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# Togo: 118/119 Biodiversity and Forest Assessment

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# 118/119 Biodiversity and Tropical Forest Assessment for Togo

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## **ACRONYMS**

BATS	Biodiversity Analysis and Technical Support
FAO	Food and Agriculture Organization
GDP	Gross Domestic Product
IFAD	International Fund for Agricultural Development
IMF	International Monetary Fund
IUCN	World Conservation Union
MCC	Millennium Challenge Corporation
MDG	Millennium Development Goals
NGO	Non-Governmental Organization
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
USAID	U.S. Agency for International Development
WFP	World Food Program

## EXECUTIVE SUMMARY

This report was commissioned by the USAID/Africa Bureau as part of the Biodiversity Analysis and Technical Support (BATS) program, a two-year program to provide analytical and technical assistance to USAID/Africa. The BATS program supports USAID/Africa's operating units in the design and implementation of assistance to Africa in a manner that conserves natural resources and biodiversity, including tropical forests and critical habitats. This report fulfills legal requirements under sections 118/119 of the Foreign Assistance Act that require all USAID operating units to include in their country plans 1) an analysis of actions to conserve biological diversity and tropical forests, 2) the extent to which current or proposed USAID actions meet those needs, and 3) help to formulate Togo's foreign assistance strategy during the next year and plan for biodiversity and forest conservation concerns in the medium to long term. This report — prepared to provide information and analysis, as requested by the USAID/Africa Bureau and required by the U.S. Congress — provides details on the extent, threats, and major issues in the biodiversity and forest sectors of Togo, as well as information on current U.S. foreign assistance and USAID programming.

Togo is a small, coastal West African country adjacent to Ghana, Benin, and Burkina Faso. Terrain is diverse, with five ecological zones that include mountains, savannah, rainforest and coastal areas. The climate is tropical, with annual rainfalls of 800 to 1600 mm, depending on the location.



With more than 5.7 million citizens and a growth rate of 2.7 percent, most of the population lives in rural areas and more than a third live in the coastal region (CIA 2008). Togo is an agriculturally based society, with the majority of the population employed in subsistence agriculture and small cash crops. Commercial crops include coffee, cocoa, and cotton. Phosphate mining is the largest non-agricultural industry.

Rich in flora and fauna, Togo's conservation and natural resource management is highly important to the region. The IUCN Red List of threatened species lists 43 entries of threatened flora and fauna, including the African lion, African elephant and hippopotamus. Togo has 83 protected areas, covering 14% of the land, but most of these areas have been invaded by settlements and at best about 10% of Togo is in protected status (Amegadje 2007). This encroachment began occurring following the political turmoil that started in the 1990s. Several of the protected areas in northern Togo are part of a transboundary conservation corridor, providing a large area for the migration of big game animals like elephants. Flora and fauna are threatened by anthropogenic activities, such as hunting pressure, overharvesting, and converting land to agriculture.

Threats to the Togo environment are diverse— both plant and animal biodiversity and forests — most stemming from an overload of human activity. Bush fires, drought and desertification have had detrimental effects on vegetation and animals, and when compounded with poor agricultural management practices, have reduced agricultural output and threatened biodiversity. A growing population is expanding into protected areas and areas of high biodiversity, consuming higher and higher rates of fuel wood and products from the forest, such as medicine, building materials, and bush meat. Finally, the legislative and institutional frameworks are not conducive to sustainable management practices, thus exacerbating other environmental threats.

Approximately 17 percent of Togo is forested, of which about 90 percent (3,480 km<sup>2</sup>) is natural forest and 10 percent (380 km<sup>2</sup>) is plantation (Kenny 2007). Commercial forests and the forest product processing industry account for about 11 percent of the economy (ibid). Mined resources include phosphates, diamonds, and gold, though extraction of the latter two is not always economically feasible.

The country has a plethora of environmental legislation related to protection of biological diversity and natural resources. As a signatory of the Convention on Biological Diversity, Togo has begun to undertake the enforcement of its terms, including development of an Environmental Action Plan (2001).

It is apparent that better conservation management practices must be implemented to alleviate threats to biodiversity in Togo. Current U.S. Foreign Assistance programming is not addressing these threats sufficiently, providing USAID an opportunity to take the lead on actions to mitigate the impact of potentially detrimental environmental consequences. Togo is a non-presence USAID country, and support is directed through both the West African Regional program (RCSA) in Ghana and the U.S. Embassy in Lomé, Togo.

Therefore, the following recommendations are offered to USAID to be implemented at the project level:

- Weak enforcement or misapplication of existing law is a major threat to biodiversity and tropical forests in Togo. Encouraging fair, democratic systems and practices will strengthen public trust and will encourage participation in the legal process. This will help build the base needed for improved participatory management of natural resources and protected areas.
- USAID activities to promote and protect tropical forests and biodiversity in Benin and Ghana should consider programs at a regional scale and incorporate Togolese agencies and NGOs wherever possible.
- Ensure that agricultural projects encourage sustainable management practices.
- When working with rural communities, focus on those living near or in biologically diverse areas/protected areas. Promote and encourage better natural resource management practices, as well as increase community involvement.
- Look for projects that have potential for cross-programming, such as incorporating environmental awareness into health and education activities. Work with other organizations who are concentrating on issues other than the environment.

## INTRODUCTION

Togo, officially the Togolese Republic, faces major environmental issues such as land degradation from overgrazing and unsustainable agriculture, mining, erosion, invasive species, and deforestation. It is one of the smallest countries in Africa, and has more than one million people living in Lomé, the capital city, with a total population of more than 5.7 million. Map A below shows major cities and towns of Togo and the country's position in relation to the adjacent West African countries of Ghana, Benin, and Burkina Faso.

Map A. Togo



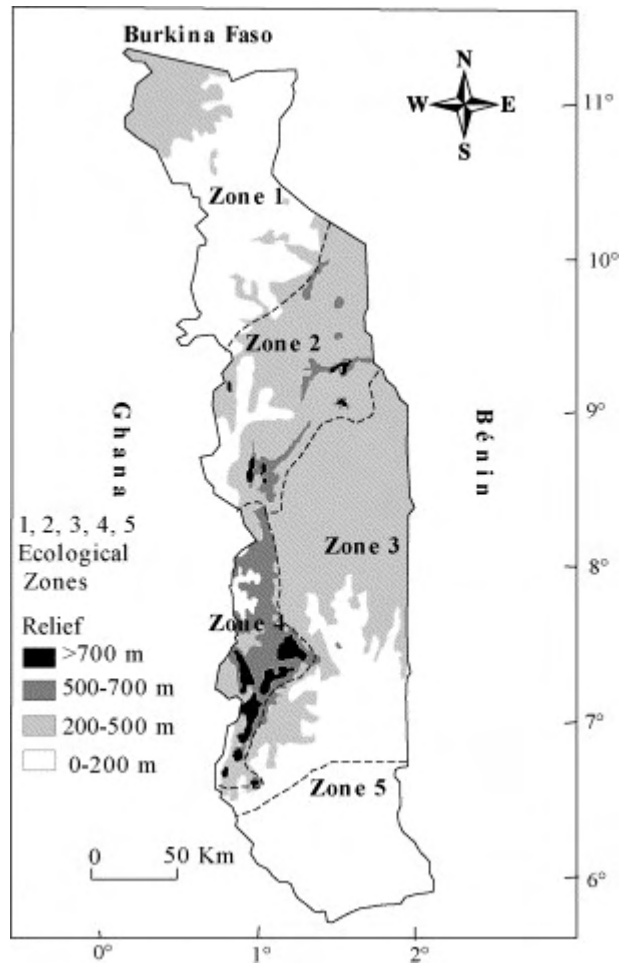
Source: [www.fao.org](http://www.fao.org)

## ENVIRONMENT AND NATURAL RESOURCE MANAGEMENT IN TOGO

Togo extends 579 kilometers north from the Gulf of Guinea, yet is only 160 kilometers across at the widest point, and has a total area of 56,785 km<sup>2</sup>. As shown in Table 1, much of this land is used for subsistence agriculture. The country can be categorized into six ecological zones, as described by Kokou et al. 2008, which are shown in Map B:

- *Zone 1.* The northern plains with a hot, dry climate characterized by a rainy season June - October and a dry season November - May, with an average of 6–7 dry months. Total rainfall is between 800 and 1000 mm. Temperatures vary between 17 and 39 °C during the dry season and between 22 and 34 °C during the rainy season. The predominant vegetation is savannah, with some dry forest patches and gallery forests along the rivers.

## Map B. Ecological Zones



Source: Kokou et al. 2008

rainy season March - October and disrupted by a slight decrease in rainfall in August or September. The rainfall amounts range from 1300 to 1600 mm per year. Here, we find semi-deciduous moist forests and a portion of the Guinean rainforests of West Africa.

- *Zone 5.* The southern coastal plain under a subequatorial climate characterized by a shortage of rainfall in the coastal part (800 mm/year in Lomé, the capital). Rainfall increases towards the northern limit where it can reach up to 1200 mm/year. The landscape offers a mosaic of savannahs, agricultural land and forest reserves. Islands of dry semi-deciduous forest are found mainly as sacred forest or as classified forests.

- *Zone 2.* The hilly dry forest and savannah mosaic zones in the north. The climate includes cool nights at elevated regions, a rainy season April - October and a dry season October - March, characterized by the harmattan. Yearly rainfall is 1200–1300 mm, but is very irregular. The minimal average temperature is about 19°C in January; the maximum reaches 30 °C in April.
- *Zone 3.* Guinean savannahs in the central plains with a tropical climate, a rainy season May - October and a dry season of at least 4 months. Rainfall is between 1200 and 1500 mm per year. The temperature ranges between 25 and 40 °C. The savannah of Central Togo is interspersed with islands of semi-deciduous forest in the southern part and dry forest in the north.
- *Zone 4.* The southern part of the Togo Mountains has a transitional subequatorial climate characterized by a long



**Table 1. Land Uses in Togo**

LAND USES	% OF TOTAL LAND AREA
Small-scale subsistence agriculture	32
Permanent crops	7
Permanent pastures	18
Forests and woodland	17
Protected Areas	14
Inland Water Bodies	4
Other (Urban, mining, etc.)	8

Source: Wikipedia 2008, UNstats 2008

Average population density is 100 people/km<sup>2</sup> with much higher rates in the cities and lower rates in rural areas. Local populations have significant effects on their surrounding environments with overgrazing, overharvesting of fuel wood, and unsustainable agricultural practices that have led to land degradation.

Climate change and variability, population growth and increasing water demand, overexploitation and environmental degradation have significantly contributed to the worsening of the state of freshwater resources (UNEP 2006). Water demand outstrips available resources and Togo is one of fourteen African countries experiencing water stress (less than 1,700 m<sup>3</sup> per capita/year). The country is experiencing increasing air pollution in urban areas. Much of the urban air pollution, especially greenhouse gas emissions, originates from domestic sources, such as inefficient burning of charcoal for cooking and heating, but energy production and industrial uses are also significant contributors (GoT 2001). Across the nation, the greatest production of carbon dioxide emissions results from burning for land clearing, agriculture and forestry (ibid). Incineration of refuse dumps is also a major contributor of toxic air pollutants (GoT 2003). Water pollution presents health hazards and hinders the fishing industry (CIA 2008).

Togo faces enormous development challenges after 25 years of economic decline. The long-lasting socio-political crisis and withdrawal of donor support have taken a toll on Togo's economy, infrastructure, and institutions (IMF 2007). Togo was once the world's fourth-largest producer of phosphate (CIA 2008); however phosphates are no longer even one of the leading exports from the country (Walke 2008 pers. comm). The economy is still tied to agriculture for jobs, employing 65 percent of the population (CIA 2008). Cocoa, coffee, and cotton are the most important cash crops (ibid), although the cotton industry, similar to the phosphate industry, has drastically declined due to mismanagement (Walke pers. comm).

## **BACKGROUND ON USAID ACTIVITIES**

As of February 2008, Togo is a USAID non-presence country; i.e. there is no USAID mission office. Support to Togo is directed through the Regional Center for West Africa in Accra, Ghana, with help from the U.S. Embassy in Lomé. USAID/West Africa serves the 19 nations of Benin, Burkina Faso, Cameroon, Cape Verde, Chad, Cote D'Ivoire, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Sao Tome & Principe, Senegal, Sierra Leone, and Togo. Programs focus on three main issues (USAID.gov accessed 20 February 2008):

- Encouraging the emergence of competitive market economies;
- Addressing regional health issues, including the HIV/AIDS pandemic;
- Promoting agriculture for trade and food security;
- Strengthening conflict prevention and peace-building mechanisms, and tackling corruption.

The U.S. Embassy focuses on:

- Promoting democracy and human rights;
- Advance economic prosperity and security;
- Confronting the challenge of HIV/AIDS.

## **RATIONALE FOR A BIODIVERSITY ASSESSMENT IN TOGO**

It is required by the U.S. Congress, and stipulated in the U.S. Foreign Assistance Act (FAA) that all USAID operating unit strategic plans include a technical environmental analysis. Sections 117, 118, and 119 of the FAA require USAID Missions to examine issues of environmental impacts and forest and biodiversity conservation when preparing strategies for development assistance. This assessment is designed to take into consideration the FAA provisions related to:

*Section 117:* Consideration of the impact of proposed activities on the environment and how to implement programs with an aim toward maintaining and restoring natural resources upon which economic growth depends;

*Section 118:* Analysis of the actions to achieve conservation and sustainable management of forests and the extent to which the actions proposed by USAID meet these needs, and;

*Section 119:* Analysis of the actions to protect endangered species and to conserve biological diversity and the extent to which the actions proposed by USAID meet these needs.

Non-presence USAID countries, like Togo, are not required to conduct these assessments; however, they do provide advice and guidance for future programs. This assessment includes an overview of the status of biodiversity and forest conservation, an overview of the legislative and donor community framework particular to Togo, and an analysis of major threats to biodiversity conservation and forests.

This assessment examines how activities in the operational plan for USAID assistance contribute to conservation, and recommends actions and programming suggestions. Recommendations support environmental sustainability and conservation objectives in a manner consistent with the overall strategy of USAID and in ways that help to address needs identified in this assessment.

## **LEGISLATIVE AND INSTITUTIONAL STRUCTURES AFFECTING BIODIVERSITY AND FORESTRY**

French Togoland became Togo in 1960. General Gnassingbe Eyadema, claimed power as military ruler in 1967 and ruled Togo with a heavy hand for almost four decades. Upon Eyadema's death in February 2005, the military installed the president's son, Faure Gnassingbe, and followed with the engineering of his formal election two months later. Democratic gains since have then allowed Togo to hold its first relatively free and fair legislative elections in October 2007. After years of political unrest and fire from international organizations for human rights abuses, Togo is finally being re-welcomed into the international community (CIA 2008).

## **ENVIRONMENTAL POLICIES AND TREATIES**

Togo is party to numerous international agreements and conventions pertaining to the environment, including the Convention on Biological Diversity. In 2003, Togo developed a National Biodiversity Strategy and Action Plan, as required under Article 6 of the Convention. The primary goal described in the action plan is to ensure for future generations a rational and sustainable management of resources in order to improve the living conditions of citizens (GoT 2003).

Other international conventions to which Togo is signatory include:

- Basel Convention on Hazardous Wastes
- United Nations Framework Convention on Climate Change
- United Nations Convention to Combat Desertification (National Action Plan 2002)
- Montreal Protocol on Substances that Deplete the Ozone Layer
- Convention on the International Trade on Endangered Species - CITES
- United Nations Convention on Law of the Sea - UNCLOS
- Comprehensive Nuclear-Test-Ban Treaty
- International Convention for the Prevention of Pollution from Ships- MARPOL 73/78
- International Tropical Timber Agreement, 1983 and 1994
- Convention on Wetlands of International Importance – Ramsar
- Convention on the Conservation of Migratory Species of Wild Animals
- Convention for Cooperation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region
- International Convention for the Protection of Plants
- Cartagena Protocol on Biosafety

Togo has taken steps toward protecting its natural resources with the signing of conservation conventions and the Convention on Biological Diversity. However, the degree to which the country is actually active in treaties, implements treaty provisions, or enforces international law is very limited, due to lack of funding, personnel, and supporting policy.

## **ENVIRONMENTAL LEGISLATION**

The constitution of 14 October 1992 (Articles 41, 50 and 84) decrees the right of the citizens to a healthy environment and charges the government with the responsibility of implementing (through legislation, permits, and programs) and monitoring environmental protection (GoT 2003). The national policy for environmental issues focuses on the sustainable management of natural resources and the environment. This emphasis on sustainable use is integrated into the programs of all environmental and developmental agencies of Togo (GoT 2003). The following list includes some of the more significant policies and legislation addressing environmental concerns:

- Ordinance N° 4 of 16 January 1968 regulated wildlife protection and hunting in Togo.
- Law 88-14 of 3 November 1988 instituted the Environmental Code. This is an important piece of legislation regarding the protection of fauna, flora and natural areas; however, additional regulations, such as those described below, were necessary to make this law effective in practice.
- Law 98-00 of 11 February 1996 on decentralization set up urban and rural communes and special commissions on environmental issues at local, prefectural and regional levels.
- Law 98-012 of June 11, 1998 was established to regulate of fisheries resources; however it lacked specific details for application.
- Decree N° 2006-058/PR of 5 July 2006 requires environmental impact studies.
- Adoption of the National Environmental Policy in December 1998 and a National Environmental Action Plan on 4 July 2001 (GoT 2003).
- National Forestry Action Plan, launched in February 1990, led to as exhaustive an evaluation as possible of the forestry sector. A first version of the action plan was published in September 1992, containing the main features defining a national forestry policy with corresponding strategies and action programs. (FAO 2008).
- Decree No. of 2003-237/PR September 26, 2003 on the establishment of a standardized organization for management of Protected areas and Order No. 005/MERF/CAB/SG/DFC of 21 May 2004 prescribing protocols for the reorganization of protected areas.
- Order n° 017/MERF/CAB of 13 May 2005, which instituted economic incentives to benefit local communities for actions that contribute to improved management of protected areas.

While many important laws have been passed, gaps in the legislation, inadequate funding and personnel, inconsistent application at the local level and years of political turmoil have resulted in limited protection of the environment.

## ENVIRONMENTAL INSTITUTIONS

Numerous institutions scattered over several ministerial departments have environmental responsibilities, which has undoubtedly hampered its efficiency. The *Ministry of the Environment and Forest Protection* is the main institution responsible for the forestry sector (FAO 2008). Under this ministry is the Department of Administration, Finance and Planning; Department of the Environment; Department of Wildlife and Hunting; Department of Waters and Forests; and Department of Green Spaces. To facilitate the coordination of the various environmental programs among the ministries and departments, numerous committees have been established, including:

- *Interagency Commission for the Environment (Commission Interministérielle pour l'Environnement (CIE))*
- *National Committee for the Environment (Comité National de l'Environnement (CNE))*
- *Environmental Protection and Management Committees (Comités de protection et de gestion de l'environnement)*
- *Local Planning Committees (Comités Locaux de Planification)*

Unfortunately, due to lack of funding and personnel, most of the above committees are inactive (GoT 2003). The social and political instability in the country has also had a great effect on the ability of the government to manage for biodiversity. Togo has not received the support needed to fund all the studies identified in the National Forestry Action Plan, and some of them, notably the evaluation of existing resources, have had to be abandoned (FAO 2008).

## MAJOR ORGANIZATIONS WORKING IN TOGO

Years of political conflict and social unrest have resulted in the withdrawal or reduction of assistance from many international governmental and non-governmental organizations. Recent improvements, such as free elections and economic reforms, have promoted increased international support; however, significant advances must still be made before the full benefits of international cooperation will be realized. For example, the Millennium Challenge Corporation evaluates 16 policy indicators and has determined that Togo is ineligible to apply for Millennium Challenge Account funding (MCC 2008). Togo received a passing score in 2008 in only 3 categories (immunization rates, trade policy, and inflation) and received failing scores in all others, including one for natural resource management, which is based on eco-region protection, access to improved water and sanitation, and child mortality (ibid).

Although many programs have reduced operations, more than 200 local and international development organizations and agencies have programs in Togo or provide financial or technical assistance (Wesselink 2008). Approximately 100 non-governmental organizations are involved in local projects promoting sustainable development, environmental protection, health and welfare (FONGTO 2008 [www.fongto.net](http://www.fongto.net))

No major international conservation NGOs work in Togo, though several work in the West African region:

- World Wildlife Fund for Nature (WWF).
- Conservation International (CI). Contributions of more than \$10,000 to environmental programs in Togo.
- Wetlands International.
- Environmental Development Action (ENDA).
- The World Conservation Union (IUCN). Contributions of more than \$59,000 to environmental programs in Togo.
- Wildlife Conservation Society (WCS).

Local conservation organizations are based primarily in Lomé, but are active throughout Togo, including:

- National Consumers and Environmental Alliance of Togo (Alliance Nationale des Consommateurs et de l'Environnement du Togo, [www.ancetogo.globalink.org](http://www.ancetogo.globalink.org)) has 26 affiliated member organizations that promote sustainable management of mangrove resources; protection of water birds, hippopotamus, marine tortoises, Great Apes, and some threatened plant species; reforestation and ecotourism development. Also involved in Pesticide Action Network; sustainable agriculture, rural development and consumer protection.
- Friends of the Earth – Togo (Amis de la Terre Togo, [www.foei.org/en/who-we-are/groups/togo.html](http://www.foei.org/en/who-we-are/groups/togo.html)) is concerned with issues including desertification, phosphate mining, health, environment, climate change, genetically modified organisms, and ozone.
- Young Volunteers for the Environment (Jeunes Volontaires pour l'Environnement, [www.ong-jve.org](http://www.ong-jve.org)) is involved with environmental education, sustainable development, and environmental protection.
- Association for Integrated and Sustainable Environmental Management (Association pour la Gestion Integree et Durable de l'Environnement). AGIDE was created in Togo to ensure ecosystem health by developing an ecological conscience among the population and encouraging sustainable practices.
- Association of Togolese Volunteers for Development (Association de Volontaires Togolais pour le Développement, or AVOTODE) is helping with the restoration of coastal mangroves.

## **DONOR ORGANIZATIONS**

International donors active in Togo include the following:

- The United Nations Programs
  - *United Nations Development Program (UNDP)*: Encourages programs to be in line with the UN Millennium Development Goals (MDGs) to promote poverty

- reduction, education, maternal health, gender equality, and aim at combating child mortality, AIDS and other diseases.
- Supports the Ministry of Environment in developing National Action Plans to address climate change, biodiversity, and desertification.
  - Assesses the needs and priorities of Togo in the areas of water, pollution and sanitation.
  - Contributed more than \$99,000 in funding between 2001 and 2005, which enabled Togo to undertake various projects directly and indirectly related to biodiversity.
- *Global Environment Facility (GEF)*: The formal mechanism for funding action for the protection of the environment. Funding during 2001-2005 exceeded \$428,000.
  - *United Nations Environment Program (UNEP)*: Strengthens institutions with the implementation of environmental law.
    - After participating in the meeting of the ad-hoc technical experts group on access and equitable sharing of benefits held in Bangkok from 14 to 18 February 2005, Togo submitted to UNEP / GEF a letter of intent requesting assistance to establish a regulatory framework for this purpose.
  - *United Nations Educational, Scientific and Cultural Organization (UNESCO)*: Togo joined UNESCO on November 17, 1960. The country is covered by the UNESCO office based in Accra, Ghana.
  - *Food and Agriculture Organization (FAO)*.
  - *World Food Program (WFP)*.
  - *International Fund for Agricultural Development (IFAD)*: Supported five projects between 1983 and 1996; no known current activities.
  - *UNAIDS*: helps mount and support an expanded response to AIDS – one that engages the efforts of many sectors and partners from government and civil society.
- **Multilateral Development Banks**
    - *The World Bank*: Helping to fight poverty and improve the living standards for people in Togo. As of February 2005, the World Bank had approved 49 projects for Togo for a total amount of approximately US\$765.3 million.
      - International Finance Corporation.
      - Multilateral Investment Guarantee Agency.
      - International Development Association.
    - *The African Development Bank*: Loans to promote the economic sector.
    - *The West African Development Bank*: Loans to promote rural development, infrastructure, telecommunications, energy, agro-industries, tourism and other services.
  - *International Monetary Fund (IMF)*: Provides monitoring, advisory support, lending, and technical assistance.

- *International Government Aid:* International aid was suspended or greatly reduced during the political turmoil of the 1990s. As socio-political conditions improve, international government aid is likely to increase; however, the current lack of funding for environmental programs may be resulting in irreparable or long term ecological damage. The principal partners of Togo related to the environment are France, Germany, Belgium, Switzerland, China, and Japan (OECD 2008).

## REGIONAL INITIATIVES

Togo lies within the Dahomey gap of the Guinean Forests of West Africa, but does contain a portion of this important ecosystem in the region. Conservation International has classified the Guinean forests of West Africa as one of the world's 25 biodiversity hotspots. The Guinean forests of West Africa are home to numerous endemic species and the highest mammal diversity of any hotspot in the world. Out of the estimated 1,100 mammal species found in Africa, 320 live in the Guinean forests, and more than 60 of these species are endemic to the region. In terms of primate conservation, the region is considered one of the highest priority regions in the world: It is home to 30 distinct primate species, 18 of which are endemic to the region (USAID 2007).

The coastal region is also of international ecological importance and must be managed in close cooperation with other nations. Those coastal ecosystems are made up of mangroves, lakes and lagoons, ponds, and coastal marine ecosystems, which harbor a number of endangered migratory species, birds, turtles, mammals, whales, manatees, and hippopotamus. Mangrove forests also provide nutrients to coastal marine waters, often resulting in high fisheries yields in waters adjacent to them (UNEP 2007). Therefore, Togo participates in several regional programs associated with the promotion of biodiversity and tropical forests.

In June 2003, Togo participated in the Sub-regional workshop held in Ouagadougou on the transboundary management of elephant populations in West Africa. This collaboration led Togo to adopt a national strategy for the conservation of elephant populations. The national strategy is based on the fundamental principles of partnership and participation and has five primary objectives (GoT and USFWS 2003):

1. Increase scientific information on the elephants of Togo
2. Improve public involvement in the management strategy
3. Reduce human-elephant conflicts
4. Reduce poaching
5. Capacity building (logistical, institutional and legislative)





Bicyclist being delayed by elephant at Fosse aux Lions NP in 1988 (Credit: Scott Posner)

Togo is also beginning to take action on the draft Memorandum of Understanding Concerning Conservation Measures for West African populations of the African elephant. It has two sites included in the CITES Monitoring of Illegal Killing of Elephants (MIKE) Program (Kéran and Fazao-Malfakassa National Parks), and a cooperative regional aerial survey was conducted between April and May 2003 of elephants in northern Togo (Keran NP), Burkina Faso, Benin, and Niger (GoT 2005).

The survey revealed no elephants in Keran NP and maybe one or two in Fosse aux Lions NP for a short period (usually November). These results led to the substitution of Fazao NP for Fosse aux Lions NP in the program (CITES 2003). The number of elephants in Fazao-Malfakassa National Park is uncertain, but was estimated to be about 50 animals in 2003 (GoT and USFWS 2003).

The Ramsar funded *Transboundary project of support for participatory resources management of the Chenal Gbaga mangroves of southeast Togo and southwest Benin* is a cooperative effort focused on the mangroves at the border of Benin and Togo. The objectives of the program are to conserve the ecosystem's biodiversity, sustainably manage the mangroves and fish resources, and reduce the local people's poverty through alternative income activities.

The countries bordering the Gulf of Guinea - Benin, Cameroon, Côte d'Ivoire, Ghana, Nigeria and Togo are participating in a program funded by UNDP, Global Environment Facility and US National Oceanic and Atmospheric Administration to protect and restore the health of the Gulf of Guinea Large Marine Ecosystem and its natural resources. The objective of the program is to achieve regional coordination of pollution prevention and control: strengthening of regional capacities to prevent and remedy pollution of the Gulf of Guinea large marine ecosystem and associated degradation of critical habitats; development of an integrated information management and decision-making system for environmental management; establishment of a comprehensive program for monitoring and assessment of the health and productivity of the ecosystem; identification of preventive measures and control mechanisms industrial and urban pollution; and formulation of regional and national strategies and policies for the long-term management and protection of the Gulf of Guinea (UNIDO 2008).

Results of the Integrated Coastal Area Management Program include 40 technical assistance and capacity building workshops; a regional network of 300 technical experts; National Steering Committees in all 6 participating countries are involving all relevant stakeholders responsible for environmental issues related to the Large Marine Ecosystem;

Regulatory policy has been adopted to conserve fisheries; closed and open fishing seasons have been introduced; coastal communities have initiated mangrove reforestation programmes as a result of awareness-raising campaigns conducted by non-governmental organizations in all 6 participating countries; a trawl survey was carried out using a regional vessel in 1999; low craft coastal erosion prevention technologies have been transferred from Ghana to Benin; waste management programs were developed in each of the participating countries; and Regional effluent regulations and standards have been established for industries in the coastal area (ibid).

Under the Memorandum of Abidjan on the conservation of sea turtles, an action plan for subregional conservation of sea turtles is being developed between Togo, Ghana and Benin. The Conservation Plan will aim to improve basic knowledge of species and migration routes, reduce mortality of marine turtles, enhance co-operation among the three countries and secure funding for conservation programs. It will also include protection measures for beaches used by marine turtles for nesting and measures to reduce the taking of marine turtles, particularly in areas used for foraging (Ecolex 2008).

In 2001, the Ministries of Environment of Benin and Togo held meetings to standardize policies for the management of important transboundary areas (the coast, the Mono River basin, and protected areas). These consultations resulted in the development of a Joint Bénino-Togolese Commission on the Environment at Cotonou, November 2001 (GoT 2005). Unfortunately, the commission has not been very active (UEMOA 2007) and little information has been published regarding goals and long-range plans of the commission.

## STATUS AND MANAGEMENT OF NATURAL RESOURCES

The population of Togo depends on a healthy environment to provide such commodities as building materials, food, fuel wood, and medicine. There is also recognition of values associated with protecting natural areas for spiritual (sacred forests), cultural (heritage sites), and ecological (parks and reserves) purposes. In spite of years of political and social unrest, which have greatly reduced the effectiveness of environmental protections in Togo, the Millennium Challenge Corporation (MCC 2008) ranked natural resource management in Togo as being slightly below (47%) the median for other countries in its income peer group in 2007.

### GENERAL STATUS AND MANAGEMENT OF NATURAL RESOURCES

Togo contains a high degree of biological diversity ranging from the savannahs in the north to the tropical forests of the southwest, which are part of the Guinean forests of West Africa. Conservation International has classified the Guinean forests of West Africa as one of the world's 25 biodiversity hotspots. To qualify as a hotspot, a region must meet two strict criteria: It must contain at least 1,500 species of endemic vascular plants (greater than 0.5 percent of the world's total), and it must have lost at least 70 percent of its original habitat (Conservation International 2008). The extent of tropical forest is limited, however, as Togo lies in the Dahomey Gap, which is the portion of the Guinean forest-savanna mosaic that extends all the way to the coast in Benin, Togo and Ghana, thus separating the forest zone that covers much of the south of the region into two separate parts.



Tropical forest near Badou (Credit: Scott Posner)

### Flora

More than 3000 species of terrestrial flora (>500 are non-native species) and 260 aquatic plant species have been recorded in Togo. One endemic species *Phyllanthus rouxii* (Euphorbiaceae) occurs in the hills north of Bassar (GoT 2005).

Five species of plant found within the mangrove forests of Togo are reported as threatened with extinction (UNEP 2007): *Avicennia germinans*, *Conocarpus erectus*, *Chrysobalanus icaco* subsp. *icaco*, *Ficus trichopoda*, and *Rhizophora racemosa*. Some timber species that are heavily exploited could also be considered vulnerable because of the pressure for harvest, including: *Azelia africana*, *Aningeria altissima*, *Entandrophragma cylindricum*, *Aubrevillea kerstingii*, *Khaya anthotheca*, *Mansonia*

*altissima*, *Milicia excelsa*, *Mitragyna stipulosa* and *Pterocarpus mildbraedii* (Kokou et al. 2008).

In addition to providing habitat for the diverse fauna of the region, the native vegetation is extensively used for human food, medicine, building materials, and energy production. Forest fragments harbor a variety of plants that are used in daily living or as a supplemental source of income. The three spices mostly used in Togo are seeds of *Monodora myristica* (false nutmeg), fruits of *Piper guineense* (African pepper) and of *Xylopia aethiopica* (Ethiopian or Guinean pepper). These spices have elevated commercial values in Togo (Kokou et al. 2008).

Many native plants are being replaced by exotic species in forest plantations, as well as unintentional introductions. Some introduced species such as water hyacinth (*Eichhornia crassipes*) cause extensive damage to lake ecosystems, resulting in the eutrophication of the environment, and impediments to fishing and navigation (GoT et al. 2007).

## **Fauna**

Togo is home to approximately 228 species of mammals, 39 species of amphibians (3 endemic), 156 species of reptiles, 708 species of birds (GoT 2003, WRI 2008) and 1300 species of insects. Animals that once occurred in Togo, but have been extirpated or whose continued existence in the country is doubtful include chimpanzee, red-bellied monkey, Diana monkey, African lion and wild dog (IUCN 2007, Kormos et al. 2003, IEA 2008).

In 1990 elephants were common and permanent residents in northeastern Togo between Forêt de Doung, Tampialim, Fosse-aux-Lions NP, and Pana. Elephants moved regularly between Fosse-aux-Lions NP and Forêt de Doung and into Ghana. Years of conflicts with elephants raiding crops led to the killing of a large portion of the elephant population and many of the survivors migrated to adjacent countries (Okoumassou et al 1998). Today, only a remnant population exists in the Fazao-Malfakassa Reserve (Amegadje 2007).

Togo also has a diversity of aquatic, semi-aquatic, and marine fauna. More than 300 species of ocean fish, two whales, and four species of sea turtles migrate, breed or feed along the coast of Togo. The common hippopotamus can be found in the Mono River and the West African manatee may still exist in Togo Lake.

Many species — such as elephants, cheetah and lions — are diminishing in number and range and are becoming restricted to protected areas. Inadequate management of many protected areas threatens even the more common species as hunting for “bush meat” is a means of adding protein to the diets of the rural people. Animals are also killed for parts used in cultural and religious ceremonies.



Elephant tusk used in Ancestral Ceremony at Badou, Togo (Credit: Scott Posner)

## THREATS TO NATURAL RESOURCES

The protection of natural resources was previously regulated without considering the effects on the long term needs of the local populations (Amegadje 2007). This led to public opposition and unregulated use and exploitation following the socio-political turmoil of the 1990s. Forestry development, bush fires, intensive land clearing, water pollution, as well as the abusive exploitation of natural resources for human consumption, trade and tourism, and the practices of traditional medicine constitute the principal pressures on the national biodiversity.

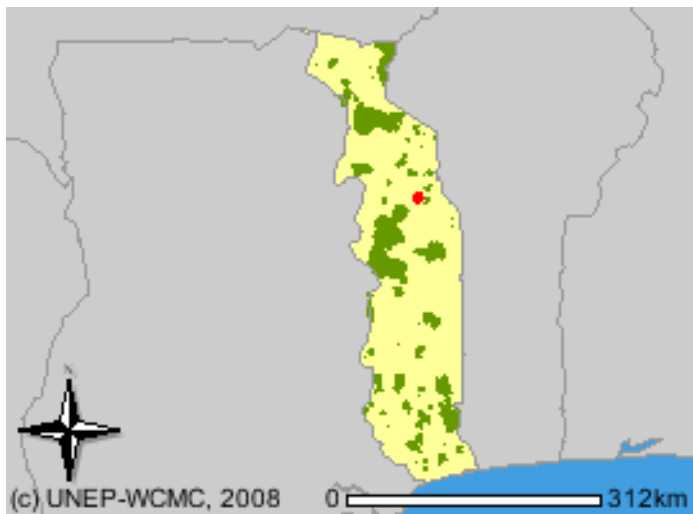
- *Poaching and hunting.* Overharvesting has decimated most game populations.
- *Deforestation.* Indigenous forests are harvested for fuel wood (including charcoal production) and building material. Wood consumption exceeds the total sustainable wood supply, which is exacerbated by habitual forest fires.
- *Poor land and forest management.* Unsustainable use leads to poor soil quality and declining production.
- *Agriculture.* Large-scale agriculture, primarily coffee, cocoa, and cotton, has cleared large tracts of land, resulting in destruction of natural vegetation. Local subsistence and cash crop farming of cassava and maize is also increasing along with the rising population.

- *Population.* An increase in human activity in already fragile areas causes loss of biodiversity, soil erosion, and pollution. Increasing settlements and infrastructure leads to loss of arable land.
- *Mining.* Large scale phosphate mining and widespread mining for gold in river bottoms reduces habitat and affects water systems.
- *Invasive species.* These species reproduce rapidly and consume nutrients and energy that indigenous plants need to survive. A number of exotic woody species are rapidly encroaching into endemic ecosystems and habitats.
- *Inadequate size of protected areas.* Large areas are needed for large animals to thrive. Small game reserves do not provide this, causing inbreeding and disruption of normal living.

## PROTECTED AREAS

Eighty five protected areas (Map C) covering 793,289 hectares (14% of the land area of Togo) were designated between 1939 and 1958. These reserves were designed for the protection of large mammal species, such as elephants, buffalo, hippopotamus, hartebeasts, and antelope and were managed such that the diversity of flora and fauna were restored throughout the 1970s and 1980s (Amegadje 2007) . The period of social unrest, starting in 1990 led to local opposition to the institutions of the former government, including the system of parks and reserves. Exploitation of the forests and fauna, deforestation and development for agriculture and habitation reduced the integrity of the reserves to the point that many are protected in name only and some are occupied and beyond rehabilitation (Amegadje 2007).

**Map C. Protected Areas of Togo**



Since 1999, Togo has attempted to restore the remaining viable reserves in a way that balances the need for protecting biological diversity with the needs of the local populations (ibid, Alinon 2002). Based on their ecological values and local public support, the protected areas of Bayémé, Togodo-Sud, Togodo-Nord, Amou-Mono, Alédjo, Oti-Kéran, Oti-Mandouri, Galangashie, Doungh, and Fosse aux Lions were selected as priority reserves for this restoration effort. Many have

been reduced in size, in hopes of gaining public support and allowing for enhanced management in the remaining area (Table 2). The current efforts aim to protect approximately 578,250 ha or 10% of the land area of Togo; however, less than half that area has achieved the goal of locally supported management. Building on the successes

to date, the protected areas of Abdoulaye, Mont Haïto, Mont Balam, Sirka, Sadji, Monda, Mont Barba Bassar, Fazao-Malfacassa, Nadoba, Mont Agou, Assimé, Atilakoutsè, Aou-Mono, Missahoe, Foukpa, and Deux Béna are next in priority for re-establishment (ibid).

**Table 2. Priority Protected Areas for Management Revision in Togo**

NAME	CLASSIFICATION	INITIAL SIZE (HA)	CURRENT SIZE (HA)
Doungou	Reserve	4,350	-
Bayémé	Natural Resource Management Area	198	158
Amou-Mono	Natural Resource Management Area	18,400	12,700
Togodo-Sud	National Park	18,000	15,000
Togodo-Nord	Natural Resource Management Area	13,000	10,500
Galangashie	Faunal Reserve	18,000	12,490
Oti-Kéran	National Park	163,640	69,000
Oti-Mandouri	Faunal Reserve	147,840	110,000
Alédjo	Faunal Reserve	765	765
Fosse aux Lions	National Park	1,650	-

The protected areas of Togo carry international importance in terms of global biodiversity and important areas for migrating fauna. Four of the protected areas - Fazao-Malfacassa, Oti-Kéran, Missahoe, and Oti-Mandouri – are internationally recognized Important Bird Areas. Three of the protected areas are on the Ramsar List of Wetlands of International Importance, as is the coastal wetland region (Ramsar 2008).

The W-Eastern Burkina- Pendjari-Northern Togo transfrontier elephant conservation corridor lies across the borders of four countries: Burkina Faso, Benin, Niger and Togo. This corridor extends into Northeast Togo and includes the wildlife reserve of Oti-Mandouri, Oti-Kéran National Park and the forest reserves of Galangashie and Barkoissi (Sebogo and Barnes 2003). International cooperation in the management of this transfrontier elephant conservation corridor will greatly enhance the ability of the remnant elephant populations to persist into the future.

## THREATS TO PROTECTED AREAS

Until 1990, the national policy for the protection and conservation of biological diversity was considered highly repressive. This policy eventually raised public hostility; especially among people bordering protected areas. Much of the resentment was due to inadequate availability of farmland following the population growth over the last 30 years. As a result of socio-political unrest between 1990 and 1993, these populations have invaded many of the protected areas.

Recent policy regarding management of protected areas has its foundations in the philosophy of the United Nations Convention on Biological Diversity that Togo signed in 1992 and ratified 3 years later on October 4, 1995. Guidelines of the new policy are based on the concept of "participatory management" and the integration of concerns relating to the conservation and sustainable use of biological diversity in all development activities (Amegadje 2007). While some progress is being made, several threats continue to undermine intentions to preserve these areas:

- *Local communities.* Clearing land for fuel wood, timber and building products, grazing pastures, and agricultural fields encroach on protected areas.
- *Droughts and fires.* Frequent droughts and bush fires (natural and anthropogenic origin) damage protected areas, both flora and fauna.
- *Poverty.* Inability to plan for long-term management because of untrained staff and lack of funding.
- *Exploitation.* Illegal exploitation of natural resources by local communities and commercial industry.

## CONSERVATION OUTSIDE OF PROTECTED AREAS

Conservation outside of protected areas is limited, creating challenges for conservation of rare and endemic plant and animal species. Poor agricultural techniques used on farms next to protected areas have a negative impact on flora and fauna. Bush fires, erosion, runoff into waterways, and desertification from human activity are all preventable threats. The greatest factors are lack of education about good resource management and land tenure instability. Conservation and good management practices outside of protected areas would be beneficial, increasing availability of fuel wood, housing materials, natural medicines, and providing areas for traditional ceremonies.

There are numerous "sacred forests" throughout Togo (Kokou et al. 2008, Alinon 2002) that average in size from 0.8 ha in the north to 5 ha in the southern region of Togo. A sacred forest is a forest fragment where local people perform ceremonies in order to be in contact with and to pay homage to their gods and spiritual protectors (Kokou 2008). These sacred forests contain many plants and animals that are important components of the local biodiversity. The sacred forests are used for gathering firewood and medicinal products, and in some cases hunting. Over-exploitation of the sacred forests has reduced many in size and ecological complexity, and invasive introduced species are replacing the native flora in some locations. Changing cultural and religious traditions are also leading to the abandonment or conversion of sacred forests to other uses, such as agriculture.



## STATUS AND PROTECTION OF ENDANGERED SPECIES

According to the IUCN Conservation Monitoring System Red Data List, one species in Togo is critically endangered - the endemic Togo slippery frog; four species are endangered – only one of which has been recorded in Togo recently; and 11 are vulnerable. The full list is provided in Table 3, and original information is provided on the IUCN Red List Web site at: <http://www.iucnredlist.org>. In addition to the above, there are also 5 critically endangered, 5 endangered, and 7 vulnerable species of marine fauna that occur in the coastal waters of Togo; as well as 10 vulnerable species of plants.

These endangered species are vulnerable to many of the same pressures that protected areas themselves are, such as bush fires, human population pressure, poaching (for meat, medicine and commercial export), droughts, and destruction and loss of habitat.

Table 3. Threatened Wildlife of Togo

COMMON NAME	SCIENTIFIC NAME	STATUS	TREND
Togo slippery frog	<i>Conraua denrooi</i>	Critically Endangered	Decreasing
Ukami reed frog	<i>Hyperolius torrentis</i>	Endangered	Decreasing
African wild dog	<i>Lycaon pictus</i>	Endangered- possibly Extirpated in Togo	
Chimpanzee	<i>Pan troglodytes</i>	Endangered- Extirpated in Togo	
Merten's smalltongue toad	<i>Werneria preussi</i>	Endangered- No recent record in Togo	
Cheetah	<i>Acinonyx jubatus</i>	Vulnerable	Decreasing
Geoffroy's black-and-white colobus	<i>Colobus vellerosus</i>	Vulnerable	Unknown
Lesser kestrel	<i>Falco naumanni</i>	Vulnerable	Unknown
Red-fronted gazelle	<i>Gazella rufifrons</i>	Vulnerable	Decreasing
Common hippopotamus	<i>Hippopotamus amphibious</i>	Vulnerable	Decreasing
African elephant	<i>Loxodonta Africana</i>	Vulnerable	Unknown
African dwarf crocodile	<i>Osteolaemus tetraspis</i>	Vulnerable	
African lion	<i>Panthera leo</i>	Vulnerable	Decreasing
African golden cat	<i>Profelis aurata</i>	Vulnerable	Decreasing
African manatee	<i>Trichechus senegalensis</i>	Vulnerable	Unknown
White-headed vulture	<i>Trigonoceps occidentalis</i>	Vulnerable	Decreasing

Source: 2007 IUCN Red List

## STATUS AND PROTECTION OF FOREST RESOURCES

Forest area in Togo is about 17 percent of the land. Of this, 380 km<sup>2</sup> is plantation and 3,480 km<sup>2</sup> is natural forest (Kenny 2007). Map D shows the distribution of the land cover and the extent of the forests in Togo.

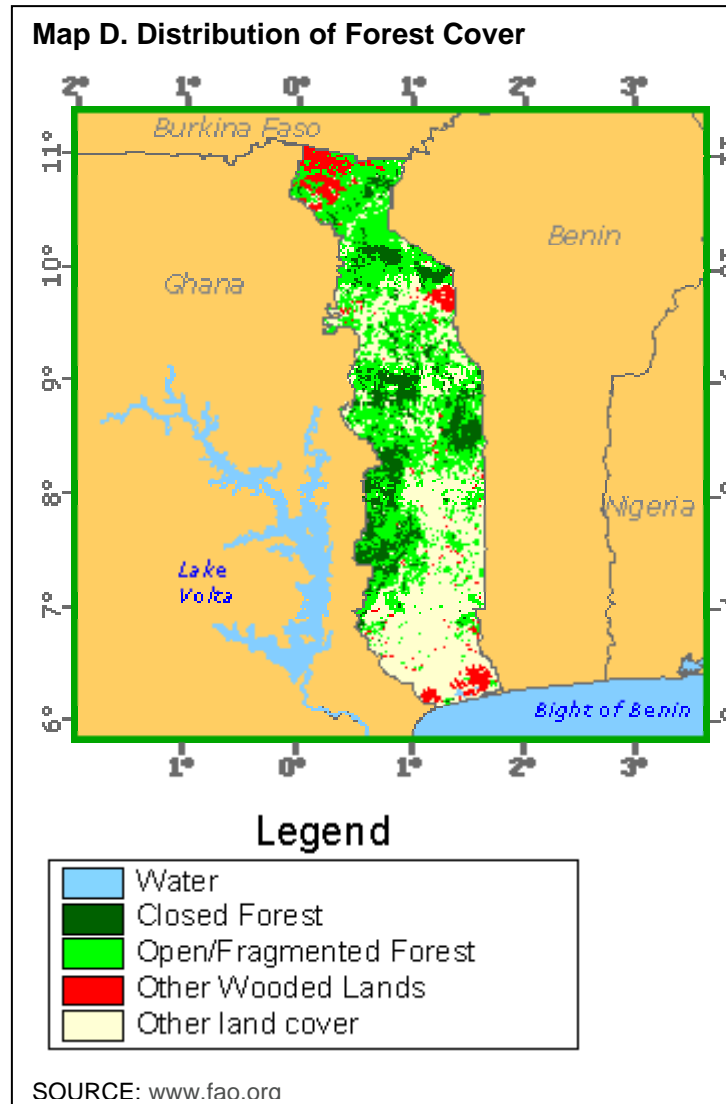
Forest policy in Togo was not developed for the restoration of degraded environments (Amegadje 2007). Instead, the laws consider forest products like other agricultural products, and management objectives tend to be based on economics, rather than the ecological role of the forests. The goal is for forest production to meet national needs and make the country independent of imported lumber.

Round wood production in 2005 was 3,320,000 m<sup>3</sup> and an additional 3,012,000 m<sup>3</sup> was harvested for fuel wood (FAO 2008). The Togolese forestry sector accounts for about 11 percent of GDP (Kenny 2007). Forest cover has decreased by more than 3 percent from 1990 to 2000 (ibid).

The lack of sound forest management has resulted in overharvesting for fuel, building materials, and other forest products. In rural areas, more than 80 percent of the local communities use firewood for cooking and warming houses. Forests are also exploited for spices, medicine, timber, building materials. In those instances where forests have been cleared and reforestation is desired, the area is often planted to non-native, high value species, especially teak (Kenny 2007).

Several major threats to forest resources are occurring in Togo, most notably:

- Land cleared for agriculture, primarily for corn, cassava, coffee, cocoa, and cotton
- Bush fires
- Drought



- Domestic, commercial and industrial exploitation – for fuel wood, building material and medicines
- Invasive, exotic species
- Land settlements due to population expansion

## **MAJOR THREATS TO BIODIVERSITY AND FOREST CONSERVATION**

In general, climatic changes, anthropogenic pressures, land use practices, unawareness of ecosystem functions, and a weak legal and institutional framework are the main threats to biodiversity in Togo (Amegadje 2007)

### **CLIMATE CHANGES**

Forests, through shading, evapotranspiration, regulation of infiltration, and other factors have a regulatory effect on local climates. Following years of deforestation, rainfall patterns in Togo have become irregular, often with unpredictable beginnings or ends to the rainy seasons. These changes can cause severe droughts or floods, sometimes of disastrous consequence such as the floods in northern Togo in 2001 and 2007, which destroyed agricultural production and displaced thousands of people.

Drought is an extended period of months or years of a deficiency in water supply. Africa has historically been hard hit, leading to devastating effects on agricultural lands, biodiversity, and poverty and malnutrition. Like most of the continent, Togo has droughts and the arid savannah regions are especially vulnerable. The 1992 U.N. Conference on Environment and Development in Rio de Janeiro, defined desertification as “land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors, including climatic variations and human activity.”

The transformation in habitat caused by drought and desertification is significant to the plants and animals that depend on those environs. Decline and even extinction of species have occurred among those that had previously adapted to the climate. Decline in arable land has caused losses in agricultural productivity leading to increased poverty, malnutrition and pressure on already vulnerable lands. Drought and desertification have created soil erosion, reduced soil moisture retention, increased runoff, and reduced productivity.

### **ANTHROPOGENIC PRESSURES**

Population increase is high (2.7 percent), and people exert great pressure on surrounding lands, which will continue to increase if practices do not change — primarily overharvesting of fuel wood and building materials, settlement in protected areas, and urban sprawl with its associated pollutants and garbage.

Brush fires, ignited accidentally or for purposes such as agricultural clearing or hunting, burn large areas each dry season. These fires reduce forest land, and degrade habitat for a

host of species. Frequent and/or intense fires can change the soil structure or destroy soil microorganisms, causing damage that requires decades – or longer – to recover.

Most of the population of Togo lives in the coastal region, concentrating the anthropogenic pressures in that area. Pollution of the marine environment, clearing of the mangroves, exploitation of coastal areas important to nesting sea turtles, and decimation of fisheries and wildlife populations are serious threats to the biodiversity of Togo.

### **LAND USE PRACTICES**

Inappropriate land management practices have led to depletion of nutrients in the soil, extreme erosion, and loss of habitat for native flora and fauna. Clearing and burning practices have increased with population growth, and regulatory enforcement of protected areas has decreased. Migratory grazing practices are also degrading the biodiversity of the savannahs, especially in drought years, as lands are overgrazed or burned to create more pastureland.

People living in poverty are concerned with their immediate survival rather than possible environmental concerns looming ahead. Those who are able to meet their basic needs will still seek to improve conditions for their families by growing cash crops, which requires additional land under cultivation.

### **UNAWARENESS**

A history of regulation of protected areas without consideration for the interests of local populations, combined with a lack of knowledge of protection and conservation of forests and biodiversity has led to little funding or support from the government and general public. In addition, the government has not put adequate monetary or staffing resources into protecting the environment.

Some progress has been made regarding environmental education in Togo. The Program of Assistance for Communication and Information on the Protection of the Environment, developed educational kits in local languages for informing the general public on sensible environmental management. Environmental issues have been added to national educational programs; particularly noteworthy is the introduction of lessons on biodiversity in the primary schools (GoT et al. 2007).

Unfortunately, in spite of recent advances in environmental education, the history of non-participatory management, combined with the slow introduction of environmental education programs to rural communities has resulted in public perceptions focused primarily on the consumptive uses and conflicts related to management of the forests and biodiversity of Togo. This unawareness of the long-term value of maintaining biological diversity, combined with poverty driven needs for short-term sustenance, is a serious obstacle to the conservation of natural resources and biological diversity in Togo.

## **LEGAL AND INSTITUTIONAL FRAMEWORK**

Togo recognized the degradation of the environment and biological resources very early in its history and passed numerous laws and regulations for better natural resource management soon after independence. It also signed or ratified several international conventions, treaties and agreements relating to the protection of its environment. Unfortunately, most of these have remained paper exercises or have been misapplied (GoT 2003). In addition, at the institutional level, tasks are still poorly organized and very few qualified personnel operate in the field of biodiversity. This translates into:

- A poor deployment of officers on the ground;
- A lack of technical skill;
- A lack of communication;
- A lack of participatory management.

With the lack of land tenure security, local farmers fear their land will be taken away by the government, and with little say in the long term management of protected areas and other lands, farmers see no purpose in using sustainable practices. This leads to overgrazing and shifting agriculture based on land clearing and brush fires, which degrades large areas in Togo.

## **PROPOSED ACTIONS AND RECOMMENDATIONS FOR USAID PROGRAMMING**

The scope of this assessment has been limited to U.S.-based research and document review, using public information such as the 2008 Congressional Budget Justification for Foreign Operations and USAID-supported activities in Togo. However, this analysis allows for some recommendations for USAID to contribute to biodiversity and forestry conservation consistent with U.S. goals and objectives. But, it should be noted that there was limited information on USAID programming, so recommendations are general and contingent on the specifics of the programming.

Given the importance of transboundary protected areas, the need for increased involvement of local communities in sustainable management of biodiversity and natural resources, and the need for appropriate technology education, there is potential for USAID to have an impact on biodiversity conservation in Togo. Although USAID does not have an office in Togo, the author proposes that the USAID offices in Ghana and Benin, with the help of the U.S. Embassy in Togo, begin to focus on how USAID can support conservation through NGOs and through the government of Togo, or how the Agency can initiate new programs with an environmental focus. Specific recommendations for proposed program elements are detailed below.

## **GOVERNING JUSTLY AND DEMOCRATICALLY**

For FY 2008, \$120,000 has been requested for a program focused on modernizing the judiciary. This funding will complement the efforts of other donors within the framework

of a comprehensive judicial reform program to strengthen the judiciary and reinforce the rule of law.

Weak enforcement or misapplication of existing law is a major threat to biodiversity and tropical forests in Togo. Encouraging fair, democratic systems and practices will strengthen public trust and will encourage participation in the legal process. This will help build the base needed for improved participatory management of natural resources and protected areas.

### **CONTINUE TRANSBOUNDARY ACTIVITIES**

The biodiversity of Togo is inextricably connected to the forests and ecosystems of Benin and Ghana. From the Guinean forests of West Africa to the diverse coastal ecosystems of the Bight of Benin these vast and important ecosystems do not stop at political boundaries, nor can efforts to protect those ecosystems. USAID activities to promote and protect tropical forests and biodiversity in Benin and Ghana should consider programs at a regional scale and incorporate Togolese agencies and NGOs wherever possible.

## **CONCLUSION**

The case for conservation in Togo is compelling, considering the number of endemic, endangered, or vulnerable species, and highly biodiverse ecosystems, such as the mangroves and Guinean forests of West Africa. Togo has made positive steps toward conservation and protection, but still faces serious challenges in protecting its biodiversity and forests.

U.S. foreign assistance to Togo will modernize the judiciary, which will increase trust in government and pave the way for public participation in natural resource management. Improved participation will decrease opposition to protected areas and natural resource management, which have been viewed in the past as heavy-handed and unconcerned with the needs of the people. While this is an indirect avenue to environmental protection, USAID can find related activities to aid conservation and mitigate possible negative environmental impacts.

The following general recommendations are offered as specific USAID programming is considered and planned:

- USAID activities to promote and protect tropical forests and biodiversity in Benin and Ghana should consider programs at a regional scale and incorporate Togolese agencies and NGOs wherever possible.
- Ensure that agricultural projects encourage sustainable management practices.
- When working with rural communities, focus on those living near or in biologically diverse areas/protected areas. Promote and encourage better natural resource management practices, as well as increase community involvement.
- Look for projects that have the potential for cross-cutting programming, such as incorporating environmental awareness into health and education activities. Work with other development organizations who are concentrating on issues other than the environment.

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