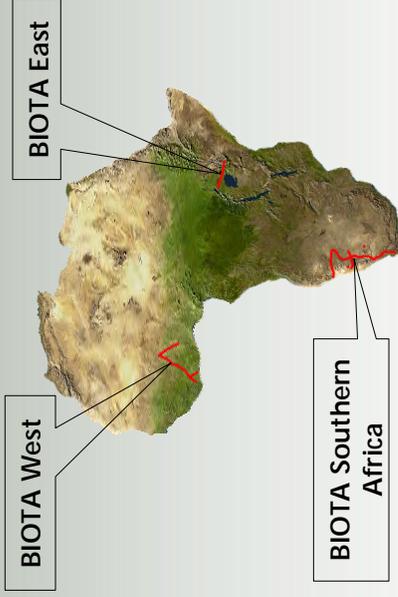




The BIOTA Africa project

BIOTA AFRICA started in 2000 as a co-operative and interdisciplinary research project. Initiated and funded by the **German Federal Ministry of Education and Research (BMBF)**, the project has developed into a unique network of German and African scientists aiming at a holistic contribution towards sustainable use and conservation of African biodiversity. Along three **macro-transects, covering all major African biomes**, our research is carried out on standardised sampling sites, the so called **biodiversity observatories**.



The project contributes to the goals of the relevant UN conventions (**UNCBD** and **UNCCD**), to the Johannesburg Plan of Action of the World Summit on Sustainable Development (**WSSD**), to the New Partnership for Africa's Development (**NEPAD**) and is part of the international **DIVERSITAS** programme.



Biodiversity Monitoring Transect Analysis West Africa

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Biodiversity Monitoring Transect Analysis West Africa

Towards
sustainable use and
management of

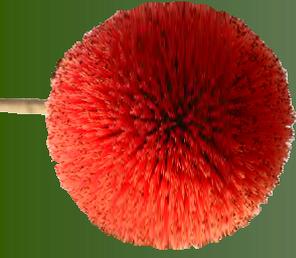
Biodiversity



in
West Africa

www.biota-africa.org

Biodiversity in West Africa



The BIOTA West project

West Africa, and especially the **Upper Guinean forest region**, belongs to the **global hotspots** of high biodiversity and human impact. Following the climatic gradient from the Atlantic coast to the North, rain forests, different types of savannas, the Sahel zone and the desert provide exceptional habitat diversity housing many often highly adapted plant and animal species.

West Africa's cultural history is as equally diverse as its environment. The region has been populated by humans for several thousand years. **Accordingly, West Africa's nature has evolved in an anthropogenic environment.** Natural resources have mostly been used sustainably in history. Today, the situation has drastically changed. **Population growth**, the **unsustainable use** of natural resources and **climate change** have led to dramatic threats to biodiversity. Moreover, poverty is increasing in large proportions of the population. As people are highly dependent on the use of natural resources for food, stock and traditional medicine, but also for their own income, unsustainable use leads to a decline or even extinction of highly valued species.



In an **interdisciplinary approach** the BIOTA West project is trying to find **scientifically based solutions** for these problems, hand in hand with our African partners.

BIOTA West comprises **13 universities and research institutes** from Benin, Burkina Faso, Côte d'Ivoire and Germany covering the disciplines remote sensing, climatology, biogeography and macroecology, soil sciences, botany, zoology, ethnology, social anthropology and socio-economics.

To obtain baseline data we are studying biodiversity in **protected areas** and in comparable, but anthropogenically altered areas. This enables us to quantify human impact, to identify indicator species and to set up **monitoring programs** to evaluate biodiversity changes. Based on these results we provide suggestions for



management plans and other measures on local, national and the international levels towards achieving **sustainable management of biodiversity**.

Detailed studies focus on **pastoralism, agricultural land-use and restoration**. Cash crops, mainly cotton and cacao, play an important role for the national income of West African countries, but also lead to land conversion and habitat destruction. Heavily degraded soils increase the problem of malnutrition, and decrease the potential for restoration. The latter is of crucial importance in many of our study areas. The results of our research will help us to **develop analytical and predictive tools for decision making**. Appropriate modelling techniques will allow us to develop predictive future scenarios.

Capacity building and sustainability in BIOTA West

To assure the long-term sustainability of our efforts, BIOTA West is building up capacities on different levels. We reinforce the infrastructure at our partner universities and improve the working conditions for scientists and students by building up **national reference collections for plants, animals, and also literature**.

More than **50 African students** have received in-depth training by experts from different fields in the framework of BIOTA West. These students can now train other stakeholders like village teachers, foresters and farmers. Close co-operation with local governmental, nongovernmental and traditional authorities (kings and healers) ensures the **long term usefulness** of the results provided. Dependable and **regionally adapted methods, maps, red lists, and field guides** for indicator species will enable the African partner countries and local stakeholders to use their natural resources in a more sustainable way and -by doing- so to better conserve biodiversity today and in the future.

