# Africa: Mapping forests by their real guardians

In the forests of northern Republic of Congo, the Mbendjele are a hidden people. Living entirely on forest resources, this pygmy tribe has co-existed with their environment for thousands of years. Their impact on the forest is so minimal that from satellite images it is impossible to detect any evidence of these people's hunter-gatherer activities.

But their 'hidden existence' is under threat as logging concessions are allocated and logging companies move in to claim the timber. However, work conducted in the Amazon forests in Brazil has shown that recognition of community rights can help to prevent further deforestation and it is hoped that recognition of land rights and indigenous activities will present a way forward for the forests of Central Africa.

Two-thirds of Africa's two million square kilometres of forests are within the Democratic Republic of Congo and the World Bank estimates that some 35 million people depend at least partly on these resources. In Gabon, most of the forest is already under concessionary logging. In Cameroon, conservation areas have been set aside, but these too often fail to recognise local communities and many have found themselves evicted from traditional areas.

The tropical forests of central Africa are critically important for the indigenous people who depend on forest resources. Wild foods are gathered from the forest along with medicinal plants; forest products provide shelter and fuel for lighting and cooking; indeed all food, fuel and fibre on which these tribal people depend are obtained from the forest. However, with industrial logging, the environment in which these people live is being irretrievably modified and, at worst, completely destroyed. It is argued by some that logging brings employment, education and services to forest communities but too often many promises remain unfulfilled and the benefits are short-lived. As logging companies move in, the incidence of malaria and HIV/AIDS increases and the impact of timber extraction threatens the rich biodiversity of these ancient forests.

Using modern mapping techniques, satellite images have been used for forest zoning in Cameroon to determine conservation areas and regions to be opened up for industrial exploitation. These areas are all seemingly devoid of human habitation as the satellite imaging fails to register such low level human activity deep in the forest. Meanwhile areas for community use are allocated alongside roadsides, which are already under intense competition for agriculture and agroforestry. Conflict has been inevitable as Baka pygmy communities have failed to benefit, with customary land rights not recognised and their traditional fallows destroyed.

But the Baka people are beginning to appear on the map. Through work with the Rainforest Foundation and its local partner organisation, the Centre for Environment and Development in Yaoundé, local people have been trained up as cartographers. These community mappers have begun to work with their people to define significant areas, including hunting grounds, areas for gathering specific forest products, fishing and sacred sites. It is hoped that these maps will reveal the true value of the forests and that the 'official' zoning maps and plans for logging concessions can be modified to take into account the reality of the livelihoods of Baka forest people as well as Bantu

farming communities.

The DRC is about to undergo its own forestry zoning exercise, sponsored by the World Bank. "This presents a threat, because the Government's process might simply repeat the mistakes of forest zoning in other countries, such as Cameroon, where forest communities have disappeared off the map. But it can also be a real window of opportunity," says Simon Counsell, Director of the Rainforest Foundation, who believes that community mapping in DRC would allow traditional land claims to be recognised as the national forest zoning plan is developed. "The process is not difficult," he continues. "Although the communities we are working with are largely illiterate and innumerate, they are still quite capable of grasping the principles of mapping and of understanding some of the fairly advanced technologies that are being used in the process."

By using geographical positioning and information systems (GPS and GIS), the Rainforest Foundation team enabled community mappers in the Lopori river area of Equateur Province in just over a week to cover an area of more than 1,000 square kilometres and to map culturally significant sites. The result was the production of a more accurate map than is currently held by national authorities. But for the communities themselves, the map revealed the diverse ways in which the forest was used by different groups. For instance, hunting areas were invariably different to the locations where women gather wild foods and medicinal plants. The youth and the elders were also shown to use the forest and forest products in different ways.

But revealing information can also have its dangers. Exposing indigenous knowledge may lead to greater exploitation if the information is not used with respect. Simon Counsell concludes, "It is important that this technique is used to empower local people so it is vital that communities retain complete ownership of the maps. But what we hope to do is to demonstrate the positive results of this initiative to international agencies like the World Bank so that they may see that the forests are being managed sustainably by these communities, and thereby invest in funding wider application of these community-based communication technologies."

By 'New Agriculturalist online', January 2006, http://www.new-agri.co.uk/06-1/develop/dev01.html, sent by Simon Counsell, E-mail: SimonC@rainforestuk.com, Rainforest Foundation, http://www.rainforestfoundationuk.org/