



IPACC Activity ESD Report



HERITAGE EDUCATION FOR SUSTAINABLE DEVELOPMENT: FOSTERING DIALOGUE WITH AND AMONG INDIGENOUS COMMUNITIES IN NIGER AND KENYA

METHODOLOGIES, ANALYSIS AND SUGGESTIONS FOR FUTURE ACTION

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Introduction

The Indigenous Peoples of Africa Co-ordinating Committee (IPACC) is a human rights advocacy network composed of more than 150 community-based indigenous peoples' organisations in 20 African countries. IPACC was established in 1997 and has emerged as the representative voice of African indigenous peoples at the United Nations. IPACC is affiliated to UNESCO, the UN Economic and Social Council, the UN Convention on Biological Diversity, UN Framework Convention on Climate Change and represents African indigenous peoples at the UN Environment Programme (UNEP) major group meetings. IPACC members study and engage with UNESCO's programmes and normative instruments associated with the 2001 UNESCO Universal Declaration on Cultural Diversity.

IPACC has enjoyed an important interaction with UNESCO's regional office, headquarters and normative instruments. The principal area of cooperation has been in the domain of intercultural dialogue and heritage issues (including cultural inventories, intangible heritage management, and inter-generational transmission of indigenous knowledge of nature / environment).

During 2008, UNESCO provided financial support to two IPACC members to engage in projects that explored how cultural cartography and the application of geospatial information technologies (GIT) could help indigenous communities express, reflect on and promote awareness of their traditional and contemporary systems of non-formal transmission of cultural heritage related to the environment and sustainable use of natural resources.

This report covers a summary of the activities involved in the two ESD projects. There are separate and detailed reports in English and French respectively for the Kenyan and Nigerien national ESD projects (See Muchemi et al 2008 and Association Tunfa 2008). A third report was generated by the UNESCO National Commission of the Central African Republic and the Centre de References des Traditions Orales des Pygmées Aka (TOPA), the CAR ESD partner (CAR UNESCO National Commission 2008). There is a consultant report which analyses and summarises all three of the ESD initiatives (see Crawhall 2008).

IPACC strategic plan

In April 2007, the IPACC Executive Committee adopted a strategic plan on ways to strengthen the advocacy capacity of indigenous communities to influence decision makers in Africa on the conservation of the environment and sustainable use of natural resources. IPACC's objective is to make explicit the link between sustainable use of natural resources, protection of ecosystem services and the survival of indigenous cultures and languages in Africa. The greatest risks posed to sustainability come from human land use changes, poor governance and climate change.

The Bujumbura strategic planning meeting concluded that the imperative **Development Goal** is for African indigenous peoples to:

“...demonstrate convincingly to influence makers and decision makers that indigenous peoples are holders of sophisticated indigenous (traditional) knowledge of the environment which is valuable to national resource management planning.”

The **Project Purpose** arising from the Bujumbura Strategic Action Plan is:

... to ensure that Indigenous African leaders have adequate knowledge and preparation to engage in multilateral and national forums dealing with environmental, climate change, natural resource and land management policy and implementation which favour biological and cultural diversity.

Within this strategic direction, IPACC has been pursuing a programme of supporting its members to engage with innovative uses of Information Communication Technology (ICT), and more particularly with Geospatial Information Technology (GIT) to help find ways to express their oral and intangible knowledge about landscapes, natural resources, ecosystems services and related cultural systems.



IPACC delegates with the Minister of Environment, Bujumbura, Burundi – April 2007. *Photo: N. Crawhall*

Cases & methodologies

The two cases involve substantially different cultures in substantially different ecosystems in Africa. The first project involved assisting Tuareg activists in the Agadez / Iférouane area of northern Niger, who live as nomadic camel herders, oasis garden cultivators, artisans or other economic livelihoods to prepare an inventory of their topographic and toponymic knowledge of the Mont Tamgak watershed in the central Sahara, within the confines of the Aïr & Ténéré National Park (a UNESCO World Heritage Site). The second project involved a cluster of forest based Kenyan communities, mapping the cultural-natural heritage of their territories which do not have heritage protection or adequate natural resource legal protection.



Road to Iférouane, northern Niger. *Photo: N. Crawhall*

Niger – Tuareg cultural landscape of the Aïr & Ténéré National Park

The project was designed and implemented by two cooperating community based associations, Association Tunfa and PROCECAP – SADAD. In the case of the Tuareg within the territory of the Sultanate of Aïr, the original plan had been to conduct a Participatory 3 Dimensional Modelling (P3DM) exercise in the village of Iférouane.

The 3 dimensional map was to be built by community members providing a representation of the cultural and natural landscape, covering the planes, oases and dry-land mountain territory of the Tamgak watershed. However, a civil war situation during the elaboration of the project required re-organising of the programme and training opportunities. Iférouane has been abandoned and knowledge holders from the region have been scattered through the Sahara.

The project was reduced to a 'pre-mapping' exercise, whereby members of local community organisations were trained in the use of Google Earth and the elaboration of map legends through oral research and proceeded to interview elders and knowledge-holders about the topography, toponymy and intangible heritage of the watershed territory.

The workshop in Agadez reviewed the material from the Kenya mapping projects as well as material supplied by the Technical Centre for Agricultural and Rural Cooperation (CTA). The Tunfa trainers had participated in August in IPACC's pan-African conference on knowledge, advocacy and geo-spatial information technology that reviewed (in English and French), community cartography from across Africa.

The ESD / GIT workshop itself had three streams:

- The first group focussed on the inventory of place names (mountains, water points and sites of religious heritage and significance);
- The second group learned how to use Google Earth and placed the pins on the electronic map marking out the toponymic inventory material;
- The third group worked on the documentation of place names in Tifinagh and French

Overall, the project was successful, though aspects of topography (types of desert zones, local concepts of mountain territories, landscape differentiation, soil types, vegetation zones) were not elaborated during the workshop. This may require further follow up.

The earlier preparation phase for Niger was quite thorough and included workshops with the *chefferie* of the Sultanate of Aïr, a meeting with the Sultan himself, site visits to Iférouane and meetings with the local government representatives. Additional meetings were held with local environmental organisations, members of the traditional artisans' caste (known in Tamacheq as *Inadan*). All parties agreed that it would particularly valuable to do an inventory of the topography and topology of the Tamgak watershed region which unites different types of land use, nomadic pastoralism, oasis culture and spiritual landscape dimensions.



Artisans, Iférouane, Niger. Photo N. Crawhall

In the late 60s and early 70s, Niger, which has one of the most pastoralist economies in Africa, developed a system of mobile schooling and focus on indigenous knowledge. Later these important innovations were dropped out of the education system. IPACC and Association Tunfa met with local school teachers and the principal to discuss the mapping and landscape inventories. Though there was a general consensus that heritage education for sustainable development was a valuable initiative, teachers expressed a concern that this was outside the set curriculum and that they struggled to meet the existing national examination standards. Niger has a component of the curriculum dedicated to practical livelihood skills but these are mostly related to sedentary life and do not involve complex knowledge systems.

In 2006, IPACC and Tunfa co-operated on a major conference in Agadez dealing with development issues for nomadic indigenous peoples. At that conference, a number of delegates highlighted challenges of education for mobile peoples and the specificity of heritage and ecological knowledge.

The recommendations from the conference included the following:

- Apply the UNICEF N'Djamena educational strategies as well as the spirit of the series of documents relative thereto, in the domain of education, within the nomadic milieu.
- Encourage the process of experiential exchanges within countries exhibiting nomadic issues.
- Involve indigenous peoples' in the Sahelo-saharan zone more in the conceptualisation, setting up and observation of public policies;
- Adapt the educational and sanitary infrastructure of the nomadic way of life.

- Take into account the interests of the indigenous peoples in the process of natural resource exploitation (prospecting, exploitation, evaluation).
- Sensitise indigenous peoples to participate as citizens in the political, economic, social and cultural life at local level.
- Increase communication between indigenous civil society and donor / technical partners in the Sahara-Sahel;

(extracted from IPACC 2006)

2007-08 training for the Niger project included:

- Training local activists in the basics of Participatory 3 Dimensional Modelling and the creation of a legend based on local knowledge;
- Training video on P3DM construction and the participatory elements;
- Training in Google Earth navigation and mapping (two sessions);
- Training in forwarding Google Earth data by email and shifting it into an inventory database in Microsoft Access;
- Training in font management and how to down-load a Tifinagh font from the Internet;
- Trainees also participated in a workshop on the use of GPS technology, participatory mapping methodologies and the use of Cybertracker to collect geo-referenced field data

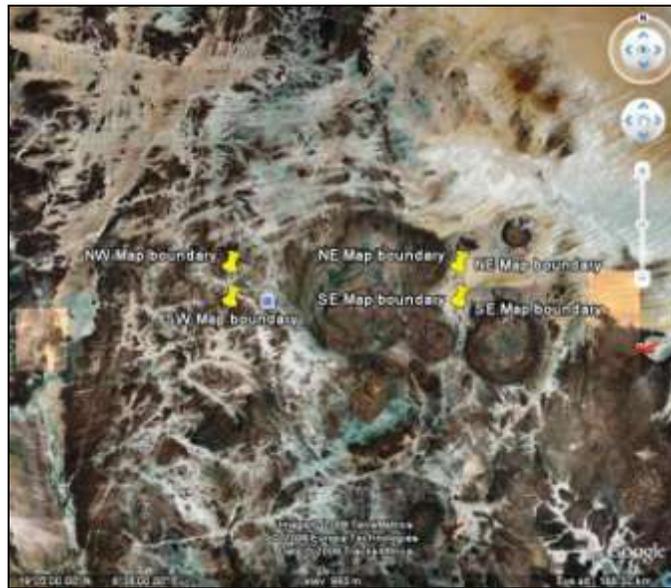


M. Ewangaye and S. Albachir with Web2 training, Windhoek August 2008.
Photo N. Crawhall

Niger project implementation

The project involved three steps:

1. Trainees used Google Earth to navigate through the target territory to identify different landscape natural and cultural features;
2. Trainees interviewed elders about the territory, land use, traditional knowledge of the landscape, and then confirmed information on Google Earth – pins were dropped onto the Google Earth map with explanatory notes;
3. Data on place names and topographical concepts were entered onto a data base in Tamacheq, then again in Tamacheq in the old Tifinagh alphabet, and finally with an explanation in French – where possible the sites were geo-referenced using the Google Earth pin references.



Iférouane mapping coordinates shown on Google Earth

Achievements

- The project successfully built the capacity of local actors in preparing a participatory cultural mapping exercise;
- Electronic Web2 (Google Earth) data base of place names in the targeted territory was produced,
- The aim was that the research and interviewee team would develop a draft legend produced based on the inventory of place names and topographical concepts in Tamacheq language (to be applied to future cultural mapping work). The toponymic inventory was completed but not the full legend with the topographic information ;



Mosque, Agadez, Niger. *Photo: N. Crawhall*

Difficulties

The Niger project was conducted under difficult circumstances, but it did help highlight that even in difficult circumstances that heritage research, awareness-raising, training and site management preparation work can go forth.

Trainers also found it difficult to work in the Tifinagh alphabet on computers. IPACC had worked with Tunfa trainers to download Tifinagh fonts, but using these in databases and spread sheets proved difficult and the final inventory has been done by hand only.

The goal had also been to mesh Google Earth points (which are accurately geo-referenced) with the database of toponymic inventory. In theory it should have been possible to link Google Earth with Microsoft Access so that the pins would convert their geo-referencing into the main database but this proved too difficult and will also have to be captured manually.



Nzoia River, Cheranganyi Hills, Kenya. *Photo: N. Crawhall*

Kenya – mountain forest cultural landscapes

ERMIS Africa conducted a series of participatory mapping exercises with mountain-forest based indigenous peoples in Kenya from 2006 through 2008. Indigenous partner organisations included the Ogiek Development Initiative (ODI), the Dorobo Trust, the Sengwer People's Development Initiative (SPDI) and the Yiku Peoples Organisation (YPO), all members of the Indigenous Peoples of Africa Coordinating Committee (IPACC) and the Hunter-Gatherer Forum of East Africa (HUGAFO). IPACC its Kenyan members and ERMIS agreed to work with UNESCO to promote reflections and action planning on how the mapping could help promote the goals of the Decade on Education for Sustainable Development (ESD).

The final report from ERMIS' documents indigenous perspectives on how the safe-guarding of traditional ecological knowledge (TEK) through participatory auditing practices, such as mapping, can provide Kenya with positive examples of ESD practices relevant to a wider audience and the State. The synthesis attempts to gather the reflections of the community members and link this with ESD principles.

With the support of UNESCO, representatives of the indigenous peoples' organisations involved in the mapping came together in two workshops to reflect on the mapping experiences and draw forth some observations on the relationship between the mapping and the possibility of safeguarding their traditional ecological knowledge as part of their overall intangible heritage. Knowledge holders and activists shared their experiences of mapping and considered the challenges and opportunities for stimulating further intergenerational and intercultural transmission and valorisation of traditional ecological knowledge, and related values, practices and institutions.

The ESD / safe-guarding of traditional ecological knowledge (TEK) project in Kenya consisted of two workshops held in Nakuru in August 2008 and in Nanyuki in November 2008. The first workshop was conducted with indigenous activists and elders, reflecting on the mapping and looking for consensus building about a way to take the project and intercommunity cooperation forward. The results of the Nakuru workshop results were fed into a pan-African indigenous peoples' geo-spatial information technology workshop run in Windhoek, Namibia by IPACC and funded by the Technical Centre for Agricultural and Rural Cooperation (CTA) in late August 2008. The second Kenya workshop held in Nanyuki involved a dialogue between indigenous knowledge holders and Kenyan academic institutions tasked with protecting and promoting traditional ecological knowledge through formal education. Participants in the two workshops thus considered both informal and formal means of safe-guarding and transmitting knowledge, culture and values. These reflections form the core of this present report.

In summary, the Participatory 3-Dimensional Modelling (P3DM) exercises and results were considered by activists as important platforms for different indigenous peoples to express their particular cultural-natural landscapes, including elucidating tacit knowledge held by elders about ecology and culture. Activists and elders from the different mountain forest communities agreed that aspects of traditional ecological knowledge, values and practices are not being fully transmitted to younger people in the community due to land alienation and deforestation which are causing changes in land use patterns, collection of medicines, honey, hunting and other practices which require sustainable use of and access to natural resources.



Yiaku women united, Doldol, Kenya. Photo N. Crawhall

The mapping exercises highlighted for elders and youth alike the rich knowledge systems, values, skills and expertise held by forest-based indigenous peoples about their own territories and the links between human activity, human culture and sustaining biodiversity.

Each exercise was affirming to community culture, knowledge and traditions, as well as substantially strengthening a sense of shared identity and experience between the mountain-forest indigenous peoples of Kenya. People felt empowered by the mapping and youth and elders felt they had rediscovered a shared language and common purpose.

The intercultural exchanges between community members were positive in all cases. However, ERMIS Africa noted that what was affirming and rich at community level easily turned to anger when government officials were invited to observe and consider the mapping results. Government officials in some cases expressed hostility about efforts of self-definition and cultural self-determination which were perceived as threats to government policies and power. Whereas academics valued the richness of the discussions and results, some further thinking is required as to how to encourage civil servants to see mapping and similar indigenous cultural inventory making as an asset to governance and the State's work of sustainable development planning, adaptation and mitigation, rather than as a challenge power and authority.

Indigenous peoples in Africa maintain that United Nations agencies, including UNESCO have an important role to play in sensitising States to the value of TEK, intangible heritage, and community perspectives on sustainable use and management of natural resources and ecosystems. Kenya attempted to create an indigenous advisory committee to interact with UN agencies in Nairobi but the effort was not sustained and UNESCO did not participate. IPACC has recommended to the UN inter-agency support group of the UN Permanent Forum on Indigenous Issues (UNPFII) that the UN Indigenous Advisory Committee of Kenya (UNIPACK) be revived specifically to deal with issues of rights and sustainability. The growing pressure on African states to develop policy on adaptation and mitigation in the face of climate change offers new opportunities for this type of awareness-raising and finding platforms for dialogue.

The report recommends to stakeholders that TEK (including values, practices and knowledge) needs to be recognized as critical element for successful ESD and eventually as core elements in national programmes of action on adaptation, mitigation and sustainable development. State recognition of the inherent ecosystem expertise and culturally-embedded approach to sustaining natural resource use (for example, through clan based management techniques and sanctions) held by local and indigenous peoples is an invaluable resource for education for sustainable development. Such oral knowledge is of immediate use in State planning, as well as for negotiating partnerships at ground level to apply local knowledge and resources to stabilise ecosystem services.

The report however warns that safeguarding TEK cannot be divorced from fundamental human rights and good governance. Local knowledge and governance are dependent on security of land tenure and the State accepting partnership with its citizens to manage forests, water and biodiversity in rural areas. The mapping exercises show not only a gap in knowledge between the communities and the States' formal education system; they also highlight a gap in values and governance capacity. The moral imperative for sustainability is more evident at the local level and in local cultures, than it is in governance based in distant urban areas that are over-consuming scarce national resources. The report calls for a renewed dialogue between all stakeholders to bring knowledge, values and practices into new types of partnership between the State, State institutions, indigenous peoples and local

communities. Technology intermediaries have an important role to play in creating platforms where the different stakeholders may speak, listen, and enter dialogue.



Ogiek and students mapping in Nessuit, Kenya. *Photo N. Crawhall*

Main recommendations:

- Promote inter-African dialogue on the value of TEK to sustainable development;
- Strengthen community capacity to advocate for the inclusion of TEK in State planning and formal education;
- Improve community awareness of the role of TEK in adaptation and mitigation of climate change, as part of an approach to sustainable development;
- Promote financial and technical support to help local and indigenous communities access information communication technology and other appropriate resources to provide examples and documentation of TEK valuable for the promotion of sustainable development, food security, peace building, and conservation of biological and cultural diversity;
- Build alliances between civil society organisations, conservation agencies, academic institutions, rural communities and technology intermediaries to demonstrate, valorise and promote recognition of TEK and community based governance of natural resources and ecosystem integrity
- Stimulate United Nations agency engagement in the promotion of ESD and the application of TEK in rural development strategies;
- Promote an integrated awareness and approach of UN agencies and other multilateral agencies supporting development and good governance in Kenya;
- Encourage UNESCO to share its normative instruments and approaches with different Ministries in the National government, as well as with other UN / global agencies, notably GEF, UNDP, UNEP, the World Bank and UNFCCC.

An ICT – GIT approach to TEK advocacy

The Hunter-Gatherer Forum of East Africa (HUGAFO) is an alliance of community based indigenous peoples' organisations in forest and mountain forest areas of East Africa. HUGAFO member organisations have partnered with IPACC, ERMIS Africa and other organizations to build capacity among the indigenous community to generate, document and share indigenous knowledge policy makers and its implementers. ERMIS Africa, with financial and technical assistance from IPACC, CTA, Shalin Ry (Finland) and Rainforest Foundation (UK), CDE-Switzerland, and First People Worldwide (USA), facilitated participatory mapping of cultural and natural landscape among the Ogiek, Sengwer and Yiaku hunter-gatherer indigenous minority groups from the mountain forest of Mau Forest Complex, Cheranganyi hills and Mukogodo Forest respectively.

In participating in the ESD decade mission has embarked on mainstreaming TEK held by indigenous forest hunter-gatherer communities in Africa into specific national policy and local development processes. This process has a number of overlapping steps, including participatory mapping (using satellite images, sketch maps, and P3DM), dialogue and planning within communities, dialogue between communities, and finally direct dialogue with State institutions and personnel.

The participatory mapping conducted with three forest communities in Kenya; namely the Ogiek, Sengwer and Yiaku peoples offered a case for codifying their TEK (explicit and tacit) with the aim of creating a visible manifestation of oral knowledge and a platform for dialogue concerning mainstreaming TEK into the ESD opportunities offered by local government, educational institutions and civil society. ERMIS Africa intends that reflection on and valorising of TEK held by indigenous elders and communities can motivate greater dialogue with the State about taking necessary steps to acknowledge and safeguard intangible cultural heritage with the aim of integrating oral and informal transmission with more formalized and scientific education provided by the State.

The Kenyan project was particular in several ways: (i) engaging the non or less literate indigenous elders in documenting and reflecting on their TEK through cultural and natural landscape mapping using contemporary GIS technology, (ii) bringing together elders and youth to engage in intergenerational learning, (iii) linking local communities with government, education institutions and civil societies to facilitate consultative resource use planning. The mapping offered a learning platform, both intergenerational and intercultural, for identifying and valorising important cultural features and memories which can play a role in shaping future education, values and practices for the Ogiek, Sengwer and Yiaku indigenous peoples as well as for the wider Kenyan society.

The innovativeness of the project has helped engage the interest of different stake-holders, and may spur greater cooperation in safeguarding TEK and intangible heritage of indigenous communities. The reflection exercises and intercultural dialogue within the framework of ESD captured the attention of academics, state institutions and UNESCO.

The cultural and natural landscape mapping exercise with Ogiek, Sengwer and Yiaku hunter-gatherers reveals that each of these communities has an intricate ecological knowledge, practices and innovations emanating and influenced natural landscape. Territorial governance, tangible and intangible culture, endogenous economies and livelihood patterns

are a result of generational interaction, dynamism, and adaptations to the fragile landscape. Their ecological knowledge, practices and innovations together have provided the communities with the means of survival and mastery of the biological capacity of their territories. Yet this deep rooted traditional ecological knowledge system fails to withstand the intrusive forces of modern policies, technologies, cultures and economies. The need to safeguard the traditional ecological knowledge held by the forest-based hunter-gatherer indigenous communities and applied to manage some of the world's fragile ecosystems is critical in an era of land and resource privatisation, commercialisation and globalisation.



Hai||om San show landscape heritage maps to other indigenous Africans, Windhoek, Namibia.
Photo N. Crawhall

Participatory Mapping of Cultural and Natural Landscape

Information Communication Technological (ICT) innovations have provided a platform for documenting TEK and for promoting intergenerational and intercultural dialogue about stewardship, rights and responsibilities. Several participatory mapping typologies exist but Participatory 3-Dimensional Modelling (P3DM) brings unique opportunities for a participatory approach, a good learning platform, and an easy conversion into Geographic Information Systems (GIS) electronic maps for further advocacy and policy discussion (RAMBALDI et al 2007).

Having been defined as a practice in its own rights, participatory GIS has proved to be a powerful method for empowering communities by enabling them physically record their orally held historical experience in ways that present a platform for internal and external communication. The indigenous world view is central to the exercise, but the product is readable by outsiders. The participatory component is instrumental in ensuring the spread of power among stakeholders necessary for expressing their issues, soliciting solutions, and

planning implementation strategies. In addition it addresses the exclusion issues presented by locating every stakeholder's rights and or interest on the map as noted "*If you are not on the map, you don't belong*".

The forest-based hunter-gatherer communities are among the indigenous peoples at the edge of the political and economic system in Kenya. Under British law, all three groups had their ethnic identity removed, officially denied, and their territories divided between other peoples. They were all socially cast in the derogatory categories of '*Dorobo*' from the Maasai word *litorobo* (people without cattle) and *Athi* (in Kikuyu). The terms stereotype the communities as being economically impoverished and culturally primitive. Yet, they have been managed to survive colonialism and act as buffer that has ensured the survival of natural tropical forest in the major watershed of Kenya. The Ogiek are the most disposed, living in the highly damaged Mau Forest Complex. The Sengwer live in a situation of siege and insecurity in the Cheranganyi hills of Western Kenya. While the Yiaku, who are heavily assimilated into Laikipia Maasai culture are found in one of the most preserved indigenous forest ecosystem in the country, Mukogodo forest. Along with the Chepkitale of Mt. Elgon, the mountain forest indigenous peoples are found in three of the five major water-towers and forest ecosystems in Kenya

Holding a rich body of TEK, the communities have hunted wildlife and gathered honey and wild-fruits on their forest landscape with a passion for generations. The territorial partitioning of the forest landscape by colonial and then independent government to control access and usage of natural resources has undermined the rights and obligations of the forest peoples to manage and protect the forest, and has led to different degrees of deforestation and widespread destruction of biodiversity. Community members and other elements of the civil society blame poor governance, corruption and also ignorance for the current state of affairs. Not only are the livelihoods of indigenous peoples at serious risk, the heavy deforestation of the Mau Forest Escarpment has led to a serious crisis of water shortage in the country and plummeting natural resources.

A long history of traditional food processing and preservation technologies like drying meat and roots and storing meat in honey, in a context of abundant forest and plains food reserves is testimony of a heritage of controlled utilisation of natural resources. The ascribing of certain biodiversity species, sites and territories as sacred is evidence of the will of the local communities to preserve nature, protect rare species and sites in recognition of the interconnected between the humanity, nature and spirituality.

All three communities demonstrate a sophisticated knowledge of cycles of highland-lowland seasonal variations of biodiversity. They showed on their maps an awareness of how ambient climate can be used to optimise conditions for human health and food supply over long periods of time. Indigenous cultures used altitude and mobility to synchronise human movements with a sustainable approach to exploiting natural resources in the mountain forest ecosystems.

P3DM – participatory mapping

P3DM involves using 3 dimensional maps to elicit explicit and tacit knowledge held as mental maps by utilizing tactile and visual senses to document cultural and natural landscape element using culturally agreed upon symbols by local communities, schools children and university students with support from their teachers and lecturers help in constructing the

contour line map upon which the community construct the base map thus utilizing their geographic and mathematical skills as well as helping the community mix the colours for constructing the legend and depicting landscape elements map which help them utilize art and physical science skills.

The choice of P3DM for use by Ogiek, Sengwer and Yiaku elders to record their TEK held several benefits: – promotion of local literacy, modelling of the territory, participation of substantial numbers of people, and installation of the model within the community. The inclusion of a vertical dimension, easily manipulative and palpable materials for constructing the model, visual language, as well as an interactive legend among other components enabled the elders to reconstruct, in memorable their landscape and history. The construction of Participatory 3D models of the three Kenyan communities through a standardized cartographic process offered a flexible and adaptable approach to the different socio-cultural and bio-physical environments.



1. Sample of legend items, Ogiek map, Kenya
2. Youth, elders and teachers build a P3DM together, Kenya
3. Ogiek elder with map, Nessuit Kenya

Photos: N. Crawhall

Kenyan ESD Workshop Results

Nakuru workshop

The Nakuru workshop consisted of a consultative group of ten activists from the three main communities who had been active in the community mapping over the previous 24 months. The following key points were made (a full report is available, see Muchemi et al 2008)

Representatives from Ogiek, Sengwer and Yiaku indigenous communities enumerated the various mapping gains derived from the P3DM and mapping as follows:

Communities rediscover their awareness of the natural and cultural landscape:

Natural Landscape: The modelling of the each portion of landscape and each natural and cultural landscape element served as a reminder of the entire heritage and history of the territories. P3DM allows for holistic visualising of the entire landscape, refreshing of fading memories, re-energizing of cultural, spiritual and emotional attachment to the natural and cultural landscape;

Cultural Landscape: There is a renewed understanding of the location, use and management of natural and cultural landscape and sites. A Sengwer elder, Mzee Laima aged 75 years, discovered a cultural site that he did not know through the mapping dialogue with elders older than himself. The Yiaku youth discovered important caves at Lekuruki and other cultural sites in their territory which were little known by the younger generation.

Mapping promotes harmony in the community:

Internal Conflicts: Mapping allowed some communities to resolve intra-community boundary conflicts. Among the Ogiek the destruction of the Mau Forest Complex and illegal allocation of parts of the ancestral land to in-migrating communities interfered with the memories of clan boundaries. Confusion about boundaries led to minor disagreements about the existence of and location of landmarks resulting in boundaries dispute among 15 clans. The combination of aerial photo-mapping, P3DM and GPS survey has enable 14 of these boundary disputes to be resolved by the clans. The three communities confirmed that the territorial land ownership is now explicit among the various constituent clans.

Intergeneration Learning:

The opportunity of the elders, youths and children to interact with the maps and speak at length about the cultural and natural landscape, how it used to be, community governance and values, all enhanced inter-generational and experiential learning.

Discovering Cultural similarities and links:

Similar cultural sites: The three hunter-gatherer communities share some traditional ecological knowledge such: Specific landscape elements: similar spiritual sites, use of caves, hunting practices, location of salt licks, beekeeping sites, burial sites.

Shared traditional legal heritage: Land could be exchanged between clans as a fine for a youth impregnating un-circumcised girls or for other anti-social crimes such as a murder;

Language and landscape connection: Sengwer and Ogiek sociolinguistic norms are quite different. Sengwer speak their language openly, regardless of where they find themselves. Ogiek tend to be more circumspect when surrounded by other ethnicities. Through the mapping and sharing of experiences they discovered a rich shared heritage in terminology, as well as interesting differences. The meaning of place names that had been lost in one community, were found to have a clear meaning in other community (Ogiek and Sengwer). The Yiaku added to this their experience of language loss, but where place names have been retained in the threatened language;

Traditional and exotic place and biodiversity names: Mappers discovered the importance and presence of aboriginal names as well as recent exotic geographic places names and names of biodiversity (Yiaku, Ogiek),

Shared clan and family names among the three communities: despite living far from each other, they discovered linkages between clans in different communities (Ogiek and Yiaku), and physical resemblances between them (Yiaku and Sengwer);

Shared technologies and skills: Ogiek from Nakuru and from Narok discovered they had the same practice of scenting beehives. All communities paid a great deal of attention to apiculture.

Further Intercultural dialogue

The alliance of forest-dwelling hunter-gatherer indigenous communities deliberated on key areas where action plans would be developed towards further intercultural dialogue. Below is a list of 'brain-stormed' ideas for how the learning from the mapping could be grown into new initiatives.

Strengthening the alliance of forest-based indigenous peoples' civil society in Africa:

- Need for a facilitated strategic planning process;
- Further training on good practice in participatory and other mapping of natural and cultural landscape for advocacy and development, including:
- Information sharing: use of Web2 platforms
- Leadership development
- Protecting natural and cultural heritage intellectual property rights
- Education, training and public awareness

Fostering intercultural dialogue amongst forest-based indigenous communities

- Joint mapping project, information sharing and post mapping planning and reflection;
- Exchange visits between communities;
- Run an annual Indigenous Peoples' National Forum to dialogue and develop policy and strategies

Facilitating Endogenous Development

- Promote alternative endogenous economic development using traditional knowledge (e.g. honey marketing, sustainable cultivation of medicines and wild foods);
- Establish community based museums at community level;

- Advocate for the retrieval of community artefacts, artwork, writings and any other relevant information from National Museum of Kenya and other holders or such heritage;

Promote peace building and conflict resolution

- Use maps and related projects to promote peace within indigenous communities and with neighbouring communities

Education for Sustainable Development

- Encourage youth to fulfil formal Education in environmental management;
- Develop community education resource materials
- Develop of an atlas based on the community maps that can be used in schools
- Liaise with UNESCO, National Museum Authorities, and Ministry of Education, Ministry of Environment, Universities to develop strategies and action lines towards mainstreaming TEK in formal curriculum (ESD)
- Promote informal Education through school-community experiential learning sessions

Strengthening Information Management and Sharing Mechanism

- Develop a collaborative indigenous people clearinghouse (centralised information storage) and an information network for managing and sharing natural and cultural landscape data and information
- Publish Indigenous People's information products (e.g. Atlas, books, working papers, journals, eco-calendars)
- Document endangered biodiversity species
 - Inventory and mapping of biodiversity (flora and fauna) in each community territory;
 - Establishment FDGH gene bank in each community;
 - Establish eco-cultural resources centres;
 - Form community-based foundations for traditional healers.

Nanyuki workshop

The second workshop took place in Nanyuki, Kenya and brought together community elders, representatives from education institutions, civil societies, governments and donor agencies.

The workshop involved a dialogue on community learning from mapping and the advocacy position of holders of traditional knowledge, in dialogue with practitioners, contemporary sustainable development education, including specifically relevant government ministries and education institutions. The dialogue explored five critical issues: (i) relevance of TEK in sustainable development and the futures of the communities and their respective intangible and natural heritage, (ii) strategies to promote TEK in education and State planning, (iii) threats to the oral transmission TEK, (iv) ESD strategies to address the threats to TEK and (v) Strategies for revitalizing TEK.

The workshop utilized presentations, open dialogues, group discussions, a portable Participatory 3-Dimensional Model (P3DM) and its legend done by Ogiek from Eastern Mau Forest, group work by elders and contemporary ESD experts, field excursions to Mukogodo Forest for experiential learning, and evening cultural performances by Sengwer, Ogiek and Yiaku elders.

In a commitment to utilising the opportunities offered by ESD namely, formal, informal and non-formal avenues, three indigenous communities in Kenya identified actions lines for safeguarding of the sustainable cultures and heritage as summarized in Table 2 below:

Table 2: Indigenous peoples’ recommendations on safeguarding TEK within the framework of ESD

Action Strategies	Action Plans	Actors
<p>i. Develop a consolidated approach to promoting ESD policy and implementation in Kenya with special reference to recognising and integrating TEK in formal education and its intergenerational non-formal transmission at local level</p>	<p>Indigenous consortium to review the extent to which TEK is currently integrated in National development and climate change policies; Identify gaps and potential opportunities for further mainstreaming within the Kenyan policies and implementation strategies; Lobby for a national strategy for integrating TEK within the ESD at the Ministry of Education, Science and Technology;</p>	<p><i>Target Community:</i> Activists associated with HUGAFO as well as other interested Indigenous and local communities of forested areas of Kenya</p> <p><i>State agencies:</i> Ministry of Culture and Social services Ministry of Natural Resources; Ministry of Finance; Ministry of the Environment</p> <p><i>Partners:</i> (i) UN: UNESCO, UNDP, UNEP, UNFCCC, UNPFII; (ii) Foreign NGO IUCN, CTA, Shalin Ry, Siemenpuu Foundation, seek financial support and advisory support (iii) African Civil Society: IPACC network; ERMIS; African Biodiversity Network</p>
<p>ii. Education Curriculum Development</p>	<p>Curriculum review to assess the extent to which TEK has been integrated or infused within the existing formal education curriculum with a view of identifying the existing gaps and opportunities for a practical mainstreaming within the Education System</p> <p>Development of a curriculum framework, educational programs and instructional resources materials for implementing the TEK in education institutions</p> <p>Establishment of strategies from ensuring the implementation of the TEK component regarding indigenous minority groups with the national education curriculum</p>	<p><i>Target Community:</i> Indigenous minority groups</p> <p><i>Lead agency:</i> Ministry of Education Science and Technology</p> <p><i>Partners:</i> (i) UN: -UNESCO and IPACC to assist with financial and technical advise -Ministry of Natural Resources (Kenya Forest Service) (ii) Foreign NGO – e.g. SHALIN –financial support and networking support (iii) Civil Society: -e.g. ERMIS to support in the technical and coordination activities</p>

<p>iii. Research and document heritage sites representing the link between sustainable livelihoods and cultural heritage.</p>	<p>Mapping and documentation of critical heritage sites</p> <p>Characterization of biodiversity and sustainable cultures in these heritage sites</p> <p>Facilitation of gazettelement process with National Museum of Kenya</p> <p>Lobby national government to recognise intangible and /or mixed cultural natural heritage sites within the UNESCO World Heritage Convention and appropriate IUCN categories of protected areas</p>	<p><i>Target Community:</i> Indigenous minority groups</p> <p><i>Lead government agency:</i> National Museum of Kenya</p> <p><i>Partners:</i></p> <p>(i) UN: UNESCO and IPACC to assist with financial and technical advise -Ministry of Natural Resources (Kenya Forest Service)</p> <p>(ii) Foreign NGO – e.g. SHALIN –financial support and networking support</p> <p>(iii) Civil Society: -e.g. ERMIS to support in the technical and coordination activities</p>
<p>iv. TEK mainstreaming into local learning and development among the Indigenous communities</p>	<p>Establish TEK learning centres such as community museums, eco-tourism initiatives</p> <p>Establish cross-cultural exchange visits among the various ethnic groups in Kenya for purposes enhancing visibility of TEK of indigenous and local communities</p> <p>Establish a national Indigenous People’s Network for amplifying advocacy initiatives</p> <p>Establish community based botanic sites for threatened and endangered biodiversity and learning processes</p> <p>Establish community-based herbal medicine research, extraction, packaging marketing mechanism</p> <p>Research into mechanism for establishing, documenting and patenting cultural knowledge, innovations and practices of indigenous communities to protect and benefit from intellectual property rights (with reference to WIPO and CBD mechanisms and standards)</p>	<p><i>Target Community:</i> Indigenous minority groups</p> <p><i>Lead government agencies:</i> National Museum of Kenya, Ministry of culture and Social Services</p> <p><i>Partners:</i></p> <p>(i) UN: -UNESCO, WIPO, CBD, UNDP, UNEP, GEF and IPACC to assist with financial and technical advise -Ministry of Natural Resources (Kenya Forest Service)</p> <p>(ii) Foreign NGO – e.g. SHALIN –financial support and networking support</p> <p>(iii) Civil Society: -e.g. ERMIS to support in the technical and coordination activities</p>

Networking for Education for Sustainable Development

Networking is increasingly becoming mode of operation not only for contemporary communities of practice (cop) but also for traditional communities. The practice of contemporary networks is trickling down to the grassroots level. HUGAFO and IPACC have focused on creating solidarity and learning networks between relatively young human and cultural rights activists to engage with the global indigenous rights movement and standards and norms of the United Nations agencies and instruments. The new phase of the work involves bringing elders and community members together to reflect and network or their experiences, concerns and strategies. As such indigenous Kenyan communities are learning the power of networking to transform their formerly dismal and fragmented situations of

disempowerment into a new momentum for solidarity and more integrated efforts to advocate for just and rights-based approaches to governance and development. However, the Ogiek, Sengwer and Yiaku elders noted that the essential social fabric for building indigenous people network takes time and resources and a whole range of actions before the project becomes effective and self-sustaining.

Noting the vantage opportunities offered by numerous ESD stakeholders promoting traditional ecological knowledge within the country an analysis of the critical challenges impeding ESD implementation revealed that lack of a comprehensive national framework for safeguarding of TEK, eminent disconnect between formal institution engaged in education and research on the one hand and indigenous communities who the holders of TEK on the other hand, limited resource in terms of ESD expertise and funding resources to develop and implement national ESD strategies

Concluding remarks

The complexity of the 2008 ESD mapping and reflection exercises were influenced by the capacity of the local organisations and the socio-political context. In both cases, the indigenous peoples themselves felt that mapping was an important way to express their traditional knowledge of natural and cultural landscapes, and that this knowledge base should be linked with more formal education. All of the communities involved in the IPACC ESD projects are acutely aware of the threats to natural resource over-consumption and climate change risks. Through various dialogues inside the IPACC network, through UN forums and with other partners, the indigenous peoples have strongly emphasised that sustainable development is closely linked to local stewardship of natural resources. This stewardship will only be politically acceptable where there are adequate alliances and effective advocacy. One platform for such advocacy is Education for Sustainable Development and the application of traditional ecological knowledge which creates opportunities for intercultural dialogue on the use of heritage, culture and traditional knowledge in sustainable development.

The other element that has emerged in the 2008 ESD projects was the importance of access to information communication technology and the appropriate application of geo-spatial information technology. GIT has been slow to reach rural areas and communities in Africa. The weakness of the internet infrastructure in Africa has held communities back from ICT use in communications, documentation, dialogue and advocacy. This is evidently changing. The IPACC-CTA-Shalin Web2 training courses in 2008 were enthusiastically received. Even the limited training received by the team from Agadez was sufficient for them to run further training and research with local community members in the Sahara.

The use of ICTs, GIT and Web2 help create bridges between oral cultures of indigenous and local peoples in Africa, and other stakeholders, such as civil servants, academics and wider audiences interested in partnerships for sustainability. ICT / GIT capacity also challenges stereotypes about indigenous peoples and their knowledge and culture.

Mohamed Ewangaye, Tuareg member of the IPACC Executive from Niger noted in the IPACC 2008 workshop on adaptation and mitigation in Marrakech:

“We the modern indigenous peoples of Africa, we know both worlds. We can cross the Sahara on our camels, locating water, medicine, honey and meat. Or we can drive to the city in a 4x4, catch a flight to meetings in Europe and live as you do in the West. The difference is that we know both worlds and both ways, whereas Westerners do not know our world or how to survive on what nature has provided.” (personal communication 2008)

There is a notion that ‘modernisation’ breaks down traditional culture and values. In some instances, this may well be the case. However, in these cases ICT / GIT empowerment has actually strengthened the bonds between young, literate indigenous people and their orally-based elders, the holders of complex, tacit knowledge about biodiversity and sustainability.

IPACC will continue to explore with its members and partners how heritage and culture, in combination with ICTs and traditional knowledge, practices, beliefs and values can respond to the very real and immediate threats of poverty, desertification, deforestation and reduction in biodiversity. Through the empowerment of rural African indigenous voices, Education for Sustainable Development may become a reality in Africa in the decades to come.

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