





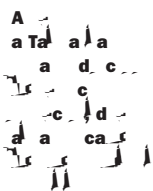
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Pandas to learn self defence: Scientists in China may use a police dog to teach pandas fighting skills, after the first artificially bred panda released into the wild was killed earlier this year, most likely following a fight with wild pandas. Reserve officials at the Wolong giant panda breeding centre plan to have four pandas raised in captivity live with a specially trained police dog or other animals, according to the Chengdu Daily newspaper. The pandas would learn how to protect themselves by observing the dog, increasing their chances of survival when they were eventually released into the wild.

Source: www.planetark.com, December 24, 2007.



Despite considerable research on the capacity of forests to support the poor, the poverty case for the forest sector has scarcely begun to be made to national governments, and so the sector is not generally viewed as a priority for poverty reduction. A group of institutions (CIFOR, IUCN, ODI and Winrock International), funded by the World Bank's Programme on Forests (PROFOR), decided to remedy this by producing the poverty-forests toolkit. The first draft of the toolkit was produced in April this year, based on field applications in Indonesian Papua and Tanzania. An 18-month testing and evaluation period is now underway through the World Bank in Uganda, Ghana, Madagascar and Cameroon and through IUCN more widely, to help fine-tune the toolkit before applying it on a broader scale. The final results of these tests will be available in mid-2008.

What does the toolkit do?

The toolkit relies on quick 'snapshot' methods for assessing people's dependence on forests, generating

and collating data from small-scale, forest-focused Participatory Poverty Assessments. It combines the rich data often associated with informal focus group discussion with some of the interactive, transparent and visual qualities of Participatory Rural Appraisal. At the same time, the toolkit refines the quality of the data gathered under both these methods, and delivers data on topics impossible to access quickly through orthodox quantitative methods.

Issues addressed

The toolkit sessions, which give every participant a voice, encourage groups to reflect on the demographic, political and other processes by which today's forest landscape has come into being. They tease out the level and nature of current forest dependence and the main forest resources relied on. And they encourage participants to critique forest laws, policies and programmes and their impacts on local livelihoods; to highlight priority problems in accessing or marketing forest resources, and to make a start on addressing these problems.

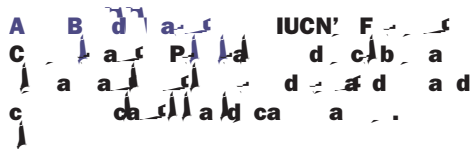
For the national level

A household's annual livelihood, as we explain it in the field to participants, comes from all the non-cash and all the cash sources which enable the household to get through the year successfully. It includes:

1. the items grown on farm or gathered from forests (including timber) or other off-farm natural resources, and sold;
2. the items grown on farm and consumed;
3. money received in wages or in remittances from other family members living and working outside the community; and
4. the items gathered from forests (including timber) or other off-farm natural resources, and consumed or used at home without being sold.

National household budget surveys include the first three of these elements but universally overlook the value of the fourth, even though this often contributes 20-40 percent of the household's total annual income. Toolkit data enable researchers to target the key national bodies responsible for forest sector monitoring, national budgetary processes and household budget surveys with this 'missing' information, as well as many other useful findings.

Villagers and facilitators enjoy the toolkit process, and local data generated have already been used successfully in making arguments to the national level in Indonesia, Ta
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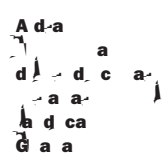


landscape. Once they produce their landscape 'maps',

Visioning is a tool that helps us to better understand the important elements in a landscape, as local people visualize the current landscape and the changes they would like to see in the future. This is one of the tools that is being used in IUCN's Livelihoods and Landscapes Initiative.

This tool is very useful in comparing different visions of desirable landscapes, as seen by different sections of the community (e.g. male-female, elder-younger generations) and between different ethnic groups. It is also useful in enabling all key stakeholder groups (including minorities and the marginalized) to explore different scenarios and participate in decision-making regarding changes to the landscape.

This technique is most effective when used by several small groups, to understand their different visions of the





Conservation advocates are fond of inventing new tools that will revolutionize our capacity to achieve better conservation outcomes. Very often these are just old wine in new bottles – inventing new jargon for things that competent field practitioners have done for decades. Good field conservationists have always used state-of-the-art remote sensing technologies and have always shown respect for local communities and involved them in their programmes. The invention of GIS technologies and new tricks for better participatory processes are just some of the numerous technical skills that enable us to achieve marginal improvements in our capacity. So are there any really innovative technologies that need to be more widely known and that can make a difference to our ability to achieve conservation?

The answer is a cautious yes. Some innovative modelling techniques (see for example the article by Marieke Sandker

in this issue) do have good potential to help us sort out the complexity of conservation and development trade-offs. But in most cases the secret of success is that conservation practitioners need to have a range of skills and competencies that they can draw upon as appropriate to deal with the situations that they confront in their work. All of these skills and competencies must be under-pinned by a set of basic professional skills. So what are the basic skill sets for a forest conservation practitioner?

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take a long strip of paper – up to two or three metres – and ask people to place, in chronological order, the main things that have had an influence on the forest landscape. At first they may have few ideas. But often, after a little time, an animated conversation will ensue and all sorts of ideas and disagreements will emerge. This can be very valuable in bringing out different perspectives on what has changed and

observations) with environmental layers such as climate variables (as used by GIS), it is possible to map regions with conditions similar to the species localities. These models, often termed ecological niche models, can also provide a good guide to actual species' distributions.

Locally endemic species pose a particular challenge for conservation as their often-small distributions mean they are frequently the most vulnerable to extinction. Ironically, these are also the species most easily missed by biological surveys or historical collecting. While opportunistic collections and surveys may detect areas of local endemism, these methods may well suffer from sampling gaps, particularly in remote regions. Recently, a novel method has been proposed to help detect unrecognized areas of endemism using species ecological niche models.

Species ecological niche modeling

By combining known localities of a species (for example based on collected museum specimens or well documented



The first version of the *Interactive Forestry Atlas of Congo* was officially launched in November this year by the Republic of Congo's Ministry of Forest Economy and Environment (MEFE), which praised the atlas as an important tool in sustainable forest management decision-making.

The atlas contains much of the relevant spatial data for forest management and governance in the Republic of Congo, including updated information on forest concession and protected area boundaries. Through a computer map-based interface, users can create personalized maps, query information, zoom in on areas of interest and download underlying spatial data.

The atlas has been four years in the making and was produced through a collaborative process between the World Resources Institute (WRI), the MEFE and Congo's specialized agency, the Center for Forest and Fauna Inventory and Management (CNIAF).

The atlas allows stakeholders in the Congolese forest sector to access, for the first time, accurate and up-to-date information on forestry operations. Previously, nearly all data on forest titles, wood production and operators was paper-based and often not consistent from one province to the next or between the private and government entities. Now, all parties are able to work off the same officially-verified digital, spatially referenced and publicly-available base of information.

This tool also enables logging companies to identify their forest concession boundaries accurately and strengthens the government's ability to effectively monitor logging activities in concessions. The Minister of Forests has issued an official order stating that only those forest titles and associated geographic information verified through the forest atlas project are to be considered official. Further, the atlas includes the first satellite imagery-derived forest road network for Congo. Using GIS and remote sensing software, WRI trained technicians within the MEFE and CNIAF to construct the national database.

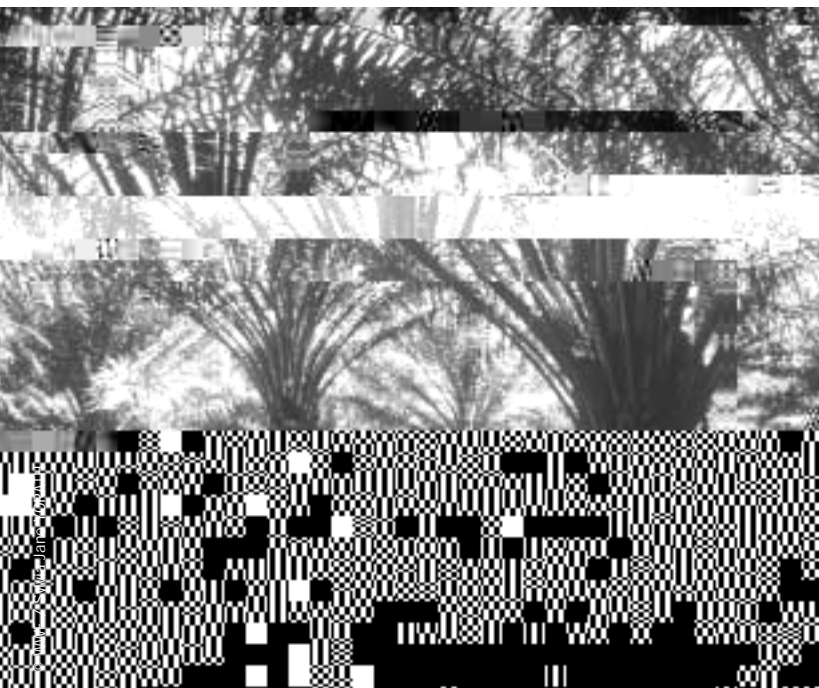
In a country with scant infrastructure in the forested interior and a lack of government capacity to sufficiently monitor active logging, the ability to track logging activity remotely could be a significant boon to advancing a more lawful forestry sector.

While the training of government staff and partners on the Interactive Forestry Atlas of Congo is a significant accomplishment, the job is far from being finished. Presently, WRI and MEFE are involved in further training workshops in the interior. Agents in the field are trained on the application of the atlas to their work, as well as how to gather and enter new information into the atlas to keep it up-to-date and relevant.

This tool and the accompanying report are available at: www.wri.org/publication/atlas-forestier-interactif-du-congo-interactive-forest-atlas-congo-version-1-0#. At present, both the report and atlas are only available in French. Funding

STELLA and : visualizing tradeoffs

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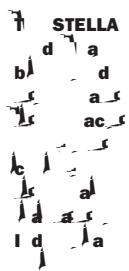


The models draw out the major components of the conservation landscapes and define how they interact. The values for variables are based on expert judgment, prior studies or relevant literature. Simulations are run with the model producing trends over time. Changing some key input variables corresponds with different interventions, thus allowing the exploration of the consequences of the different interventions. By plotting the values of conservation and development indicators calculated by the model on a graph, the tradeoffs can be visualized. For example, gazetted a forest as a national park can reduce hunting pressure on antelopes by X% but the simulation might reveal average household income of people near the park will drop by Y% from lost bushmeat income. Accordingly, alternative interventions can be explored. We have used the models to explore ecotourism and payments for environmental services, in the hope that tradeoffs can be turned into synergies. By visualizing and quantifying the tradeoffs between conservation and development, and exploring alternative development pathways, the model stimulates negotiation and information exchange between conservationists, development actors and government authorities so that well-informed choices can be made.

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Biodiversity-rich forests in developing countries are often home to people living in great poverty. Lifting those people out of poverty often comes with environmental costs (e.g. forest clearance for agriculture or unsustainable commercialization of bushmeat), while forest conservation often comes with costs for local communities (e.g. anti-poaching initiatives or reduced access). The Centre for International Forestry Research (CIFOR), together with the World Conservation Union (IUCN) and WWF has developed an approach to explore these kinds of tradeoffs and is applying the approach in various high biodiversity landscapes.

The visioning approach is based on participatory modelling, using STELLA software to look at stocks (such as forest area, land area and household possessions), flows (e.g. change from forest to agriculture or flows of income to households from different activities) and “taps” that moderate these flows (including laws, traditions and price variations). Values for stocks, flows and estimates of the influence of the taps are all entered into models by local participants and the models can then be run to simulate future change in the stocks and flows.



Mondi's South African landholdings make it one of the largest private landowners in South Africa with over 400,000 hectares owned or under lease, primarily in the Mphumalanga and KwaZulu Natal provinces. Forty percent of these landholdings is unplanted or 'open' land, primarily grassland, much of which is in ecologically important areas.

Early recognition of the conservation value of the open areas and the potentially negative impacts of afforestation on the maintenance of biodiversity and ecological processes led to the development of the Mondi Conservation Planning Tool to identify areas of conservation value and focus land optimization, management and monitoring.

This tool is a product of systematic conservation planning using existing data and conservation targets in a transparent and defensible process to identify and classify priority areas for conservation management and monitoring. The tool combines GIS coverage at national, provincial and farm levels and an associated database, to identify and score unplanted areas in terms of high, medium, or low conservation value using the concepts of conservation status and vulnerability.

Primary spatial layers utilized in the tool are the national vegetation types of South Africa, a catchment sensitivity layer, species data and buffer zones and corridors derived from conservation planning products produced by the respective provincial conservation authorities. Secondary data sets fundamental to the tool are Mondi cadastral and management boundaries and land cover data.

The first step in the production of the tool was integration of these national and provincial data sets with the Mondi spatial layers. Additional layers were then created to identify and selectively weight open areas within two kilometres of protected areas or areas of conservation significance. These layers, overlaid on the product of the first step, then classified each open area in terms of its conservation value.

The tool is now automated so that updated versions can be generated whenever new farms are acquired or management boundaries change, and has provided an

efficient means of identifying areas of conservation value and focus land optimization, management and monitoring.

Conservation and development agencies, including WWF, IUCN and the World Bank, are increasingly focusing their efforts on a landscape level (sometimes described as priority conservation areas). One of the biggest challenges of working at the level of a landscape is identifying key values or functions of the landscape as a whole, as well as measuring and monitoring outcomes of development programmes in terms of biodiversity, livelihoods and environmental services.

In response to these challenges, the Forest Programme of WWF is piloting and testing the LOAM – Landscape Outcome Assessment Methodology. This approach aims to measure, monitor and communicate the nature and extent to which a landscape is changing over time with respect to a small number of agreed conservation and livelihood outcomes. This tool facilitates a process that can help build common understanding between different stakeholders within and beyond the landscape in which it is applied.

What is it?

LOAM is based upon assessing the capital assets of the people who inhabit a landscape. It follows Carney et al. (1998) but applies their approach at a much larger spatial scale. The tool involves the use of participatory processes to establish indicators for the five types of assets that cover the range of things that projects usually try to improve – natural, human, physical (or built), social, and financial (or economic) capitals. Stakeholders agree upon a representative set of locally appropriate indicators grouped under each of the five asset types. A scoring system is then applied to build common

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New paper toolkit: WWF launched its new Guide to Buying Paper in November. This and WWF's Paper Scorecard which assesses the environmental footprint of numerous paper products, provide useful insights and practical tips on minimizing the negative environmental and social impacts of paper production. Visit www.panda.org/paper.

New Generation Plantations Project: WWF has launched this new project to identify and promote best practices for forest plantation management based on real world learning. It brings together companies and governments including China's State Forest Administration, UK Forestry Commission, major paper producers Mondi, Portucel, Stora Enso and UPM-Kymmene.
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CRISTAL 'climate proofing'

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As acknowledged in the IPCC Fourth Assessment Report (2007), climate change will have the most severe impacts on poor communities with low adaptive capacity, and might hinder the

achievement of development and poverty-reduction goals. Climate change must therefore be integrated into international, national and local development planning. 'Climate-proofing' of development interventions also requires new tools, strategies, and partnerships. One tool, CRISTAL (Community-Based Risk Screening Tool – Adaptation and Livelihoods), has been developed by four organizations: The World Conservation Union (IUCN), the International Institute for Sustainable Development (IISD), the Stockholm Environment Institute in Boston (SEI-US) and Intercooperation.

CRISTAL is a project planning and management tool which helps stakeholders to:

1. understand the links between local livelihoods and climate;
2. assess a project's impact on community-level adaptive capacity; and
3. make adjustments to improve a project's impact on local adaptive capacity.

CRISTAL promotes the development of adaptation strategies based on local conditions, strengths and needs. The tool was field-tested during 2004-2006 in Mali, Bangladesh, Tanzania, Nicaragua and Sri Lanka, before being applied for the first time in March-April this year, as part of a Finland-funded IUCN climate change adaptation project in Zambia.

The CRISTAL analysis in Zambia provided information on climate hazards, the impacts of those hazards on local communities, and current coping strategies. In addition, managers and implementing teams of four ongoing development projects in Zambia have been trained in the use of the tool.

The process involved community consultations at seven sites, covering four provinces and 3 agro-ecological zones of Zambia. The analysis revealed a rise in the frequency and severity of extreme events, including droughts, floods and high temperatures, and a decrease in the length of the rainy season in many parts of the country. The rise in extreme climatic events is negatively affecting the natural, physical, financial, and human resources that are crucial for people's livelihoods, and is leading to increased food insecurity and health issues. When facing climate hazards, small-scale farmers, who are negatively affected by disruption of their normal farming cycles, rely heavily on access to alternative natural resources from forests and wetlands.

The information gathered and analyzed during these applications of CRISTAL has been communicated to national stakeholders and decision makers and will be especially valuable for the completion and implementation of Zambia's National Adaptation Programme of Action.

During the next three years, CRISTAL will be used as part of a broader IUCN climate change adaptation project in Zambia, Tanzania and Mozambique, to help strengthen local and national resilience to climate variability and change.

CRISTAL training workshops have been run by IUCN members and partners – IISD and CARE International – in Mozambique and Ghana in 2007, and a third one is planned for francophone Africa in 2008.

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New staff: The IUCN global forest programme continues to grow. Ricardo Furman, a Peruvian/Argentinean citizen, joined us in November to work on planning, monitoring and evaluations for the IUCN Livelihoods and Landscapes (LLS) Initiative. Ricardo will be based at IUCN headquarters in Gland, Switzerland. In addition, Lucy Emerton is joining the LLS team in April 2008 to work on our markets and incentives theme. Lucy is currently Head of IUCN's global economics & the environment programme and has been with IUCN since 1999.

