Expanding research capacity in Africa

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Africa is rich in forests – both humid and dry – but seriously lacking in research capacity. "If African countries are going to manage their forests better," explains CIFOR scientist Robert Nasi, "they urgently need to develop and reinforce their ability to conduct forestry research." At present, less than one per cent of public spending on forestry in Africa is dedicated to research, and most of this comes from foreign donors.

A study supervised by Nasi and carried out by Oussenou Ndoye and Marieke Sassen, covering 23 research institutions in five countries, has revealed the poor state of forestry research in Central Africa. Despite the importance of the Congo Basin forests – second in terms of size after the Amazon – there are very low numbers of forestry researchers. Most are employed in the public sector, where funding is limited and working conditions are, at best, mediocre. Their research outputs, not surprisingly, are meagre, with the average scientist producing just one publication every five years. Furthermore, most research focuses on traditional silvicultural topics and almost none is aimed at policy-makers, or of benefit to local communities.

A lack of research capacity is not confined to the humid forest countries. Ethiopian research institutions, for example, have also been hampered by a lack of funds, and they have failed to conduct the sort of research that is needed if the country's forests are to be managed sustainably. However, all this is beginning to change, thanks to a pioneering initiative at Wondo Genet College of Forestry and Natural Resources. A research programme devoted to Development-oriented Interdisciplinary Thematic Action Research (DOIT-AR) was launched in 2004, funded by the Swedish International Development Agency (Sida). Its main aim has been to encourage applied, problem-solving research. CIFOR's main role has been to help build the capacity of researchers – many are teachers at the college – by introducing them to multidisciplinary action research.

"In the past, the research was very old-fashioned, concentrating on silvicultural matters, such as preventing pests and diseases in plantations," explains Bruce Campbell, head of CIFOR's Livelihoods Programme, "but there has been a paradigm shift since the project began." Prior to 2004, researchers seldom worked with local communities or conducted research which was of use to farmers. Now, of the 20 projects being conducted under the DOIT-AR programme, 14 are in farmers' fields.

According to an independent evaluation conducted in 2007, the programme has not only boosted staff research capacity and encouraged closer links between researchers and local communities, it has brought considerable benefits to farmers. Crop-related interventions have helped to increase output, and research projects have reduced conflicts over water allocation between upstream and downstream communities.

Visitors from CIFOR and elsewhere have been struck by the impact of the programme and the enthusiasm of the researchers. "It is very inspiring to see how much progress has been made, over a short period of time, in developing the capacity to do complex research," explains CIFOR scientist Douglas Sheil. The independent evaluation acknowledged that there had been a dramatic shift in thinking within Wondo Genet College, which now has a strong focus on integrated natural resource management. Following an analysis of the links between the college and its partners, the evaluation concluded: "The role of CIFOR will continue to be crucial for the objectives of DOIT-AR to succeed."

During the past decade, CIFOR has been involved in several projects designed to improve research capacity in the Congo Basin. The Makokou and FORINFO projects in Gabon and the Central Africa Region, funded by the European Commission and the French Government and described in previous annual reports, have provided support for the training of over 20 PhD and 50 MSc students.

But much more needs to be done, especially in the Democratic Republic of Congo (DRC), where research institutions have suffered from decades of civil war and unrest. In 2007, CIFOR signed a letter of agreement with the UN Food and Agriculture Organization (FAO) that paves the way for CIFOR to provide technical support to revive forestry research capacity in DRC. This is part of a larger programme funded by the European Commission.

During 2007, CIFOR scientists conducted several missions to get the project under way. They and their partners established which research stations need to be rehabilitated. They set up a new Masters course that will train some 40 students over two years, thanks to an agreement with 11 scientists from the developed world who have offered to give courses at the University of Kisangani free of charge. They also designed a new priority forestry research programme and launched a call for PhD grants, following the procedures adopted for Makokou and FORINFO.

"As a 'centre without walls', CIFOR emphasises the importance of working in partnership," says Nasi. "But this can only happen in Africa if there are research partners for us to work with. That's one reason why building capacity on the continent is a high priority for us."

Working together in Guinea

Since 2005, a collaborative project managed by CIFOR and the World Agroforestry Centre (ICRAF) has had considerable success in improving forest management and community welfare in the Fouta Djallan Highlands of Guinea. Guinea may be rich in natural resources, but rural areas suffer from high levels of poverty and forest degradation. The Landscape Management for Improved Livelihoods (LAMIL) project seeks to tackle these problems.

LAMIL is the third phase of a programme funded by the United States Agency for International Development (USAID). Earlier work helped to establish the concept of forestry co-management, involving partnerships between communities and government, but with mixed results. Communities felt that government agencies failed to take fully into account their needs and interests, and they had little faith in state and local forest management structures.

Between 2005 and 2007, LAMIL reorganised community groups, ensuring greater participation of women. Audits were introduced to comply with legislation, and co-management contracts were drawn up between communities and the Forestry and Water Directorate. A range of agroforestry projects were introduced to improve livelihoods.

The results have been impressive. There has been a significant increase in income – with revenues up by a factor of seven in some areas – and communities are more closely involved in forest management than they were before. A recent evaluation by USAID and private consultants concluded: "The LAMIL project has been one of the most integrated national resource management initiatives the team visited, since it has succeeded in integrating biodiversity, governance and livelihood improvement."

The co-management experience has undoubtedly influenced the Government of Guinea. "Our experiences were used in the workshop organised by United States Forestry Service to discuss forest management strategies in the country," explains CIFOR scientist Michael Balinga, "and co-management was subsequently recognised by the Forestry and Water Directorate as an effective form of participatory management of forest resources." According to Balinga, the LAMIL project has generated results which could be used to establish similar initiatives, on a much wider scale, throughout the Upper Guinea region. LAMIL's research findings will inform a comparative study of co-management, which will also draw on CIFOR's work in Zambia, Ethiopia and Cameroon.

Boys selling seed pods of *Parkia biglobosa* at the roadside in Guinea. (Terry Sunderland)