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**Promote, Protect, Empower and Build
Capacity of Indigenous Peoples**

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Editorial

Indigenous Information Network welcomes you to the second edition of *Environmental News*, which takes a look at diverse environmental issues that have been of great concern and top of the agenda for Indigenous Peoples worldwide. Debates on Protected areas have dominated discussions all through to the 9th Conference of Parties of the Convention on Biological Diversity. These discussions have started from the ground, sub-regional and regional, up to the international level. What is very encouraging is that Indigenous Peoples, hunter-gathers and their local communities have continued to hold discussions, and demanded to the Governments and other development partners to understand that as peoples they have rights, and there is need for recognition, respect and involvement in all development discussions.

Another key issue which remains on the top of the agenda is climate change. Global warming can be felt everywhere; changes in the weather have hit hard and frequent droughts have become a normal occurrence, especially in sub-Saharan Africa. Conflicts caused by scarce resources will not stop today or anytime in the foreseeable future. This is a great worry for many in the region.

Despite all the problems discussed in this edition of *Environmental News*, there is still hope. Indigenous Peoples, hunter-gathers and the local communities have worked hard and prepared themselves for discussions by working as a team, and as a global family. During preparations for the 9th Conference of Parties of the Convention on Biological Diversity, Indigenous peoples of East Africa, including the Great Lakes, and Central Africa worked together to prepare and gather their recommendations well beforehand to present to the colleagues in other regions. In reading this edition, I am sure you will agree with me that the African region has moved step forward, and with the support of governments and partners we can even move further.

Traditional Knowledge is very important, and is another issue close to the heart for Indigenous Peoples. It has been coming up in almost every discussion and indeed many have realized how crucial it is for environmental conservation. Indigenous Peoples are beginning to realize how much their traditional knowledge is being lost, mainly because of lack of appreciation and available mechanisms to protect and retain it. It is clear that Indigenous Peoples had traditional strategies to prepare for and cope with any given disaster. They protected their environment, their land and natural

resources in it. Their forests remained intact for generations, as it was their primary source for food, medicine, clothing and water. They protected their lands traditionally and knew how to deal with any conflicts which may have arisen due to a lack of resources. However, now with population increase and poor policies that do not recognize the existence of that knowledge of environment and conservation, and the rights of the custodians, something has gone wrong. Again, we must look to positive examples, initiatives like the Tagal System from the Kadazandusun and Murut Indigenous Peoples in Sabah, Malaysia. This is a good example which inspires hope many communities who feel that perhaps development exists in order to encourage extinction rather than life.

As we speak about the problems of climate change, it is important not to forget to address strategies to inform our communities on issues which touch on our social structures, economies and livelihoods. Discussions on issues such as REDD: what is it and how do we get involved? The United Nations estimates that some 13 million hectares (33 million acres) of tropical forest are destroyed each year; but these numbers mask a transition from mostly subsistence-driven to mostly corporate-driven forest destruction. Is this what we want for our forests?

Above all, this issue stresses the importance of participation for Indigenous Peoples. Environmental issues affect every aspect of our lives. Without our lands, our traditional environmental knowledge and our natural resources, where would we be?

Thank you to all of our contributors, and for Brighter Green from the support. With your help, information is being brought to the community level, to encourage action and participation. It is vital for all of us to keep informed about these issues so that we can address them, voice our concerns and fight for our rights. By helping to protect our lands, forests, rights and resources, we are ensuring our very survival.

Lucy Mullenkei



Arguments for Protection:

Ecological, Economic, Cultural and Social benefits of Protected Areas

by Edna Kaptoyo

The World Conservation Union (IUCN) defines protected areas as “An area of land and/ or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means”. But this definition for the indigenous peoples distinguishes too sharply between biodiversity and culture.

Protected areas arise through the recognition of the benefits provided by natural ecosystems and the need to conserve ecosystems felt to be under threat of extinction or exploitation. Protected Areas currently cover some 12% of the land surface of the planet and 2% of the oceans. Although protected areas are often created today primarily to protect biodiversity, people also may draw many practical benefits. For example the environmental services of natural ecosystems, the recreational opportunities provided by wilderness areas and sanctuaries that such areas can provide to indigenous peoples and local communities. Protected areas, when carefully designed and managed, can contribute to poverty reduction and hence the achievement of Millennium Development Goals.

In addition to conserving biodiversity, protected areas are increasingly expected to deliver social, cultural and economic benefits. Assurances that protected areas will provide such benefits are often crucial to gaining the support needed from indigenous peoples and local communities for their creation. Deliverance on these promises, however, is seldom easy, and unless people understand the full range of benefits from protected areas, countries will risk losing their chances of creating new protected areas and reducing the value of these ecosystems. In examining the benefits that protected areas provide for the indigenous peoples, the role protected areas play in poverty reduction, and how the benefits reach the indigenous peoples if at all, should also be considered. Efforts made by countries to align protected areas and poverty reduction are minimal, for instance through community programmes, where there have been some failures. In many cases, these efforts are not well captured in the Poverty Reduction Strategy Papers (PRSP's) of most African

countries. Natural resources within protected areas may contribute directly to poverty reduction.

“Protected areas are important tools for the conservation of biological diversity and are cornerstones of sustainable development strategies. Aside from the environmental benefits, they can also generate significant economic resources. As such protected areas are crucial for attaining the objectives of the Convention on Biological Diversity and meeting the 2010 biodiversity target and the Millennium Development Goals” - Dr Ahmed Djoghlaif, Executive Secretary Convention on Biological Diversity



Protected areas can help conserve areas of natural biodiversity.

There are two types of benefits which might contribute to poverty reduction: compensatory and direct benefits. The establishment of a protected area may necessitate or trigger some form of compensation, in terms of money, alternative living space or support for livelihood options. The compensatory mechanisms are the steps taken by authorities to support communities in and around protected areas to address problems of benefits foregone and in some cases to counter additional problems created by the protection. These may take

the form of: various management responses to reduce negative impacts; support education (e.g. by providing funds for school building like in Bwindi Impenetrable Forest Reserve in Uganda); capacity building (e.g. training local people as guides or in making local crafts to sell); providing alternative livelihoods and homelands (resettlement of Indigenous peoples and local communities to other lands); and at times direct compensation in cases of human wildlife conflict (protecting against elephant damage to farms through warning systems). The benefits that Indigenous Peoples may derive from protected areas are centred on social, cultural, economic, ecological and political benefits.

Many faith systems involve nature, and some protected areas harbor important sites and species from a spiritual or cultural point of view, which have long held spiritual value for different indigenous peoples. For example, the Kipteperr Mountain (a rocky mountain) in Kipteperr forest found in Marakwet district is a sacred site for the Sengwer Indigenous Peoples. The other name of Kipteperr is **Koteyoi** (*Kipteperr Koteyoi - meaning a mountain where we still hear the spirits of our forefathers crying, singing and dance*). The Namina Enkiyio (Forest of the Lost Child) is the last holy ground on which the Maasai of Loita and Mau Forest areas perform solemn ceremonies. If these areas had not been protected, they may have been lost to commercial interests or local exploitation, and these sacred sites would have been lost along with them. These are the cultural and spiritual benefits of protected areas, which can relate to historical values, non religious values and intangible values such as art designs and information.

With the advent of globalization came climate change, which has impacted on indigenous peoples' livelihoods. Without the environmental services that protected areas and ecosystems provide, the consequences could be dire. Protected areas can protect numerous ecosystems services such as climate regulation, watershed protection, water purification, and carbon sequestration among others. It is also argued that they can help protect against natural disasters, for example, the Mau complex has watersheds that supply several lakes in Kenya and also feeds rivers and supplies major towns with water. Protected areas increase the ecosystems' resilience to climate change since ecosystems with high biodiversity and intact structural components recover more easily from climatic disturbances. They also contribute to climate change mitigation since carbon sequestration is a natural ecosystem service and provides additional insurance against instability of agriculture and fisheries.

Protected areas also give an implicit role to indigenous peoples and local communities as managers of an important resource, wherein they decide what happens to land that they live on by having a say in the management of protected areas. These can be seen in some government efforts to involve communities as co-managers.

Well-managed protected areas support healthy ecosystems that in turn support healthy people, thus improving the social well being of indigenous peoples and local communities. When ecosystems are degraded, one consequence is increased disease risk for indigenous peoples and local communities. There is now evidence that forest clearing has increased the spread of diseases such as Ebola in DRC, and malaria, avian flu, etc. elsewhere. Protected areas are important repositories for medicinal plants, traditional medicines and traditional knowledge and offer the potential discovery of new drugs. For instance, the conservation and sustainable use of biological resources is a key factor in Kenya's objectives of industrialization, improved economic performance and enhanced social welfare. These are the social benefits to communities.

Protected areas also can help provide jobs and raise funds that support poverty reduction. It is said that nearly 1.1 billion people of the world depend on forested protected areas for their livelihoods, and forest-related income accounts for a significant share of total household income. Marine and inland protected areas can also provide food security and substantial income for indigenous peoples. However, fish stocks are declining all over the world due to overexploitation of marine and coastal resources and unwise management of the marine resources. This erodes the traditional basis of life of millions of indigenous peoples by depriving communities of their main source of vital protein and increasing poverty. Marine protected areas protect exploited species during critical stages of their life against poor and inadequate fishery management. The loss of income which results from depleted marine resources has forced the local people such as the Maasai, Batwa, Samburu, and Rendille to earn their living through tourism, making them dependent on others to survive.

The economic value of protected areas are looked at by analyzing opportunity costs in terms of the possible economic benefits foregone because land or water is not available for other uses and assessing costs and benefits to local communities.

Many protected areas have value in protecting watersheds that provide safe drinking water to millions of people in cities and towns. Protected watersheds

have demonstrated clear and direct links between human welfare, ecological service and conservation. Increasing the supply of drinking water is seen as an additional argument for forest protection. Many important national parks and other wildlife reserves have value in protecting watersheds that provide drinking water to towns and cities. The Mara River, which waters the famous Maasai Mara in Kenya and Serengeti National Park in Tanzania, originates in the Mau forest. The three rivers that feed Lake Nakuru, home to famed flamingo populations, also originate in the forest. The flamingos are an important factor in Kenya's tourism industry, drawing visitors from around the world. The forest supports the flamingos, not only directly through the Lake Nakuru feeding site, but also indirectly through Lake Natron, the only known breeding habitat for these flamingos.

How do the benefits reach Indigenous Peoples and Local Communities

The Indigenous Peoples and local communities' rights have been trampled on or ignored in many conservation activities, perhaps most of all in the creation of protected areas such as national parks and wildlife reserves. For example, the Batwa of Uganda and the Maasai of Ngorongoro, Tanzania were displaced during the creation of Bwindi and Mgahinga forest reserve and Ngorongoro Conservation Area respectively. Even though there have been some benefits for indigenous peoples and local communities, it is apparent that the costs often outweigh the benefits.

Finding solutions

The ecological, economic and social benefits can only be enhanced and sustained when they are effectively managed through good governance. Participatory decision making and management processes that incorporate and respond to the rights and interests of indigenous peoples and local communities living in and around protected areas are essential ingredients of good governance. Equitable conservation can also enhance net benefits for both conservation and people. Collaborative managed areas and community conservation areas are the two broad categories of participatory conservation that incorporate several principles of good governance. Therefore to maintain and where necessary expand the protected areas network, we need to demonstrate its wider uses and appeal. In order to support and augment these benefits, consideration of protected areas must be incorporated into wider sustainable development and economic strategies. To be effective in maintaining water supply, protected areas also need to be well-managed, since illegal degradation of protected areas can undermine the potential benefits. For example,

the United Nations Environment Programme has identified illegal logging in the Aberdares National Park and Mount Kenya National Park as problematic in maintaining the water supply of Nairobi.

Our reform programmes need to consider encouraging the establishment of areas managed by local communities primarily for the conservation and sustainable use of natural resources. Community-based initiatives should complement the efforts of governments and national institutions in conserving biodiversity and environmental protection. Such community-based conservation - which should cover important migratory corridors and dispersal areas - is critical for maintaining the ecological integrity of protected areas. We need to explore economic incentives for communities that protect and conserve our vital environmental resources - and, equally, consider disincentives for land-use practices which undermine the purpose for which the conservation area was created. Integrated management plans, including community initiatives, should establish and maintain buffer zones around the borders of protected areas.

Protected area management authorities should have the capability to carry out scientific and technological research in the conservation, sustainable utilization and management of natural resources, paying particular attention to ecological and socio-economic factors, and to their integration. The results of the research should be applied in developing and implementing environmental conservation policies. Research programmes need to be coordinated with a view to achieving maximum synergy and complementarity, the exchange of research results and the development of joint research programmes and activities locally, nationally and internationally. Regional and international cooperation is especially important in the conservation of transboundary ecosystems and migratory species.

Finally, it is of utmost importance that those managing protected areas work in close cooperation with indigenous peoples and local communities, to ensure that their management is sustainable and fair to those who inhabit these areas. As indigenous peoples have traditional knowledge which relates directly to environmental conservation, they should be involved in the development of conservation policies, as well as employed within parks as managers and other high-ranking employees. Indigenous peoples should also be allowed access to the genetic resources, as well as sites of cultural and spiritual importance, that lie within the borders of protected areas.

The *Tagal* system: a good practice system of fish resource management in Sabah, Malaysia

by Adrian Lasenbang Pacos



Natural resources to the indigenous peoples in Sabah covers land, agriculture areas, rivers and coastal areas. Traditional communities have a very close relationship to the resources around them and need these resources to survive. Natural resources are significant not only as a mean of production but also as part of the spiritual and cultural life, giving them an identity as peoples. Indigenous knowledge, innovations and practices for natural resource management are rarely understood. They incorporate a keen awareness of the environment, an appreciation for conservation and continuity. Of all natural resources, water resources are the most important in human lives, especially to indigenous communities that reside in the outskirts of urban areas or in the rural areas. A clean source of water is essential to these communities; the culture and their very existence revolves around water and all its resources from the river, lake or pond.

Most of the indigenous communities in Sabah have their own age old customs, or *Adat*, and protocol in order to protect and safeguard the water resources and the living organisms therein. Among the most common resource management system carried out by the indigenous communities in Sabah is the *Tagal* System. *Tagal* in the Kadazandusun language means prohibition. The concept behind this system is collective ownership

and responsibility, sustainable use of resources and maintaining balance of life. The conservation concept can be used to manage any important resources to the community such as watersheds, fruit trees, wild life, rivers etc., but the most successful use that was documented is that of fish resource management. This system is to manage the important resources, especially aquatic life forms in the river, from over exploitation and to prevent the river from being polluted.

The *Tagal* System

Tagal, also known as *Bombon* in some localities in Sabah, has been used by the indigenous Kadazandusun and Murut peoples in Sabah for generations. A *Tagal* is normally governed by the village headman and endorsed by the Native chief. The management and implementation of a *Tagal* system varies between communities in terms, rules, fines and management structure, but all apply the same concept of closed and open season, equal sharing and sharing of responsibility. Prior to the *Sabah Inland Fisheries and Aquaculture Enactment 2003*, the legislative power for *Tagal* fell under the Native Customary Law (NCL) that is upheld by the native courts in all respective districts. Any offenders to the *Tagal* would first face trial in a village in front of the village headman, a council of

elders and the *Tagal* committee. Later if the case cannot be solved within the village it will be referred to the native courts.

Sabah is the first state in Malaysia that has successfully adopted the traditional knowledge of the indigenous community in managing the water and aquatic resource through the implementation of *Tagal* System. When the Fisheries Department in the early 90s noticed that this system had been successfully implemented at the community level, the department started to adopt this system in its management plan and later in the *Sabah Inland Fisheries and Aquaculture Enactment 2003*. By adopting the *Tagal* system in the enactment, it has given recognition and additional legislative power to the *Tagal* system making it possible to take offenders to the civil court apart from giving higher penalties to those found guilty.

The new adapted *Tagal* system has introduced a centralised management structure through a district level *Tagal* committee and a state level committee. The zoning system was also improved, and alternative income activities such as sport fishing for tourists were introduced. The Fisheries Department also worked closely with NGOs to give capacity building trainings for *Tagal* committees. It is a model of a smart partnership between the government, the indigenous people of Sabah, and other stakeholders in the term of protection, conservation and management of fish resources in Sabah.

Tagal also covers the conservation of the riparian areas to ensure that the important food source and breeding ground of the fish remains intact. The felling of trees, especially fruiting trees such as figs and *dipterocarp* species, is forbidden. The community also conducts enrichment planting along the riparian of the river, both to protect from erosion and to add more food sources for the fish and other aquatic life.

Why *Tagal* was created

In the 1960s, fish resources were abundant in all the rivers of Sabah. There were no threats to the fish breeding ground from pollution, logging in the upstream of the river or uncontrollable destructive fishing methods such as the use of chemicals, fish bombs and electrocution. But after the 1970s, fish resources began to dwindle, for some species almost to the brink of extinction, as a result of logging activities up river that damaged fish breeding grounds. The rampant use of destructive fishing methods also caused fish to become extinct. Realising this, some communities and concerned individuals began to discuss of the idea of establishing the *Tagal* system.

The Objectives

- To protect river environment from pollution.
- To conserve and protect the fish resources from extinction.
- To improve fish resource production as a main source of protein for rural people.
- To control the use of uncontrollable fishing methods like fish bombing, electrocution and poisoning.
- To carry out various activities in *Tagal* zone that could generate income for rural people, such as eco-tourism (snorkeling, fishing sport, etc.)

The Committee

A *Tagal* committee is normally established in every village that wishes to manage its rivers. All committees must be selected by the villagers. Every year, this committee will conduct an AGM (annual general meeting) to choose a new committee and to restructure the *Tagal* Committee if it is found to be ineffective.

All families who live in that village will automatically become a member of that *Tagal*, and a minimum member fee from all families will be collected to cover the cost of the ritual to launch the *Tagal*. Usually the fee is RM10.00 (around USD 3.00) only.

Tasks to be carried out by *Tagal* Committee

The *Tagal* Committee carries out tasks in drafting the rules in their *Tagal* System, which need to be agreed on by the whole community in that area. Besides that, they identify the boundary of the river that will be managed by the *Tagal* so that there is no overlapping of *Tagal* rules with other villages (if there are a few villages along that river). This Committee also outlines the zoning of the river and clearly marks the green, yellow and red zones, as described below. All tools for fishing during harvesting are decided by the committee so that no one will take advantage by using cyanide, bombs and electrical appliances which are completely prohibited by the *Tagal* Committee. A fine (*Sogit*) to offenders of the *Tagal* rules is also decided by the *Tagal* Committee, with the full consent of the whole community. All the rules that are set up are justified by native court and recognized by the Fisheries Department. This committee has the right to charge offenders in accordance with the agreed rules, provided they have a firm evidence of the offence.

Strategy for long term *Tagal* System Management

The *Tagal* System management committee needs to ensure that the village community is happy and benefitting from the system. Other than that, *Tagal* system management must be fair, and all the members

must have the right to fish in the Tagal area during harvesting. The community also can still catch fish from the river through approval of the Tagal committee if needed for special occasion such as for special birth rituals. Besides that, members must also have the right to financial aid from the Tagal management fund (money is generated by activities carried out by the Tagal Committee) if needed.

A Sustainable Tagal System

The Fisheries Department implemented a few pilot projects, with the collaboration of the communities to improve the Tagal System Management. One project is the introduction of a zoning system.

Generally three different zones have been introduced. This zoning is to address the issue of special needs of the community during closed season.

1. Red Zone: Fishing is totally prohibited in a red zone river. These are usually important breeding grounds for fish.

2. Orange Zone: open season once a year is allowed, or as agreed by the community through discussion with the Tagal committee.

3. Green Zone: Villagers who are members can do fishing but need consent from the Tagal Committee. Usually it is not allowed to catch a specified size and species of fish.

The other innovation to this system is the alternative livelihood and empowerment of the communities that implements the Tagal. The combination of the traditional system with the modern methodology of conservation is a small example of a *sui generis* approach in bio-diversity conservation.

The Advantage in Establishment of Tagal System

The establishment of Tagal has created a strong bond among community members as they work together in preparing the rules in creating this system.

Furthermore, it enables communities to cooperate with the government easily, for example the Fisheries Department, since they have recognized the rules made by the community. With this system the community is endowed with thorough management competence through training and ideas from the Fisheries Department for multiplying rural peoples' income. The sharing of earning boosts the community's level of confidence in this system, and does the same at the government level. This gives the native people a chance to practice the Tagal system which had previously been in place.

Watershed conservation

The Tagal system has indirectly conserved important watershed areas, for example, the Moyog river in Penampang district where 22 Tagal were established. The Tagal system has protected almost all of the main tributaries of the Moyog river, which is the main water source for the city of Kota Kinabalu. Since the Tagal

does not allow any activities that will harm the ecosystem of the rivers, the quality of water along Moyog river and its tributaries has been maintained in good condition. The replanting along the riparian of the rivers also has helped maintain the biodiversity of the watershed areas.

Conclusion

In conclusion, it has been proven that the *Tagal* System is one of the most successful systems in managing fish resources and conserving rivers through sustainable use by the community. It is also a model for good practice on the conservation of natural resources in terms of collaboration between government and the community. It shows that giving small recognition to

the traditional management system of the indigenous peoples can make big impacts. Because of the success, other state agencies even outside of Sabah are now replicating the model. The number of *Tagal* continues to be promoted and grow to this day.



Protected Areas and Ecotourism:

A blessing or a curse for the Indigenous Batwa People of Uganda

by Edna Kaptoyo

Originally, the Batwa Indigenous Peoples who reside in Uganda were forest dwelling hunter-gatherers, living and practicing a cultural and economic way of life in the high mountainous forest areas. Traditionally, they lived in caves and peacefully shared their habitat with wild animals, including mountain gorillas, in the country's lush south-western forests. The region is endowed with a wide range of ecosystems ranging from Savannah grasslands to high altitude wetlands and alpine vegetation. In recent decades it has been the focus of conservation efforts, and in the 1970s legislation was passed to outlaw hunting. The Batwa population was seen as a threat to wild animals, and many were forcibly evicted following the opening of several conservation parks in the 1990s. "It is estimated that approximately 6,700 Batwa now live within the state boundaries of Uganda, mainly in South west region even though some of them are found in some parts of Congo, Rwanda and Burundi", Batwa elder Elias Habyarimana explained. He further said that the Batwa people of Uganda were the former inhabitants of Bwindi, Mgahinga and Echuya forests before they were evicted and excluded from the forest primarily for the creation of the Bwindi and Mgahinga forest reserves which were later turned into national parks. The protected areas were established without their participation or their free, prior and informed consent, which is a violation of their rights. Article 8(j) and related provisions of the Convention on Biological Diversity notes that the establishment, management and planning of protected areas should take place with the full and effective participation of, and full respect for the rights of, indigenous and local communities consistent with the national law and applicable international obligations. The Batwa people depended on the forests for their subsistence, herbal medicines, religious rites and socio-economic activities and now their exclusion from the source of their livelihood threatens their traditional lifestyle whilst causing them to suffer severe isolation, discrimination and socio-political exclusion. The Batwa people were never compensated for the loss of their land, driving half of them to a situation of landlessness and poverty.

Recognizing the rising and acute levels of conflict caused by the establishment of the two parks, Uganda Wildlife Authority developed and initiated a pilot programme in 1993 to reestablish and renegotiate the

user rights of park-edge communities to key resources within both parks. Support for the process was offered by CARE, in the form of technical assistance and facilitation. This was the first attempt within the Ugandan Protected Area system to develop collaborative management agreements with local communities through the Multiple Use Programme (MUP) in protected areas, whereby neighbouring communities are permitted to access medicinal plants, basketry materials and other non-timber forest products. This is a positive development that is still flawed in implementation and still has provided no benefit for the Batwa, who do not know their rights in relation to forest access. Through a series of meetings, workshops and discussion fora, facilitated by CARE project staff, park management and communities entered protracted negotiations concerning the types and amounts of resources to which community groups could have access. The resource assessments had revealed the range of forest products in which people had an interest, as well as a "social map" of local interest/user groups within the pilot communities, which included beekeepers, traditional healers, basket and stretcher makers, pit sawyers, hunters, fishers and gold panners. A series of meetings was held by park staff to discuss interests further, agree on allowable products and propose management and monitoring procedures. These started at the user group level and moved up to the village level. In all meetings with new groups of resource users, a number of tools were deployed to allow people to explain the cause of the conflict in ways that did not prevent further moderated discussion.

However, it became clear from these meetings that despite efforts to make them participatory, many products were "disallowed" (i.e. non-negotiable) by park staff, because of national policy restrictions on the consumptive use of game, timber and other high-value products within national parks.

In a 1995 project document for the Conservation Trust by Global Environment Facility (GEF), it was mentioned that in the gazetting of the areas as national parks, the government had virtually eliminated access to forest resources for all local people. The impact was particularly harsh on the Batwa because they are landless and economically and socially disadvantaged, and have few other resource options. During the

establishment of the Conservation Trust, the World Bank required the Government of Uganda to provide an Indigenous Peoples Plan to ensure the participation and benefit of Batwa. This was a step ahead, but a socio-economic assessment and consultation was not completed until 1996 when the trust became fully operational. The resulting report recommended the recognition of Batwa user rights to certain resources in the parks, rights to passage to sacred sites, the attribution of forest and farmland to evicted communities, capacity building and educational, health and economic assistance. The recommendation looked good on paper in terms of compensation, but the compensation efforts only focused on the creation of multiple use zones within the park which never materialized, and grants of small parcels of land to the Batwa people. The small parcels of land, which amounted to a total of 326 acres with each household occupying 1.5 acres, have no title deeds and thus the Batwa people still lack security of land tenure.



Peninah Zaninka of OUBDU (left) speaks with other members of the Ugandan Batwa community. According to Ms. Zaninka, inclusion in park management could benefit the Batwa.

Under the Wildlife Act, the Uganda Wildlife Agency, which is a government institution mandated with management of the Parks, is obliged to allocate 20% of park fees paid by tourists to local community initiatives through Community Protected Areas Institutions (CPIs). However, the funds by the revenue sharing scheme were used for social infrastructure projects that rarely benefited the Batwa. For instance, the health facilities and schools are built in areas far from where the Batwa reside, thus making them inaccessible. Even if the health facility is easily available, the Batwa lack money to pay for the services. Considering the money that the wildlife agency collects amounts to thousand of dollars, the Batwa still remain in poverty. The communities are also called to perform traditional dances and other eco-tourism related activities for visitors. When this happens, the people immediately abandon whatever they are doing, particularly tending to their lands, and go to perform. The little handouts they are given are often spent on a drinking spree. Peninah Zaninka of the Organization of United Batwa Development in Uganda (OUBDU) explained that ecotourism, if managed well, can really benefit the Batwa. The park management should make a timetable of the dates and times when the Batwa can entertain tourists so that they would not leave their land untilled. This, she said, would enable them

to have enough food supplies. There should also be a mechanism whereby the little handouts can be made into an agreement so that they are paid as a group, which will translate to a reasonable amount of income.

There are many challenges experienced by organisations working with the Batwa Indigenous peoples like OUBDU, in trying to create awareness amongst the people. This is because the people don't know their rights in terms of management and the benefits that they will accrue if they demand for the implementation of the recommendations agreed upon. Secondly, the MBIFCT (Mgahinga and Bwindi Impenetrable Forest Conservation Trust) is facing challenges. This Trust, which sought to integrate the Batwa more effectively into their programming and decision-making processes, promotes their education, and improves their livelihoods by leasing land for distribution to Batwa families and providing them with the technical assistance and supplies needed to work the land effectively.

Since 1999, when the Trust's Batwa component was established, there have been other positive developments for Batwa. Of the 403 households impacted by the Parks, as reported by researchers in 1996 (a likely underestimate, based upon population data now becoming available), 58% of the affected Batwa households have settled on land of between 1 and 2 acres purchased for them by the Trust. However, the long-term sustainability of the Trust's finances is now in question due both to the events of September 11 in New York and changing donor priorities in Uganda.

Since September 11, 2001 the income from the GEF's US\$4.89 million endowment has fallen dramatically, while the Trust's levels of expenditure have remained constant. The result is that the fund's long-term sustainability is now in jeopardy. In addition, from June this year the Dutch Embassy funding, which had been provided to replace USAID's financial support after 1998, has been under terminal threat. This is a negative development for Batwa community members since, if current spending trends continue and no alternative funding is found to replace the Trust's income deficit, the Batwa component of the community compensation package would become effectively inoperable, a fact borne out with the announcement by the Trust in July that the Batwa component of the Trust's work was to be terminated within months.

The Batwa people of Uganda have compared their situation to their counterparts in Rwanda. There, they say, the state has provided communities with permanent houses, and argue that the Ugandan government should do the same for them. They also want to have access to the forests to collect products such as medicinal plants, and to be involved in the management of the parks, taking advantage of the knowledge they have of the forests.

"We want to be free to go to the forest and get what we want without any questions like who are you and how do you enter the forest?" says John Rwubaka, who is seen by a substantial number of the Batwa as chief. He also acts as a mediator or representative when conflicts arise with neighbouring communities. "We want representation at both local and parliamentary level in Uganda to talk for ourselves so the president can hear us. People come to us seeking votes, we give them, but when they go to parliament they do not tell the president that we are suffering like this," Rwubaka adds. Batwa representatives claim the few programmes intended to distribute conservation benefits to local communities have consistently failed. They are now seeking to secure a proportion of the park visit fees that go directly to the Uganda Wildlife Authority, especially since this revenue is derived from traditional hunting and gathering areas that they are not permitted to enter.

For the Batwa of Uganda, there is still a lot of work to be done in terms of being aware of their rights in relation to protected areas, and securing recognition of these rights. Through cooperation with the government and park authorities, the Batwa could receive access to the parks and its benefits. With their knowledge and skills in environmental matters, engaging the Batwa in park management could also be of great benefit to the parks.

Central African Indigenous Peoples Get Set for the 9th Conference of Parties to the Convention on Biological Diversity

by Ibrahim Njobdi

A sub-regional seminar to exchange information on the Convention on Biological Diversity and to support the participation of indigenous representatives to the 9th Conference of Parties, popularly referred to as COP9, to be held in Bonn Germany from the 19-31 of May 2008, took place in Bujumbura the capital of Burundi from the 17th to 19th March 2008. The meeting was organised by the lone pygmy organization in Burundi known in its French acronym as UNIPROBA with financial assistance from the International Alliance of Indigenous and Tribal People of the Tropical Forest (IAITPTF), with funds from the Indigenous Peoples Network for Change Project (IPNC).

The seminar, which was held at Remhotel in downtown Bujumbura, brought together indigenous representatives from Cameroon, Gabon, Democratic Republic of Congo, Rwanda and the host country Burundi. The three day meeting had the following objectives:

- 1- Inform indigenous representatives and organizations on the evolution of negotiations on the international regime on the relationship of access and benefit sharing (ABS).
- 2- Continue awareness-raising of the CBD and translate the technical CBD language to grassroots understanding.
- 3- Examine the level of indigenous involvement in the implementation of the CBD at national, regional and international levels.
- 4- Inform and explain to indigenous people, the procedure for obtaining funds to participate in CBD meetings.
- 5- Prepare indigenous representatives for effective participation in the upcoming conference of parties in Bonn Germany.
- 6- Make recommendations to CBD.

Throughout the workshop, participants listened carefully to presentations from the resource people: Lucy Mulenkei from Indigenous Information Network (IIN), Kenya; Zephirin Kalimba, member of COPORWA, Rwanda; and Emmanuel Nengo of UNIPROBA, Burundi.

Participants were advised to apply and participate effectively in the CBD process. If selected, they should actually participate, learn and share ideas and strategies in caucuses, as well as bring up proposals and grassroots experiences to help implement the CBD and help their community to benefit from CBD activities.

After giving an overview of the genesis of the CBD, Lucy Mulenkei explained that COP began in 1992 and we are now on the 9th Conference of Parties. The 5th COP took place in Africa - Kenya. She said that after COP9, there will be consultations on the way forward towards the 2010 target, which aims for significant reduction of environmental degradation. Documents on the CBD and related issues were distributed to participants.



Leonard Odambo of Gabon and Florence Yankurije of Rwanda were two of the workshop participants.

Zephirin Kalimba of COPORWA, Rwanda, presented a paper on the International Alliance of Indigenous and Tribal People of the Tropical Forest, especially on how indigenous peoples can access funding from the Alliance.

Leonard Odambo of MINAPYGA, from Gabon, also reported on a seminar on the capacity building of

Francophone Africa in the implementation of the CBD, which was held in Libreville from the 7th to the 10th of January 2008 by the CBD secretariat.

Senator Charles Masabo from the Batwa community presented on the ongoing negotiations of the international regime on access and equitable benefit sharing of genetic resources.

Participants then divided themselves into five working groups with the aim of discussing various topics related to the CBD. The topics were: forest biodiversity; climate change and its impacts on biodiversity; agricultural biodiversity; protected areas; and indigenous women. At the end of the seminar, a number of recommendations were made, which would be used as part Indigenous Peoples' participation in COP9 in Bonn, Germany.

Recommendations:

Forest Biodiversity

National level:

1. Government recognition - The state should recognize indigenous peoples as unique groups within national legislation.

2. Return forest management to traditional guardians - In those areas where indigenous peoples have been evicted from their lands, the forest should be put back in their hands in order to facilitate sustainable forest management. Indigenous peoples should be reintegrated into their traditional subsistence activities.

3. Support the pottery industry - As pottery making is one of the primary income generating activities of the Batwa in particular, pottery-making should be supported through wider recognition and promotion, facilitating access to the necessary resources, and through the creation of pottery vending points.

4. Engage in reforestation - The areas that have been destroyed through unsustainable activities such as large-scale logging should be reforested through tree-planting and other activities.

International level:

1. Capacity-building - Indigenous peoples should be engaged in capacity-building in order to facilitate effective government lobbying.

2. Enhanced participation - Indigenous peoples should be supported, financially and otherwise, in their efforts to participate more fully in CBD meetings and conferences.

3. Language accessibility - Documents and manuals related to CBD processes should be made available in all official languages, in order to avoid the exclusion of certain groups.

Climate Change and Impacts on Biodiversity

1. Involvement in conservation processes - Indigenous peoples should be fully involved and engaged in conservation processes and policies, and in the protection of biodiversity. In this way, environmentalists would benefit from traditional indigenous knowledge, and indigenous peoples would suffer less marginalization in terms of loss of land and control of genetic resources.

2. Reforestation - Areas that have suffered from deforestation should be renewed through the planting of fresh trees.

3. Agro-forestry - This is the practice of engaging in agricultural cultivation in the same region as forests. It can help diversify the area and prevent total biodiversity loss.

4. Irrigation - If done sustainably, irrigation can help prevent erosion due to lack of plant cover.

5. Protection of traditional knowledge and innovations - Traditional knowledge and innovations are designed to enable the long-term sustainable use of forest resources. Their protection would help preserve biodiversity.

6. Awareness-raising of CBD - Indigenous peoples should be sensitized about CBD mechanisms, in order to be more aware of international efforts for biodiversity conservation.

7. Development of environmental projects - Projects which are related to conservation and the protection of biodiversity should be further developed. This could be done through capacity building, trainings or funding of already existing projects.

8. Access and benefit-sharing - Indigenous peoples should gain access to traditionally used genetic resources, and share in the benefits deriving from the use of such resources.



A member of UNIPROBA, Burundi, presents his team's findings.

Agricultural Biodiversity

1. Awareness-raising - The notion of agriculture done for the purpose of biological conservation must be promulgated on a large scale in order to raise awareness and promote the practice.

2. Accessibility - Access to productive agricultural zones, as well as to genetic resources in the form of plant materials, must be made more widely available.

3. Promotion in indigenous communities - In order for indigenous peoples to embrace the concept of agriculture for biological conservation, they must be aware of and able to engage in the necessary procedures for

land acquisition. They must also have the knowledge necessary to engage in agriculture.

Protected Areas

1. Indigenous management - Indigenous peoples should be fully involved in the management of protected areas that have previously been indigenous territories. Not only is it a means of compensation through job provision, but the area will benefit from the implementation of traditional management systems which have long been effective.

2. Access and benefit-sharing - Indigenous peoples should be allowed to access their resources, and receive compensation (financial or otherwise) from the benefits that are derived from the use of their land and resources.

3. Regulated access - In order to continue to maintain connection with and benefit from the land, indigenous peoples should be allowed regulated access to protected areas. This could mean access to certain sites, access at certain times or for specific reasons. This way, indigenous peoples would be able to continue to live off the land to some degree while biodiversity is maintained.

4. Implementation of regulatory texts - Texts such as the Convention on Biological Diversity should be fully implemented on the ground.



Indigenous women from the Batwa and Pygmy communities working together as a team.

Indigenous Women

1. Equality - Indigenous women must be afforded the same respect and be regarded as equal to men. This means equal participation in the political sphere, in policy and decision making, and an equal say in how society functions.

2. Gender sensitization - Both men and women should be trained on gender and be made aware of the injustices suffered by indigenous women. It is only when all of society can acknowledge that women have been discriminated against and have been treated unfairly that real change can take place.

3. Awareness-raising of protective measures - Women should be made aware of the different laws and texts which exist that have been designed to protect their rights, such as the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW). If they are known, such laws and conventions can be useful instruments for fighting for gender equality on the ground.

4. Support for indigenous women's participation - Indigenous women should be supported in their efforts to participate more in environmental forums, such as the CBD-related meetings. Many indigenous women are in need of both financial support and capacity building in order to fully and effectively participate.

5. Encouragement of women leaders - Many women are strong leaders in the field of environment. One example is Nobel prize winner Wangari Maathai, who founded the Green Belt Movement in Kenya. Such women leaders should be promoted as positive role models for young indigenous girls. Young girls need to be shown that they are not restricted by their gender and can also achieve great things.

Closing the meeting, the president of UNIPROBA Hon. Liberate Nicayenzi, herself a Batwa, thanked the IAITPTF and IPNC for funding the seminar, as well as the resource persons and the participants for honouring the invitation. She encouraged them to always seize the opportunity to learn in order to apply at the grassroots level as they are the ones who master realities in the field.

The seminar was also attended by two senators of the Batwa community in Bunundi and a representative of the Burundi ministry of Environment representing the government.

Ibrahim Njobdi is a journalist by profession, secretary general of the network of journalists in Central Africa advocating for indigenous rights, and president of LELEWAL, a pastoralist organization from the Mbororo community in Cameroon. Njobdi was one of the seminar participants.

Brief Note on Technology, Intellectual Property Rights and Climate Change

1. If developing countries are to moderate their emissions growth and eventually to cut their emissions, and still have the capacity to have economic growth (of the appropriate type, consistent with sustainable development), the key is for them to have access to climate-friendly technology at affordable prices.

2. Technology transfer is not the mere purchase of machines etc. at commercial rates. Technology transfer is the building of local capacity so that local people, farmers, firms and governments can design and make technologies which can be diffused in the domestic economy.



Technology transfer involves building the capacity of local communities to use new technology, such as this water pump.

3. Some technologies are in the public domain, or are not subjected to patents. But many key technologies are patented. And many technologies of the future will also be patented.

4. For these technologies, there must be an understanding that patents should not be an obstacle for developing countries to have access to them at affordable prices. According to the TRIPS agreement, if there is a patent on a product, a process or a technology, a firm or agency in a country in which the patent is operating can request for a voluntary license

from the patent holder, in order for the firm to make or import generic versions of the patented product or technology. The patent holder will normally charge a price (royalty or license fee) for granting the license. If the patent holder refuses to give a license, or if the price charged is too high, the firm or agency can apply to the government to grant it a “compulsory license”. Alternatively, a government that wants to have access to generic versions of a product or technology can itself take the initiative to issue a compulsory license.

5. The firm or agency granted a compulsory license would normally have to pay a royalty or remuneration to the patent holder. In the case of pharmaceutical drugs, the royalty rate offered in recent compulsory licenses by developing countries such as Malaysia, Indonesia, Thailand, ranges from 0.5 to 4 per cent of the price of the generic drug.

6. Under the TRIPS agreement, there is considerable flexibility provided to WTO member states on grounds for issuing compulsory licenses. These grounds are not restricted, as confirmed by the WTO Ministerial Declaration on TRIPS and Public Health (Doha 2001). It is not necessary to declare a state of emergency, for example. Certainly the fact that a country requires a product or technology in order to meet its objectives or responsibilities to mitigate climate change or to adapt to climate change is a most valid ground for compulsory licensing.

7. Compulsory licensing is not a unique or exceptional policy. In developed countries like the US and the UK, there have been many compulsory licenses granted by the government to facilitate cheaper products and technology in the industrial sector. In many developing countries, compulsory licenses have been issued for the import or local production of generic drugs. There is a type of compulsory license known as “government use” which many developing countries have made use of. This is when the product to be imported or

produced in a generic version is to be for public, non-commercial use, for example for medicines distributed by the government in clinics and hospitals. In such cases, prior negotiation with the patent holder is not necessary although remuneration or royalty to the patent holder is required.

8. Thus compulsory licensing is an option that developing countries must now seriously consider for climate friendly technology. The Brazilian Foreign Minister Mr Celso Amorim in his speech at the plenary of the Bali climate conference in Dec 2007 said that inspiration should be drawn from the case of TRIPS and medicines, and that a similar statement regarding TRIPS and climate friendly technologies should be considered. Strictly speaking, it is not necessary for such a statement to be made by Ministers before a country exercises rights that it now has to issue compulsory licenses for climate technologies. The rights already exist in TRIPS. However when countries exercise these rights they may be penalised by countries such as the USA. Therefore developing countries find it useful that an international declaration be made, so that when they exercise their rights they are to some extent more protected politically, which adds to their confidence of exercising what is already their right under international law (ie TRIPS). However there is no guarantee that the political declaration will protect a country that exercises its rights - Thailand today faces political pressure from the USA for issuing compulsory licenses on some drugs.

9. It is also possible to raise the level of ambition for sustainable development, by proposing that environmentally friendly technology should not be patented in the first place (so that the process of compulsory licensing etc is not even required). There is a strong rationale for this, at least for climate friendly technology and products. If climate change is truly the serious crisis threatening human survival, and there are only a few years left to initiate very strong action, then the situation is similar to war-like conditions. During war (such as the Second World War) individual commercial interests such as patents are suspended so that there can be concerted national action in the most effective way, to face the enemy. Developing countries require technologies at the cheapest possible prices. If they obtain the needed technology at one quarter the price, they can increase the rate of change, putting into effect mitigation and adaptation measures four times faster and four times more effectively.

10. There can be many variations for the relaxation of intellectual property rights in relation to climate friendly products and technologies: (a) A mandatory ban on patents on climate friendly technologies and

products. (b) A mandatory ban on patents in developing countries only, while patents can still be granted in developed countries. (c) Developing countries are allowed to exclude patents on climate friendly technologies and products. (d) Voluntary licenses must be automatically granted on request, which will be free of royalty.

11. There are already examples of developing countries and their firms being hampered from adopting climate friendly technologies or products due to there being patents on these products, and due to the unreasonable demands made by the patent holders on companies in developing countries that requested a voluntary license from the patent holder. The case of Indian companies having great difficulties in obtaining a voluntary license from the patent holder of a chemical that is an environmentally-friendly substitute to CFCs (which are to be eliminated under the Montreal protocol) is a well documented example.

12. In conclusion, any WTO member state is already allowed by the TRIPS agreement to take measures such as compulsory licenses and parallel importation to obtain technologies or products (that are patented) at more affordable prices. But the processes of negotiating with the patent holder and of issuing compulsory licenses etc can be quite cumbersome to countries not familiar with the procedures. It is better that developing countries be allowed to exempt such technologies from patenting. There should not be resistance to this, if we are to take the climate threat seriously. Developed countries should not treat patents or intellectual property rights as something sacred that has to be upheld at all costs. That would send a signal that climate change is not a serious threat, as commercial profits for a few are more important on the scale of values and priorities than are the human lives that are at stake due to global warming. Technology transfer to developing countries to enable them to combat climate change should be the far higher priority. Developed countries should not treat climate technology as a new source of monopoly profits, as this would damage the ability of developing countries to phase in existing or new climate-friendly technologies for both mitigation and adaptation. The post-Bali process should therefore adopt the principle that developing countries can exempt climate-friendly technologies from patents. Such a principle would demonstrate that developed countries are serious about resolving the global climate crisis and about assisting developing countries. It would also help developing countries to take on mitigation and adaptation measures, which are dependent on the technologies.

Source: Third World Network - www.twinside.org.sg

Thirteenth Conference of Parties to the United Nations Framework Convention on Climate Change: Indigenous Peoples of East Africa Participate and Share

by Adam Kuleit Ole Mwarabu, Martha Nadupoi Nairenke and Yassi Lazeros



The thirteenth Conference of Parties to UN Framework Convention on Climate Change met in Bali, Indonesia from the 3rd to 14th December, 2007. The purpose of the meeting was mainly to discuss the progress of the Nairobi work plan, build capacity, and review they Kyoto protocol and transfer of technology. More than 10,000 participants from government, international organizations and civil society organizations attended the two-week conference.

Indigenous peoples’ seminar and preparatory meeting

Before the 13th Conference of Parties to the UN Framework Convention on Climate Change, representatives of Indigenous Peoples participated in a seminar and preparatory meeting at Bali Rani Hotel from 26th November to 2nd December 2007. The participants were facilitated to freely give their views on the processes. Indigenous representatives realized that they were excluded in the process despite the fact that their participation is important as they are care takers of nature and most affected by climate change. It was found that even the term Indigenous was not well articulated, something that could cause great violation of rights of Indigenous peoples. Indigenous representatives were recognized as NGOs instead of Indigenous peoples’ representatives. The Convention on Biological Diversity does recognize indigenous peoples and local communities in the processes as important partners.

Indigenous representatives were able to participate in the plenary as NGOs and were not allowed to read their opening statement. The International Forum of Indigenous Peoples on Climate Change (IFIPCC) was allowed to read the statement at the closing of the conference. In their statement they pointed out a number of areas to be considered. They wanted the state parties to carefully look at the implementation of adaptation activities by considering prior and

informed consent of Indigenous peoples. They cited examples of a project implemented by Indonesian government in a sacred area, and a geothermal energy project in the Bedugul mountains of Bali which have impacts on the cultural life of Indigenous peoples. Indigenous peoples want the UN Declaration on the Rights of Indigenous People to be used in the process, as it upholds their rights. They requested the establishment of an Expert Working Group on Climate Change and Indigenous Peoples, and asked that the COP consider the United Nations Permanent Forum on Indigenous Issues as a model for establishing the expert group. Indigenous representatives requested for the establishment of a Voluntary Fund for the full and meaningful participation of Indigenous Peoples. Another area was the monitoring of the proposed mitigation projects such as Agro-fuels and other market based mechanisms that hold massive potential for human rights abuses. Indigenous peoples have often suffered the very worst impacts of climate change without having contributed much to its creation, therefore they must not be placed in the position of suffering the very worst impacts of mitigation strategies. The UNFCCC overlooks many questions in the processes, including issues of human rights and gender. Industrialized countries and business communities were fighting to defend their interests. The discussions were oriented towards trade related activities, which means that markets were discussed more than the welfare of the earth.

Recommendations:

- Some issues were quite technical and difficult to understand, particularly when one tries to relate it to indigenous peoples’ lives.
- A one-time training is not enough, as there is further need to build capacity on climate change, and indigenous representatives attending have a responsibility to pass the knowledge gained on to community members.

· Aggressive lobbying needs to be done, because from the regional presentations, indigenous people worldwide are facing similar problems. There are many issues of climate change that become human rights issues as they relate to people. Indigenous groups should unite to bring these issues to the forefront with their governments.

High level segment

The high level segment was primarily a call to save the planet for future generations. Dignitaries who spoke in the high level segment were UN Secretary General Ban Ki-moon, the Australian Prime Minister, the Singaporean Prime Minister, the Indonesian president, the Prime minister of Papua, high level leaders from small islands, environmental ministers from 180 countries, and representatives from a number of different organizations. In his address, the UN Secretary General urged state parties to forget their differences and work from climate crises into climate compact for the better life of future generations. He said that succeeding generations depend on us so we cannot rob our children of their future, we are all part of the global warming problem so let us be part of solution. He also said that equity must be taken into account; since climate change is not affecting us all equally, we should consider justice and protection of the most vulnerable. He requested the developed world to take the lead in curbing emissions and the whole world to engage in low emission economies. A co-winner of Nobel Peace prize, Mr. Al Gore, addressed the meeting on 13/12/2007, urging the world to take strong action to fight climate change without the USA, which he accused of sabotaging a key UN conference in Bali. The African government delegation through G77 and China requested more funding for adaptation strategies.

Side events and lobbying arenas

Side events in any conference are always very informative and help create awareness of critical issues facing Indigenous Peoples in any given subject. During the 13th conference, Adam ole Mwarabu presented Pastoralists' experience of vulnerability, adaptation and mitigation in a side event co-organized by Tebtebba Foundation and UN Permanent Forum on Indigenous Issues, and chaired by Victoria Tauli-Corpuz. In this side event which was aired through the conference TVs, the following situation of Parakuiyo pastoralists was brought to the fore as a representation of the general situation of the nomads of Africa.

1) Historical injustices

- Nature of livelihood is regarded primitive from colonial period to present
- ¾ of traditional grazing lands taken for protected areas due to the concept of "conservation without people", militarization, small & large scale farming and urbanization among other issues

2) Impacts of climate change

- Prolonged droughts eg.2005-2006
- Rift Valley Fever 2007
- Chronic Malaria
- Food insecurity
- Forced migration to cities
- Conflicts over natural resources and cattle raiding
- Spread of HIV/AIDS
- East Coast Fever
- Continuing loss of culture

3) Community Based Mitigation Initiatives

1. Selection of different animal breeds suitable to the environment.
2. Customary land use planning-communal ownership of land and resources, reserve ritual, herbs/medicinal plants, forests and grazing patterns and wildlife management
3. Searching for water and pastures in wetter areas-in mountainous and valleys areas
4. Seasonal grazing and browsing
5. Invest in new forms of economies e.g. building of houses for rent and schools, ecotourism ventures etc
6. Create awareness of environmental issues and new diseases
7. Community-to-community networking
8. Growing grains and other crops to ensure food security

4) Challenges

1. Lack of modern meteorological information for nomadic pastoralists
2. Inadequate dissemination of information on national, regional and international processes on climate change
3. Little understanding of traditional livelihood systems
4. Use of the concept "conservation without people"
5. Poor political will, financial resources and commitment in addressing the issues of climate change
6. Marginalization of Indigenous pastoralists

5) Recommendations

1. Capacity building of pastoralists in addressing the issues of climate change

2. Recognition of customary practices on biodiversity conservation
3. Recognition of indigenous peoples participation in the process
4. Networking
5. Conduct research on the impact of climate change in dry lands
6. Women's participation in decision-making processes relating to climate change at all levels

During the meeting, Tanzania Minister for Environment Prof. Mark Mwandosya met delegates from Tanzania. In a round table session held at Sanur beach hotel, he requested that the government delegates inform him of the ongoing process. A number of areas were pointed out, including Nairobi Plan of Action, capacity building under Kyoto protocol and UNFCCC, transfer of technology, adaptation fund, CDM projects, communication, review of Kyoto protocol, IPCC report and AWG6 for furtherance of commitments. Then the minister requested delegates from civil society to inform him of their participation. Mr. ole Mwarabu started by thanking the minister for such a wonderful opportunity. He informed him that the Pastoralists are experiencing the impacts of climate change and they are more vulnerable to climate change, yet the government is focusing on other areas like forests and forget the arid lands. In 2006 alone, Pastoralists experienced a prolonged drought where Pastoralists lost a lot of their livestock and reached the point of fighting among themselves over water resources. Nature needs also to balance itself, which is why there are forests and arid lands. But the problem is that arid lands are marginalized, Pastoralists are not

involved in national deliberations on climate change, capacity building and information is not well disseminated. The speaker emphasized that government alone cannot achieve anything without the participation of Pastoralists.

Mr. ole Mwarabu also requested the minister to consider Pastoralists in the process and give special focus on arid lands. The minister responded by saying that Tanzanian NGOs are still not mature and fight over donor funding while environmental problems multiply and there is still a lot to do. He acknowledged the need for collaboration between the NGOs and Government since the two parties are working in the interest of the public. The minister said that the government will see the possibilities of organizing a forum for Pastoralists in Tanzania to discuss the global problem. Finally he acknowledged the participation of people from grassroots level in COP13.

Outcomes of the meetings

The conference agreed to support the adaptation fund managed by GEF. It was also agreed to create an international regime binding all states to curb the impact of climate change by 2009 and focus on more capacity building activities. Indigenous peoples have diverse experiences and knowledge in adapting to impacts of climate change. Indigenous women are also more vulnerable because they have access to natural resources but lack control over them. Much work needs to be done by indigenous participants once they return home, in transferring the knowledge to those who are still not aware of climate change and its impacts.

Sandinista's mixed legacy for Nicaragua's Atlantic Coast

Despite constitutional recognition and provision for self-government, ethnic minorities on Nicaragua's Atlantic Coast fail to profit from exploitation of natural resources on their native land and are among the nation's poorest.

Coastal communities, supported by rulings from Nicaragua's Supreme Court of Justice, complain that

the Nicaraguan government has violated their rights by granting land concessions to a logging company and allowing US companies to explore offshore oil reserves.

In a new study *From Conflict to Autonomy in Nicaragua: Lessons Learnt*, Minority Rights Group International (MRG) takes an incisive look at life today for Nicaragua's Atlantic Coast communities 20 years after winning autonomy.

Inhabitants of the Atlantic Coast, or Costeños as they are collectively known, are drawn from a diversity of ethnic groups including Mayagna, Rama, Miskitu, Garifuna speakers and English-speaking Creoles.

While the insurrection waged by the Frente Sandinista de Liberación Nacional against the Somoza dictatorship in the 1980s caught the world's attention, the ensuing armed confrontation between the Sandinista administration and ethnic organizations of the Atlantic Coast escaped the media glare.

From 1981 onwards Costeños, of whom the majority were Miskitu, angered by imposition of the Spanish language, increasing poverty, marginalization and neglect of indigenous culture, became embroiled in a violent conflict with Sandinista troops.

The 1987 signing of an Autonomy Statute for the Atlantic Coast brought the conflict to an end and marked the beginning of self-government for the region. Sweeping changes included constitutional amendments recognizing the multi-ethnic, multi-lingual and multi-cultural nature of Nicaragua.

The study also suggests that peace in Nicaragua will be more enduring because it was based on broad consultation with the people of the Atlantic Coast. The whole process lasted two years - in stark contrast to the eight-month timetable imposed by the USA to negotiate a new constitution for Iraq.

Chris Chapman added, "The autonomy arrangement successfully ended violent ethnic conflict and the process is a source of good practice which should be considered in similar situations around the world today."

Source: *Minority Rights Group International*
www.minorityrights.org



Minority Rights Group International (MRG) is a non governmental organization working to secure the rights of ethnic, religious and linguistic minorities and indigenous peoples worldwide.



Statement of the International Forum of Indigenous Peoples on Climate Change at the High Level Segment of the 13th Conference of the Parties and the 3rd Meeting of the Parties to the Kyoto Protocol of the UN Framework Convention on Climate Change

Bali, Indonesia
December 2007

On behalf of the International Forum of Indigenous Peoples on Climate Change (IFIPCC), I would like to draw your attention to the fact that more than 80% of the world's biodiversity, and most of the forests are found within our territories. Indigenous peoples also represent some 350 million individuals in the world and make up 90% of the world's cultural diversity. Yet, we are suffering the worst impacts of climate change without having contributed to its creation as clearly evident in many parts of the Indigenous Peoples' lands and which threatens our very survival.

We, Indigenous Peoples, have addressed our concerns to the UNFCCC Conference of the Parties since SBSTA 13 in Lyon, France, 2000. However, despite years of experience and efforts to participate in this process, and despite also the resounding support and approval this year of the United Nations Declaration on the Rights of Indigenous Peoples, we are profoundly disappointed that, even as the United Nations' Second International Decade of Indigenous Peoples begins, states are still ignoring our demands and contributions and we have even been shut out of this Bali process. This is unacceptable.

Mr. President, the IFIPCC takes this opportunity to again reaffirm the following:

- a. We demand the creation of an Expert Group on Climate Change and Indigenous Peoples with the full participation and representation of Indigenous Peoples, taking into account the example of the United Nations Permanent Forum on Indigenous Issues (UNPFII) that includes indigenous experts;

b. We demand the creation of a voluntary fund for the full and meaningful participation of Indigenous Peoples, such as that which exists in the Convention on Biological Diversity (CBD);

c. We demand that the Conference of the Parties recognize and take action to curb the adverse impacts of climate change on indigenous peoples; and to refrain from adaptation and mitigation schemes and projects promoted as solutions to climate change that devastate Indigenous Peoples' lands and territories and cause more human rights violations, like market based mechanisms, carbon trading, agrofuels and especially avoided deforestation (REDD). All adaptation and mitigation plans affecting Indigenous communities must follow the principles of free prior and informed consent of Indigenous communities, especially those mostly impacted.

d. We demand full and effective participation of Indigenous Peoples in all levels of planning, decision making and implementation of the Nairobi Five Year Programs of Work, including the SBI and SBSTA programs and that a human rights-based approach be used in this work and to engage the UN Human Rights Council to monitor the impacts of climate change mitigation and adaptation on Indigenous Peoples.

e. We demand that any financial mechanism agreed to here by the COP/MOP must be easily accessible to, and allow direct access by Indigenous Peoples noting that the Adaptation Fund is fully funded through CDM projects which cause disastrous impacts on Indigenous Peoples' lands, territories, and resources, as well as violating their rights in ways that have ended up costing many Indigenous Peoples' lives, and force them from their lands.

f. We request the UNFCCC to submit its reports to the 7th Session of the UN Permanent Forum on Indigenous Issues (UNPFII) in April 2008 as the main theme of this session is on climate change and Indigenous Peoples.

Mr. President, the IFIPCC sincerely believes that Indigenous Peoples have a role to play in this convention and the Protocol. It is time that we all co-operate in our efforts to address climate change in a manner that recognizes social justice, environmental integrity, indigenous and other human rights.

TERIMA KASIH!



East African Indigenous Peoples Prepare for the 9th Conference of Parties to the Convention on Biological Diversity

by Kaitlin Dearham



This East African regional workshop was held in preparation for the 9th Conference of Parties on the Convention for Biological Diversity which was held in Bonn, Germany in March 2008. The meeting, which was organized by Indigenous Information Network (IIN) and funded by the International Alliance of Indigenous and Tribal People of the Tropical Forest (IAITPTF) and the Indigenous Peoples Network for Change project (IPNC) was held in Nairobi, Kenya at IBS Guest House.

Workshop participants came from Kenya, Uganda, Tanzania and Sudan. The participants were chosen on the basis of their interest and experience in environmental issues, and their potential for networking. From March 10th until the 12th, participants worked together to achieve the following workshop objectives:

- To orient participants on the COP9 process;
- To share experiences from different regions of East Africa;
- To prepare, strategize and divide tasks for intervention at COP9; and
- To discuss East African indigenous peoples' continuous participation in the process.

Several resource people attended the workshop and gave presentations to the participants on matters relating to the CBD. Those who presented were: Lucy Mulenkei, Director of Indigenous Information Network(IIN); Anne Angwenyi of the National Environment Management Authority (NEMA); Professor James L. ole Kiyipai, the Permanent Secretary of the Ministry of Environment and Natural Resources; Wanyiri Maurice of Kenya Forest Services; Pauline Matu Mureithi, Chairperson of the Public Complaints Committee; and Elizabeth Leitoro of Kenya Wildlife Service.

The first presentation was on the topic of the CBD process and national biodiversity strategies. Through this talk, participants were introduced to the basics

of the CBD, and the important articles and ways that indigenous peoples can participate. This was followed by the sharing of experiences of several participants who had attended CBD meetings, such as Conferences of Parties or the Working Group on Protected Areas. These participants spoke about what they had learned, and how indigenous peoples were received and how they asserted themselves at these conferences.



Mary Kuku from Sudan shares her experiences, while Rodah Rotino and Daniel Kobei from Kenya and Charles Topoth from Uganda listen.

Following these discussions, participants divided themselves into groups to discuss issues of relevance to indigenous communities and the CBD. The groups were: forest biodiversity; inland waters; traditional knowledge and access and benefit-sharing; climate change and biodiversity; and protected areas and biodiversity. The groups discussed the benefits and challenges of each issue, and went on to make recommendations for environmental policy makers and for COP9. The recommendations were as follows:

Forest Biodiversity Recommendations

1. Resettlement of squatters - If there is illegal settlement in the forest, these squatters should be evicted and resettled elsewhere, as they are major contributors to unsustainable use of genetic resources and forest degradation.

2. Development of ASAL - Arid lands are those which receive between 350 and 700 mm of rain per year, and semi-arid areas receive between 700 and 900 mm per year. Because of the lack of development in these areas, and a reduction in landfall due to climate change leading to desertification, populations from ASAL regions end up moving to more lush areas such as forest

ecosystems. The increased population and pressure on resources wreaks havoc on forests. Thus, one important recommendation is for governments to develop infrastructures in ASAL areas, such as developing road networks, irrigation and electricity.

3. Penalties for unsustainable use - Illegal loggers and charcoal burners should be given heavy penalties in order to discourage their unsustainable practices.

4. Environmentally friendly policy - The government should develop policies which will prevent harmful quarrying, mineral exploration and garbage dumping.

5. Review of shamba system - The shamba system the planting of crops inside forest boundaries. This system is frequently abused, allowing people to encroach further into the forest than permitted and cutting trees in order to make room for crops.

6. Forest fire response - Rapid response initiatives should be developed to prevent and control forest fires by employing fire fighters, and involving local communities in these efforts.

7. Employment of Indigenous Peoples and Local Communities - Indigenous peoples and local communities should be employed in forest management, in order to make use of the traditional knowledge held by these populations.

8. Participatory management planning - Forest management policy and planning should be developed through participatory management planning, in order to involve all the stakeholders.

9. Access to resources - The government should recognize and allow access of hunter-gatherers to forest resources. As they have been living there for generations and have succeeded in conservation, it is evident that they know how to use such resources sustainably.

10. Prior informed consent - The government, corporations and development agencies should receive prior informed consent from indigenous peoples and local communities before undertaking any activity in the forest.

Inland Waters Recommendations

1. Halt of cultivation near catchment areas - Through the authorities living near the areas, such as Waso River Development Authority, and Tana River Development Authority, communities cultivating near catchment areas should be made to stop. If they destroyed anything around the area, they should be made to plant indigenous trees to restore the site.

2. Sustainable use of water resources - If people are to use water resources, they should be done in a sustainable way, such as controlled irrigation. The overextraction and overuse of water resources must stop.

3. Creation of indigenous committees - Indigenous communities should form environmental committees at the grassroots level to check the myriad problems affecting the inland waters.

4. Population control - The massive influx of populations to areas around inland waters should be checked.

5. Traditional governing systems - Traditional systems which prevent overexploitation should be put back into use. In other words, traditional best practices should be implemented.

6. Proper waste disposal - Waters are being used by animals and human populations, as well as by hotels and companies as waste disposal sites, which contaminates the water. This is damaging for the entire ecosystem and for the health of human populations using the water source. Proper waste disposal should be enforced by the authorities.

7. Regulated chemical use - When horticulture takes place near lakes, the chemicals used in fertilizers and pesticides frequently end up in the lake, and are detrimental to the flora and fauna in the area. The use of chemicals must be regulated in order to prevent the poisoning of inland waters.

Traditional Knowledge and Access and Benefit-Sharing Recommendations

1. Capacity building - Capacity of indigenous peoples should be built in order to know exactly

what is happening in terms of traditional knowledge and ABS policy, and how they can negotiate these and use them to their advantage.

2. Documentation and archiving - Documentation of events could help indigenous peoples keep track of what is happening on a daily basis, and archiving and storage of information can help preserve it for the use of future generations. Databases and registers can help protect traditional knowledge in danger of dying out. The creation of museums can also help in the transmission of such knowledge.

3. Lobbying and advocacy - Lobbying must be done for funds, and to governments for recognition of Indigenous Peoples' needs and problems. Advocacy should be done at all levels to ensure that the exploitation of traditional knowledge and resources is known, and to encourage activism.

4. Partnering - Indigenous peoples should partner with other indigenous groups, with NGOs, and with government agencies, in order to better address their needs, to share with each other, and receive expertise from a number of areas.

5. Communication and information-sharing - Communication and the effective dissemination of information enables indigenous peoples to know what is going on in other communities and to be more effective in working together towards a goal. Communication and information-sharing can be done through conventional means, as well as through such means as television presentations, radio programs and role playing.



Margaret Lomonyang from Uganda presents her group discussion outcome.

6. Translation - Documents related to environment, to the CBD and to laws affecting indigenous peoples should be translated into local languages, and given in simple terms so that they are properly understood at a grassroots level.

7. Indigenous curriculums - Traditional indigenous knowledge should be included in specialized school curriculums, which would help in the transmission and preservation of such knowledge. In this way, children would start learning about their cultures and traditions from a young age.

8. Women's involvement - Indigenous women should be involved in all decision-making processes, as they are frequently the caretakers of the family and involving them in these processes would facilitate passing on this knowledge. Customary laws and traditional practices must also be taken into account.



Susan J. Oduho of Sudan and Pauline Matu-Mureithi of Kenya listen and take notes during the group presentations.

Climate Change and Biodiversity Recommendations

1. Awareness creation - It is extremely important to create awareness of climate change and how we can assist in abating it, so that a movement can be created.

2. Indigenous inclusion - Indigenous peoples should be included as partners in sustainable development, and in dealing with issues of climate change.

3. Environmental laws - Environmental laws and standards of compliance should be implemented and strictly enforced in order to stop climate change. For example, Rwanda has been successful in the complete ban of plastic bags.

4. Community involvement in development projects - Communities must be fully engaged in and aware of all the potential impacts of development projects occurring on their lands. Even before any project begins, environmental impact assessments should be done in order to take stock of any potential impact. Questions of food security, chemicals, land use and sustainability should all be examined.

Protected Areas and Biodiversity Recommendations

1. Indigenous involvement - There is a need to enhance the participation and involvement of indigenous peoples in protected areas. This means that they should be involved in creation and management, through the empowerment of community leaders

representing indigenous peoples and local communities.

2. Benefit sharing - Mechanisms must be in place to ensure that some of the revenues and benefits of protected areas go back to the communities affected by the creation of such areas.

3. Compensation and resettlement - People who have been displaced by the creation of protected areas, such as the Batwa and other indigenous peoples, should be compensated and resettled, rather than their homelands being taken for nothing.

4. Awareness creation - Communities should be sensitized on the benefits of protected areas, such as job opportunities, and push for more benefits.

5. Access - Indigenous peoples should be able to access resources from protected areas, such as medicinal herbs and sites of worship.

6. Better human-wildlife policy - More favorable policies should be put in place to manage human-wildlife interactions. Presently, humans are not compensated for any physical damage or destruction of crops or property by wildlife, but can be heavily fined or jailed for harming wildlife. This leaves local communities with few options and is unfair.

7. Inclusion in decision-making - Indigenous peoples should ensure that they are represented at all levels of decision-making bodies.

8. Employment - Managers of protected areas and wildlife institutions should employ indigenous peoples because of their knowledge of the region.

After the group work was presented, Anne Angwenyi of NEMA gave a talk on indigenous peoples and access and benefit-sharing in Africa. Ms. Angwenyi gave the legal perspective on this issue, in terms of the national and international rules and guidelines which exist, and how they can be used to indigenous peoples' advantage.

The Permanent Secretary on Environment, Prof. James L. ole Kiyiapi, spoke about indigenous peoples' representation and cooperation. As a government representative, he pledged to give support to indigenous causes as long as the people become organized and articulate their position and their needs clearly. The stress was on the importance of government lobbying for policy influence, and the importance of community organization. He advised communities to work together and always keep their governments informed for better coordination and partnership.

Wanyiri Maurice of Kenya Forest Services gave a presentation on forest biodiversity and its importance to communities. He gave an overview of the different types of forest in Kenya, the resources they hold, and the pressures they face.

The chairperson of the Public Complaints Committee on the Environment (PCC), Pauline Matu Mureithi, gave a review of the mandate of the PCC as an environmental watchdog, and a link between people at the grassroots level and the government. She explained how indigenous peoples could bring environmental complaints to the Public Complaints Committee on the Environment and how they would be addressed.

Elizabeth Leitoro of the Kenya Wildlife Service also reported on climate change and the resulting biodiversity loss. The presentation gave the facts of human impacts on climate change, and what biodiversity loss can mean at the community level.

The final presentation of the workshop was given by Lucy Mulenkei of IIN, introducing the International Alliance of Indigenous and Tribal People of Tropical Forests, and the Indigenous Peoples' Network for Change. These were presented as resources upon which the participants could draw for funding, support for events, capacity building and networking.

On the last day of the workshop, the participants took part in a field visit to the Seuseu Biodiversity Centre of Simba Maasai Outreach Organization (SIMOO). The project was shown as an example of a successful conservation project which utilizes and aims

to preserve traditional knowledge. The conservation centre holds a number of indigenous trees and plants which are traditionally used by the Maasai for medicinal, domestic or cultural purposes. On the tour, participants were given information about the use and importance of each plant. Thus, the plants are conserved and the knowledge passed on through the conservation centre.

Upon their return to Nairobi, participants discussed the visit and took part in evaluation of the workshop as a whole. In closing, Rodah Rotino, IIN, gave thanks on behalf of the organization to all of the participants, the guests from various countries for attending and participating effectively, and to the funding organization. Pauline Matu Mureithi, the chairperson of the Public Complaints Committee of the Ministry of Environment, gave the closing message, urging indigenous peoples not to give up the fight and not to keep quiet about the problems on the ground. They should instead share the information that they had gained at the workshop with people on the ground, and to continue to work within the networks that have been formed.



Field visit at the Simba Maasai Outreach Organization's Seuseu Biodiversity Centre -- learning about Indigenous medicinal plants.

Global Warming and Gender Equity

by Mia MacDonald - Brighter Green

Getting hot in here....

In September 2007, the United Nations convened a High Level panel on climate change in advance of the opening of the General Assembly session. On the same day, a group of women and men – some “high level,” some citizen advocates – gathered at a roundtable, also in New York City, to address the links between gender and a warming world. What’s gender got to do with it? Well, in most parts of the world, women and men have differentiated access to and control over resources. They also have different responsibilities, with the burden of securing daily essentials like water and fuel falling predominantly on women. When extreme weather comes, women are often more vulnerable, but they also often have knowledge of how to adapt that isn’t taken into account by society at large. Few women have been accorded key leadership positions in the global climate change debate so far – or in decision-making about what to do.

The “alternate” high level panel, led by former Norwegian Prime Minister Gro Harlem Brundtland and Mary Robinson, former President of Ireland, sought to address this, and not a moment too soon. The conveners of the panel, the Women’s Environment and Development Organization, the Council of World Women Leaders and the Heinrich Boll Foundation, agreed on a Declaration on gender and climate change that they’ve delivered to UN Secretary General Ban Ki-Moon. Brighter Green signed on to it. Nobel Peace Laureate Wangari Maathai was also in New York City this week, and spoke about climate change at the American Museum of Natural History. Things are heating up. Here’s the Declaration:

The following recommendations in the area of climate change and gender equality were developed on the occasion of the UN Secretary General’s High-Level Climate Change Event and the High-Level Roundtable “How a Changing Climate Impacts Women” organized by the partners above.

- The UN Secretary-General and governments should send a strong message to this year’s UNFCCC COP-13 in Bali that gender equality is to be integrated as a cross-cutting issue in the negotiations and debates and that women’s equal participation must be ensured. Governments should draw on the innumerable global agreements that relate directly or indirectly to gender

equality and climate change, as well as gender expertise within the UN system and at the national level.

- Given that women’s knowledge and participation has been critical to the survival of entire communities in disaster situations, governments should take advantage of women’s specialized skills in various aspects of their livelihood and natural resource management strategies that lend themselves to mitigation and adaptation.

- Since climate change disproportionately affects poor women, governments should analyze and identify gender-specific impacts and protection measures related to floods, droughts, heat waves, diseases, and other environmental changes and disasters. The global community should prioritize reducing the high levels of female mortality rates resulting from climate-induced disasters and livelihood changes.

- Given the vulnerability of the poor, and particularly women, to climate change, adequate funds must be allocated by Annex I countries to help these groups adapt to the impacts.

- Practical tools should be developed that allow governments and institutions to incorporate gender equality in climate change initiatives.

- Governments at national and local levels should develop strategies to enhance women’s access to and control over natural resources, in order to reduce poverty, protect environmental resources, and ensure that women and poor communities can better cope with climate change.

- Governments and institutions should enhance opportunities for education and training in climate change mitigation and adaptation. Capacity building and technology transfer measures should draw on priorities put forward by women and poor communities.

- Women’s participation in climate change related debates and planning must be enhanced by tools and procedures that augment their capacity and sensitize decision-makers to the advantages of equal participation.

- The UNFCCC should develop a gender strategy, invest in gender-specific climate change research, and

establish a system for the use of gender-sensitive indicators and criteria for governments to use in national reporting to the UNFCCC Secretariat, adaptation planning, or projects under the Clean Development Mechanism (CDM).

· Market-based approaches to curbing climate change, such as the Clean Development Mechanism, should be made accessible to both women and men and ensure equitable benefits, considering that women and men do not have equal access to natural resources such as water and energy, land titles, credit, or information. In particular, the CDM should fund projects that make renewable energy technologies more easily available to women and meet their household needs.

· The gendered impacts of biofuels and nuclear energy as a solution to reducing greenhouse gas emissions should be assessed, in cooperation with gender experts and women's organizations.

· Since the UNFCCC emerged from UNCED, which outlines nine major groups that are essential to sustainable development, women and all major groups should be included as official focal points in the UNFCCC.



www.brightergreen.org



Message from Dr. Ahmed Djoghlaif, Executive Secretary of the Convention on Biological Diversity

On the occasion of the International Day for Biological Diversity
May 22 2008

This Day serves as a reminder of the importance of the Earth's biodiversity, and as a wake-up call about the devastating loss we are experiencing as irreplaceable species become extinct at an unprecedented rate.

In any attempt to address this problem, agriculture should be viewed as a starting point. The crops and domesticated livestock of today are a reflection of human management. And the news is not good. About a fifth of domestic animal breeds are at risk of extinction, with an average of one lost each month. Of the 7,000 species of plants that have been domesticated over the 10,000-year history of agriculture, only 30 account for the vast majority of the food we eat every day. Relying on so few species for sustenance is a losing strategy.

Climate change is complicating the picture. Fluctuations in temperature and precipitation are wreaking havoc on crops. Experts say these factors may cost southern Africa up to 30 per cent of its maize crop by 2030. A diversity of crops and livestock is our best insurance in the face of these changes.

Livestock production is itself a major culprit in climate change, responsible for more greenhouse gas emissions than transport. Biodiversity is directly threatened by this industry; about a fifth of terrestrial animal biomass goes to livestock - land that was once habitat for

wildlife, and that can provide an important buffer against the impacts of climate change.

In a world where the population is projected to jump 50 per cent by the year 2050, these trends can spell widespread hunger and malnutrition, creating conditions where poverty, disease and even conflict can metastasize.

Preserving our planet's precious biodiversity is essential to development and security. Not just livestock and crops raised in agricultural landscapes, but also the many thousands of plants and animals in forests, oceans and other ecosystems need protection to maintain the planet's basic environmental balance.

We must rally behind attempts at a solution, such as the Global Plan of Action for Animal Genetic Resources adopted last September at a meeting supported by the United Nations. Parties to the Convention on Biological Diversity are meeting in May to work, with all other partners, to redouble efforts to reduce biodiversity loss as they seek to achieve the global target set for 2010.

We all have a stake in supporting functional ecosystems, diverse in species and genetic resources, to sustain life everywhere. It is too late to undo the damage the planet has suffered, but it is never too soon to start preserving all that we have left. May this International Day for Biological Diversity unite us in this mission.

The Development Draft Guidelines for National Legislation on Environmental Matters

by Georgina Wabwire

Introduction

While the environment contains all of our precious natural resources and affects every aspect of our lives, it is not always properly protected by national legislation. The government does not necessarily have the means to ensure that those who commit environmental damage are held liable for their actions, and that those who suffer as a result of this damage receive compensation. Similarly, there is very little provision for the public to access information or justice relating to environmental matters. As such, public participation in environmental issues at a national level is very low.

In order to address the holes left in the legislation regarding environmental issues, two meetings were recently held at the headquarters of the United Nations Environmental Programme (UNEP) in Nairobi, Kenya. At these meetings, the government officials, legal and environmental experts convened to discuss the development of Draft guidelines, which would influence environmental legislation. On June 18th to 19th, the document under review and discussion was the Draft Guidelines for the Development of National Legislation on Liability and Compensation for Environmental

Damage. On June 20th to 21st, officials and experts discussed the Draft Guideline on Access to Information, Public Participation and Access to Justice on Environmental Matters.

The nature of the Draft guidelines is that they would be voluntary and meant for application at the national level when developing legislation and regulations on issues covered by the Guidelines. The purpose of the guidelines was primarily to provide guidance to developing countries and to countries with economies in transition. They were to be regarded as minimum guidelines, on which national legislation could be based, and which would need tailoring according to specific national circumstances.

Draft Guidelines for the Development of National Legislation on Liability and Compensation for Environmental Damage

At the beginning of the discussions, the representative of the United Nations Environmental Programme Secretariat presented the document entitled "Draft Guidelines for the Development of National Legislation



Participants in the meeting for legislation on liability and compensation for environmental damage.

on Liability and Compensation for Environmental Damage” and elaborated on its history. UNEP had already convened a legal expert group meeting in 2002, which identified and recommended priority issues as well as gaps which UNEP should focus on its future work in environmental liability and compensation regimes. Few years later, as a part of implementation of Montevideo Programme III, UNEP embarked on this topic and a first meeting of the UNEP Advisory Expert Group on Liability and Compensation for Environmental Damage was convened and produced a set of recommendations containing elements of “Guidelines on Liability and Compensation for Environmental Damage” for the guidance of states in developing domestic legislation in the field. The second meeting of the Expert Group, which had been convened from 31 October till 2 November 2007, reviewed and refined the draft guidelines that had been tabled at this meeting.

The Draft Guidelines were renamed “Draft Guidelines on Liability, Redress and Compensation for Damage caused by Activities Dangerous to the Environment”. They were elaborately discussed in the course of the two days and underwent textual and content-wise revisions. It was agreed that the Draft Guidelines should be further recognizable as guidelines as opposed to model legislation, and consequently this agreement was reflected in the Draft Guidelines.

In the ensuing general discussion, several experts expressed their general support for the work of UNEP in this field and commended UNEP for having taken the initiative to develop the Draft Guidelines.

Experts from Argentina and the Netherlands stated that, while appreciating UNEP’s efforts to develop the Draft Guidelines, due to the large amount of on going meetings in the environmental field and to the late arrival of the invitation to the meeting, there was not enough time to review and consult on the draft and therefore they reserved their rights to come back with comments at a later stage.

Outcome of the meeting

The session agreed on the following recommendations:

1. The meeting revised and further developed the “Draft Guidelines on Liability, Redress and Compensation for Damage caused by Activities Dangerous to the Environment and recommended to the Executive Director to submit them to the 25th session of UNEP Governing Council in February 2009, with a view to their adoption.

2. The meeting requested that, following their adoption by the Governing Council, the Guidelines should be disseminated to all countries, in particular developing countries and countries with economies in transition, with a view to assist them to develop and/or to up-date their national legislation in this field.

3. The meeting requested that the Commentaries to the Guidelines be finalized, taking into account the revision of the Draft Guidelines and their further development at the meeting, and that these up-dated Commentaries be Attached to the Draft Guidelines.

4. The meeting further requested that the Draft Guidelines and the Commentaries thereto, together with the Report of the meeting, be sent to all countries, for information.

5. The meeting also requested for expeditious translation of the Draft Guidelines and the Commentaries thereto into all official UN languages, with particular emphasis on the proper translation of legal terms used in the Draft Guidelines.

Draft Guidelines for the Development of National Legislation on Access to Information, Public Participation and Access to Justice in Environmental Matters

At the beginning of the discussions, the representative of the UNEP secretariat presented the document entitled “Draft Guidelines for the Development of National Legislation on Access to Information, Public Participation and Access to Justice in Environmental Matters”. She mentioned that the document had been prepared with the assistance of the UNEP Senior Advisors Group, composed of environmental law professors, high level judges and other experts, who had met twice for this purpose. In addition she elaborated on the background to this initiative, *inter alia*, drawing attention to the fact that judges repeatedly have underlined the importance of access to information, public participation and access to justice and that they are increasingly making reference to these principles in their decisions. Furthermore, she mentioned that access to justice is the issue that is the most challenging and therefore also the main priority in this field. In that context she underlined that access to justice has clear links with the peaceful

settlements of environmental disputes.

Delegate Participation

In the ensuing general discussion, several experts expressed their general support for the work of UNEP in this field and commended UNEP for having taken the initiative to develop the Draft Guidelines.

Some experts also stated that, while appreciating UNEP's efforts to develop the Draft Guidelines, due to the large amount of on going meetings in the environmental field and to the late arrival of the invitation to the meeting, there was not enough time to review and consult on the draft and therefore they reserved their rights to come back with comments at a later stage.

In their general comments some of the participants drew attention to national measures that had been taken or were to be taken that pertain to the issues under discussion. The delegate from **Nicaragua** drew attention to recent developments in Nicaraguan legislation where considerable steps have been taken towards the modernization of environmental legislation, including provisions that will secure access to information, public participation and access to justice in environmental matters. She *inter alia* informed the meeting of the Act of Access to Public Information and said that an Act on Public Participation is also envisaged.

The representative from **Mauritius** informed the meeting of several provisions of their Environmental Protection Act which already provide for access to information on environmental matters and public participation in decision making processes. She added that actions have been initiated to examine the different provisions under the Aarhus Convention, with a possible view of ratifying it. She pointed out that the guidelines being developed at the initiative of UNEP would ease her country to better understanding the expectations under the Aarhus Convention. She ended by informing on the finalization of another law which pertains to environmental Tribunal for access to environmental justice.

The delegate from **Zambia** mentioned that the Environmental Protection Act, Chapter 204 of the Laws of Zambia, is Zambia's principle governing environmental legislation. Under the Environmental Impact Assessment Regulations (SI No 28 of 1997) all project briefs, environmental impact statements, terms of reference, public comments, reports of persons presiding at public meetings and any other information submitted during the EIA process are public documents to which members of the public are allowed

to have access unless certain information is declared proprietary by the developer of the project. The same regulations provide for public participation from and by all interested and affected parties to a development. The regulations provide for consultations in writing, through public meetings and public hearings as well. Where a project attracts a lot of attention or insufficient information is submitted, there is a provision in the law to extend the period for consultation. Finally, she informed the meeting that further details can be obtained on the following website: www.necz.org.zm.

The delegate from **Cote d'Ivoire** informed the meeting that the principles of access to information, public participation and access to justice in environmental matters have already been integrated in Ivorian legislation. In fact, the Environmental Code gives any interested person the right at all times, including on Sundays and holidays, access to a procedure before a judge in order to stop an ongoing nuisance/disturbance to the environment. But unfortunately the public, and even magistrates, are ignorant of the environmental legislation. Against this background, she drew particular attention to the importance of sufficient information and wide dissemination of the laws and regulations that will implement the guidelines at the national level, in order to facilitate implementation of these provisions.

The delegate from **India** mentioned that most of the environmental legislation in India, including the Environmental Protection Act (1986), provides for collection and dissemination of information by the Government and statutory authorities on matters relating to environmental issues. Preparation of manuals, codes or guidelines relating to the protection and improvement of the environment is also one of the mandatory functions. He continued to say that whenever rules/notifications are proposed to be issued by the Government under environmental legislation, the comments, objections and suggestions are invariably invited from the public through newspapers and gazette publications. Regarding public participation, he informed the meeting that in the Environment Impact Assessment notification procedures the public participation/consultations has been made compulsory for various categories of projects. The clearances for projects are not given unless the public participation/consultation procedure has been followed. The Right to Information Act has been enacted in the year 2005. Under the Act (a) public authorities are required to provide the details of the legislations, functions and activities on the website, (b) public authorities are required to provide the information within 30 days through the (subject to certain limited exceptions) Public Information Officer

(PIO) nominated by the concerned department. (c) if the information is not provided without sufficient reasons by the PIO, he/she is liable to pay a fine at a specified rate per day to a certain maximum limit. The PIO is also in such cases liable for disciplinary actions.

The representative from **Bhutan** stated that access to information, public participation and access to justice are fundamental rights in the constitution. In addition, these principles are incorporated in the Environmental Protection Act (2007).

The **Indonesian** delegation reported that a Freedom of Information Act was passed last year and underscored that the current guidelines would give more guidance in the environmental field. In Indonesia there are also provisions in the national legislation that require the Commission of EIAs to take into account the outcome of public participation. In relation to access to justice, the delegate mentioned that a public complaints unit has recently been established within the Ministry of Environment.

The representative from **Mali** stated that a national legal database has been set up and is available through the website of the Ministry in charge of the environment. He also mentioned that an annual national report on the state of the environment is prepared and that it is widely disseminated, including via the website. He also told the meeting about the national centres of access to justice (Centres d'Accès au Droit) that have been set up, with the purpose to inform and orient those involved in judicial procedures of the procedures themselves.

The delegate from **Serbia** mentioned that her country is not yet a Party to the Aarhus Convention, but that it has made some progress in their legislation. A Law on access to information of public interest has been adopted. In addition, public participation in decision making is foreseen in certain provisions relating to EIA, SEA and IPPC (integrated pollution prevention and control) legislation. Public hearings on draft laws are obligatory.

The representative from **Bangladesh** reported on national developments. Right to information is one of the aspects of the fundamental rights guaranteed in the Constitution. In addition, Bangladesh has adopted a draft legislation on the 'Right to Information Act' earlier this year. The Government has made it public for further development of it. The draft contains provisions for the right to information, the establishment of an Information Commission etc. She pointed out that experience gained from this meeting can help to develop the law. She also mentioned that cases related with environmental issues have taken

the form of public interest litigation in Bangladesh. The delegate from **Senegal** brought to the meeting's attention that access to information and public participation are principles enshrined in their Constitution. A forthcoming EIA legislation will contain provisions on public participation. He also mentioned that the Senegalese authorities produce a report on the state of the environment.

Recommendations

The meeting agreed on the following recommendations.

1. The meeting revised and further developed the Draft Guidelines for the Development of National Legislation on Access to Information, Public Participation and Access to Justice in Environmental Matters and recommended to the Executive Director to submit them to the 25th session of UNEP Governing Council in February 2009, with a view to their adoption.
2. The meeting requested that, following their adoption by the Governing Council, the Guidelines should be disseminated to all countries, in particular developing countries and countries with economies in transition, with a view to assist them to develop and/or to up-date their national legislation in this field.
3. The meeting requested that the Commentaries to the Guidelines be finalized, taking into account the revision of the Draft Guidelines and their further development at the meeting, and that these up-dated Commentaries be annexed to the Draft Guidelines.
4. The meeting further requested that the Draft Guidelines and the Commentaries thereto, together with the Report of the meeting, be sent to all countries, for information.
5. The meeting also requested for expeditious translation of the Draft Guidelines and the Commentaries thereto into all official UN languages, with particular emphasis on the proper translation of legal terms used in the Draft Guidelines.



Conference on Indigenous Peoples and Climate Change

by International Work Group for Indigenous Affairs (IWGIA)

February 2008



I. Indigenous Peoples and Climate Change

Regional and global assessments confirm that the Earth's climate is changing. Current and projected levels of exposure to climate-related sensitivities, as well as limits and restrictions to adaptive capacity, mean that some environments and peoples are more exposed to climate change and are significantly more vulnerable to its impacts and long-term consequences. Indigenous peoples depend on natural resources for their livelihood and they often inhabit diverse but fragile ecosystems. At the same time indigenous peoples are among the world's most marginalized, impoverished and vulnerable peoples. Hence, while indigenous peoples bear the brunt of the catastrophe of climate change, they have minimal access to resources to cope with the changes.

For indigenous peoples around the world, climate change brings different kinds of risks, opportunities, threatens cultural survival and undermines indigenous human rights. The consequences of ecosystem changes have implications for the use, protection and management of wildlife, fisheries, and forests, affecting the customary uses of culturally and economically important species and resources. Despite the impact of climate change on indigenous peoples and their traditional knowledge, international experts most often overlook the rights of indigenous peoples as well as the potentially invaluable contributions from indigenous peoples' traditional knowledge, innovations and practices in the global search for climate change solutions. As the global discourse on climate change focuses on understanding how we can scientifically and technologically adapt to and mitigate climate change, indigenous peoples are faced with climate change further challenging their abilities to adapt and cope with environmental changes.

Increasingly, international and national climate change mitigation strategies pose an additional threat to indigenous peoples' territories and coping strategies. When the development of hydroelectricity is suggested as part of a government's mitigation strategy it often involves removing indigenous peoples from their traditional lands and territories. Mono-crop plantations for agro-fuels affect the ecosystem, the water supply and the whole anatomy of the landscape on which indigenous peoples depend.

Additionally, a number of national and international mitigation institutions have been created - institutions which do not necessarily take into consideration the views and interests of indigenous peoples but which indigenous peoples, nevertheless, have to relate to and try to accommodate.

II. Conference on Indigenous Peoples and Climate Change

The conference "Indigenous Peoples and Climate Change", organised by IWGIA, took place in Copenhagen from 21 to 22 February 2008. 60 indigenous peoples' representatives, Danish Foreign Ministry staff, Greenland Home Rule representatives, development practitioners, and members of IWGIA participated in the conference. The conference focused on the key issues facing indigenous peoples in the context of climate change, including the human rights aspects of climate change. The discussions went beyond the impacts of climate change and looked at how global mitigation policies, political processes and regulations facilitate or prevent indigenous peoples in their efforts to respond and adapt to climate change.

The conference was considered a preparation for the 7th session of the UN Permanent Forum on Indigenous Issues as well as the World Conference on Climate Change (COP 15) in Copenhagen in 2009.

III. Presentations

(a) Introduction

The presentations introducing the conference stressed the importance of the conference in view of the magnitude of climate changes on indigenous peoples' livelihood, the special theme of the 2008 session of the UN Permanent Forum on Indigenous Issues and the World Conference on Climate Change (COP 15), which will take place in Copenhagen in 2009. In the global discussions on climate change, focus has mainly been on environmental and scientific aspects of climate change whereas the human perspective and involvement of indigenous peoples and their traditional knowledge has been neglected. Indigenous peoples are experiencing local manifestations of climate change and find their livelihoods and cultures threatened because various legal and institutional barriers reduce their ability to respond to the climate changes. Hence, to indigenous peoples climate change is not only an environmental issue; it is also a human rights issue.

(b) Climate Change in the Global Context

Despite having contributed the least to greenhouse gas emissions, indigenous peoples are the ones most at risk from its consequences due to their dependence upon and close relationship with the environment and its resources. Their livelihood systems are often vulnerable to environmental degradation and climate change, especially as many inhabit economically and politically marginal areas in fragile ecosystems in the countries likely to be worst affected by climate change. Massive changes in ecosystems are occurring and have in many cases been accompanied by opportunistic resource exploitation. To indigenous peoples this means that climate change is not something that comes in isolation; it magnifies already existing problems of poverty, marginalization and non-inclusion in national and international policy making processes and discourses.

In some cases climate change also offers opportunities for indigenous peoples. One example is Greenland where some indigenous peoples see the melting of the ice as providing economic opportunities, e.g. as minerals become accessible, and thus as a way for Greenland to gain independence from Denmark. Some indigenous groups have expressed optimism in adapting to climate change because the increased demand for renewable energy from wind and solar energy could make indigenous lands an important resource for such energy, replacing fossil fuel-derived energy and limiting greenhouse gas emissions. The focus on initiatives to combat climate change can also prove to be an opportunity if part of the substantial amount of funds are made available for indigenous peoples for adaptation initiatives, forest and biodiversity conservation etc. It is important that indigenous peoples start engaging in these initiatives and try to influence their design and implementation to ensure that their interests are taken into account.

(c) Human Rights and Climate Change

To indigenous peoples climate change is not simply a matter of the physical changes in the environments in which they live. They consider climate change a threat to their livelihoods and they fear that their economy and resource use is threatened, followed by an erosion of social life, traditional knowledge and cultures. Climate change brings additional vulnerabilities to indigenous peoples, which add to existing challenges, including political and economic marginalization, land and resource encroachments, human rights violations and discrimination. The potential threat of climate change to their very existence combined with various legal and institutional barriers, which affect their ability to cope with and adapt to climate change, makes climate change an issue of human rights and inequality to indigenous peoples.

Legal and institutional barriers

The legal and institutional barriers identified by the participants include:

- Indigenous peoples have been marginalized, isolated and excluded from key international decisions and processes, although their right to participate in decision-making is confirmed in the UN Declaration on the Rights of Indigenous Peoples and Agenda 21.
- Indigenous peoples' rights are not recognized when national and international climate change policies and initiatives are designed and implemented. In some cases these policies and initiatives lead to e.g. the eviction of indigenous peoples from their traditional lands.
- Inappropriate policies mean that for example pastoralists are provided with maize when what they really need is restocking of their livestock.
- The recognition of indigenous peoples' rights is in some cases linked to past livelihood practices and these rights are not being adjusted to climate changes. Climate change has affected certain animals' migration and breeding patterns in the Arctic, which means that Inuit hunters are no longer able to hunt these species because the hunting seasons are not being changed by the authorities.
- Territorial limitations prevent the mobility of e.g. pastoralists and Saami reindeer herders.
- Indigenous peoples lack access to information as well as technology and resources to tackle the causes of climate change and adapt to its impacts. Long-term adaptation to climate change requires anticipatory actions, which would require considerable investment of capital, labor, and time and in many indigenous regions of the world, there are already constraints on resources and a lack of access to technology.

Participation in international climate change processes

It is important to stress that indigenous peoples recognise the importance and urgency of developing policies and schemes to address climate change. Most of the concerns and protests raised by indigenous peoples relate to the rights to involvement and having impact on the decision-making and implementation processes - rights that are stipulated in the UN Declaration on the Rights of Indigenous Peoples and Agenda 21.

Despite the fact that climate changes are intensely impacting indigenous peoples, they are very rarely considered in public discourses on climate change. In the national, regional and international processes, such as the UN Framework Convention on Climate Change (UNFCCC), where climate change mitigation policies are discussed, negotiated and designed, indigenous peoples have found it very difficult to get their voices heard and their concerns taken into consideration.

Indigenous peoples have participated in the UNFCCC meetings since 2000. However, unlike the Convention on Biological Diversity (CBD) where the International Indigenous Forum on Biodiversity (IIFB) is an advisory body to the Convention, the UNFCCC is not providing similar space for indigenous peoples. In addition to the obstacles to their participation and influence, most indigenous peoples find the UNFCCC too scientific and difficult to understand and are not aware of the various processes in the UNFCCC such as the Clean Development Mechanisms (CDM), carbon emissions trading and Reduced Emissions from Deforestation and Degradation (REDD).

The many climate change mitigation policies and schemes currently being developed are likely to have impacts on indigenous peoples' tenure security, livelihoods etc. because their rights are not taken into account. Despite the danger of further undermining indigenous peoples' livelihood, indigenous peoples are not consulted, which means that the legal and institutional framework guiding the climate change initiatives potentially reinforces inequalities. Hence, an important element in the mitigation schemes relates to power structures: who will control the processes and who will benefit from them.

(d) Livelihood and climate change

In many regions, the negative effects of climate change on indigenous peoples' traditional livelihoods are becoming evident. The impacts of climate change range from affecting agriculture to further endangering food security, to rising sea-levels and the accelerated erosion of coastal zones, increasing intensity of natural disasters, species extinction and deteriorating health. Apart from being highly affected by climate change,

indigenous peoples also risk being heavily affected by the policies and programmes designed to mitigate its effects.

Migration and displacement

In the Pacific, indigenous peoples are being displaced from their traditional lands and territories due to coastal and land erosion caused by large storm-driven waves. Dislocation is a reality in Samoa and Vanuatu, where flooding from extreme weather and rising sea levels have become the norm and thus have serious implications for indigenous peoples residing in the region. There is already concern that climate change will result in revenue loss across sectors such as agriculture, water resources, fisheries, tourism, energy, forestry, and other industry-related sectors, with increased disruption to coral reef habitat.

Indigenous peoples are not only being displaced or forced to migrate due to the effects of climate change but also as a result of initiatives and policies to address climate change and the loss of biodiversity. There is a high correlation between the location of indigenous territories and the areas with the highest biodiversity and the focus on biodiversity protection and renewable energy has led to a dramatic increase in the establishment of protected areas on indigenous peoples' traditional lands and territories, resulting in restrictions on resource use and in some cases resettlement. A case in point is Tanzania where indigenous pastoralists have been forcefully evicted from their traditional land in the Usangu plains due to the creation of a national park to protect a water catchment area, which is providing water for a hydropower plant. The affected families were neither compensated nor provided with essential amenities.

Food and water security

As a result of climate change, some regions experience frequent and prolonged droughts while other areas are affected by increased and unpredictable precipitation leading to flooding, which undermine food security and increases vulnerability. Also fresh water supply is threatened by the increase in the frequency of droughts and the incursion of seawater in flood prone and coastal areas. In Kenya and Tanzania, these extreme weather conditions lead to crop failure, scarcity of pasture, livestock deaths and conflicts over scarce resources, which destroy traditional livelihoods, cause economic losses and make indigenous peoples dependent on emergency relief food and supply of water. In the Himalayan region



Communities will become vulnerable when climate change diminishes their ability to engage in agriculture.

and in the high Andes, glaciers are melting due to an increase in temperatures, which affects agriculture and the natural resources on which indigenous peoples depend. In the Amazon region, climate changes due to deforestation, forest fragmentation and the transformation of tropical rainforest into dry grassland savannah leads to critical loss of biodiversity and severe droughts and has put indigenous livelihood strategies under increased stress.

Traditional knowledge and culture

Climate change has a harmful effect on biological diversity and the related knowledge, innovations and practices of indigenous peoples. Traditional knowledge is an inseparable part of indigenous culture, social structures, economy, livelihoods, beliefs, traditions, customs, customary law, health and their relationship to the local environment. With unprecedented climatic changes, cultural institutions, authorities and livelihood strategies come under increased stress as knowledge based on known indicators and patterns become inadequate to cope with the changes. In the Himalayan region, many glacial lakes are on the verge of bursting due to the increase in water from the melting glaciers. Glacial lakes have cultural, religious and spiritual value for indigenous peoples but the danger, which these lakes now pose in terms of flash floods and landslides means that indigenous peoples in the region have lost important sites for worship.

(e) Adaptation and mitigation

Indigenous peoples are not to be seen as passive and helpless victims of climate change, instead they are active in maintaining many ecosystems and can play an important role in enhancing the resilience of the ecosystems in which they live. Being dependent on a natural resource base, which has always to a certain extent been unstable and unpredictable, means that indigenous peoples have always adapted to changing environments. Indigenous peoples observe, interpret and react to climate change impacts in creative ways, drawing on traditional knowledge and other technologies to find solutions. Since climate change affects indigenous peoples differently depending on the environments in which they live, the adaptation strategies are just as diversified. The adaptation strategies include selection of animal breeds and combination of animals suitable for the environment, diversification of economic activities, changing crop varieties and farming in higher altitudes.

However, in many cases indigenous peoples find their adaptation possibilities and abilities hampered by limited resources, lack of technology and various legal and institutional barriers. Furthermore, the mitigation initiatives designed to halt further climate changes and programmes developed to adjust to the impacts

of climate change have not drawn on indigenous peoples' traditional knowledge and indigenous peoples have not been involved in the design of these programmes. An important programme to learn from in terms of involvement of indigenous peoples and their traditional knowledge is the Ealát Network Study, which aims at preparing reindeer herders and national authorities in the Arctic for climate change and finding adaptation strategies, which integrate indigenous traditional knowledge and scientific knowledge.

IV. Key Issues Identified

Based on the presentations and discussions, the conference participants identified the following key issues of relevance to indigenous peoples and climate change:

(a) Effects of climate change

Indigenous peoples are affected by climate change in multiple ways with the effects varying according to the different locations and ecosystems in which they live; from diminishing sea ice and shifting animal migration routes in the Arctic, to increased fires in tropical rainforests and reductions in rainfall in temperate ecosystems, to intensified threats to water and food security, increased coastal erosion and forced evictions of communities from their traditional territories. In many instances indigenous peoples are also affected by the solutions proposed to reverse the negative impacts of climate change, such as the appropriation of indigenous lands to establish palm oil plantations to produce agro-fuels.

Climate change must, however, be seen in the wider context of indigenous peoples being among the world's most marginalized, impoverished and vulnerable peoples. Climate change magnifies already existing problems because the unprecedented changes in the environment and natural resource base and policies to address these changes erode indigenous peoples' adaptive capacity and community resilience, adversely impact their livelihoods, diminish land rights and further threaten food security. In some cases climate change brings opportunities for indigenous peoples for industrial development, resource extraction and transport. The opening of the Arctic Ocean and the North West Passage due to the melting of sea ice are cases in point. However, such developments intensify the question of indigenous peoples' rights to land and sea and to be involved as partners in the elaboration of new activities affecting their territories.

(b) Adaptation and coping strategies

Indigenous peoples have always adapted to a changing environment and have developed sophisticated and sustainable strategies to cope with environmental changes. Indigenous peoples interpret and respond to

climate change in creative ways, drawing on their traditional knowledge of the natural resource base and other technologies to find solutions. Just as the effects of climate change vary according to specific locations and ecosystems, the strategies employed to cope with these changes vary; from farming in higher altitudes when the mountain glaciers melt to choosing animals and combination of animals with lower food requirements in drought prone areas.

Another barrier is the **lack of involvement of indigenous peoples in decision making processes as well as design and implementation of initiatives to address climate change** at the national, regional and international level. The livelihoods and cultures of indigenous peoples may well depend on their abilities to adapt to climate change and participation in the shaping of the new forms of economies, governance and livelihoods is necessary to meet the challenge of climate change.



Raising animals which can survive in conditions of drought is one way that communities have adapted to the changing climate.

Despite international recognition by e.g. the Convention on Biological Diversity, of the importance of indigenous peoples' traditional knowledge in the conservation and sustainable use of biological diversity, the importance of **indigenous peoples' traditional knowledge** has so far not been recognized in relation to climate change and neither have the contributions this knowledge could provide to find the proper solutions to mitigate the effects of climate change been acknowledged.

Indigenous communities **lack information** about climate change policies and interventions and they are provided with neither **technology** nor **financial resources** to adequately respond to climate change.

(c) Legal and institutional barriers

In spite of a long history of adapting to changing environmental conditions, indigenous peoples today experience that their traditional and other tried coping strategies alone are no longer sufficient to cope with the intensity and frequency of current climate changes and that various legal and institutional barriers prevent them from coping with climate change and the solutions proposed to address it.

The main barrier to indigenous peoples' coping and adaptation capacities is first and foremost the lack of recognition and promotion of their **human rights**. These rights are enshrined in the UN Declaration on the Rights of Indigenous Peoples, which would be crucial to respect and implement in the context of climate changes. Despite being among those most affected by climate change and the solutions proposed to combat these changes, indigenous peoples' rights and concerns have so far been almost invisible in the climate change discussions at the national, regional and international level.

III. Recommendations

In order to overcome the above-mentioned challenges of indigenous peoples to adequately and effectively responding to climate change, the participants adopted the following recommendations directed at the relevant stakeholders. These recommendations are based on the principles of Agenda 21 and the UN Declaration on the Rights of Indigenous Peoples and stress notably indigenous peoples' right to participate and to make decisions based on their free and prior informed consent.

(a) To the Danish Government and Greenland Home Rule

- Take a lead in ensuring indigenous peoples' meaningful participation in COP 15 in Copenhagen in 2009, including in the meetings and negotiation processes leading up to COP 15 in Copenhagen and in other climate change meetings and negotiation processes leading up to the 2012 agreement;

- Ensure that the official *Strategy for Danish support to Indigenous Peoples* is implemented in the government's commitment and initiatives to address climate change; and
- Support indigenous peoples' own initiatives to develop mechanisms on how to cope, adapt or mitigate the effects of climate change on their livelihoods and environments.

(b) To governments and inter-governmental institutions (UN agencies, the World Bank Group and regional development banks)

- Ensure full and effective participation of indigenous peoples in the conception, design and implementation of sustainable solutions to combat climate change. Indigenous peoples' right to participate has been confirmed by Agenda 21 and most recently in article 18 of the UN Declaration on the Rights of Indigenous Peoples;
- Ensure the full and effective participation of indigenous peoples in the UN Framework Convention on Climate Change, including in the meetings and negotiation processes leading up to COP 15 in Copenhagen;
- Make binding commitments to ensure that climate change policies and programmes potentially affecting indigenous peoples are in full conformity with and promote the implementation of international human rights standards, including the UN Declaration on the Rights of Indigenous Peoples and the principles of Free, Prior and Informed Consent. This commitment must encompass all multi- and bilateral agreements and initiatives on climate change;
- Make binding commitment to specifically ensure that all agreements made under the UN Framework Convention on Climate Change are in full conformity with and promote the implementation of international human rights standards, including the UN Declaration on the Rights of Indigenous Peoples and the principles of Free, Prior and Informed Consent;
- Develop mechanisms to avoid ill-conceived climate change mitigation policies and schemes that risk violating the rights of indigenous peoples;
- Respect and take into account indigenous traditional knowledge when identifying and designing climate change mitigation policies and programmes;
- Refrain from supporting policies and programmes that lead to forced eviction of indigenous peoples from their lands and forests in the name of combating climate change;
- Address legal and institutional barriers that prevent indigenous peoples from coping with climate change impacts;

- Develop mechanisms to ensure that information on planned and current mitigation and adaptation schemes is made available to indigenous peoples;
- Support initiatives to conduct participatory and multi-disciplinary research with and among indigenous peoples in the context of climate change; and
- Engage in constructive dialogue with civil society partners, especially with indigenous peoples' organizations.

(c) To universities and research institutes

- Allow for indigenous traditional knowledge to become an integral part of climate change research while ensuring the full and effective participation of indigenous peoples in the research process;
- Identify and promote best practices and lessons that can influence climate change interventions to have positive impacts on indigenous peoples;
- Conduct participatory and multi-disciplinary research with and among indigenous peoples in the context of climate change; and
- Ensure that relevant research is made available to indigenous peoples and to national, regional and international policy makers.

(d) To civil society partners (international and national)

- Support indigenous peoples' meaningful participation in international and national climate change fora;
- Support indigenous peoples' participation in the search for sustainable solutions to combat climate change;
- Support indigenous peoples' capacities to maneuver and negotiate with private companies and governments both in national contexts and in international meetings on climate change issues;
- Support indigenous peoples' networking on climate change issues;
- Use the mechanisms of the UN Expert Mechanism on the Rights of Indigenous Peoples under the Human Rights Council and the UN Special Rapporteur on the situation of human rights and fundamental freedoms of indigenous people to further research and advocacy on indigenous peoples' rights in relation to climate change and climate change policies;
- Facilitate dissemination of relevant research, information and documentation to indigenous peoples and partners;
- Engage in constructive dialogue with sectors involved in climate change e.g. energy sector and automobile industry; and
- Advocate and lobby governments, institutions, and private sector to accept and adhere to these recommendations.

Traditional Knowledge and the Disclosure Requirement in Patenting

by Georgina Wabwire



Traditional knowledge, such as the Maaasai practice of bleeding cattle, must be protected from exploitation by those outside of Indigenous communities.

Traditional knowledge or indigenous Knowledge can be defined as knowledge generated and transmitted in a traditional context or that is distinctively associated with the traditional culture. It covers Agricultural, Scientific, Technical, Medicinal, Ecological and knowledge relating to bio diversity.

Over the years indigenous knowledge has been used at the local level by the communities as the basis for decisions pertaining to food security, human and animal health, education, natural resources management and other vital activities. Indigenous knowledge has been a key element of the social capital of the poor and constitutes their main asset in their efforts to gain control of their own lives. For these reasons, the potential contribution of indigenous knowledge to locally managed, sustainable and cost effective survival strategies should be promoted in the development process.

Indigenous knowledge is very crucial in the livelihood of a majority of Kenyan local communities. It is applied

in agriculture, medicine, energy and environmental conservation, natural product industry and cultural activities. However there is growing evidence of misappropriation of indigenous knowledge and the rights of the farmers and local communities by the corporations and private research institutions that have been patenting biological and genetic materials and relating to their use. Several Kenyan indigenous items such as *kiondo*, *Kikoy*, *Kikuyu grass*, *Prunus Africana*, Lake Bogoria *Extremophile bacteria enzymes* have either been patented or protected under trademark or industrial designs by foreign firms or individuals without reference or compensation to the local communities.

In an effort to protect indigenous knowledge, member states of the *Convention on Biological Diversity* included under *Article 8(j)* and related provisions of the CBD measures that recognize the role of indigenous or local communities and their traditional knowledge, practices, innovations, creations and inventions. However, recognition and protection of indigenous

knowledge under the established intellectual property regimes is not possible. This is because it cannot meet the requirements of patentability, which requires an invention to be new, have an inventive step i.e not obvious to a person skilled in that art, and should be industrially applicable. Indigenous knowledge is not new because it is known to a certain group of community members possibly for a period of time. Further most indigenous knowledge is obvious to the person skilled in that art and is rarely documented which is another consideration for patenting.

It is therefore necessary to devise and adopt methods that ensure that local communities patent their knowledge and benefit from the commercialization aspects of their traditional products. This would probably require a *sui generis* kind of patenting that does not have to meet the normal patenting requirements.

The practice of free access to generic resources has been going on for a long time since the conclusion of the *Convention on Biological Diversity* in 1992. *Articles 8, 15 and 16* of CBD require contracting parties to provide measures that will ensure access and benefit sharing (ABS) of the proceeds of genetic resources and associated indigenous knowledge. This is to make sure that both providers and users of genetic resources can benefit from genetic resources in a fair and equitable manner. *Article 19* encourages parties to put in place proper mechanisms that ensure technology transfer, including biotechnology from developed to developing countries. In this spirit several developing countries have proposed the introduction of the disclosure requirement. This proposal requires patent applicants to mention in their applications, where they got the genetic resources and associated traditional knowledge if their invention concerns living organisms or biological material.

Patent applicants are therefore obliged to disclose the source or country of origin of any genetic resources, submit a certificate of origin (CO), Prior informed Consent (PIC) and demonstrate that they have put in place proper measures for access and benefit sharing, arising from

the genetic resource related invention using legally contractual agreements such as material transfer agreement (MTA).

The main objective of this requirement is to protect local communities embodying traditional lifestyles from people who steal their biological material and knowledge and use it for their own benefit. The requirement aims at reducing biopiracy and misappropriation of genetic resources and associated indigenous knowledge by multinational firms, researchers, scientists and other private institutions. Indeed the right of the indigenous peoples to protect and enjoy their cultural heritage is recognized in a number of international instruments, including the Universal Declaration on human rights, The International Covenant on Civil and Political Rights, the International Covenant on Economic, Cultural and Social rights and The UN Declaration on the Rights of Indigenous Peoples.

Special rights for local communities, traditional medicine practitioners, traditional knowledge and associated products are important and should be accorded special consideration if research and development in Kenya is to succeed. These people are entitled to equitable and fair terms in traditional medicine research and development. The disclosure requirement will positively affect research and development in Kenyan universities and research institutions. However it is only by local communities knowing how and when they will benefit that they will willingly release their indigenous knowledge.



Only communities which are informed of how their traditional or Indigenous knowledge can be protected will be open to sharing it.

Should the disclosure requirement come into force, the National Environmental Management Authority (NEMA) has put in place certain conditions that have to be fulfilled before such patenting is allowed together with the consequences of non-compliance with this requirement. NEMA is mandated under *Section 53 of the Environment Management Coordination Act (EMCA)* to 'issue guidelines and prescribe measures for the sustainable management and utilization of genetic resources of Kenya for the benefit of the people of Kenya.' In accordance with this mandate, NEMA has laid out certain conditions that have to be met in fulfilling this requirement as follows;

- a) Access to biological resources should be subjected to the condition that patents cannot be taken out on the accessed material, biological processes or any of their derivatives without the consent of the provider country;
- b) The applicant should develop an internationally recognized certificate of source/origin/legal provenance to assist in legal certainty in the regulation of access to genetic resources including benefit sharing; a certificate of origin will be a basis of legal certainty on issues of Access and Benefit Sharing, Transparency, Predictability, benefit sharing facilitation, preventing misappropriation, supporting compliance with national law and mutually agreed terms and protection of traditional knowledge.

However this proposal for the introduction of the disclosure requirement has divided the world into two main groups. First are the proponents of the regime, comprising of developing countries including Kenya who believe that the regime can bridge the existing gap between Article 27.3(b) of the WTO-TRIPS Agreement and CBD with respect to traditional knowledge. Such proponents also argue that the disclosure requirement would improve the availability of prior art documents and information on indigenous knowledge to patent examiners to prevent cases where patents whose claims extend to indigenous knowledge are improperly awarded.

However opponents argue that this regime will not reduce biopiracy and misappropriation of genetic resources and associated traditional knowledge but instead it will promote it. For instance the USA argues that the regime will discourage technological innovation, technology transfer and access to information and technology. This seems to be true considering that the patenting process will now become expensive in that acquiring the aforesaid international license requires funds. In addition, testing formulas

obtained from indigenous peoples in order to find out whether they are fit as a medicinal product might prove too expensive for pharmaceutical companies. There is also a widespread fear among NGOs, farmers and indigenous people's organizations that allowing genetic materials to be subjected to intellectual property rights would increase global control of a few corporations over seeds and crops thus increasing farmers' dependence on companies for farm inputs.

Indigenous knowledge and its respective practitioners further face other challenges. There is lack of a strong legal framework to protect practitioners and their formulations, financial constraints for example the need of money to test their products, poor technological know how for mass production, poverty which leads to abandonment or even poor development of indigenous knowledge, lack of recognition of the value and economic benefits of indigenous knowledge, ignorance of patenting rights where the indigenous people are not aware of their right to patent and finally there is the question of who benefits in the case of benefit sharing; is it an individual or a community and if so which community because some indigenous knowledge has evolved from community to community. The following are recommendations of some of these challenges:

- There should be capacity building where the indigenous peoples are informed of Intellectual property rights and generally on the economic benefits of indigenous knowledge.
- Documentation of indigenous knowledge so that it is accessible for use by the future generations.
- Information dissemination on indigenous knowledge in ways that are easily accessible.
- Use of trade secrets where a community can give a potential thief of their knowledge the powder of a certain medicine but not the name.
- The patenting fees should be waived for certain exclusive cases of poor indigenous people.
- The community that was the source of the knowledge should benefit for example through a community project being set up for them.

In conclusion the requirement of applicants for patents to disclose the origin of the genetic resource and produce prior informed consent of the originating provider community or person seems to be a good idea. The disclosed information will be kept in records and used by the community. However the efforts to implement this law should be fast enough to prevent the continuing misappropriation of indigenous knowledge.

Biofuel Production and the Global Food Crisis

by Kaitlin Dearham

Biofuel, fuel that has been derived from plant material, has recently been hailed as a long-term substitute to environmentally destructive fossil fuels. Billed as “clean energy”, biofuel is seen as a way of reducing carbon emissions while still allowing energy consumption. However, the campaign for biofuel as a sustainable source of clean energy does not take the whole story into account. It is necessary not only to look at how these fuels are burned, but where and how they are produced.

As many of the agricultural products widely consumed worldwide, the sugar cane, soybean and other crops used to produce biofuels are mostly grown in developing countries in the global South. Insofar as they are meant to replace a substantial percentage of the oil or coal used in today’s industry and transport systems, the future demand for large amounts of biofuels could mean a future where huge amounts of land in the South are turned over to producing biofuel for export. This raises questions of land ownership, of environmental sustainability and food security, and the cultivation of biofuels has come under fire for diverting fertile land from food production. While it is easy for those in developed countries to continue to consume energy without considering how their fuels are produced, it is not so easy for those in developing countries to ignore the consequences of large-scale monoculture plantations. As industrially-produced commodities such as sugar, rubber, bananas, maize, coffee, cotton, pulpwood and palm oil have already essentially dispossessed millions in the global South, it is safe to say that biofuel production risks having the same detrimental impact on citizens of developing countries.

Two years ago, the United Nation’s Food and Agriculture Organization expected biofuels to help eradicate hunger and poverty for up to 2 million people. Since the FAO report in April 2006, tens of thousands of farmers in the United States alone switched from food to fuel production to reduce US dependence on foreign oil. They received generous subsidies and EU commitments to increase the use of biofuels to counter climate change. At least 8 million hectares of maize, wheat, soya and other crops providing animal feed and food were taken out of production in the United States to make way for biofuel production. As the US only has so much arable land available, much of the biofuel production worldwide is happening in developing countries, particularly in Latin America. Now the

wisdom of diverting food crops for fuel production is coming under close scrutiny.

The recent rise in global food prices, and resulting protests in many developing countries, have brought the question of food security and biofuel to the fore. The crisis in global food prices is partly caused by the increasing use of crops for energy generation, which threatens to trigger global instability. In March 2008 alone, social unrest and riots over food prices took place in Egypt, Cameroon, Cote d’Ivoire, Senegal, Burkina Faso, Ethiopia, Indonesia, Madagascar and the Philippines, some resulting in loss of lives. In Pakistan and Thailand, troops have been deployed in order to protect fields and warehouses from looting. And big-name development partners and international organizations are beginning to take note. Ban Ki-moon, the Secretary-General of the United Nations, is calling for a comprehensive review of the policy on biofuels, though he is still a supporter of their use for the time being. Some of the loudest criticism has come from within UN food agencies struggling to keep up with commodity prices. Jean Ziegler, the UN special rapporteur on the right to food, has called biofuels “a crime against humanity”, and has called for a 5 year moratorium on their production. In March, the World Food Program (WFP) issued an appeal for \$500US from donors to help them achieve their aid targets. WFP has also said that thirty-three countries in Asia and Africa face political instability as the urban poor struggle to feed their families.

Reversing Development

Robert Zoellick, the president of the World Bank, said that the price of all staple food has risen by 33% in the past 3 years, and the price of rice is predicted to rise by 55% in 2008. The global price of wheat has reached 181% over the 36 months leading up to February. The Bank plans to increase lending for agricultural production in Africa from \$420 million to \$850 million per year in 2009. In Bangladesh, where families spend up to 70% of their income on food, more than 50, 000 households are living off emergency food after rice prices rose beyond what most families can afford. In reference to rocketing food prices, one government source was quoted as saying, “one reason is that the overall drop in food production because of biofuels has prevented food from being exported.” In March, Professor John Beddington, a top scientist and food expert from the UK, said that the prospect of food

shortages over the last 20 years was so acute that it must be tackled immediately. "Climate change is a real issue and is rightly being dealt with by major global investment. However, I am concerned there is another major issue along a similar time-scale, an elephant in the room - that of food and energy security."



Biofuel production increases the risk that families such as this Batwa household in Burundi will face serious food security issues.

In April 2008, the World Bank Group released a policy statement on food prices entitled 'Rising Food Prices: Policy Options and World Bank Response'. According to the report, the increase in prices for staple foods will increase the poverty level in several countries. "Indeed," it says, "for many countries and regions where progress in reducing poverty has been difficult, the impact of the current rising food prices risks undermining poverty gains of the last five to 10 years, at least in the short term." For example, in the case of Yemen, estimates show that the doubling of wheat prices over the last year could reverse all gains in poverty reduction achieved between 1998 and 2005. This is due to low-income families having to pay higher prices for essential items, and the government having to channel their energy away from areas such as education and health care in order to address the food crisis.

There have also been concerns over the environmental benefits of biofuels. Though biofuels burn cleaner than fossil fuels, they are much more energy-intensive to produce, and as mentioned, take up large areas of land. This means that existing ecosystems, such as tropical rainforests, have been cleared to produce biofuels. Indigenous peoples, particularly in Latin

America, have been affected as they have been blocked from making land claims by biofuel companies.

Case Study - Sugar cane plantations in Brazil

"I agree that ethanol is an alternative for the future, but not if it takes over everything and butchers our land. We speak out, but you know, our voice is weak. The ethanol plants come and destroy everything. I don't know how much more I can take, I'm scared of sliding into desperation." - Farmer and agrarian reform settler, Nora Alvorada do Sul

Though the transition from the use of fossil fuels to biofuels is made socially acceptable through the use of environmental preservation discourse, a closer look reveals threats in the form of increased deforestation, pressure on ecosystems, competition with food crops and the displacement of rural communities. As the largest

exporter of ethanol worldwide, Brazil is a major player in the production of

biofuels. It is estimated that in order to meet future demands, Brazil will need to double its current ethanol production and increase sugar cane production by 44% in the next seven years. This equates to an expansion of over 3.2 million hectares of arable land.

The cultivation of monocultures over large stretches of land is identified by social movements and environmentalists as a cause of inequality in the countryside and a barrier to maintaining traditional ways of life in rural communities. The expansion of sugar cane is aided by a land market that is characterized by minimal legal and social regulations, which is helpful to those who wish to exploit the system to push out small-scale farmers in order to gain a monopoly over large stretches of land. The increased production in the sugar cane industry is tied to the expansion of plantations, and the consequent reconfiguration in land use puts pressure on rural ways of life.

Land leasing is the principle strategy used by the sugar cane/ethanol sector to expand plantations. A small-scale farmer from Cássia, Minas Gerais, described the process thus: "When you rent to cane growers, you suffer. You stay here, surrounded by cane or you move

into town where everything's different. My dad, for example, he won't take the R\$48,000 that the plant keeps offering, but people who have lived on the land their whole lives suffer when they see their land full of cane." In Minas Gerais triangle, sugar cane plantations on land which is mostly leased are advancing on the production of beef, cattle and leather. A similar situation is occurring in Western São Paulo State. In a rural zone of municipalities of Andradina and Castilho, the substitution of pastoral land led to a drop of more than 326,000 cattle between 2003 and 2006. The number of milking cows fell by 12.3%.

In Iturama in Minas Gerais Triangle, sugar cane plantations completely surround the remaining settlements, and residents say that the proposals to lease or plant sugarcane are constant. They also say that the sugar cane plantations in the region have threatened the fruit and vegetable crops. Farmers have been forced to use a series of agrochemicals to combat the plagues that migrate from sugarcane plantations. As ethanol plants have offered settlers incentives for planting sugar cane, family-based food production is threatened.

Threat to indigenous land

A major social issue arising from the leasing of land to sugar cane plantations is that land that had been marked for agrarian reform (i.e. land redistribution) is increasingly being rented out for sugar cane cultivation. A representative of the rural workers union in Rio Brilhante, Mato Grosso do Sul, noted that "the cane conflict and agrarian reform here in the municipality of Rio Brilhante is extremely difficult. We can't take agrarian reform any further. Since the sugar cane arrived, the number of landless families camped on the side of the highway has only increased." In the state of Mato Grosso do Sul, land disputes increased by 87.5% between 2003 and 2005.

The number of sugar cane plantations in Southeast Mato Grosso has been identified by indigenous leaders as a threat to the indigenous land claim process. There are more land claims in areas in which economic expansion has already taken place, therefore the indigenous population is reduced and the size of the land claimed is smaller. On one hand, politicians and business people see Mato Grosso do Sul as an agricultural expansion zone. On the other hand, indigenous groups continue to claim land as rightfully theirs, and are currently anticipating a prolonged struggle to establish indigenous land in the state. The fact that sugar cane plantations are expanding and land sizes are being reduced is yet another contributing factor to indigenous peoples being distanced from traditional lifestyles.

Indigenous leaders are concerned about the advance of sugar cane surrounding reserves. They fear worsening conflicts, since some plantation areas are already situated on ancestral territories that transcend the limits of reserves.

Environmental Impacts

Beyond the fact that it takes up productive land that has been in indigenous possession or has been used for food production, sugar cane production can also be detrimental to the environment. In Brazil, sugar cane production has caused the destruction of native vegetation; soil and water contamination; atmospheric pollution due to sugar cane fires; and the destruction of biodiversity.

Fires are purposefully set in approximately 80% of the crops. This technique reduces cane stray by 80% to 90%, facilitates manual cutting, and reduces transportation costs. However, conservation areas are often surrounded by cane fields, and local animals are affected by the practice. The crops are burned in a circular pattern, and the animals trapped inside are burned. Others flee to towns. Humans are also affected; in Nova Alvorada do Sul in Mato Grosso do Sul, cane fields are located less than 20 meters away from the houses on the edge of town. The burning-off period brings ash, smoke, fire risk, heat and an increased risk of respiratory illness to these residents. Some of these effects are also experienced by people living more than 30 kilometers from plantations.

Other effects of sugar cane plantations have been illegal deforestation in new plantation areas, and the intense use of agrochemicals. The latter, in conjunction with the deforestation of riverside vegetation, has led to contaminated rivers and streams.

Conclusion and Way Forward

As the current model of production in the sugar cane industry fails to meet minimum standards of environmental and/or social sustainability, it cannot acceptably be called "clean" energy. In the race to produce biofuels, monocultures have posed a significant threat to food production, as well as land claim processes in some parts of the world. The expansion of soy and sugar cane crops has created uncertainties regarding global food availability, given the possibility of substituting crops. As we have seen in the past year, many countries cannot afford to take the risk of supporting biofuel production. As shortages occur and food prices rise, the poor suffer and citizens starve and riot.

One solution to the social impacts of biofuel production is the use of combined crops. There have already been experiments with planting sunflowers together with corn, castor beans with black beans, soy with corn, and peanuts with sunflower. These experiments in multi-cropping should continue to see if they are sustainable; if so, they could help maintain a certain level of food production while still allowing for the cultivation of biofuels. Combining sunflowers with bee hives for honey production is also being tested.

Another possibility is to engage in crop rotation by planting summer and winter crops. Farmers could then plant crops for biofuel production in one season, and food crops in another. Not only does this reduce competition between biofuel and food crops, but it also improves the productivity per hectare in the next harvest.

Even without taking measures to maintain food production, biofuel-producing companies could reduce the environmental and social damage incurred by being more aware of the destructive impacts of their business and changing their policies regarding local and indigenous communities. It is not to their benefit to destroy the very environment that they are using to make money, and are endeavoring to save through the production of “environmentally-friendly” fuels.

Most importantly, reducing energy consumption worldwide will reduce demand for fuel, whether they be fossil fuels or biofuels. As we have seen, the production of any kind of fuel can be damaging both socially and environmentally. By using only the fuel that we need, we can help reduce the need for destructive fuel production.

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Community Based Natural Resource Management

by Edna Kaptoyo

Community Based Natural Resource Management is not a new phenomenon in the management of natural resources; it has been in existence for quite a while and practised by indigenous peoples and local communities. The elements of these natural resources are varied and include wildlife, forest, wetlands, grasslands, land and minerals. The aspects that define community based natural resource management are the extent of access, control, planning and participation, ownership, enterprise/benefit sharing of the output and community involvement in conservation at all levels. Community Based Natural Resource Management can be considered a management strategy aiming to reduce poverty, conserve natural resources and promote good governance and decentralization, in a single process. Obviously, communities must also be capable of and interested in managing nearby natural resources.

Indigenous Peoples and Local Communities used to rely on their traditional practises and knowledge of managing the natural resources, which was part of the community code of conduct. For instance, the pastoralists adopted a mechanism of utilising the grasslands through a rotational system that also conserved water points and thus enabled their animals to survive in the midst of drought season. The fisher communities in Sudan used to utilise traditional management practises that enabled them to control the fish stocks and thus ensured their sustainability over time. The people used to have a specific type of net for fishing that would not catch the small fish stocks giving them time to mature and reproduce. The community also had punitive measures for those who did not abide by such rules by forcing them to pay fines to the village head in terms of rare animal skin. These forms of traditional natural resource management by the communities ensured that the resources were used in a sustainable manner.

Even though communities have adopted these practises over time and are still in practice, recently there has been an advent of environmental degradation, drying up of swamps, conflicts and competition over resources and blockage of migratory routes by population settlements and most of all impacts of climate change that have made the indigenous peoples and local communities vulnerable.

Involving local communities and securing the rights of poor and marginalized groups in sustainable management of natural resources is a central theme in community and national development. Accordingly, Community-Based Natural Resource Management must establish significant economic incentives at the community level for managing and conserving the resource, which is closely related to clearly defined and officially supported tenure systems as well as revenue-sharing mechanisms. Furthermore, it should coordinate resource use among numerous individuals to establish an 'optimal' rate of production and consumption at the local level as well as for society at large. Community control over a substantive portion of the values generated by managing the resource also forms a crucial part of the economic incentives established through Community Based Natural Resource Management.

A community may, for instance, have to reduce or completely stop their extraction of a particular natural resource in order to gain authority over it and to maintain its productive potential. This will have at least short-term negative impacts on households whose livelihoods rely mostly on products from this resource, unless they are compensated for their loss. Likewise, in situations where strong political or commercial interests are against decentralized natural resource management, Community Based Natural Resource Management may not (yet) be politically feasible.

Support mechanisms for Community Based Natural Resource Management success

A successful implementation of CBNRM often requires changes at three different levels of society: the national level, the local level, and the link between these, the intermediate level. At the national level, policies and the legislative framework normally needs adjustment and revision to establish an enabling environment that makes CBNRM attractive to local communities. At the intermediate level, it is important to promote the model of decentralized natural resource management that is most likely to work under the given political circumstances. In particular, this involves a choice between: devolution of natural resource management authority to elected local governments, deconcentration of line agencies, and authorizing district-level officers to delegate management authority to local communities. At the local level, it is crucial that CBNRM establishes significant economic incentives for managing and conserving the resource, which is closely related to clearly defined and officially supported tenure systems, as well as to revenue-sharing mechanisms. Furthermore, CBNRM should result in a coordination of resource use by numerous individuals, thus establishing an 'optimal' rate of

production and consumption at the local level as well as for society at large.

In practical terms, it is the elaboration, implementation and experience-based revision of resource management plans at local levels that determine the actual performance of Community Based Natural Resource Management on the ground. The poverty reduction rationale of CBNRM, as an alternative to open access resource use, is that the total resource value can be maintained or enhanced, and that the costs and benefits of management can be distributed equitably so that all community members, within a reasonable time horizon, experience a net gain, or at least a zero loss.

Resource conservation requires harvest not to exceed increment over the long term. This calls for reasonably accurate knowledge about the extent and growth of the resource, as well as reliable recording of harvest volumes which the Indigenous Peoples and local communities possess through their traditional knowledge. Even so, Community Based Natural Resource Management could still fail at the local level if inefficient rule enforcement allows free-riders to over-harvest the resource, and/or if inequitable distribution of costs and benefits leads to a breakdown of management rules and subsequent over-harvesting or permanent marginalization of certain groups.

Therefore, the establishment and maintenance of good governance or "appropriate decision-making arrangements" is the only feasible way to prevent the failure (or ensure the success) of CBNRM. Decision-making arrangements specify who decides what in relation to whom. Good governance at the local level can be promoted through CBNRM legislation that establishes democratic conditions of collective choice, so that all members of a community (including women and other potentially vulnerable groups) get the opportunity to participate in defining: the purpose of resource management, and the resulting management plan, including how it is enforced, and how products and benefits from the common resource are distributed. Furthermore, communities must hold authority to control free-riding by punishing defaulters, and community leaders must be downwards accountable to the people they represent. Once initiated, Community Based Natural Resource Management cannot be assumed to be a guaranteed self-sustaining success which needs no monitoring or adjustment. Regular monitoring of CBNRM processes should be conducted to adjust associated policies, legislative framework and implementation strategies, so that failures may be corrected and positive effects enhanced. Monitoring the progress of planned CBNRM activities should be simple and embedded within

existing official monitoring systems to ensure sustainability.

Management plans are developed by local management bodies in accordance with certain conditions of collective choice, through which the *purpose* of management is defined (which products and services should and should not be generated). Moreover, the capacity of the group to make a collective decision binding on all relevant individuals is an important aspect of conditions of collective choice. However, the presence of agreed rules does not guarantee a particular behaviour of individuals, and if there are too many free-riders, or a lack of assurance that others are not free-riders, nobody is likely to follow otherwise agreed rules in the long run. Governments can promote

“appropriate decision-making arrangements” (good governance) at the local level through nominal resource legislation. This should establish democratic conditions of collective choice, so that all members of a community (including women and other potentially vulnerable groups) get the opportunity to participate in defining: (i) the purpose of resource

management and (ii) the resulting management plan including how it is enforced and how products and benefits from the common resource are distributed. Communities must also hold authority to control free-riding by punishing defaulters.

The decision-making arrangements should, as far as possible, prevent elite capture as well as majority rule, and secure that locally elected management committees are made downwards accountable to the community members they represent. In practice, this may be promoted through legislative requirements of regular management committee elections, frequent general (village) assemblies, frequent oral public reporting of activities, income and expenditures by

the committee (allowing illiterate people to digest the information), and unlimited access to accounts and records for all community members. In addition, it must be possible to depose management committees through democratic processes (votes of no confidence) between regular elections. Sometimes, men and women, pastoralists, etc. within a defined community do not give equal priority to all kinds of products that a given resource may deliver, and this can be a source of conflict, including marginalization of the weakest parties. Nominal Community Based Natural Resource Management legislation may, however, alleviate such problems by providing for the establishment of interest-based resource managing sub-communities, e.g. women’s groups, which hold exclusive rights vis-à-vis the larger community of which they are a part.



Participants in a recent meeting on community-based resource management in Nairobi, Kenya: CBRM is becoming better known and accepted amongst development organizations and partners.

The linkages between poverty reduction, resource conservation and good governance

The close link between the three objectives of poverty reduction, resource conservation, and good governance is increasingly acknowledged by various international and national actors, including development practitioners as well as conservationists, and is reflected in many countries’ development strategies. The objective of poverty reduction is closely linked with natural resource conservation, because poor people in developing countries depend on natural resources for their livelihoods. It is therefore important to ensure sustainable management of these resources. Effective and equitable natural resource management

and conservation, on the other hand, require genuine involvement by the social actors who depend on the resource. Involvement of poor people in natural resource management is often best achieved through the decentralization of authority over the resources, and this cannot be approached in isolation from the need to promote good governance. In simple terms, *governance* means the process of decision-making and the process by which decisions are implemented (or not implemented). In recent years, requirements to the political and administrative system of being democratic, responsive, effective etc. have increasingly been conceptualized as important elements of good governance. Decentralization is often seen as an important means to foster and nurture the important elements of good governance in developing countries. Policy-makers and researchers recommend decentralized natural resource management for many reasons. Some of them are that: local people are likely to identify and prioritize their environmental problems more accurately than centralized organisations, resource allocation is more efficient and transaction costs lower when decisions are taken locally, so that state expenditure on management can be reduced, while resource conservation is improved, local groups are more likely to respect decisions that they have participated in taking, monitoring of resource use is improved, and marginalized groups gain greater influence on local policy.

Community Based Natural Resource Management initiatives are likely to be effective only if supported - or at least not impeded - by national decision-makers as well as national legislation and policies. It is important to support the development of CBNRM policies within relevant sectors, because they define the political visions according to which legal and administrative frameworks for CBNRM may be developed. One of the tricky issues in approaching the national level is that, for a number of reasons, central governments and line ministries may be hesitant to delegate power to local organisations. National-level decision-makers might fear losing revenues and, hence, personal and institutional benefits, but resistance may also reflect genuine concerns over lack of capacity and staff to implement institutional changes, or concerns that Community Based Natural Resource Management may lead to social tensions or environmental degradation, thus undermining political stability. Whatever the reasons, no or mere pro-forma decentralization could be the unfortunate outcome, in which transfers of responsibilities are not complemented by genuine rights of local communities to benefit from managing natural resources. Decentralization may also become restricted to resources that are heavily depleted or commercially unimportant.

Global warming solutions are hurting indigenous peoples, says United Nations

Large-scale solutions intended to help mitigate global warming are harming the very indigenous peoples who are likely to bear the brunt of climate change, warned the United Nations University (UNU) at a conference in Darwin, Australia.

Biofuel plantations, renewable energy projects like hydroelectric dams, and measures to protect forests as carbon sinks threaten to undermine rights of indigenous groups. Such initiatives boost the value of land and increase the likelihood that indigenous people will be displaced.

“Indigenous peoples regard themselves as the mercury in the world’s climate change barometer,” said UNU Director A.H. Zakri. “They have not benefited, in any significant manner, from climate change-related funding, whether for adaptation and mitigation, nor from emissions trading schemes. The mitigation measures for climate change are very much market-driven and the non-market measures have not been given much attention.”

Noting that there are at least 370 million indigenous people around the world living carbon neutral or carbon negative life styles, Zakri said that climate change presents these groups with rising sea levels; increased risk of diseases including cholera, malaria and dengue fever; higher incidence of drought and desertification; melting glaciers and thawing permafrost; greater food insecurity from coral bleaching and increasingly unpredictable growing seasons; increased likelihood of damage from invasive species; more extreme weather, including storms and hurricanes; and changes in the biodiversity on which they stake their livelihoods.

Controversy over carbon offsets for forest conservation

UNU highlighted controversy over the United Nations Framework Convention on Climate Change (UNFCCC)’s recent decision to include forestry as a way to offset

greenhouse gas emissions. The mechanism, which has been hailed by scientists and environmentalists as a way to fund forest conservation while at the same time fighting climate change, was criticized in a paper by Estebancio Castro Diaz, a Kuna Indian from Panama who works for the Global Forest Coalition.

“Despite recent developments in international law in relation to Indigenous Peoples rights, Indigenous Peoples still have limited or in some instances no participation in the decision-making processes of the United Nations Framework Convention on Climate Change (UNFCCC),” wrote Diaz. “The UNFCCC instigated negotiations between Member Parties to explore ways and means to reduce emissions of deforestation and degradation in developing countries (REDD). These negotiations have taken place and continue to take place without any meaningful participation by Indigenous Peoples. Yet Indigenous Peoples rights and their experience in sustainable forest management mean that their participation in these fora is imperative, in the REDD discussions or any other discussions relating to environmental protection.”

Diaz said that without formal land rights, indigenous people may get left out of compensation schemes for environmental services provided by forests and other ecosystems. The U.N. estimates that the market for REDD alone could reach \$100 billion.

Still some are hopeful that REDD could offer indigenous groups new ways to earn an income while allowing them to continue living in traditional ways should they so desire.

“The proposal to reduce emissions through deforestation and degradation (REDD), if done the right way, might be an opportunity to stop deforestation and reward indigenous peoples and other forest dwellers for conserving their forests,” wrote Victoria Tauli-Corpuz, an Igorot from the Philippines, and Aqqaluk Lynge, an Inuit from Greenland. “Indigenous agroforestry practices are generally sustainable, environmentally friendly, and carbon-neutral. When the Bank launched its Forest Carbon Partnership Facility in Bali, it received a lot of criticism from indigenous peoples, who had been excluded from the conceptualization process in spite of the fact that they are the main stakeholders where tropical and sub-tropical forests are concerned. To remedy this weakness, the World Bank will hold consultations with indigenous peoples from Asia, Latin America and Africa.”

Dr. Daniel Nepstad, a scientist at the Woods Hole Research Institute who works in the Amazon basin,

said that indigenous groups must be fairly compensated for carbon offset initiatives to be successful. He cites the Xingu indigenous reserve in the heart of the agricultural frontier of the Brazilian Amazon as an example.

“Inside the Xingu indigenous reserve... Indians could really be seen as the guardians of the forest for keeping it standing against the economic interests. The state is supposed to take care of the reserve, but in fact the Indians do a perfect job in that region,” he told mongabay.com. “The Indians who live in the Xingu park need to be compensated. So that’s where REDD comes in.”

Renewable energy and biofuels

Participants in the UNU meeting said that booming interest in renewable energy has further marginalized indigenous populations. In Indonesia and Malaysia, forest people have been displaced by the rapid expansion of oil palm plantations, while groups in other parts of the world have lost land to dams, nuclear waste sites, and soy farms. Tauli-Corpuz and Aqqaluk Lynge added that the surging market for biofuels have driven up prices for food, making it more difficult for some indigenous populations to feed themselves.

Effects of climate change on indigenous peoples

UNU included a brief overview of the effects of climate change on indigenous people on a regional basis:

Africa

There are 2.5 million kilometers of dunes in southern Africa covered in vegetation and used for grazing. However the rise in temperatures and the expected dune expansion, along with increased wind speeds, will result in the region losing most of its vegetation cover and become less viable for indigenous peoples living in the region.

As their traditional resource base diminishes, traditional practices of cattle and goat farming will disappear. There are already areas where indigenous peoples are forced to live around government-drilled bores for water and depend on government support for their survival. Deteriorating food security is a major issue for indigenous peoples residing in these drylands.

Asia

In Asia’s tropical rainforests, a haven for biodiversity, as well as indigenous peoples’ cultural diversity, temperatures are expected to rise 2 to 8 degrees

Celsius, rainfall may decrease, prompting crop failures and forest fires.

People in low-lying areas of Bangladesh could be displaced by a one-meter rise in sea levels. Such a rise could also threaten the coastal zones of Japan and China. The impact will mean that salt water could intrude on inland rivers, threatening some fresh water supplies.

In the Himalayas high altitude regions, glacial melts affect hundreds of millions of rural dwellers who depend on the seasonal flow of water. There might be more water on a short term basis, but less on a long term basis as glaciers and snow cover shrink.

The poor, many of whom are indigenous peoples, are highly vulnerable to climate change in urban areas because of their limited access to profitable livelihood opportunities and will be exposed to more flood and other climate-related risks in areas where they are forced to live.

Central and South America and the Caribbean

This very diverse region ranges from the Chilean deserts to the tropical rainforests of Brazil and Ecuador, to the high altitudes of the Peruvian Andes.

As elsewhere, indigenous peoples' use of biodiversity is central to environmental management and livelihoods. In the Andes, alpine warming and deforestation threaten access to plants and crops for food, medicine, grazing animals and hunting.

Earth's warming surface is forcing indigenous peoples in this region to farm at higher altitudes to grow their staple crops, which adds to deforestation. Not only does this affect water sources and leads to soil erosion, it also has a cultural impact. The uprooting of Andean indigenous people to higher lands puts their cultural survival at risk.

In Ecuador, unexpected frosts and long droughts affect all farming activities. The older generation says they no longer know when to sow because rain does not come as expected. Migration offers one way out but represents a cultural threat.

In the Amazon, the effects of climate change will include deforestation and forest fragmentation and, as a result, more carbon released into the atmosphere, exacerbating climate change. The droughts of 2005 resulted in western Amazon fires, which are likely to recur as rainforest is replaced by savannas, severely affecting the livelihoods of the region's indigenous peoples.

Coastal Caribbean communities are often the center of government activities, ports and international airports. Rapid and unplanned movements of rural and outer island indigenous residents to the major centers is underway, putting pressure on urban resources, creating social and economic stresses, and increasing vulnerability to hazardous weather conditions such as cyclones and diseases.

The relationship between climate change and water security will be a major issue in the Caribbean, where many countries are dependant on rainfall and groundwater.

Arctic

The polar regions are now experiencing some of Earth's most rapid and severe climate change. Indigenous peoples, their culture and the whole ecosystem that they interact with is very much dependent on the cold and the extreme physical conditions of the Arctic region.

Indigenous peoples depend on polar bears, walrus, seals and caribou, herding reindeer, fishing and gathering not only for food and to support the local economy, but also as the basis for their cultural and social identity. Among concerns facing indigenous peoples: availability of traditional food sources, growing difficulty with weather prediction and travel safety in changing ice and weather conditions.

According to indigenous peoples, sea ice is less stable, unusual weather patterns are occurring, vegetation cover is changing, and particular animals are no longer found in traditional hunting areas. Local landscapes, seascapes and icescapes are becoming unfamiliar.

Peoples across the Arctic region report changes in the timing, length and character of the seasons, including more rain in autumn and winter and more extreme heat in summer. In several Alaskan villages, entire indigenous communities may have to relocate due to thawing permafrost and large waves slamming against the west and northern shores. Coastal indigenous communities are severely threatened by storm-related erosion due to melting sea ice. Up to 80% of Alaskan communities, comprised mainly of indigenous peoples, are vulnerable to either coastal or river erosion.

In Nunavut, elders can no longer predict the weather using their traditional knowledge. Many important summer hunting grounds cannot be reached. Drying and smoking foods is more difficult due to summer heat undermining the storage of traditional foods for the winter.

In Finland, Norway and Sweden, rain and mild winter weather often prevents reindeer from accessing lichen, a vital food source, forcing many herders to feed their reindeer with fodder, which is expensive and not economically viable long term. For Saami communities, reindeers are vital to their culture, subsistence and economy.

Central and Eastern Europe, Russian Federation, Central Asia and Trans-Caucasia

Survival of indigenous peoples, who depend on fishing, hunting and agriculture, also depends on the success of their fragile environment and its resources. As bears and other wild game disappear, people in local villages will suffer particular hardships. Worse, unique indigenous cultures, traditions and languages will face major challenges maintaining their diversity.

Indigenous peoples have noticed the arrival of new plant species that thrive in rivers and lakes, including the small flowered duckweed which has made survival difficult for fish. New bird species have also arrived and birds now stay longer than before.

Changes in reindeer migration and foraging patterns, sparked by fluctuating weather patterns, cause problems also in this region, whose indigenous people have witnessed unpredictable and unstable weather and shorter winters.

North America

About 1.2 million North American tribal members live on or near reservations, and many pursue lifestyles with a mix of traditional subsistence activities and wage labour. Many reservation economies and budgets of indigenous governments depend heavily on agriculture, forest products and tourism.

Global warming is predicted to cause less snowfall and more droughts in many parts of North America, which will have a significant impact on indigenous peoples. Water resources and water quality may decrease while extended heat waves will increase evaporation and deplete underground water resources. There may be impacts on health, plant cover, wildlife populations, tribal water rights and individual agricultural operations, and a reduction of tribal services due to a decrease in income from land leases.

Natural disasters such as blizzards, ice storms, floods, electric power outages, transportation problems, fuel depletion and food supply shortages will isolate indigenous communities.

Higher temperatures will result in the loss of native grass and medicinal plants, as well as erosion that allows the invasion of non-native plants. The zones of semi-arid and desert shrubs, cactus, and sagebrush will move northward. Finally, fire frequency could also increase with more fuel and lightning strikes, degrading the land and reducing regional bio-diversity.

Pacific

Most of the Pacific region comprises small island states affected by rising sea levels. Environmental changes are prominent on islands where volcanoes build and erode; coral atolls submerge and reappear and the islands' biodiversity is in flux. The region has suffered extensively from human disasters such as nuclear testing, pollution, hazardous chemicals and wastes like Persistent Organic Pollutants, and solid waste management and disposal.

High tides flood causeways linking villages. This has been particularly noticeable in Kiribati and a number of other small Pacific island nations that could be submerged in this century.

Migration will become a major issue. For example, the people of Papua New Guinea's Bougainville atoll island of Cartaret have asked to be moved to higher ground on the mainland. The people of Sikaiana Atoll in the Solomon Islands have been migrating primarily to Honiara, the capital. There has been internal migration from the outer islands of Tuvalu to the capital Funafuti. Almost half of Tuvalu's population now resides on the Funafuti atoll, with negative environmental consequences, including increased demand on local resources.

Warmer temperatures have led to the bleaching of the Pacific Islands' main source of survival – the coral reefs. The algae that help feed coral is loosened and, because the algae give them colour, the starved corals look pale. Continued bleaching ultimately kills corals. Coral reefs are an important shelter for organisms and the reduction of reef-building corals is likely to have a major impact on biodiversity. Tropical fishery yields are on the decline worldwide and it is now clear that the conditions may become critical for the local fish population.

Agriculture in the Pacific region, especially in small island states, is becoming increasingly vulnerable due to heat stress on plants and saltwater incursions. Hence, food security is of great concern to the region.



Building climate resilience in Africa: Turning political commitment into action

by Georgina Wabwire and Edna Kaptoyo

It is predicted that the African continent will be the most affected by the adverse effects of climate change. This is despite the fact that Africa has not historically contributed to climate change and its forests have provided a significant sink for the the carbon dioxide emitted by industrialized countries. Climate records show warming of approximately 0.7°C over most of the continent during the 20th century, a decrease in rainfall over large portions of the Sahel, and an increase in rainfall in East and Central Africa.

Climate change scenarios from Africa, based on results from several general calculation models using data collated by the Intergovernmental Panel on Climate Change (IPCC), indicate future warming across Africa ranging from 0.2°C per decade (low scenario) to more than 0.5°C per decade (high scenario).

With a more rapid warming scenario, large areas of Africa would experience rainfall that significantly exceeds natural variability in the December to February and June to August periods, with resultant adverse impacts on many sectors of the economy including agriculture, infrastructure, and health with consequent effects on economic growth and poverty reduction. This calls for urgent action and greater preparedness for measures to mitigate the causes and impacts of climate change.

The main expected impacts of climate change in Africa include the following;

- Increases in drought, flood, windstorms and other extreme climate phenomena, which will reduce freshwater availability, threaten food security and human health, diminish industrial production and weaken the physical infrastructure base for socio-economic activity, resulting in reduced development;
- Changes in rainfall including a likely increase in rainfall in East Africa, and drying in southeast Africa, more intense land use will result in increased

deforestation, loss of forest quality, and woodlands degradation across the continent that will worsen desertification particularly in West, northern and southern Africa. This will exert greater pressure on already strained coping strategies and will very likely result in increased poverty.



Shifts in climatic conditions in Africa will make local and Indigenous lifestyles difficult to sustain, resulting in poverty.

- Sea level rise leading to coastal erosion and flooding, particularly in West, eastern and North Africa, and bleaching of coral reefs along the Red Sea and Indian Ocean Coastal Zone. With more than one-quarter of the population living within 100km of the coast and most cities concentrated along the coastline, the vulnerability to marine-induced disaster from tidal waves and storm surges will increase. For example, projections show that the combined effects of ice melting and sea water expansion from ocean warming are projected to cause the global mean sea level to rise by between 0.1 and 0.9 meters between 1990 and 2100.
- A decrease in river basin run-off and water availability for agriculture and hydropower generation due to changes in rainfall and river sensitivity to climate variation will likely result in increased cross-boundary tensions.

The impacts of these changes are likely to include; loss of biodiversity, reduced agricultural production,

reduced fresh water availability, increased health problems and increased migration.

The AU/NEPAD Environment Action Plan, as well as African positions reached in various climate-related forums and meetings, highlight the need to have adaptation and mitigation measures as an integral part of any national programme or action plan for combating climate change. It is in this spirit that AMCEN (Africa Ministerial Conference on the Environment) organized its 12th session to provide a platform for environment ministers to review the progress made in the implementation of the action plan for the environment initiative of the New Partnership for Africa's Development (NEPAD), with a view to enhancing its implementation.

The African Ministerial Conference on the Environment (AMCEN) was established in Cairo, Egypt in 1985 following the adoption of the Cairo Programme for African Cooperation. For over 20 years, AMCEN has facilitated the broadening of the political and public policy debate regarding Africa's environment ministers. AMCEN aims to strengthen cooperation between African governments on economic, technical and scientific activities in order to halt the degradation of Africa's environment.



Water shortages will impact the local communities more than ever if action is not taken.

AMCEN's mandate is to: provide information and advocacy for environmental protection in Africa; ensure that the basic human needs are met adequately and in a sustainable manner; ensure that socio-economic development is realized at all levels; and ensure that agricultural activities and practices meet food security of the region. In addition, AMCEN also serves as a forum to:

- Provide continent-wide leadership by promoting awareness and consensus on global and regional environmental issues, especially those relating to international conventions on biodiversity, desertification and climate change;

- Develop common positions to guide African representatives in negotiations for legally binding international environmental agreements;
- Promote African participation in international dialogue on global issues of crucial importance to Africa;
- Review and Monitor environmental programmes at the regional, sub-regional and national levels;
- Promote the ratification by African countries of multilateral environmental agreements relevant to the region; and
- Build African capacity in the field of environmental management.

The 12th session of AMCEN provided a forum to address emerging environmental challenges in Africa, particularly those related to climate change. During the session, African Civil Society Organisations came up with a communiqué, making certain recommendations on the environment whereas the ministers came up with the *Johannesburg Declaration on Sustainable Development*.

In their communiqué, the civil society organisations made certain recommendations which can be summarized as follows;

- The right to energy includes the right to emit an equal amount of carbon, per person, on a planetary basis. Over-emitters should compensate those who save on emissions. The roles of men and women in energy use are different, and no new burdens for energy provision should be imposed on women.
- African governments should build the capacity of local scientists and engineers with a view to strengthening indigenous technology suitable for their environment and economy.
- The polluter pays principle should apply to historical greenhouse gas emissions as well as current emissions. The payment should be mandatory compensation.
- The need by African policy makers to prioritize climate change as a sustainable development issue with an African perspective.
- Special attention should be given to marginalized groups such as women, children, rural folk, and the pastoralists.
- The best way to address the impacts of climate change on the poor is by integrating adaptation responses into pre-disaster and development planning.

- Developed countries should fulfill their financial commitments under the climate convention and the Kyoto protocol. Such funding flows should be predictable, reliable, additional and reportable.

In the Johannesburg declaration on the environment for sustainable development, the ministers in summary resolved to:

- Continue implementing fully the action plan of the environment initiative of the New Partnership for Africa's Development, and the sub-regional environmental action plans;

- Mainstream climate change adaptation measures into their national and, where appropriate, regional development plans, policies and strategies with the view to ensuring adequate adaptation to climate change in areas such as water resources, food and energy security, and management of coastal and marine resources;

- Call for the modification of the Clean Development Mechanism (CDM) to enhance its contribution to sustainable development efforts on the continent as well as provide increased support for the introduction of climate change mitigation measures and technologies in African countries.

- Request the African Union to consider hosting an African-Leaders climate change Summit to be held back to back with the African Union Summit in 2009.

- Commit ourselves to the issues highlighted at the twelfth session of the conference and give effect to the decisions adopted by the African Ministerial Conference on the Environment at its twelfth session, held in Johannesburg, on 12th June 2008.

It's no doubt that political commitments such as the ones above from both governments and the international community have been in place since the facts of climate change were established by science. However despite these commitments, the poor in Africa are still suffering, losing lives, livelihoods and life-supporting systems. This is a thorny irony, taking into account Africa's acute vulnerability and its legitimate development needs as well as the significant additional financial burden that adaptation will create. There is an urgent need to turn these political commitments into action. African countries should build resilience by maintaining the delivery of vital services and resources to meet both short-term and long-term needs to prepare for shocks and complex changes through adaptation. Building resilience-thinking into policy and practice will be a major task and the African countries need support from the developed countries.

Adapting to Climate Change in Africa: The role of research and capacity development

by **Fatima Denton, Mary O'Neill and John M. R. Stone**

Adapting to climate change is no longer merely a policy option—it is now an imperative. The Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report, released in 2007, concludes that climate change is unequivocal, and a range of impacts over the next few decades are inevitable given the changes we have already made to the composition of the atmosphere. The report also reaffirms that Africa is one of the most vulnerable regions of the globe because of its high dependence on rain-fed agriculture and limited financial and human capacity to adapt to these changes. In sub-Saharan Africa, rain-fed agriculture provides food for roughly 90 percent of the population, generates around 30 percent of GDP, and provides some 75 percent of the poorest people with their livelihoods. Surface water is relatively limited. Five major river basins—the Nile, the Congo, the Niger, the Chad and the Zambezi—are major surface water sources and sustain 45 percent of the continent's people. These basins are projected to be adversely affected by changes in rainfall.

Given the threat climate change poses to the hard won development gains Africa has made over the last half century, Canada's International Development Research Centre (IDRC) and the United Kingdom's Department for International Development (DFID) launched the Climate Change Adaptation in Africa (CCAA) program in 2006. The CCAA aims to establish a self-sustained African body of expertise on adaptation that responds to the needs defined by African communities, decision makers and organizations. In recognition of the long-term nature of climate impacts, DFID and IDRC have made a five-year commitment, with initial five-year funding of Canadian \$65 million.

A need for capacity development

Observed temperature increases indicate a greater warming in Africa in recent decades of around 0.3°C per decade, although this has not been uniform. Rainfall changes exhibit even greater variation in time and space. Variability between years has increased in recent decades with more intense and widespread drought and floods. Medium-high IPCC emission scenario climate models project a warming for Africa of 3-4° C by 2080, but with considerable differences across the continent.

African societies have continuously developed local adaptation strategies to cope with extreme weather events, such as droughts. But the expected regional changes in climate, and the subsequent impacts—especially on water availability, agricultural production and human health—will severely strain their coping capacity.

To build on existing know-how, while addressing the reality that many African countries cannot cope with the current impacts of climate variability, the CCAA program uses a multi-layered approach to capacity development. The concept of “participatory action research” is central to its approach and is applied at the level of individual projects. Project-level capacity is further reinforced through a series of education and training and knowledge-sharing activities that link individual project partners, and extend learning to the wider regional and international community. The aim is to see researchers, local stakeholder groups, and organizations strengthened and capable of informing policies that will benefit vulnerable groups by providing solid, locally tested knowledge.



Without the skills to adapt, these communities will suffer as African countries experience increased desertification.

Learning by doing through participatory action research

Participatory action research engages research users from the beginning to the end, from defining the problem to carrying out and monitoring the research. Depending on the context, the users may be small-scale farmers, local officials, national ministries, or other individuals or institutions that directly benefit from the shared enquiry. They set the context for the research, bringing an understanding of the many climate-related impacts they experience or expect, and identifying the resources available to respond. Capacity building is inherent, in that it is an active process of “learning by doing” whereby the skills and knowledge of all participants are increased. It is also inherently

a development process, in that the research involves the direct testing of adaptation solutions. Implementation is thus built into the research.

Participatory action research weds scientific and local knowledge to assess climate-related impacts and the ability of stakeholders to cope with them, and tests and validates existing local adaptation strategies. The linkages between researchers, decision makers and communities help to ensure that the research is driven by the demands of research users, rather than the available supply of research organizations.

Building a base of strong African institutions for responding to climate change

The Climate Change Adaptation in Africa program sees capacity development as an ongoing process that should continue beyond the life of the projects it funds. The program thus aims to leave a legacy of strong African research organizations capable of contributing to the field of adaptation. To further strengthen the existing base, the program supports targeted capacity building activities, including education and training workshops: a program of policy research and teaching fellowships with related curriculum development and the strategic matching of African and international institutions, where outside knowledge and resources can enhance given areas of expertise.

Since July 2007, a series of education and training workshops has been taking place across the continent to enhance the skills and knowledge essential to undertaking action research on adaptation among the program’s first funding recipients. Topics have included integrated climate risk assessment, research on policy linkages and project management. Training on proposal development for research institutions actively interested in the field of climate change adaptation has also been offered. Training on participatory action research and gender analysis is planned for 2008.

In recognition of the existing organizations involved in adaptation research and training in Africa, in 2008 a series of research awards and fellowships will be launched by a CCAA-supported partnership, with START (the global change SysTEm for Analysis, Research and Training), the African Academy of Sciences, and the Institute of Resource Assessment (IRA) of the University of Dar es Salaam. The African Climate Change Fellowships will allow 58 early- to mid-career African professionals and researchers to pursue doctoral and post doctoral, teaching or policy-focused studies. It is hoped that teaching fellowships will permit African faculty to develop and implement new courses related to climate change at African universities.

Sharing knowledge for learning and policy influence

The CCAA will also act as a facilitator by creating opportunities for knowledge to be shared and translated into forms that can be applied to practices or policies that will benefit communities most affected by climate variability and change. Knowledge sharing is at the heart of participatory action research and is therefore core to every CCAA-supported project, each of which aims to test and validate a combination of local and scientific knowledge.

To see the wide benefits that arise within individual projects, the CCAA will support a series of networking and knowledge exchange activities to extend the learning and policy dialogue. These activities will be coordinated by: the Forum for Agricultural Research in Africa (FARA), a pan-African agricultural research organization with its secretariat in Ghana; the Institute for Development Studies, a UK-based organization with extensive experience in developing and hosting knowledge services on international development issues; ENDA-TM, a major international NGO based in Senegal; and the IGAD Climate Predictions and Applications Centre (ICPAC), a leading regional climate information organization based in Kenya. As with other areas of the CCAA program, leadership of knowledge sharing activities will ultimately devolve to African organizations.

Addressing Africa's greatest climate adaptation needs

Helping to increase resilience in the agricultural sector is an obvious priority, given its critical importance to both export revenue and subsistence livelihoods. Effective water resource management is critical in this context of dependency on agriculture. This emphasis can be seen in the focus of a number of initial research projects supported by the CCAA program. For example, in South Africa's Western Cape region, the heartland of the country's lucrative wine and fruit export industries, a team of researchers, led by the University of the Free State, is working with planners and farmers to develop modeling scenarios that will improve access to climate information and offer a range of options to help them prepare for a water-scarce future.

Likewise, in Benin, action research, led by the NGO Initiatives "pour un développement intégré durable," aims to reduce farmers' vulnerability and improve food security. This project involves various municipal-level actors—farmers, village leaders and elected officials—in local committees that will share practical knowledge through field schools and disseminate climate information through pre-alerts accessible to local farmers.

Other priority areas for action research are addressing the impacts of climate change on human health, coastal resources and urban development. An increasing proportion of Africa's population is concentrating in coastal mega-cities, such as Cairo and Lagos, which have poor infrastructure for dealing with rising sea levels and extreme weather events.

Building African leadership on climate change adaptation

The program's commitment to building African capacity and supporting African leadership is reflected in the programming and governance structure, location of program staff and in funding criteria that favor initiatives led by or that gradually devolve to African institutions. The majority of CCAA staff members are located in IDRC's regional offices in Africa—in Dakar, Cairo and Nairobi—ensuring on the ground engagement with stakeholders. To enhance African input into programming directions, while respecting the need for donor accountability, an advisory board, whose members are mainly from African countries, guides the CCAA. Progress is monitored using an approach called outcome mapping, an innovation of IDRC's Evaluation Unit, which focuses on behavioral changes in the program's "boundary partners"—those institutions and groups with which it interacts directly.

While it is still too early in the program's life cycle to point to concrete results, the program strategy developed in the CCAA's first year lays a valuable roadmap for progress. The strategy is conceived as a "living document" to be reviewed as needed over the life of the program, and revised on the basis of partner input and overall program learning. Consistent with the "learning by doing" philosophy at the heart of CCAA's action research orientation, the program itself has been learning continuously. Much of this learning is already being applied in the implementation of capacity development workshops, and in the plans for more targeted niche calls for future concept notes.

CCAA's efforts at fostering partnerships in its immediate constituency in Africa and beyond help the program to embrace emerging issues and trends. Knowledge gained from these initiatives helps to inform strategic directions for the program. Partnerships with other donors, other international programs, and African researchers, policy makers, community representatives and capacity developers will be instrumental in bringing significant benefits to the poorest and most vulnerable people in Africa. These partnerships will lay the groundwork for the gradual devolution of CCAA-supported activities to African institutions.

Debates around REDD, indigenous rights and control over funding

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There are many strands to the ongoing international climate change debate. Here, we focus on three issues that have been particularly prominent in the exchanges between civil society and governments and between North and South: avoided deforestation or Reduced Emissions from Deforestation and Degradation (REDD); indigenous rights; and control over international climate change funding.



Who really benefits from REDD?

The context for discussions on these three aspects of the negotiations is the increasing urgency of creating global political will to address climate change and to agree on an international course of action at Copenhagen in 2009. The US has been seen as the major block to negotiations, by refusing to commit to greenhouse gas (GHG) emissions reduction targets, before major GHG emitters of the developing world such as China and India make their own commitments. The international sense of frustration evident at Bali, has been lightened by the hope that whoever replaces George Bush in the White House later this year will adopt a less recalcitrant position. All are agreed that the task of agreeing on an effective post-Kyoto agreement is a huge one.

REDD schemes - avoiding deforestation...and responsibility?

The decision to include avoided deforestation in the discussions leading up to COP15 requires close monitoring by civil society organisations. Using carbon financing to protect forests is broadly supported by governments, including countries with large areas of forest like Indonesia, but opposed by many civil society organisations which take human rights as their starting point. Deforestation - mostly from tropical countries - accounts for a whopping 18-20% of annual carbon emissions. Many UNFCCC signatories see reducing deforestation as a relatively easy and cheap way of getting global emissions down while allowing the North to continue with 'business as usual'.

While drastic reductions in deforestation rates are desperately needed in countries like Indonesia, there is concern that REDD1 schemes could prioritise conservation over poverty reduction, strengthen state control over forests and further marginalise forest dependent communities, including indigenous peoples.

There is further concern that where REDD schemes are financed by institutions controlled by developed countries (such as the World Bank), or the private sector (through carbon markets), they will serve the interests of those countries and companies, rather than the people who live in and rely on the forests for their livelihoods.

Following the Bali summit, a spokesperson for a UK carbon trading investment bank, Climate Change Capital, predicted that setting binding emissions targets would create 'a very substantial market opportunity.' He said we would then see "the power of private money working for a moral purpose". But how far can the private sector be trusted? Past experience shows that mixing profits and morality is not so easy in practice, especially where people's land, resources and livelihoods are at stake. Companies are generally more interested in short-term profits than long-term climate change.

Such schemes could worsen poverty and violate rights to land and resources where local communities and indigenous peoples' rights have weak or non-existent status under national laws, as in Indonesia. A Bali statement signed by civil society organisations from North and South highlighted the potential social impacts for the 1.6 billion people who depend on forests for their home and living. Carbon financing means that "wealthy companies and countries are able to buy the right to continue to pollute", said the statement, "whilst poor communities often find themselves locked into unfavourable, long-term commercial contracts."

Yet another concern with REDD is that focusing on avoided deforestation may distract attention away from

the equally or even more urgent priorities of making deep cuts in developed countries' per capita energy consumption levels (the US is top of the table here), and cuts in overall emissions levels by populous countries such as China and India where recent economic growth combined with sheer size have led to skyrocketing levels of greenhouse gas emissions. The Bali civil society statement warned that carbon trading was being used as a "smoke-screen to ward off legislation and delay the urgent action needed to cut emissions and develop alternative low-carbon solutions."

Moreover, there is nothing to say that carbon trading will actually do the job of reducing emissions. The Kyoto Protocol's Clean Development Mechanism (CDM) has not worked, according to a recent investigation by the US-based Institute for Policy Studies.

Indigenous Rights

Indigenous peoples have emerged as one of the strongest critics of the process and the content of the official climate change negotiations - especially on proposals on avoided deforestation, which will affect many forest-dependent indigenous communities. They are demanding greater representation in the UNFCCC process and recognition of their rights, which should be at the heart of climate change mitigation and adaptation efforts.

At the Bali summit, indigenous delegates protested against their exclusion from a meeting between UNFCCC Executive Secretary Yvo de Boer and civil society. Protesters wore gags with 'UNFCCC' written on them at a demonstration outside the official negotiations.

Indigenous representatives highlighted the lack of scope for participation in the negotiations (in contrast to the Convention on Biodiversity, CBD, for example) and the almost total lack of language on indigenous peoples in UNFCCC documents. "There is no seat or name plate for indigenous peoples in the plenary, nor for the United Nations Permanent Forum on Indigenous Issues, the highest level body in the United Nations that addresses indigenous peoples rights," said Hubertus Samangun, an Indonesian spokesperson for the indigenous delegation at the Bali summit.

In a statement, which representatives were not permitted to present at COP13's opening session, the International Forum of Indigenous Peoples and Climate Change (IFIPCC) asserted that indigenous peoples had suffered the worst impacts of climate change without having contributed to its creation. It said that they

"must not be placed in the position of suffering from mitigation strategies so that over-consumption of industrialised countries can continue."

The statement called for cooperation in a manner that recognises social justice, environmental integrity, indigenous and other human rights and that "creates a climate where greed does not dominate the needs of humanity."



Some Indigenous groups are concerned that REDD allows companies to make short-term gains, resulting in long-term environmental damage.

International Forum of Indigenous Peoples and Climate Change also demanded:

- the creation of an Expert Group on Climate Change and indigenous peoples with full participation and representation of indigenous peoples;
- the creation of a voluntary fund to support indigenous peoples' participation (as provided under the CBD);
- recognition and action from UNFCCC parties to curb the adverse impacts of climate change on indigenous peoples; and to refrain from adaptation and mitigation schemes and projects which devastate indigenous lands and cause more human rights violations, such as carbon trading, agrofuels and avoided deforestation schemes.

Several recent reports have helped bring the position of indigenous peoples and climate change to the fore. These discuss the impact of climate change on indigenous peoples, the potential risks (and possible benefits) of mitigation and adaptation efforts and include urgent recommendations for safeguarding indigenous rights and participation in decision-making on climate change.

Control of funding

The emerging tussle for control over funding for climate change action has a different line-up from the arguments surrounding carbon financing for forests. Strong World Bank involvement in managing funding is being supported by developed countries (including the US and the UK), while developing country governments (under the Group of 77) and China want to see the funds managed by the UN, under the climate change convention, or a new independent body. Civil society groups have been strongly critical of World Bank proposals on various 'climate investment funds' so far, and the rushed, untransparent way in which the proposals have been drafted.

So, while the UNFCCC has been criticised for its slow, non-inclusive decision-making processes, many groups - especially those tracking international financial institutions - would prefer to see it, rather than the World Bank, in charge of climate change funding.

A recent update on this by Third World Network, explains how the Bank initially proposed three funds - a Clean Technology Fund (CTF, target size US\$5-10 billion); a Forest Investment Fund (US\$300-500 million, aimed at REDD programmes) and an Adaptation Pilot Fund (US\$300-500 million), along with an umbrella Strategic Climate Fund (SCF) which would act as a vehicle to receive and disburse donor funding towards specific funds and programmes.

Currently, says TWN, the emphasis is on getting the CTF and SCF set up immediately, and the Forest Investment Fund in late 2008 or early 2009. The Adaptation Pilot Fund, renamed the 'Climate Resilience Pilot Programme' will be established as a programme under the SCF. These climate investment funds, which are expected to attract large contributions from developed countries, will channel financing via the various multilateral development banks, including the World Bank Group itself.

Another World Bank creation, the Forest Carbon Partnership Facility (FCPF), which will link to the proposed Forest Investment Fund was launched at the Bali summit.

These actions have caused a huge amount of concern among civil society groups who question the Bank's capacity to manage billions of dollars of climate change funding effectively. TWN is concerned that the Bank is setting itself up to be 'a key, if not the key, player in the governance of climate change.' The concerns include the following:

The initiatives are aimed at carving out a new, lucrative niche for the Bank to reverse its declining influence and sustain its *raison d'être*;

The funds were designed without guidance from the UNFCCC, and risk dwarfing and undermining the UNFCCC's own existing funding mechanisms;

They risk creating parallel funding and climate change governance structures outside the multilateral process; They place parties in a donor-donee relationship, contrary to international climate change principles and obligations, where financial resources should be provided as part of developed countries' obligations, and should not be considered as donor funds;

The three funds are designed to provide loans as well as grants, meaning that developing countries will have to pay for dealing with a problem caused by developed countries. Yet the UNFCCC and Kyoto Protocol state that as historical polluters and due to their higher technological and economic capabilities, developed countries should shoulder the main burden for resolving the crisis (UNFCCC articles 3 and 4);

New conditionalities which may be imposed by the World Bank and implementing MDBs, alongside their own traditional conditions (which have a poor track record of success), will disadvantage developing countries and contradict the UNFCCC principles regarding funding;

The Bank has a poor track record on social and environmental impacts, and is continuing to prioritise funding for fossil fuel production over renewable energy projects, despite the recommendations of the Bank-commissioned Extractive Industries Review. It lacks the credibility, the expertise and the constitutional mandate to be so central to the delivery of climate change mitigation and adaptation programmes;

The Bank's proposal to act as trustee, secretariat and overall coordinator for the funds is a conflict of interest, since the Bank itself is a potential beneficiary of financing from the three climate investment funds.

According to TWN, the Bank has responded to some of these criticisms by stressing consistency with the Bali Action Plan and by making some revisions to the funds' governance structure to incorporate some developing country participation. Nevertheless, the changes do not resolve the "fundamental contradictions and inherent problems" associated with the design and proposed implementation of the funds. For example, the Bank's Adaptation Fund competes directly with the Adaptation Fund agreed in Bali which has a majority of developing country members.

TWN is calling for efforts to develop a genuinely multilateral fund for climate change financing under the UNFCCC which would give developing countries due representation within the governance structure, ensure that funds are used in accordance with internationally agreed principles and meet the objectives of the multilateral climate change regime.

Safeguarding our Intangible Cultural Heritage for Sustainable Development and the Future

by Edna Kaptoyo

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Intangible Cultural Heritage, as defined in the Convention for safeguarding of the Intangible Cultural Heritage (ICH) means the practices, representations, expressions, knowledge, skills-as well as the instruments, objects, artefacts and cultural aspects associated therewith- that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment and through their interaction with nature and their history, thus promoting respect for cultural diversity and human creativity. The intangible cultural heritage is manifested *inter alia* in the following domains: oral traditions and expressions, including language as vehicle of the intangible cultural heritage; performing arts; social practices; rituals and festive events; knowledge and practices concerning nature and the universe; and traditional craftsmanship. In all performance, from music and dance to medicine and warfare, from childbearing to hunting antelopes from mythology to oral traditions, an intangible cultural heritage system is a present, living heritage, varied from culture to culture.

Kenya being a nation with diverse cultural heritage, like other African countries, is facing some serious challenges since its intangible cultural heritage is endangered and even threatened with extinction. Worldwide revolutions during the past 250 years have had significant impacts upon the intangible cultural heritage systems, and the present status and trends of the intangible cultural heritage complex in Kenya manifests serious deterioration, degradation and even disappearance

Culture is the soul of the society and hence should be safeguarded to ensure the viability of intangible cultural heritage including utilizing tools for the identification, documentation, research, preservation, protection, promotion, enhancement, transmission, particularly through formal and non formal education as well as the revitalization of the various aspects of such heritage. What better way to safeguard than to use the convention, which is a revolutionary management of culture? There is need for concern about intangible cultural heritage in Kenya because cultural

experts are worried that due to the spread of formal education, the future of verbal art is bleak. This includes oral narrative, proverbs, and poems. Older generations with traditional knowledge are dying without way of passing knowledge to youths. We also need to safeguard intangible cultural heritage because intangible cultural heritage offers solutions to sectors of human development that are under threat through depletion of indigenous plant species, and cultural and ecological degradation. For example, the Kakamega forest, which has the largest population of indigenous tree species, has value in commercial exploitation. Genetic resources, traditional knowledge and folklore are sought out by Multinational Corporations (MNCs), as in the case of the hoodia plant used by the San indigenous peoples to enable them to survive without food. The plant was taken by MNCs and converted into an anti-obesity drug to be used in the West. Through bio-piracy, resources have also been exploited by MNCs.



The hoodia plant, traditionally used by the San of South Africa, has been appropriated by a multi-national corporation for use in the West.

For example, the Maasai sheep which has strong genes able to withstand harsh conditions has been taken by Australia and used to improve their sheep's resistance to disease, making their sheep industry world class. Geysers and algae from Lake Baringo and Lake Bogoria have also been taken for use in making detergents, etc. Human wisdom is as valuable as technology. Traditional knowledge transfers plant species into medicines; but since ICH is not a written science, the knowledge, skills, innovations and creativity of communities are disappearing.

All in all, communities' involvement is paramount in safeguarding intangible cultural heritage and this is articulated in the articles of the Convention. This is because indigenous peoples and local communities have for many years now dealt with people who come in the guise of researchers or tourists and steal their traditional knowledge, and genetic resources and pass it as their own. Many times, they have been duped into believing that it is for their own good only to realize when it is too late, resulting in the loss of their intangible cultural heritage which supported their traditional life systems and lifestyles. It is intangible cultural heritage which makes Ogiek hunting more than a search for meat and honey, which makes a Pokot's and Maasai's cattle members of the family, etc. Indigenous peoples have also found themselves in times of rapid social transformation and other changes which have little regard for the conservation of culture, let alone intangible cultural heritage. For culture and intangible cultural heritage, the means of transmission is dying. For example, languages are corrupted and endangered by the education system, foreign values and standards suffuse social transformation, and population dynamics, globalization and world trade leave little room for traditional ethnic and intangible cultural heritage. Intrusive media also imports foreign cultural values and practices.

Having seen the need to move quickly and safeguard intangible cultural heritage for sustainable development, the mechanisms in place to do so should be considered. Currently in Kenya we do not have a national mechanism for regulating intangible cultural heritage through policy or legal provisions. We cannot use trademarks to protect intangible cultural heritage since it has to be shown to have commercial value. Copyrights and patents also insufficient because we have to show that intangible cultural heritage is an original creation. Therefore this creates the need for an act of parliament and specific legislations covering intangible cultural heritage. We should have a mechanism for tracking people who come to Kenya for research through a vetting mechanism at all levels. The national educational curriculum should also be engineered to allow for cultural aspects to be entrenched into the education system so that it can provide a structure for sharing and transmitting cultural knowledge.

There exist several avenues which Kenya can put in place to implement the Intangible Cultural Heritage Convention. Kenya

ratified the Convention in October 2007 and became a state party to the convention in January 2008, so within the legal provisions it is obligated to identify intangible cultural heritage leading to an inventory, involve communities and regularly update its inventory. This would be of great value for the communities concerned. The government, through its Department of Culture, should train people on how to inventory and document endangered languages and carry out capacity building activities. It should also establish national committees to spearhead implementation, a national research institute for information management, and create a special list of urgent needs for remedial actions e.g. the documentation of languages like that of the El-molo.

In conclusion, it should be understood that the UNESCO Convention is a landmark instrument to promote safeguarding of intangible cultural heritage, which is integral to sustainable development of Kenya. There is also a need for systematic and active implementation of the Convention. With cooperation of UNESCO's ICH section, there is a need for regional and sub regional cooperation on safeguarding intangible cultural heritage. The safeguarding of intangible cultural heritage as an agenda of the country is likened to a journey of a thousand miles that starts with one step, but which can be successful if everyone and all communities own the process as well as getting the government's technical support. As the saying in Africa goes *"a person or community is only partially known unless the intangible cultural heritage is incorporated and appreciated in the person or community"*.



Intangible cultural heritage, such as the practice of creating the beadwork displayed by this Maasai woman, must be safeguarded if it is to survive to benefit future generations.

African Women and Water

by Lucy Mulenkei

“Water is the one substance from which the earth can conceal nothing; it sucks out its innermost secrets and brings them to our very lips.” -Jean Giraudoux



Participants in the African Women and Water conference celebrate after successfully building an energy-saving solar cooker.

When you hear of a conference you imagine another long week of paper presentations from different resource persons. I was fortunate to attend one which was unique, refreshing and fulfilling. The African Women and Water conference was the conference which was actually a successful training, held at the Green Belt Langata training centre in Nairobi June 30th - July 5th 2008. The conference which was attended by women from eight African countries had an objective of equipping African women in local leadership positions to gain access to safe water technologies, capacity training and vocational skills on water harvesting and storage and support creation of manageable community solutions which will efficiently ensure sustainable access to clean water. The conference further enhanced the women's skills by including in the programme business planning, project development, water testing with portable a Microbiology lab, introduction to solar cooking and pasteurization, proposal writing, integrated water and sanitation hygiene (WASH) strategies. The conference was organized by a Single drop, Crabgrass, Groots Kenya and Women's Earth Alliance.

Water is life; somewhere between 70 and 75 percent of the earth's surface is covered with water and it is amazing to know that roughly 70 percent of an adult's body is made up of water. The World Health Organization estimates that African women and children spend up to 40 billion hours every year collecting water. Nearly two million people in developing countries die each year from diseases associated with unsafe drinking water, a lack of water, inadequate sanitation and poor hygiene. Most of these deaths are from diarrhea and can be easily prevented. Diseases related to poor sanitation and water includes: cholera, dysentery, typhoid, bilharzia, guinea worm, hookworm, trachoma and scabies. Because women can only carry limited amount of water their family will often have to survive on a very small daily ration. The average person in the developing world uses 10 litres of water a day compared to 200 litres a day in Europe. It is also common for women to drink less than the rest of the family, as they will drink at the water source, leaving the bulk of the supply that they carry home for their family. Women are also exposed to other risks because of lack of clean water and sanitation.

As the dry season progresses and water tables become lower, wells are dug deeper and can become dangerous, causing falls and injuries. Accidents can also occur on the uneven paths that women walk down while collecting water. Walking to remote water sources and places to go to the toilet, often at night, further exposes women to the risk of both sexual harassment and animal attacks. Constantly carrying heavy water containers, that weigh up to 20kg, on the head, hip or back, has severe health implications. In extreme cases curved spines and pelvic deformities can result, causing problems in childbirth. Further problems occur during childbirth and when women are menstruating because of a lack of water. Women are often unable to wash themselves or the baby, prepare traditional foods containing water or simply drink enough water to replace the fluids they have lost. In areas of Tanzania women have reported taking water as a special gift to a new mother as it is considered to be the most precious gift you can give.

The lack of clean water and sanitation impacts upon women's lives in many ways. As young girls are also expected to help their mothers collect water they are often unable to attend school. Girls are also prevented from attending school, particularly when they are menstruating, when there are no toilets available. The lack of education means that very few women in developing countries are decision-makers. Enabling women's voices to be heard in decision-making is not easy but a crucial step in development. Collecting water takes up valuable time and energy, leaving women unable to do household or income generating work. The lack of water impacts on women's ability to spend time caring for their children. In Africa the story is worst as many women, though the majority, seem to be the forgotten ones. Without visibility they will remain in the same position for many more years to come unless we do something and indeed this first water conference for African women is that step. With many challenges facing the world's women have not yet been given a chance to contribute effectively in crucial talks and discussions and indeed I agree with Amy Coen when she clearly states that:

“Most of us in the population, family planning/reproductive health communities are not yet sitting at the tables of those discussing climate change. This is a serious omission. It is not just polar bears and birds

who must adapt to climate shock - people around the world are struggling

to adapt their behaviors, their needs and their communities. Similarly, it is people who are having a dramatic impact on the speed and severity of climate changes. Convening experts from disciplines previously viewed as divergent will generate new ideas. Albert Einstein once said, ‘We can’t solve problems using the same kind of thinking we used when we created them.’” Amy Coen

In Africa, the Women from semi arid and arid lands suffer most because of lack of water in dry areas. Most of them have to walk for more than five kilometers in search of water and when water is found, found livestock is the priority. Competition of domestic and livestock access to water is the order of the day especially during the dry season which has been worsened by climate change in the region. Destruction of water sources in the region, especially in Kenya, and frequent cutting down of trees reducing the forest cover in the region is a worrying factor for African women as the future of availability and access of water will be worse than ever before. Pollution of rivers and streams used by many rural and urban women is slowly deteriorating their health and that of their families. The Millennium Development Goals remain and continue to be a dream for many of us if our communities and especially those in rural areas continue to lack key human rights services such as clean water for a healthy family. Water is a human rights requirements and it is sad that in many of our countries we continue to hear



This woman is one of the thousands of African women who walk for hours in search of water each day.

sad stories of water borne disease and long hours and insecurity while fetching that precious commodity: **Water**.

*True Stories of our Time from Water Aid
by Jon Spaul*

Waiting for water

Eighteen year old Rachel Anton waits for three hours in the baking Tanzanian sun for her turn to collect water from this traditional well in Inonelwa village. The 'well' is just a small puddle of water slowly seeping through the ground at the bottom of a deep pit. Yet it is the only water available. Some days Rachel waits from 5am to 11pm to fill her buckets which she will then carry back, a long way home, to share with her husband and seven month old son Laurent Julios. Her husband does not come and help her collect water as it is considered women's work. Her family has stomach problems all year round. When it is wet she collects water from any stream or pond, when it is dry she says "you can see the problem." She knows that the stomach problems are caused by the water but this is the only water available to her and she cannot go home without it.

A brighter future

Mrs Gamma is a member of the Lifuwu village water project committee in Malawi. "The well here used to be unprotected and our children were always sick," she says.

"We spent so much time taking our children to hospital when we really just wanted to work in the fields to get a good harvest." "We decided to form a committee because we were so concerned about our open wells. Water Aid showed us the way forward. We've been collecting contributions from the villagers and have cash in a bank account ready for any repairs. I feel like we can stand on our own feet now and maintain our pump with no problems." "Now I am freer to earn money and I also have more power of persuasion over my husband. I feel like our relationship is more equal. Now we have clean water there is so much time and I am free to think about the future. I can work and will also help to build a school. I feel our children are learning from our empowerment and they will do better than we have in the future. For the first time I feel like it's possible to have a few dreams. The difference is that we're not sat here waiting for dreams to come true, we can do something about it ourselves now. We'll do it!"

As I sat in the conference room, I told myself that I hope in the near future we can have stories of hope. These stories can begin if after the African Women and Water conference we can all understand and develop tools to design and implement community based projects that would help us share knowledge, share skills, strength and leadership skills that we would take back to those many desperate indigenous and rural women, who just need but a small drop to make a difference in their family health.



Participants in the African Women and Water conference, held in Nairobi, Kenya.

Women often lead the way in their communities in conserving precious natural resources, adapting their food crops to changing soil and climatic conditions, and rebuilding following floods, earthquakes and other natural disasters...

Women's experiences, creativity and leadership must be part of the solution if we, whether from North or South, are serious about addressing global warming.

-Wangari Maathai, recipient of the 2004 Nobel Peace Prize for her contribution to sustainable development, democracy and peace

