

Conservation news

Changing forest management paradigms in the buffer zone of Kerinci Seblat National Park, Sumatra, Indonesia

Last year bore witness to a shift in forest management strategy in the District of Merangin, one of 14 districts spanning four provinces that together form the Kerinci Seblat Landscape. The c. 186,000 ha Merangin District contains the largest remaining area of intact state forest outside the boundary of Kerinci Seblat National Park. Together this forest and the Park constitute priority habitat for the Sumatran tiger and provide watershed functions benefiting thousands of downstream communities in six districts.

However, until December 2009, 84,794 ha of this buffer-zone forest was proposed for clearance and conversion to commercial pulp and paper plantation, with significant implications for biodiversity and human communities. Previous experience of private sector logging licences, under which communities received no direct benefit from operations in their customary forest areas, contributed to the rejection of the concession by 52 villages, a move endorsed by subdistrict heads and senior members of the district government.

Local NGO Lembaga Tiga Beradik initiated the campaign, in which 18 NGOs from Jambi Province participated and which involved coordination with local communities and government. Finally, in December 2009 the Minister of Forestry cancelled the proposed licence. A major threat to biodiversity, ecosystem services and community access to natural resources was eliminated. But one question remained: in a large area of state forest with no active management licence, what is the optimal management framework from a biodiversity and community perspective?

As in many countries, forest tenure and management rights in Indonesia are complex issues. Most forest is designated as state forest, meaning that it is the property of the State. Management rights over such forest are awarded by central government. Forest management in the archipelago has long favoured government and the private sector, and commercial plantation and logging concessions have dominated activity in production forests, i.e. those that lie outside protected areas.

However, in recent years there has been increasing interest in management of state forests by local communities and the development of legal frameworks to facilitate this. One such management model is *Hutan Desa* (Village Forest), in which a village may seek rights to manage state forest within its administrative boundary for a licence period of 35 years (with potential for extension based on performance), with a focus on protection and sustainable use.

It was exceptional community, local government and civil society commitment and consensus that led to the

cancellation of the concession in Merangin District and it was the same energy that was subsequently channelled into preparation of 17 proposals for *Hutan Desa* in the same area of buffer-zone forest around Kerinci Seblat National Park. In May 2010 the District Head approved these proposals, which were then submitted to the Minister of Forestry.

One year on, ministerial approval of these proposals is expected imminently, protecting the forest from allocation to other functions, and the first step for 17 forest-edge communities towards securing the rights, and associated responsibilities, of managing their customary forest estates. Intended benefits include enabling these remote communities to benefit legally from sustainable use activities, develop Community-Based Forest Enterprises, enhance traditional wisdom and cultural links to the forest, and protect biodiversity and ecosystem services, particularly water supply.

This is not without its challenges, requiring clarification of boundaries with neighbouring villages, mapping of natural resources, management planning, drafting of village laws, sophisticated strategies and capacity building to tackle drivers of illegal deforestation and degradation, and securing sources of sustainable finance to fund forest management activities and drive sustainable economic development. However, the potential rewards are great. If the *Hutan Desa* Community-Based Forest Management model can be proven to operate effectively, sustainably and at scale, it will be a genuine alternative capable of challenging the prevailing concession-based forest management paradigm—which has driven forest conversion, species and habitat loss, and land conflicts with local communities—beyond the boundaries of a single district.

The effort to develop *Hutan Desa* in Merangin District is the product of collaboration between local communities, District Government and NGO members of the Poros Masyarakat Kehutanan Merangin (Merangin Forest Peoples Group), including Lembaga Tiga Beradik, Walhi Jambi, Sumatra Sustainable Support, and Komunitas Konservasi Indonesia Warsi. Fauna & Flora International (FFI) is working in collaboration with long-time local partner Lembaga Tiga Beradik, with support from the Darwin Initiative, to enable seven villages to secure and manage *Hutan Desa* in Merangin District.

One weakness of the *Hutan Desa* model is that only designated state forests are eligible for this form of management licence, yet high conservation and community value forested lands also occur outside state forest and require protection. In one such case FFI and Lembaga Tiga Beradik are facilitating another Community-Based Forest Management model, also based on customary forest claims (*Hutan Adat*), in which recognition of management rights is awarded by the District Head.

Lembaga Tiga Beradik has been active in Merangin District since 2005, launching the community-based forest patrol programme Tim Monitoring dan Patroli Perlindungan Hutan (TMP2H; Forest Protection Monitoring & Patrol Team) in 2006, in partnership with 11 forest-edge villages, Kerinci Seblat National Park and the District Forestry Department, and focusing on sustainable forest management based on local *Adat* (i.e. customary) principles. To date Lembaga Tiga Beradik and TMP2H have campaigned successfully against five proposed plantation operations in high-biodiversity buffer-zone forest, and Lembaga Tiga Beradik is currently extending its work into a second district, Sarolangun, having received a 2010 Conservation Leadership Programme award.

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Newly established sanctuary protects breeding flamingos at Makgadikgadi in northern Botswana

For many years conservationists have identified the Makgadikgadi salt pans, in northern Botswana, as one of the most important breeding sites for the greater and lesser flamingo in Africa. Flamingo breeding sites are rare but at Sua Pan (part of the Makgadikgadi pans complex) regular successful breeding events ensure the long-term viability of both species in southern Africa. Sua Pan is one of only a few sites on the continent where the lesser flamingo breeds but an increasing number of developments and activities in the area are, however, slowly threatening the remote and inaccessible qualities that contribute to this site's ideal breeding conditions. Formal protection of this site has, as a result, become a matter of urgency.

Fortunately, many years of advocacy have finally paid off and, thanks to the efforts of a small group of conservationists and the Government of Botswana's Department of Wildlife and National Parks, a flamingo sanctuary was established in July 2010 to protect the breeding sites formally. The drafting of the sanctuary's regulations, only just completed, impose a strict ban on entrance into the sanctuary by land or air, except for those conducting formally approved research and then only under strict conditions and protocol.

The gazettement of the sanctuary is, of course, only the beginning. Regulations governing the area need to be enforced and this will be the biggest challenge. The sanctuary's success in protecting the breeding sites will depend not only on the efforts of the wildlife department and its wardens in the area but, more importantly, on the surrounding communities and their willingness to support

and help enforce the regulations. To this end, the formation of the sanctuary and its regulations has included consultations with, and input from, the surrounding communities.

In addition, BirdLife Botswana is currently working on a joint venture partnership among the surrounding villages to help them develop a larger conservation area around the edge of the pan. The area adjacent to the new sanctuary, the remainder of the southern part of Sua Pan and its surrounding woodland, is proposed as a sustainable development area forming a buffer zone around the sanctuary in which access to the pans and tourism related activities will be controlled by, and benefit, the local community. A management plan for the whole area is to be developed and this is being facilitated by a BirdLife Botswana UN-funded project: Strategic Partnerships to Improve the Financial and Operational Sustainability of Protected Areas.

Ultimately, the establishment of the flamingo sanctuary at Sua Pan is a huge achievement, providing protection and sustained inaccessibility to an increasingly exposed wilderness. More importantly, it has given renewed confidence in, and awareness of, the long-term viability of the greater and lesser flamingo in southern Africa. In time we hope similar decisive conservation actions will provide even further protection for these flamingo populations.

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REDD+ manual for botanic gardens

Botanic gardens around the world possess a range of skills and expertise that are relevant to the successful implementation of REDD+ (Reducing Emissions from Deforestation and Forest Degradation) projects. These include skills in forest monitoring and inventorying and in propagating and cultivating a wide range of forest tree species. In recognition of this Botanic Gardens Conservation International (BGCI) has researched and jointly published with the Royal Botanic Gardens, Kew, a manual on REDD+ for botanic gardens. This new manual illustrates how botanic gardens may use their skills to contribute to the REDD process and more specifically to REDD+ projects. With reference to a series of capacity gaps identified from a selection of REDD+ pilot projects, case studies from botanic gardens around the world highlight potential opportunities for botanic gardens to support the future implementation of REDD+ projects. The manual also includes a series of recommendations and a REDD+ checklist for botanic gardens to support their future involvement in such projects.

The manual will be a useful resource to support BGCI's work in Africa, where we are working with a number of gardens to see how the skills they possess in the propagation of threatened, indigenous tree species can be deployed

in the restoration of robust, diverse forests. Africa's forests are essential stores of carbon—over 20% of the world's terrestrial carbon is sequestered in the African tropical and subtropical area, in forests, wetlands and savannahs. Degradation, deforestation, over-exploitation, and agricultural expansion are steadily converting African forests into greenhouse gases. Six of the 21 countries with the highest greenhouse gas emissions associated with deforestation and related land use are in Africa. The factors affecting Africa's forests are also negatively impacting the valuable tree species that are of importance for local and national livelihoods.

For example, a number of Africa's valuable hardwoods are categorized as threatened on the IUCN Red List. Information on globally threatened trees of Africa mainly derives from the 1998 *World List of Threatened Trees* but progress in Red Listing for trees has subsequently been limited. There is an urgent need to reassess the status of African tree species. To this end, BGCI has initiated work on a Red List assessment of African ebony (*Diospyros*) species, of which there are c. 90 species in mainland Africa. BGCI has also been working to support Red Listing in Kenya, Uganda and Tanzania, with a focus on medicinal plant species.

Determining which threatened tree species are already in cultivation in botanic gardens is an important starting point for BGCI's work. To date, we have identified over 30 of the tree species categorized as threatened on the IUCN Red List in botanic gardens in DRC, Kenya and Uganda. These gardens are thus contributing significantly to the ex situ conservation of these species, with both plant material and expertise currently or potentially available for reintroduction to the wild. In addition these gardens grow a wide range of other indigenous tree species that have potential for use in forest restoration and other forms of tree-planting schemes.

To take on a wider role in forest restoration and to develop specific activities to grow indigenous tree species for carbon capture and storage projects, botanic gardens in Africa need to form or renew partnerships with forestry agencies, NGOs and the private sector. A regional stakeholder workshop is therefore planned, with a particular emphasis on African trees that are threatened with extinction in their natural habitats and those with livelihood values. The workshop will also determine how tree-planting schemes can link into current forestry policy mechanisms whilst remaining community-led, and establish which species can be planted in identified areas.

The REDD+ manual for botanic gardens is available for download from the BGCI website at <http://www.bgci.org>

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Only 39 percent of North American threatened plant species are protected in ex situ collections

North America's flora is diverse, globally unique, irreplaceable and invaluable. Unfortunately, this natural wealth is increasingly threatened by the compounding negative effects of habitat loss, invasive species and climate change. Work to conserve North America's plants and the ecosystem services they provide requires an integrated blend of conservation actions. This includes in situ conservation to ensure species are protected and able to thrive in their native habitat, and ex situ conservation to ensure genetically diverse and representative plant material is secured outside native populations and accessible for research, education and, ultimately, reintroduction of species to wild populations if and when needed. These integrated conservation activities are included in the Global Strategy for Plant Conservation (GSPC), an international agreement adopted by the Parties to the Convention on Biological Diversity in 2002 and updated in 2010.

The GSPC provides guiding principles and 16 defined targets for global plant conservation actions for 2020. Among these is Target 8: '75% of threatened plant species in accessible ex situ collections, preferably in the country of origin, and 20% of them included in recovery and restoration programs'. Botanic Gardens Conservation International (BGCI) is a facilitating agency for the global implementation of Target 8, and recently published European and global assessment reports summarizing progress towards this Target. These reports identified 42% of Europe's threatened plants and only 23% of IUCN Red List species in ex situ collections globally.

In North America botanical organizations across Canada, Mexico and the USA make significant but largely unquantified contributions toward Target 8. This lack of information hinders strategic planning and collaborative action to conserve North America's flora. To remedy this, BGCI US partnered with the United States Botanic Garden and the Arnold Arboretum of Harvard University to conduct the North American Collections Assessment and identify, for the first time, which threatened North American species are maintained in ex situ collections, and which are not.

A consolidated list of threatened plants in North America was generated and compared with collection information maintained in BGCI's PlantSearch database, which contains taxa-level information on plants maintained in collections at botanical institutions around the world. Results indicate that, while some capacity for ex situ conservation is already in place, North America did not reach the 2010 Target 8 goal (60% of threatened plant species in accessible collections) and has a considerable way to go to reach the updated 2020 GSPC Target 8 of 75%.

Based upon data from 230 North American collections we determined that 39% of the 9,496 North American

threatened taxa are maintained in germplasm or living plant collections in North America. However, 45% of these collections are known from only one location, raising significant concerns about their conservation application and long-term viability. Clearly, there is more work to do. These results are a first step in helping the botanical community prioritize the development of ex situ conservation collections for threatened taxa not yet in representative collections. Additional surveying of institutions unable to participate in this assessment may identify threatened taxa not known to be in collections at this time. Because our focus was at the taxonomic and not population level, the next steps must include finer-grained analyses to examine the conservation value of existing collections. Given these results we make 10 specific recommendations to North America's botanical community to advance conservation efforts and achieve the GSPC's Target 8 by the 2020 deadline: (1) expand capacity for integrated plant conservation; (2) strengthen networks for collaboration; (3) enhance collections management and curation; (4) share collection data; (5) enhance tools to facilitate data-sharing; (6) improve information on conservation status of threatened species; (7) prioritize the development of genetically diverse and secure collections; (8) use collections to advance research; (9) use collections to advance horticultural knowledge; and (10) use collections to support education and outreach. The tasks will not be easy but are critical to halting the loss of biodiversity.

Additional information and the full North American Collections Assessment can be found at <http://www.bgci.org/usa/MakeYourCollectionsCount>

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CCF Symposium January 2011

The Annual Symposium of the Cambridge Conservation Forum (CCF; <http://www.cambridgeconservationforum.org.uk/>) was held on 6 January 2010 at the colourful and iconic Cambridge Judge Business School. The first talk by Simon Stuart of the IUCN Species Survival Commission brought us swiftly into the New Year with a review of the achievements

of the 2010 International Year Biodiversity (IYB). Focusing on the inter-governmental negotiations at the Nagoya Biodiversity Summit, the culmination of the IYB, Simon outlined the revised and updated Strategic Plan for Biodiversity 2011–2020. Highlighting the need for civil society to work together to hold signatory governments accountable, he also emphasized the need to ensure governments now enable a genuine and workable financing mechanism and commit sufficient funding to deliver the agreed targets.

A recurring theme throughout the day was the ongoing assessment of, and research into, dependence on ecosystem services. Claire Brown of UNEP–WCMC introduced us to the UK-wide National Ecosystem Assessment (<http://uknea.unep-wcmc.org/>), which will also include a chapter assessing the UK's dependence on ecosystem services beyond the British Isles. This theme was pursued further by William Foster whose Cambridge-based research team are exploring the role of arthropods in the functioning of Malaysian oil palm plantations. The research concluded that conversion to oil palm results in significant loss of insect diversity as a result of habitat simplification, and that further research is required to establish any resulting impacts on ecosystem function. The following presentation introduced IUCN's comprehensive assessment of 5,167 African freshwater species (<http://www.iucnredlist.org/initiatives/freshwater>) and returned, in passing, to the need to take into account dependence on the services provided by freshwater biodiversity in water development planning.

Each year the Winter CCF Symposium aims to showcase a broad range of conservation activity driven by CCF members. The organizers achieved this by facilitating a whistle-stop global tour from the extremely rare fen orchid (found in only a handful of sites in East Anglia and Wales) and an update on international whaling trends (<http://iwcoffice.org/>), to recent innovations in eradication of invasive species in the UK's biodiversity-rich Overseas Territories and building local capacity for conservation in the Albertine Rift (<http://www.arcosnetwork.org/>).

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12th Conservation Workshop for the Biodiversity of Arabia: protected area plans and Red Listing of the carnivores of Arabia

The 12th Annual Conservation Workshop for the Biodiversity of Arabia was held at the Breeding Centre for Endangered Arabian Wildlife in Sharjah, United Arab Emirates, on 7–9 February 2011. This regional forum is hosted by the Environment and Protected Areas Authority of the Government of Sharjah, under the patronage of His Highness Sheikh Dr Sultan bin Mohammed al Qassimi.

Following on from the 2010 conference on the Biodiversity Conservation in the Arabian Peninsula (*Zoology in the Middle East*, 2011, Suppl. 3, 1–208), which covered regional and species conservation approaches as well as proposed broader conservation initiatives, the 2011 workshop continued with the protected areas and species-focused themes. The 12th Workshop focused on the previously identified need to address the importance and role of management plans in protected areas. Country reports from the region (Oman, UAE, Jordan, Yemen, Saudi Arabia) largely noted a broad spectrum of situations with regards to management plans that ranged from their total absence, being outdated, their existence but lack of use, to a few cases where they are playing a role in management. Four protected areas (Jabal Aja in Saudi Arabia, Dubai Desert Conservation Reserve in UAE, Hawf in Yemen, and Azraq Wetland in Jordan) were used as examples to provide a suite of different situations with a diverse range of objectives. Using the adaptive management planning process, delegates were led through the description of attributes, visioning and objective setting, to the identification of actions and indicators for select objectives. This reiterated the crucial and most difficult requirement of explicitly describing objectives in line with the vision. Delegates were exposed to activity-based costing and annual work plan techniques as a means of determining realistic protected area budgets. As a general comment it was felt that management plans need to be written in easy to understand language, ideally in Arabic, drafted by the agency concerned, and with the participation of all stakeholders to provide greater ownership and understanding. It was realized that clearly articulated objectives with actions

provided the ideal template for measuring protected area management effectiveness.

The species-focused theme of the workshop entailed a Regional Red List assessment of the carnivores of the Arabian Peninsula, led by Caroline Pollock from the IUCN Red List Unit. Sixteen species were assessed, with a further three species deemed not applicable for regional assessment because reports of their occurrence are unconfirmed or there is no evidence of a breeding population in the region.

Recommendations stressed the need to broaden the theme to cover botanical conservation (hence the change in name to Conservation Workshops for the Biodiversity of Arabia). In addition, there was an identified need to assess the delivery of recommendations from species assessments as a measure of success and learning. The need for a central website to hold all conservation-related information for the Arabian Peninsula was suggested, with the Sharjah Environment and Protected Areas Authority recommended as an ideal host for this.

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