

THE ECONOMICS OF THE ATEWA FOREST RANGE

The Atewa forest range is a unique upland forest surrounded by a mixture of farms, small scale gold mines and villages. It lies about 90km north of Accra in Ghana (Figure a). The forest functions as the source of three important rivers – the Densu, Birim and Ayensu rivers. The Atewa range supports the livelihoods of local communities who live on the forest fringes. A section of the forest is protected as the Atewa Range Forest Reserve, is recognized as a Global Significant Biodiversity Area and is home to a large diversity of plants and animals. Despite this status, the forest both inside and outside the Forest Reserve is steadily degrading due to timber and non-timber harvesting, hunting, and the encroachment of farms and gold mines. This is affecting water flows and water quality and those dependent on water downstream in the three river basins, including businesses, the households of over 1 million people in Accra, as well as local communities and farmers that live around the Forest Reserve.

Atewa is at a crossroad and the people of Ghana need to choose a sustainable development pathway or lose a valuable asset. Do nothing and let the forest steadily degrade, invest in establishing a national park and green developments, or extract all the timber and mineral resources in a limited time and forego the forest. All options have different costs and benefits, and affect different groups in different ways. The Economics of Atewa forest range valuation study helps stakeholders understand the consequences of these options. The study demonstrates the costs and benefits in economic terms of current developments in the Atewa Range compared to potential alternatives, and supports the Government of Ghana in deciding what the most optimal and sustainable management regime is for the Atewa Range.



Figure a: Atewa Range Forest Reserve (dark green), the Atewa range (dark green + yellow) – the primary study area - and the three river basins which it supports (Densu, Birim and Ayensu)

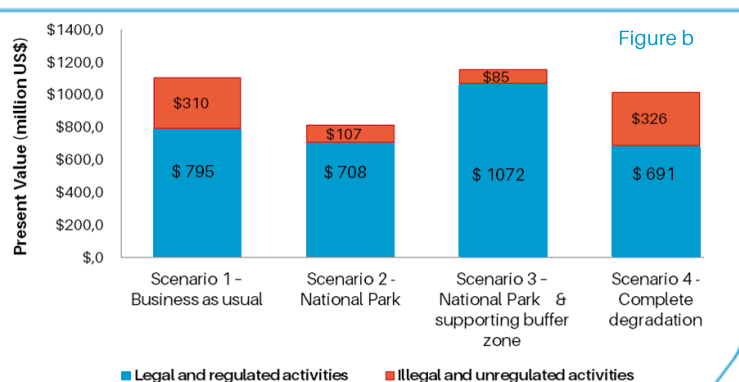


Figure b Net present value of different scenarios, including legally permitted and illegal and unregulated activities (millions US\$, 30-year period and discount rate of 5%)

KEY MESSAGES

The transition of Atewa Forest Reserve to a National Park with buffer zone should be concluded as soon as possible.

The study demonstrates that creating an Atewa National Park with a supporting buffer zone results in the highest cumulative value - US\$1,157 million, over a 30-year period (Figure b). Secondly, in both economic and conservation terms, only the conditions provided by the National Park with a supporting buffer zone will catalyze a long term increasing trend in value benefiting both upstream and downstream stakeholders (Figure c).

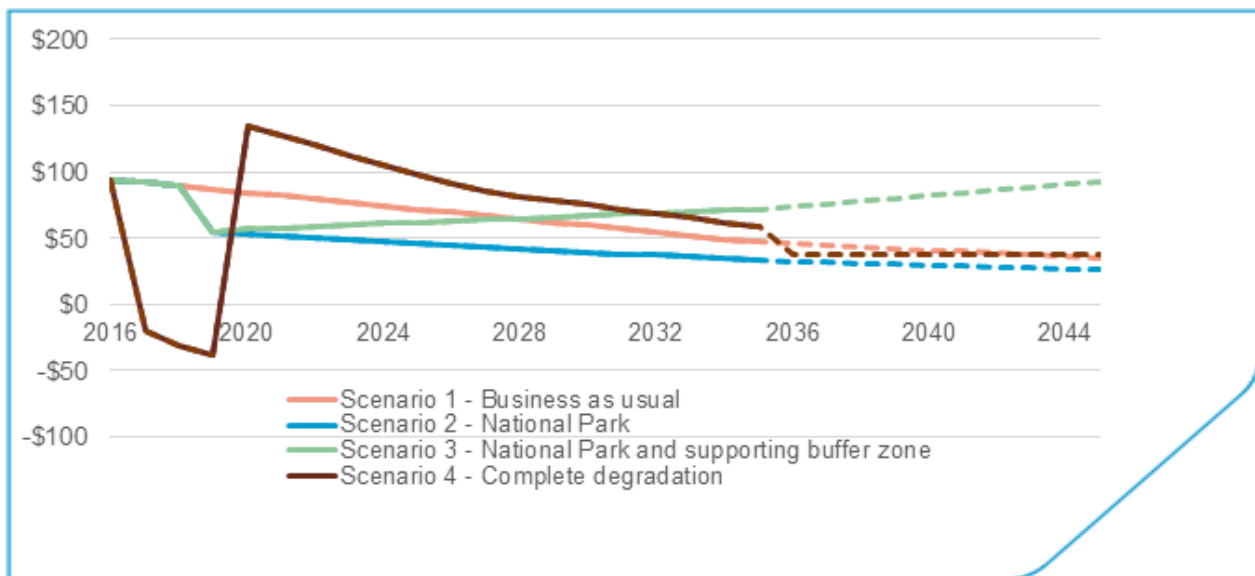


Figure c - Annual value in different scenarios for a 30-year period (millions US\$). Annual value in period 2036-2045 is based on extrapolation of hydrological model outcomes and land cover change

The creation of a supporting buffer zone, where alternative sustainable livelihoods for fringe communities are developed, is essential to maintain the quality of Atewa and downstream ecosystem services.

The study makes clear that an important part of the ecosystem services is provided by the area around the present reserve. In order to preserve these services green investments are needed. A payment for ecosystem services scheme, through public private partnerships, is a suitable mechanism to catalyze the transition to a green and viable buffer zone. Such a scheme provides the necessary investments for green growth and is an incentive to prevent illegal and unregulated activities. The payments can be used to invest in forest restoration and reforestation. Other sources for green business as identified by the study are income from eco-tourism and sale of carbon credits.

Effective land use management can only be achieved if laws and regulations are enforced.

Enforcement of laws and regulations in and around the Atewa Forest Reserve is insufficient. The study highlights the significant short and long term costs of illegal

timber and non-timber extraction and expansion of gold mining which are born by downstream water users. Law enforcement requires effective and transparent collaboration between Ministries and departments, and between central and local government.

There is a need for integrated land use management.

An integrated management approach, involving traditional authorities, local communities and other stakeholders, will be needed to achieve the transition towards the sustainable management of the Atewa Range.

Downstream users notably companies, farmers and citizens of Accra should be aware of their dependence on the Atewa range for their water provision.

Water quality is even a stronger argument to protect the Atewa forest than water quantity. The value of water increases by 150% under a National Park with buffer zone scenario, while it declines by 64% under the business as usual scenario, and by 99% in the scenario of complete degradation. 69% of people interviewed in Accra had experienced water quality issues in the last 2 years.

‘Living water from the Mountain; protecting Atewa’s Water resources’ aims to protect the Atewa forest for its crucial water provision function. The project is a partnership between A Rocha Ghana and IUCN NL with support from the Forestry Commission, Water Resource Commission and the NGO Coalition Against Mining Atewa (CONAMA). It is funded by the Dutch Ministry of Foreign Affairs. Protection of the Atewa forest aligns with the Ghana Netherlands WASH Program’s vision that long term water quality and quantity depends to a great extent on responsible river basin management.

For more information

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