cut forest cover, and lead to unmanaged subdivision of land. Promotion of 'good agricultural practices' or GAPs in the coffee, pyrethrum, and horticulture sectors (such as EurepGAP) in the SO7 program works with farmers and operators across the value chain to comply with a range of environmental, social, and economic criteria to retain access to the European market. EurepGAP compliance minimizes negative impacts on land, water, soil and biodiversity resources, By enhancing the agricultural economy across the value chain; *i.e.*, improving productivity, processing, marketing and business services, more can be produced per unit land. The Rwanda Agricultural Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP) (Abate et al. 2003) is a tool in place which is being availed of to improve management of crop protection inputs.

- D. Work proactively to resolve major biodiversity issues like overgrazing.

USAID's response: SO7 activities related to livestock and cattle will seek to address problems with overgrazing, and will provide for appropriate attention to the ecosystems services of wetlands and watersheds.

- E. Help the GOR develop environmental strategies for refugees, IDPs and other emergency relief and for resettlement.

USAID's response: Although not involved in refugee settlement activities, USAID will encourage other donors and programs funded by the State Department to include environmental strategies for refugee camps and resettlement villages.

- F. Help build local capacity for integrating environmental reviews into program design and management, including environmental screening in grants funds and small and medium enterprise promotion.

USAID's response: USAID will continue to develop Rwandan capacity for conducting environmental assessments by supporting training programs and making these assessments a requirement and integral part of project design and development.

- G. Get engaged in strengthening donor coordination in the environment sector, and seek ways to collaborate on information sharing and potentially on joint implementation and funding.

USAID's response: USAID will also continue to encourage international and local NGOs that work in conservation, natural resource management and environment to seek funding from USAID (through CARPE), the State Department (ESF) and other USG funding mechanisms (GDA) for activities in and around Rwanda's national forests that support biodiversity and protection of forest habitat. The SO7 team will coordinate with these groups and ORTPN to promote eco-tourism projects that directly benefit communities and villagers who live around and near the forests to give them alternative means for economic survival and promote environmentally-friendly and sustainable activities.

A Tripartite Agreement for transboundary natural resources management in the Central Albertine Rift has been signed by ministers of Rwanda, DRC and Uganda (see above). This provides an opportunity for closer coordination.

- H. Further promote a balanced, transparent, and accountable system of governance across SOs to allow decentralized management of natural resources and private initiatives, and to proactively engage government, CBOs and civil society in resource allocation decisionmaking informed by environmental values.

USAID's response: If additional DA resources are available, the DG SO5 and REG SO7 will support decentralization program activities that build capacity of local governments to internalize the environmental review process and build capacity for environmental management and protection at the district, sector, and cell levels. These two SO teams can also join forces to strengthen civil society organizations that promote environmental management, such as Rwandan NGOs active in environmental education, community conservation, and other environmental initiatives, to empower communities to effectively manage natural resources and become stronger advocates for environmental issues.

5.0 Potential Linkages between the Environment and the USAID/Rwanda Strategy

While the USAID/Rwanda Strategy does not have a Strategic Objective (SO) addressing environment/natural resources management, where possible, the Mission will address tropical forestry, biodiversity and environmental management opportunities primarily through SO7. In addition, should additional resources be made available for these purposes, USAID/Rwanda would consider funding additional activities (with agreement for the Rwandan Government), some of which are identified below.

SO 5: Improved Governance through Increased Citizen Participation.

SO Entry Points and Opportunities for Integrating Environmental Management:

Land and human settlement issues are perceived by many informed sources to be the most likely sources of potential conflict in Rwanda (Bigagaza et alia 2002, Musahara & Huggins 2005). SO 5 and SO7 jointly finance policy level assistance on land law implementation. This provides an opportunity to suggest mitigation of adverse effects to the environment.

Environmental review will be promoted as a means to broaden and deepen the promotion of environmental governance at the community level and to derive practical steps to maximize both environmental and democratic governance benefits. This can support capacity of civil society organizations (CSO) in self-governance, in monitoring government activities, in awareness raising and information collection and sharing, and in targeted campaigns where they act as 'change agents' in their sectors. USAID will help communities to internalize the environmental review process and environmental capacity building at the outset of activities; strengthen community-based environmental assessment skills through local organizations; use informal education methods that empower both the illiterate and the literate.

The DG SO has an opportunity to further TF&BD conservation and improved environmental management while achieving two AFR Democracy and Governance Sectoral Objectives, i.e., i) Increasing civil society's effectiveness in advancing reforms, and ii) Increasing participation of marginalized populations

in decision making. The SO is well-placed to focus its expertise and some of its partners' resources in support of these objectives, complementing SO 7's program in biodiversity conservation (see below).

Additional Opportunities for SO 5

Should additional resources become available USAID/Rwanda could consider (after discussions with the Rwandan Government) including some of the following activities into its program:

- **Strengthen civil society organizations that promote environmental management:** A number of Rwandan NGOs are active in environmental education, community conservation, and other environmental initiatives. They can be strengthened in their work to empower communities to effectively manage natural resources. National NGOs could also be supported to become stronger advocates for environmental issues. USAID should continue to examine ways to work with international foundations that support NGOs and CBOs operating in Rwanda. Linking environmental with family planning NGOs locally in joint programs would promote synergy between SO5 and SO6.
- **Build the environmental capacity of local governments.** A major point of entry to begin to build capacity for environmental management and protection at the level of province, district, sector, and cell would be to convert, with the support of the prefect, national and district-owned forest plantations to long-term leasehold status, to be managed by farmers associations. This activity would be linked with the SO7 economic mandate.
- **Improve district land use planning.** Longer term, USAID needs to consider helping provincial and district governments prepare land use plans as a basis for long-range fiscal and programmatic planning, monitoring resource use, tax projections, and zoning.

SO 6: Increased use of community health services including HIV/AIDS.

SO Entry Points and Opportunities for Integrating Environmental Management:

Environmental Review: The SO 6 team capitalizes upon the PERSUAP for ITNs, and has found that the nets are safe for household use if users are trained in their proper care. Pesticides for retreatment are no longer being funded. Should the need for interior residual spraying arise under the Presidential Malaria Initiative, appropriate environmental assessments will be conducted. Hazardous healthcare waste management is being dealt with proactively through the National HIV/AIDS Quality Assurance Program. Incinerators are now installed at a majority of health posts and hospitals in Rwanda.

Additional Opportunities for SO 6

Should additional resources become available USAID/Rwanda could consider (after discussions with the Rwandan Government) including some of the following activities into its program:

- Strengthen family planning programs in environmentally sensitive areas. Effective family planning programs diminish the negative effects of rapid population growth on natural resources. Strong synergies are possible between this SO and natural resources conservation, especially in areas of rich biodiversity like PNV and Nyungwe. Environmental awareness could be part of an expansion of population awareness efforts under the health SO, using the same grantees and techniques but different messages.

Any activity related to environmental health, such as natural resource management interventions in CBOs which may benefit by environmental sanitation and health services, could potentially include components of health programs' child survival, malaria, maternal health and HIV/AIDS services, and the like.

SO 7: Expanded economic opportunities in rural areas.

SO Entry Points and Opportunities for Integrating Environmental Management:

Environmental Review. The SO 7 team has been the most active in terms of mainstreaming environmental compliance activities.

- IEEs have been prepared and approved (or are pending approval) for all development assistance projects .

- A PERSUAP has been in place for Rwanda Crop Protection and Commodity Protection.
- ADAR prepared a study on Environmental Management Systems for Agribusinesses in Rwanda that has examples of environmental mainstreaming and management capacity building (Gibson et al. 2002).
- USAID had training in September 2003 for implementing partners on Environmental Assessment and Management
- USAID plans to support Cleaner Production training for small and medium agribusinesses with assistance from REDSO/ESA in FY 2006
- USAID supports land law implementation assistance

Biodiversity Program:

USAID/Rwanda has developed an integrated new program *Increased Rural Incomes through Improved Biodiversity Conservation* that will meet the following objective “to jointly accelerate rural economic growth and improve biodiversity conservation in and around Rwanda's Nyungwe National Park.” Because of both the economic opportunities and biological importance of the area, support will be focused on activities in and around Nyungwe National Park. Activities supported under this program are expected to contribute to USAID's SO 7. Illustrative agribusiness and conservation related enterprise activities that may be supported under this program could include, but are not limited to, improved production and marketing of honey and associated beeswax products, specialty teas, and tourism.

USAID anticipates that feasibility, marketing, biodiversity impacts and other studies may be needed in early stages of the program to determine appropriate business development opportunities for alternative enterprises in the Nyungwe region. Furthermore, USAID expects that such analyses, existing or planned, are absolutely critical for designing activities that will provide the necessary economic, social and ecological benefits at a scale commensurate with the scale of threats to improved livelihoods and biodiversity conservation. Note that the USAID biodiversity guidance requires that “Activities are identified through an analysis of the threats to biodiversity and have associated indicators.”

This new integrated biodiversity/rural incomes activity will be consistent with the intent to increase incomes, employment and enterprise development on-farm and off-farm, primarily through the agribusiness sector. The primary objective of this program is to support integrated activities that jointly improve biodiversity conservation and the livelihoods of rural communities in and around Rwanda's national parks and other biologically significant areas.

This activity will address two of the “opportunities” identified in the ETOA:

1. Increase off-forest production and enhance the market potential of and/or adding value to Non-Timber Forest Products (NTFP) (bamboo, honey, medicinal plants). Help local communities produce high-value NTFPs and plan supporting marketing strategies to bring in a higher percentage of the final market price, such as promoting “green” products like Nyungwe Rain Forest honey and tea.

2. Promote forest-plantation-based small-scale private industries. Working with farmers groups, stimulate small-scale forest industries (firewood, charcoal production, furniture making) in conjunction with the privatization of forest plantations described under SO 7 above. A key element of this support would be to enhance both the technical and the business capacity of these groups.

Additional Opportunities for SO 7

Should additional resources become available USAID/Rwanda could consider (after discussions with the Rwandan Government) including some of the following activities into its program:

Ensure that DAPs/MYAPs are accurately reflecting current socioeconomic and environmental realities. This can be done in a number of ways:

- Encourage an integrated landscape (hillside and wetland) approach to agriculture MYAPs.
- Ensure the environmental and economic sustainability of rehabilitated wetlands by:
 - Developing/refining environmental criteria for choosing marshlands to be rehabilitated.
 - Using social assessments like PRAs to identify constraints to long-term ownership and maintenance of infrastructure and designing ways to mitigate those constraints.
 - Developing a simple environmental monitoring program for each MYAP in allow for mid-course corrections in a project.

- Be cautious in using FFW (monetized or other) to support on-farm activities like terracing and tree planting to avoid jeopardizing long term environmental and economic sustainability.
- Consider using FFW (monetized or other) for public works types of activities in and around national parks and forest reserves, setting up in effect a Rwandan Civilian Conservation Corps.

6.0 Extent to which USAID’s program meets the expectations of the TF&BD/ETOA analyses

The Agency has accorded *medium priority* to Rwanda with respect to prioritization of biodiversity conservation funding in Sub-Saharan Africa. This assessment included three factors:

- Threats-based biodiversity conservation priority rating
- Country policy and institutional capacity rating, as an indicator of enabling conditions for development performance
- Assessment of USAID’s opportunity to make progress in biodiversity conservation, including assessment of synergy with other USAID programs

USAID/Rwanda recognizes that Rwanda’s tropical forest and biodiversity needs are intertwined as the maintenance of biodiversity and ecosystem services depends on the preservation and conservation of forest habitat, watersheds and wetlands. Although Natural Resource Management is not one of USAID/Rwanda’s strategic focus areas, USAID SO Teams are seeking to integrate forestry, biodiversity and environmental management issues into their programs to the extent feasible and that resources allow. This is described in the discussion above in Sections 4 and 5.

With biodiversity funds USAID/Rwanda has designed an activity to support “Increased Rural Incomes through Improved Biodiversity Conservation in Rwanda.” This program will focus on Nyungwe National Park and its surrounding buffer areas in southwestern Rwanda, to jointly accelerate rural economic growth and improve biodiversity conservation. Opportunities also arise to prevent conflict through improved policies and programs on land tenure, natural resource rights, and migration in the Great Lakes Region.

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