

GDI Area proposal outline

Executive summary

Atewa Critical Conservation Action Programme

The Upper Guinea forests of West Africa show high levels biological endemism across multiple taxa but are highly threatened by clearance, degradation and fragmentation. Montane forests in this region are especially vulnerable as they are small in area, but amongst the richest biologically. One of Ghana's largest and most important forests, lying in the Atewa Range of hills in the southeast of the country (known locally as Atiwa), comprises a substantial tract of Upland Evergreen forest, which is otherwise mostly confined to just one other site in the country. The Atewa forest is a centre of significant plant diversity with at least 765 vascular plant species including 106 endemic to Upper Guinea and six with highly localised distributions. Butterfly diversity is also high – the highest of any site in West Africa – with over 570 species recorded including two that are known only from this forest (*Mylothris atewa* and *Anthene helpsi*). Amphibians are represented by 32 species, a third of which are threatened. The Critically Endangered Togo Slippery Frog, *Conraua derooi*, probably has its stronghold in the Atewa forest. Two primates of global conservation concern - Geoffroy's Pied Colobus (*Colobus vellerosus*) and Olive Colobus (*Procolobus verus*) - occur alongside six threatened or near-threatened birds – Brown-cheeked Hornbill (*Bycanistes cylindricus*), Yellow-bearded Greenbul (*Criniger olivaceus*), Green-tailed Bristlebill (*Bleda eximia*), Nimba Flycatcher (*Melaenornis annamarulae*), Rufous-winged Illadopsis (*Illadopsis rufescens*) and Copper-tailed Starling (*Lamprotornis cupreocorda*).

The forest plays an important role in the culture of the people living around it. The ancient Kyebi culture is inextricably linked with the forest, locally referred to as Kwaebibirem - the dark forest – in reference to the dense and lush vegetation that once characterised the area. The forest has traditionally been regarded as the home of ancestral spirits who provide protection, success and progress to the Abuakwa Stool and the people of the Akyem Abuakwa Traditional Area. Many of Atewa's resources are used by neighbouring communities for food, building materials and medicine. The importance of the forest is felt further afield as three river systems that arise in the Atewa range, the Ayensu, the Densu and the Birim, are important sources of domestic and industrial water not just for local communities but also for some of Ghana's major population centres, including the capital Accra. The forest is located close to the main highway connecting Accra with the country's second city – Kumasi – making it highly accessible to the populations of both cities.

The Atewa Ranges Forest Reserve was gazetted as a National Forest Reserve in 1926, then subsequently a Special Biological Protection Area in 1994, a Hill Sanctuary in 1995 and as one of Ghana's 30 Globally Significant Biodiversity Areas (GSBAs) in 1999. It is also recognised as an Important Bird Area. Despite this the threats to the forest remain substantial and pose serious risks for the ecological integrity of the forest and the rights of local communities. Localised problems such as leaching and loss of soil fertility from intensive cultivation and surface erosion due to vegetation clearance and encroachment by farmers are overshadowed by the three biggest issues: illegal chain-saw logging, mining and hunting. Illegal logging peaked in the 1990s but has left a depleted forest with many

commercial tree species now rare. Vegetation degradation is exacerbated by frequent bush fires. Unlicensed small-scale gold mining is increasing and causing serious problems for forest edge communities arising from pollution of their water resources downstream of mining activity. Large-scale commercial mining also threatens the reserve since the hills are thought to hold significant bauxite deposits. In recent years international companies have explored the possibility of open cast mining inside the reserve. Hunting of both protected (e.g. colobus monkeys, pangolins) and traditionally-sacred (e.g. Crested Porcupine) animals is the greatest present threat to the forest's mammalian diversity. It is thought that c. 15% of the bush meat found in the markets of Accra and Kumasi comes from Atewa forest. Hunters operating illegally in Atewa are known to employ poison, traps and fires as well as automatic rifles.

The long term objective of our conservation work in the Atewa forest, along with other organisations, is to see it protected as a National Park. Our current activities consist of collaborative efforts with the Forestry Commission and local communities to address the threats to the forest. These include to enhance national and global visibility of the threats to Atewa through public advocacy to drive conservation action; to facilitate the development of a Conservation Strategy for Atewa; and to facilitate the development of an action-driven socio-ecological development programme that thrives on sustainable utilisation of Atewa forest's resources. These will be achieved through workshops, dissemination of published materials, and lobbying of parliamentarians to secure an Executive Instrument, and to build public support for development and implementation of a conservation plan for the Atewa forest; a national consultative process to develop a conservation strategy and conservation plan for the Atewa forest; a feasibility study to determine the potential for eco-tourism (and prepare an ecotourism business plan if appropriate) and other income sources for local communities, based on the sustainable use of forest resources; and preparation of landscape and resource maps of the Atewa.

We plan to register this project with GDI once we've raised the funding needed to develop and implement a management plan.

Area characteristics (1000 characters)

The Atewa Range Forest Reserve covers 23,665 ha of forest and seasonal marshy grasslands (bovals) on a range of hills and plateaux in the moist semi-deciduous forest zone of SE Ghana (centroid 0° 36' W, 6° 10' N). Upland Evergreen Forest – prevalent in only one other site in Ghana - covers c. 74% of the site. The underlying geology is bauxitic and three significant rivers arise in the reserve – the Ayensu, Densu and Birim. The reserve holds 765 vascular plants including 106 Upper Guinea endemics, the highest butterfly diversity of any site in Ghana including 17 rare species, 6 birds of global conservation concern, a Critically Endangered frog (*Conraua derooi*) and two primates of conservation concern (Geoffroy's Pied and Olive Colobus). The reserve was gazetted in 1926. It lies in the Eastern Guinean Forest WWF ecoregion, is designated an Important Bird Area and a Globally Significant Biodiversity Area.

Area manager

The Atewa Range Forest Reserve lies within the Akyem Abuakwa Kingdom. It is managed by the Forest Services Division of the Forestry Commission of Ghana and held in trust for the community members by the Paramount Chief. The people of Akyem Abuakwawere the traditional owners of the forest prior to gazetting and at the outset were granted certain usage rights including farming (even within the reserve), harvesting of forest products (plant and animal), access to sacred sites, hunting and gold prospecting rights. They were also to receive a share of timber royalties from forestry operations.

A management plan was prepared for Atewa forest in 2003 by the Protection Working Circle of the then Forestry Department (now Forest Services Division) with three key aims – to protect the headwaters of the Birim, Densu and Ayensu rivers, to maintain forest cover on hillslopes for preventing erosion, and to prevent encroachment and conversion of the forest reserve. However the forest currently lacks a plan that fully encompasses biodiversity conservation and the livelihoods needs of the forest edge communities.

A Rocha International and A Rocha Ghana are working with community representatives, local authorities and national government to develop a biodiversity conservation management plan for Atewa through a consultative process at both the local and national level. A Rocha Ghana is also part of a team campaigning for Atewa to be made a National Park as this would lead to improved management and protection of biodiversity.

A Rocha has been working with partners to develop a strategy for conserving forest biodiversity and carbon stocks in Atewa. A Rocha Ghana has implemented a Climate Stewards Programme in Ashanti region (Kumasi) northern region (Damongo and Tamale) and Upper East Regions (Nania) of Ghana. This programme has focused on multi-benefit forestry projects that deliver carbon stocks, biodiversity conservation, and community benefits. A Rocha Ghana's conservation programmes have focused on education, research, and practical conservation. A Rocha has previously worked with scientists from the Forest Research Institute, Ghanaian Universities, ARI, and the Forest Division on biodiversity and carbon management in our community-based carbon forestry and conservation projects. A Rocha Ghana has established offices in Accra, Kumasi, and Damongo and hence is already established and committed to involvement in these regions in the foreseeable future. Our initial engagements have developed several networks with District Assemblies, Civil Society (SNV, Tree Aid, and others), Universities, research institutions, and international NGOs such as the International Union of the Conservation of Nature (IUCN) who are actively working with us to ensure the long-term sustainability of all our activities. A Rocha Ghana has strong links with Kwame Nkrumah University of Science and Technology (KNUST), Forestry Research Institute of Ghana, the Forestry Commission of Ghana, and other A Rocha national organizations. A Rocha International scientists bring expertise in tropical ecology, conservation and site management.

RAP

A rapid biological assessment was undertaken in Atewa forest by Conservation International in 2006¹. This work identified the high biological value of the forest through inventories of flora, dragonflies and damselflies, butterflies, katydids, fish, amphibians, birds and mammals, adding to a long history of research in Atewa arising from its close proximity to Accra.

Atewa Range of hills in the southeast of Ghana, comprises a substantial tract of Upland Evergreen forest, which is otherwise mostly confined to just one other site in the country. The Atewa forest is a centre of significant plant diversity with at least 765 vascular plant species including 106 endemic to Upper Guinea and six with highly localised distributions. Butterfly diversity is also high – the highest of any site in West Africa – with over 570 species recorded including two that are known only from this forest (*Mylothris atewa* and *Anthene helpsi*). Amphibians are represented by 32 species, a third of which are threatened. The Critically Endangered frog, *Conraua derooi*, probably has its stronghold in the Atewa forest. Two primates of global conservation concern - Geoffroy's Pied Colobus (*Colobus vellerosus*) and Olive Colobus (*Procolobus verus*) - occur alongside six threatened or near-threatened birds – Brown-cheeked Hornbill (*Byncaanistes cylindricus*), Yellow-bearded Greenbul (*Criniger olivaceus*), Green-tailed Bristlebill (*Belda eximia*), Nimba Flycatcher (*Melaunornis annamarulae*), Rufous-winged Illadopsis (*Illadopsis rufescens*) and Copper-tailed Starling (*Lamprotornis cupreocorda*).

Many more species are expected to occur in Atewa forest than have been recorded to date. For example, it is predicted that the site should hold some 700 butterflies based on geographic range and abundance of West African species, but collecting has only brought to light c. 570 species to date. A similar pattern is likely to be the case for other invertebrate groups and even for plants despite the long history of collecting here. The 2006 RAP survey recorded two forest birds that are of conservation concern – Brown-cheeked Hornbill and Nimba Flycatcher – which were previously unknown from Atewa forest. In fact the flycatcher was a new record for Ghana. There are unlikely to be many undiscovered larger mammals in the forest though deployment of camera traps may reveal some surprises.

Strengths

- very high species diversity across numerous taxa
- high levels of endemism
- high numbers of threatened species
- critical populations of some species
- rare forest type within the region – upland evergreen
- rare combination of habitats (seasonal swampy grasslands as well as forest)
- long history of designation in various protection categories
- long history of exploration and research
- easy to access from major population centres
- high importance for watershed protection services already recognised
- effective existing institutional frameworks for community-led conservation

Weaknesses

- proximity to large bushmeat markets – Accra and Kumasi
- increasing human population at the forest edge
- presence of alluvial gold deposits of bauxite
- vulnerability of upland species to climate change
- weak governance concerning site protection
- conflict of interest in management of above-ground and below-ground natural resources

inadequate community awareness of conservation issues
inadequate community participation in resource management and protection
inadequate formal and informal institutional collaborations
inadequate staff to effectively patrol the reserve

Opportunities

proximity to a large potential tourist market
well known and long-established reserve boundaries
long standing status as a reserve makes it amenable to conversion to a more fully protected area – such as a National Park
numerous existing and potential natural resources that can form basis of sustainable livelihoods in forest edge communities
strong traditional and chieftaincy support for conservation

Threats

illegal logging and unsustainable harvesting of forest products
artisanal gold mining in water courses
commercial open cast mining for aluminium ore
hunting for subsistence and for bushmeat markets including nearby major population centres
intensive agriculture in the buffer zone leading to human-wildlife conflict and erosion
erosion arising from vegetation degradation
fire arising from vegetation degradation
climate change resulting in reduced rainfall and/or increased temperatures that push altitudinally sensitive species upslope.

The key stakeholder are the Forest Commission, Okyene Foundation (traditional authority), local communities, Atiwa District local assembly and coalition of Ghanaian conservations NGOs.

¹ Mccullough, J., Alonso, L. E., Naskrecki, P., & Wright, H. E. (2008). *A Rapid Biological Assessment of the Atewa Range Forest Reserve, Eastern Ghana*. Conservation International. Arlington, USA.

Work plan

The long term aim of this work is to see Atewa gazetted as a National Park. The objectives of our current conservation work are to enhance national and global visibility of the threats to Atewa through public advocacy to drive conservation action; to facilitate the development of a Conservation Strategy for Atewa; and to facilitate the development of an action-driven socio-ecological development programme that thrives on sustainable utilisation of Atewa forest's resources. These will be achieved through workshops, dissemination of published materials, and lobbying of parliamentarians to secure an Executive Instrument, and to build public support for development and implementation of a conservation plan for the Atewa forest; a national consultative process to develop a conservation strategy and conservation plan for the Atewa forest; a feasibility study to determine the potential for eco-tourism (and prepare an ecotourism business plan if appropriate) and other income sources for local

communities, based on the sustainable use of forest resources; and preparation of landscape and resource maps of the Atewa.

Outline budget GBP (£)

Budget category	Year 1	Year 2	Year 3	Total
Personnel	26,903	27,915	28,928	83,746
Consultants	6,000	0	0	6,000
Travel - International	1,550	1,581	1,613	4,744
Local travel, logistics & equipment	2,087	2,087	2,087	6,261
Research	22,478	37,557	23,565	83,600
Public advocacy	17,217	1,304	1,304	19,825
Indirect project costs	8,130	7,304	7,304	22,738
Sub-totals	84,365	77,748	64,801	226,914
Contingency (5%)				11,346
TOTAL				238,260
Secured income				151,271
Outstanding requirement				86,989

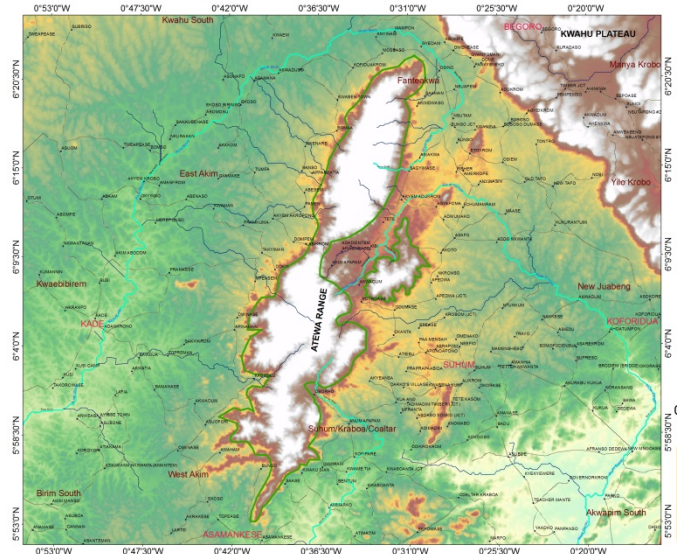
Biodiversity-positive outcomes

Greater public awareness of the threats to the conservation of Atewa
 Public petition for 'Save Atewa, Save Ghana' submitted to Parliament
 A Conservation Action Portal developed to disseminate information on Atewa
 National consultative conference organised on Atewa
 Strategic conservation action plan for Atewa developed as a blue print for action
 Eco-tourism potential and business plan developed for Atewa
 Socio-economic dynamics of fringe communities determined
 Utilisation potential of NTFPs determined and commercial value chains described

Letter of support

Annika Hillers - attached

Area photos



Aerial or vista view: Map of the Atewa Range Forest Reserve.



Landscape. Typical forest-edge activity where forest has been cleared for cultivation (A Rocha Ghana).



Animal: Togo Slippery Frog *Conraua derooi* is Critically Endangered and probably has its population stronghold in Atewa Forest (Annika Hillers)