

## **Report on Participatory 3D Modelling Workshop**

### **Representing the Abongo-Mitsogho cultural landscape of the Ikobey Commune and Waka National Park**



**22 September – 3 October, 2010**

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Representing the Abongo-Mitsogho  
cultural landscape of the Ikobey  
Commune and Waka National Park

*Fougamou, Gabon*  
*22 September – 3 October, 2010*

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# Table of Contents

<b>Summary of Results</b>	<b>p1</b>
<b>Context of the Project</b>	<b>p2</b>
<b>Who are Indigenous Peoples in Africa?</b>	<b>p4</b>
<b>Protected Areas and CBD</b>	<b>p6</b>
<b>Summary Review of P3DM Training</b>	<b>p8</b>
<b>Ikobey P3DM Legend Making</b>	<b>p18</b>
<b>Annex 1 : Respondent Evaluation</b>	<b>p22</b>





# Summary of Results

## Principal Objectives:

- Indigenous and local spatial knowledge and values of indigenous peoples are recognised and their authority and accuracy are taken into account in the context of sustainable natural resources management and equitable sharing of benefits in and around protected areas in Central Africa, using Waka National Park as a pilot case in the sub-region;
- Traditional knowledge and management practices of bio-cultural diversity are documented and understood by national government agencies;
- Traditional knowledge and practices of bio-cultural diversity management among indigenous peoples and minorities in Central Africa are documented and understood by national government agencies;

## Principal Results:

- The construction of a three-dimensional participatory model of the Ikobey commune and Waka National Park, the first of its kind in the region of the Congo Basin (note, due to logistics this happened in two phases, September 2010 and May 2011);
- More than 60 civil society representatives, local community members, and indigenous peoples, coming from 9 countries, and members of local government were trained in Participatory 3D Modelling processes.
- The spatial data of the geo-referenced zone extrapolated from the model was made available to stakeholders as a map to be used in planning and decision making;
- Awareness was raised amongst the Gabonese public, administration, local communities and indigenous peoples in Gabon on the role that participatory mapping can play in relations with the local government, conservation organisations, and local communities.
- Two short- films, a 16-minute film and a 24-minute film, completed for television and online broadcasting. Provisional launch of the 24-minute film at the WCS head offices in New York in May 2011;
- Two independent national radio programs recorded and broadcast in Gabon, as well as various print and electronic media coverage;

## Project Impacts:

- Civil society and conservation organisations are now preparing similar participatory mapping and / or participatory 3D modeling exercises around other national parks in Gabon - this can improve the methodology of planning and public consultation, involving the rural population in the national conservation goals;
- Potential for an improvement in governance and collaboration between many stakeholders and the community at large in the management of Waka National Park. Notably the exercise had positive resonance in the province which will encourage national authorities to see the value of these public platforms for dialogue;
- The model can serve as a management tool in planning and decision-making processes whereby local communities assist in elaborating the management plan of Waka National Park, which must be validated in 2012;
- New projects can be developed to strengthen community participation in the management of the area, including supporting the creation of local management committees;
- Central African francophone practitioners of participatory mapping and processes were exposed to detailed training on P3DM; IPACC members have expressed an interest in working with these NGOs to conduct P3DM in the Great Lakes mountain chain region of eastern DRC.

# Context of the Project

Since 2006, IPACC has supported the efforts of indigenous peoples in Gabon to form independent organisations and build a national network. The Association of Indigenous Minority Pygmies of Gabon (MINAPYGA) was the first indigenous organisation founded in Gabon. It was started by Leonard Fabrice Odambo, a Bakoya man and journalist who had received a higher education. Odambo travelled in the provinces of Gabon to meet with indigenous leaders and activists to raise awareness and spread knowledge of their rights- notably the rights of indigenous peoples as recognised by the United Nations and the African Commission of Human Rights and Peoples Rights (ACHPR).

After a series of discussions, a four-way cooperation agreement was established between MINAPYGA, Wildlife Conservation Society (WCS) Gabon, the Secretariat of IPACC, and local communities of Ikobey commune, Ngounie Province. WCS proposed that IPACC, MINAPYGA and Park Administration cooperate on a project to help indigenous and local communities around Waka National Park create community-based associations to interact with Park management in policy making, as well as local development needs.

Indigenous and local communities live on the boundary of Waka National Park, and had historical traditional usage of the area which was unilaterally turned into a fully exclusionary (Category 1) Protected Area by the national government in 2002. The principal objective of the cooperation agreement has been to support the local villagers to self-organise so that they may engage in management and decision-making of the Park, and to better address issues associated with living in remote areas, including lack of employment, conflicts with elephants, and the presence of foreign timber companies.



This effort was approved by the National Agency of National Parks (ANPN) and the involvement of the Conservateur (Manager) of Waka National Park, Benoit Nziengui. In 2009-2010, all the stakeholders: MINAPYGA, the locals in the villages in Ikobey, WCS Gabon, ANPN, Brainforest Gabon, and the Rainforest Foundation (UK) agreed on a framework for cooperation to achieve a participatory mapping project in the areas. This cooperation was further supported by Rainforest UK's programme to build participatory mapping capacity in the Congo Basin, including in Gabon with Brainforest.

The participatory mapping exercise was carried out with the technical support one of IPACC's partners, the Technical Centre for Agricultural and Rural Cooperation (CTA), an agency founded under the Lomé / Cotonou agreements between the European Union and African, Caribbean and Pacific countries (EU-ACP). The framework of the cooperation with CTA on the participatory mapping exercise was based on the free and prior consent of the locals in the commune of Ikobey, approval of administration, and a means for training for local NGOs and member associations of IPACC of the Congo Basin.

IPACC has collaborated with CTA for five years on projects that focused on information technology and communications, including Web 2.0 and aspects of Geographic Information Technologies (GIT). In 2007 with the help of CTA, IPACC organized a strategic planning workshop in



Burundi. One priority identified by the participants at the Burundi workshop was the importance of persuading government decision-makers on the knowledge competence of indigenous peoples with regards to biodiversity and natural resources management.

In 2008, in Namibia and in Morocco, in collaboration with CTA, IPACC organised a series of training workshops on participatory mapping and traditional ecological knowledge in connection with climate change. In 2009, CTA helped IPACC to manage a review of indigenous practices of climate mitigation and adaptation as a preparation for IPACC's delegation to the 15th Conference of Parties (COP15) of the UN Framework Convention on Climate Change (UNFCCC) in Copenhagen.

For the Gabon project, IPACC proposed to use P3DM to facilitate a dialogue between state administration and indigenous peoples on the sustainable management of bio-cultural frameworks in the protected areas. During 2009 and 2010, IPACC and Gabonese partners held consultations amongst the local villagers, local authorities and NGOs working in the commune of Ikobey, Province of Ngounié, Gabon.

Villagers expressed their interest in holding a regional training P3DM exercise on the border of Waka National Park. The mapping project was designed, according to local priorities, to deal with issues of access and decision-making with regards to sustainable management of natural resources and cultural heritage, climate change and food security in tropical forests. For IPACC, the adoption of the P3DM in Gabon and in neighbouring countries would provide important opportunities to help involve indigenous peoples in regional Protected Areas, which tend to be in their home territories, and ensure implementation of Element 2 of the Programme of Work on Protected Areas of the Convention on Biological Diversity (CBD), which deals with rights, governance and benefit sharing.

# Who are Indigenous Peoples in Africa?

On September 13, 2007, the General Assembly of the United Nations adopted the Declaration on the Rights of Indigenous Peoples (UNDRIP). This non-binding, normative document had been negotiated within the UN for twenty years. It is an important step in the development of global policies on human rights. It recognises the importance of cultural diversity and the inclusion of non-dominant peoples as rights-holders in the world system in the face of centuries of discrimination and violence perpetrated by colonialism and more recently in postcolonial contexts.

A typical reaction when discussing indigenous peoples in Africa is the general remark that everyone in Africa is indigenous. *Why the distinction?* It is true that all Africans are indigenous to the continent, but over time new international norms and standards have been developed to recognise the marginalisation and exclusion of specific national communities, because they were denied equal rights with other citizens in independent states due to their origins (first peoples), livelihoods (hunting, herding and fishing), language or territorial location (such as in deserts and rainforests).

The concept of *indigenous peoples* is deeply rooted in Africa. The agricultural revolution led to a massive migration of populations from West and Central Africa through Eastern and Southern Africa over thousands of years, bringing new languages, metallurgy, socio-political organisation and agro-pastoralism to different parts of Africa.

The main wave of migration was associated with populations of the Niger-Congo language family, and particularly a sub-group of languages known as "Bantu" languages<sup>1</sup>. The Bantu speaking agro-pastoralists encountered different peoples already living in these new territories, many of whom were hunters and gatherers, as well as pastoralists.

To this day the Bantu languages have special terms designating indigenous peoples of diverse origins, giving rise to such names as Batwa, Bacwa, Abathwa, Baroa, Basarwa, and so on. The concept of African indigenous peoples was then affected and distorted by European settlers, giving rise to new terms (and generally pejorative) such as the Pygmies, the Bushmen, Hottentots, and so on.

Modern day self-identification amongst African indigenous peoples is mainly taking place in rural communities that have particular identities distinct from national identities and associated with discrimination and marginalisation. For the majority of these peoples, their livelihoods rely on have relied upon hunting and gathering, or on nomadic pastoralism. These two groups have experienced discrimination and marginalisation under colonialism, particularly in terms of rights to land and natural resources.

Contemporary discrimination against nomadic indigenous peoples has been carried forward from the colonial era - mainly in the form of abrogation of land rights, forced settlements and relocation - and remains a serious rights concern in post-colonial governments. Many independent governments do not recognise hunter-gatherer ethnic groups, and even when recognised they were prevented from being heads of villages, and therefore excluded from formal governance. The idea that land rights are exclusively allocated according to agricultural cultivation (usage) is still a powerful factor in Africa, ignoring other sustainable use of grazing lands and wild resources.

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<sup>1</sup> This term is considered pejorative in South Africa, though widely used elsewhere.

In November 2003, the Working Group of the African Commission on Human and Peoples' Rights presented its full report to the 34th Ordinary Session of the ACHPR in Banjul, Gambia. After intensive debate, the ACHPR adopted the report by resolution. The ACHPR Working Group stressed that the report underlines an important aspect of discrimination linked to land rights and recognition of hunter-gatherers and transhumant / nomadic pastoralists. Although such discrimination is clearly rooted in the colonial legal distortions in Africa, the point was well- made that continued violation of the rights and marginalisation / issues of discrimination are tolerated and facilitated by dominant ethnic groups that control independent African states.

In 2007, under the guidance of the ACHPR, the African Group of States supported the General Assembly vote to adopt the UN Declaration on the Rights of Indigenous Peoples as an international standard.

In 2004, the UN Special Rapporteur on the Human Rights and Fundamental Freedoms of Indigenous Peoples, Prof. James Anaya noted that:

*"While some governments may not consider that a standards document applies to national laws and policies, in practice, there is strong evidence that such instruments have normative force of law. The foundation of the United Nations and international law was to create a balance between state-sovereignty and the universality of human rights, which in practice restricts the sovereignty of states.*

*... international law - the body of principles, standards and procedures that are now operating across national borders - remains focused on the state, but it is now affected by a discourse directly affecting the same individuals and groups. The concept of state sovereignty, although very much still alive in international law, yields more and more to an overall global normative trend defined by normative visions of world peace, stability and human rights"*

(See S. James Anaya 2004: 53)



# Protected Areas and CBD

The United Nations Convention on Biological Diversity (CBD) is a binding international treaty that was ratified by all African States, including the Republic of Gabon. The CBD has specific obligations regarding indigenous peoples, including support by the state for the maintenance of indigenous knowledge systems on biodiversity, and equitable arrangements to benefit from this knowledge (Articles 8j and 10c).

One of the key elements of the CBD is the Programme of Work on Protected Areas (PoWPA). PoWPA provides governments with a set of standards and tools to improve the management and governance of protected areas, while respecting international human rights standards, including the right to participate in the governance of protected areas and equitable sharing of these benefits.

Gabon has taken a firm position in establishing national legislation regarding protected areas and management, combined with a scientific approach-based intensive research that has identified key areas for conservation of the diverse landscape of Gabon and the different ages of the natural forest and biodiversity.

In 2010, the CBD has reported to its member states that though the territorial extent of protected areas has increased globally, biodiversity and ecosystem resilience continue to fall in all parts of the globe. In addition, States have not sufficiently implemented their obligations of effective management, governance, effective participation of stakeholders, equitable benefit-sharing, and protection of local livelihoods. Many protected areas are under-funded and are now threatened, by increasing incursions of the extractive industries.



The CBD and the IUCN encourage States to categorise their own protected areas, in terms of human usage, that is, recognising and integrating protected areas in the context of economic, social and cultural activities. This message was reinforced during the 10th Conference of Parties of the CBD, where state parties recognised the importance of social assessment, equitable management and evaluation of governance of protected areas as important elements in conservation. IUCN research conducted on Protected Areas Management Effectiveness (PAME) clearly shows that social indicators play a central role in biodiversity conservation.

Gabon has already taken steps within the framework of its protected areas legislation to ensure public participation. However, in 2010, these provisions had not been converted into decrees approved by the National Assembly. This creates a difficult situation when Park administrators want to create forums for consultation, but lack the necessary guidelines and permission to formalise the process.



# Summary Review of P3DM Training

Participants and delegates left Libreville Wednesday, 22 September 2010; they arrived the following day at 2:00 am. The work began in the early hours of Thursday morning.

## Thursday, 23 September, 2011

In the morning, before beginning the workshop, members of the project team arrived, composed of Giacomo Rambaldi (CTA); Nigel Crawhall (IPACC Secretariat); Georges-Thierry Handja (Rainforest Foundation UK); Samir Kassir Nziengui (Brainforest Gabon); Fabrice Leonard Odambo Adone (MINAPYGA / IPACC), and exchanged protocol courtesies with officials of the municipality of Fougamou, namely, the Brigade Commander, the company commander of the Gendarmerie Nationale of Gabon, the Deputy Mayor of the town of Fougamou, Mr Marius Gervais Leck, and the President of the County Council of Tsamba Magotsi, Mr Marcel Massande Mouang. Later, a visit was made to the Director of Public School of Fougamou, Mr François Mbandzou, whose role was to involve students in the project.

In the afternoon, Giacomo Rambaldi introduced the workshop by presenting the participants and explaining the importance of the project to the students. Nigel Crawhall contributed to the introduction by emphasising that the project is an opportunity for the villagers of Ikobey to exercise their freedom of choice. For Rambaldi, the participatory mapping exercise is oriented to the practical construction of a 3D -map that can be used to solve a set of societal problems. The exercise is to design a map that transmits information on peoples' livelihoods, so that it can ultimately serve as an interface between officials and local and indigenous communities. Rambaldi further explained that the participation itself is an important element in the process; he felt that the project is an opportunity for all members to take part, and that by working together, the map becomes a useful tool.

Participatory mapping is based on traditional knowledge, its practice is related to a multi-disciplinary group, and is used in several contexts: in expressing customary tenure, conflict management, safeguards of traditional knowledge, or simply to raise awareness of the interplay of issues. The success of the participatory mapping is built in terms of bringing together policy-makers, working in an office, to come to know and understand the realities of land and territories facing local communities.

In certain countries like the Philippines, the map was originally done on the ground, then on cardboard before the data was transferred to a draft of the map. Once all members achieved consensus on the information, the data is plotted onto the model.

This pilot project in Gabon (which follows successes in Asian countries, the Pacific and East Africa) was intended to cover fourteen villages in two municipalities of the Ikobey, populated by the indigenous peoples of Babongo and the local communities of Mitsogho. In practice, as described below, only three villages were involved in the first round of mapping, and the others were able to participate in the second effort in 2011.

Nomenclature is important in participatory mapping: maps are drawn with the legends to indicate the names of points, lines and polygons. Nomenclature, in local languages, provides the basis for a common understanding of the landscape and the map. Some examples of maps made in Canada and Kenya were shown to participants to introduce the technologies used in participatory mapping, emphasising the power of maps to express the local and indigenous knowledge.

Two quotes, from Janis Alcorn and Peter Poole, illustrate this assertion:

*“Mapping immediately provides information to officials”*

*“In making maps .... European explorers have produced maps of Africa without the communities. As a result, Europeans thought they were allowed to divide the African continent as children do cakes.”*

The objective of the project, noted by Rambaldi, was to design a model that can serve communities as a means for communication with the authorities. He defined mapping as marrying the knowledge and expertise of communities, with the decision-making powers of the National Agency of National Parks (ANPN), the Ministry of Forestry, and even logging companies.

The model starts off with just the contour maps. School children begin the process by tracing and cutting the contours out, so that they can be traced onto the foam to build up the layers of the model - as can be seen from the photographs of a blank map being filled with information by way of points, lines and polygons. These features are recorded by the community people in their own language, building up a legend to make the map meaningful to anyone who sees it. Rambaldi added that the landmarks cited in the legends are not necessarily uniform in a community. They may differ by age and gender.

Although the model is made to stay within the communities and guarded by an individual who could possibly make changes, there are circumstances which allow communities to present the model to officials.



Friday, 24 September, 2010



The workshop began in the morning with a brief introduction and feedback from participants on 'the wall of democracy'. This gave Rambaldi the opportunity to explain the scale of the model, 1: 12.500, allowing the project team to work on all fourteen villages. The expert explained that a two-dimensional map can be done on any surface, but a three-dimensional map should normally be limited to a scale of 1: 10,000 or 1: 5.000 or to 1: 2.000. Rambaldi explained that the smaller the scale, the more detailed the map. If we exceed this scale, we lose important details, with individual houses starting to disappear from the map.



The object of this session was to orient the mapping technicians in the moderation process. Participatory mapping is multi-disciplinary, consisting of many defined roles: moderator(s), leader(s), co-moderators, support staff, the context, social or natural sciences, anthropology, the work of a community, collaborative management of natural resources mapping, information technology and geo-spatial systems.



Before discussing ethics and the role of the facilitators, Rambaldi brought the attention of the participants to the importance of the documents in the kit. With regard to the role of facilitator, there are important factors to be taken into account, they are: cultural mapping and its potential applications by indigenous peoples and behaviours and attitudes in the moderation of participatory mapping exercises. Participatory mapping is multi-disciplinary.

Ethical considerations aim simply to obtain *free and prior consent*, to be open and honest, to avoid false expectations, to avoid exposing people to danger and to ensure local control over technology and data collection.



We use different media and approaches to communicate effectively (verbal, visual, virtual or physical media, the keys of interpretation, tactile perception, body language, appearance). We choose the way we access the community: from top down, from bottom up, or as equal.

We must use the space in which we must work properly: to organise the layout of the room, to provide visual access and equal opportunity for contribution by an appropriate physical layout. All this must be taken into consideration when choosing 3D-mapping as our media and planning the participation of all the delegates involved in the process.

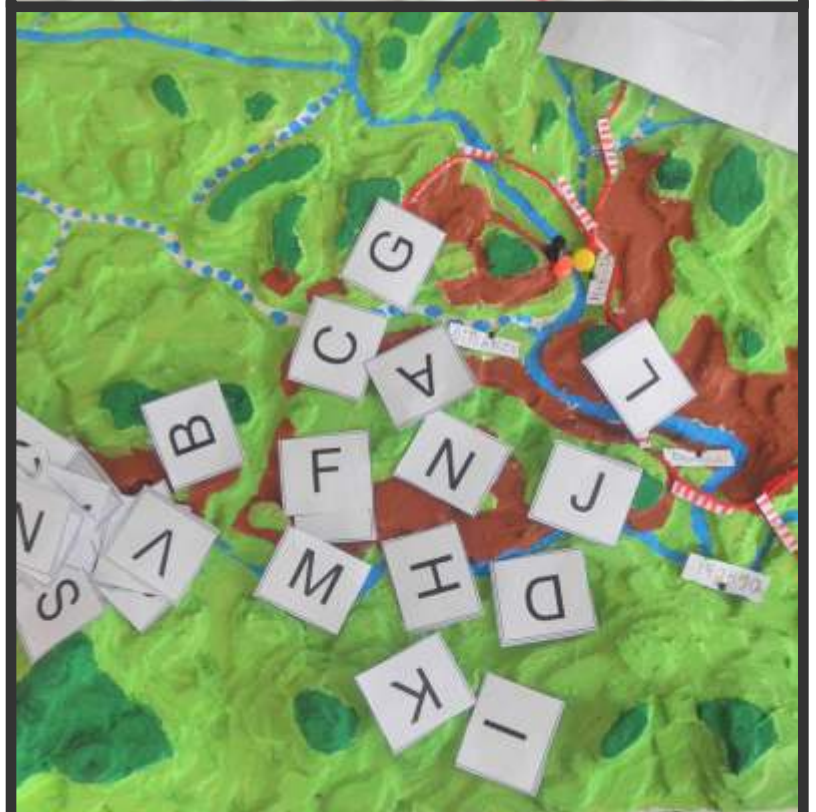
## Visual Access and Participation

- Personal Digital Assistant (PDA), (used by 1-3 people), controlled by an individual
- Computer screen (used by 1-3 people), controlled by an individual
- PC and projector provided, controlled by an individual
- Enlarged aerial photo printed (1-6), [vertical view], all can contribute
- Map (1-6) Sketch Map (1-6), all can contribute
- Scaled model (1-15), [180° bird's-eye view], all can contribute

## In the Process

- Ensure ownership by the community users, stand back and let others take control
- Be mindful of dominance and power issues
- Put forward the last – give opportunities to those with less power and voice
- Consider differences amongst the participants
- Facilitate analysis
- Ensure consistency of coding
- Plan the exit strategy (when you leave) and return results to participants
- Introduce yourself and be agreeable
- Forget what you have learnt from other experiences, each occasion is new
- Ask questions
- Let others speak their minds
- Accept mistakes
- Go calmly, do not rush
- Sit, listen, observe and learn
- Use your best judgement at all times
- Be quiet and listen!

The day finished with an exercise in which all participants were asked to transcribe his or her village and the activities of their home communities. When Mr. Tom Matsouma, a participant from Cameroon, presented his village, Minguéngué, and described the different activities of its inhabitants, an interesting exchange of shared experiences took place amongst the participants.



**Saturday, 25 September, 2010**

The participants were divided into five groups:

Group 1/ Plotting the contour lines (2 x 1 m), composed of:

- Diel Mochire, leader (DRC), Dolce Mossouma Modandi, Frida Joycee Bouyanga, François Mboutou, Hélène Nze Andou, Alex Oke Misso, Joachim Gwodog.

Group 2 / Cutting the contour maps into layers (2 X 1 m), composed of:

- Francis Toumbabia leader (CAR), Darryl Ngounga, Paul Aimé Tokou, Venance Orphée N'ngang Nkogo and Roland Nyingone Mengue.



Group 3/Tracing the layers, divided into sub-groups A and B:

- Sub-group 3A composed of:
- Tom Matsouma, chef de groupe (Cameroon), Jean Nganga, Ngounga Dominique Murielle, Sita Togola, Lysney Dibanzet, Pauline Koti.
- Sub-group B composed of:
- Diderot NGUEPJOUO, chef de groupe (Cameroon), Darnick Abaghe, Arthur Abaghe Abaghe, Jonathan Talis Djila, Leod Youbi, Cidy Ngounga, Sydney Nold Madingou Akouma, Régis Angounou et Brice Fabrel Pendency.



Group 4 /Cutting the layers of foam, composed of:

- Barthelemy BOIKA, chef de groupe (DRC), Naomi Moulonda, Evrard Terrence Mitoukou, Rachelie Laurence Tia Mbando, Prudence Ngueba Mboumba, Emilie Julie Nzana Pegui, Arnold Djiembhy and Jérémy Talis Ndoumba.

Group 5/Assembly of the foam sheets, composed of:

- Hindou Oumarou Ibrahim, chef de groupe (Chad), Giacomo Rambaldi, Hans, Andy Youbi and Andy Pouma Ngoungou.



**Sunday, 26 September, 2010**

The different groups spontaneously began work on Sunday morning until the lunch break.

At one o'clock in the afternoon, we witnessed the arrival of the first 16 delegates from the Ikobey area, escorted by the Director of Secretariat of IPACC, Dr. Crawhall and the Conservateur of Waka National Park, M. Benoit Nziengui. The delegation was much smaller than anticipated due to a bridge having been burnt down, cutting off most of the villages, and the problem of very little fuel on the Ikobey side of the river, due to the ferry having been out of order for several months. Transport was facilitated by the local logging company.

The delegates were: Nkombé Anicet, Mouanda Daniel, Mounanga Dominique, Nkombé Maxime, Mondjo Pierre, Ndjengue Jean Rémy, Ekia Jean Pierre, Mbembo Jean Claude, Ndoh Samuel, Okaba Jean Paul, Madouma Victor, Ndjambé Pascal.

Delegates from the first settlements completed the model during the first three days of the week, from 27 to 30 September 2010. The first half of the model was completed in longitude and latitude on Thursday, 09/30/2010. The second half of the model had to wait until the transport problems were sorted out, and was completed in May 2011 with the support of WCS.

On Friday October 1st, there was a change in the program. The official closing ceremony was changed to 12:30 on Friday instead of the original date on the upcoming Sunday, October 3rd 2010. This afforded local Fougamou delegates and Babongo and Mitsogho villagers to come together with visiting indigenous delegates to discuss strategies and to think about using the map for negotiations with their governments.



For this reason, a meeting was held where delegates shared information on the various legal instruments and mechanisms at the international, African regional, national and local levels, without omitting the role of traditional leaders. Dr. Crawhall offered his expertise on the subject of the UN system and the IUCN Programme of Work on Protected Areas. Brainforest staff gave details of the Gabonese legal system and the various ministries and departments responsible for development, rights and protected areas. The meeting was highly appreciated both by delegates in Gabon and those from other countries of the subregion.



Dr. Crawhall's contribution focused on the behaviour, credibility and the role of true leaders in the community. He emphasised the role that indigenous activists and leaders can play in the empowerment of local communities. Communities are sometimes accused of poor behaviour, such as drunkenness, theft, and lies. These perceptions arise from the sense of disempowerment in communities. It is important to overcome these stereotypes, and the mapping process is a way of demonstrating the expert biological and landscape knowledge held in the communities.



After an explanation of IPACC, a pan-African network organisation, participants unanimously approved Hindu Oumarou Ibrahim's proposal to draft a motion for the creation of three additional posts within the Executive Committee of IPACC for the region of the Congo Basin in Central Africa.

At midday the model was digitised by the expert Mr. Boika Barthelemy. The process consisted of transferring the data from the physical model onto the computer to produce a 3D- digital model. According to Mr. Boik Barthelemy, the operation requires a number of very expensive, training-based GIS software ArcGIS. Participants were also advised to use other less expensive software, such as, Qgis.

## Official Closing Ceremonies

There were three highlights of the closing ceremonies: first, a speech was delivered by Miss Hindou Oumarou Ibrahim on behalf of IPACC and the visiting leadership; secondly, a presentation of the model by local indigenous delegate, Mr. Jean Pierre Ekia , and thirdly there was the presentation of certificates and closing speech delivered by the Deputy Mayor of Fougamou, Mr. Marius Gervais.

The closing ceremony began in the afternoon at 12:45pm with a message delivered by Miss Hindou Oumarou Ibrahim. She read the words of the participants, on behalf of all partners in the subregion of the Congo Basin that had facilitated the workshop.

The workshop brought together participants from all countries of Central Africa including Cameroon, Chad, Central African Republic, Democratic Republic of Congo, Republic of Congo (Brazzaville) and the Republic of Gabon. As we all know, the African continent often struggles with poverty, however, this poverty is also accompanied by a richness not often recognised or valued, as illustrated by our traditional knowledge and the abundance and diversity of our natural resources.

According to the speaker, participatory mapping not only leads to the application of traditional knowledge systems in conservation, good management of natural resources, and actions for sustainable development, but it also allows communities to express themselves through media that serves as tools for communication, dialogue and negotiations for recognition of their rights and interests in legislative and political processes of natural resource management.

For Miss Hindou Oumarou Ibrahim of Chad, together and united, indigenous peoples of Africa can realise a democratic, equitable, and sustainable future.

Miss Hindou ended her talk by thanking organisers of the workshop: WCS, Brainforest, IPACC, Rainforest Foundation, CTA, donors and the CARPE project, and the Gabonese administration well-represented by the Mayoralty of Fougamou and the Fougamou District Council.

The second highlight was the presentation of the model. The model was presented by indigenous delegate **Mr. Jean Pierre Ekia**, who spoke in his native Babongo language which was interpreted by **Mr. Benoit Nziengui**, Waka National Park Conservator. Mr. Jean Pierre Ekia noted that the name of the park does not reflect local culture, because no lake, river or water system is called 'Waka', a river which occurs outside the boundaries of the Park.

"In our society, when a stranger arrives he must check with the indigenous peoples", he said, before wondering, " what locals had been consulted in the context of the implementation of Waka National Park?".

In addition, he said that a lack of consideration of indigenous peoples in the creation of Waka National Park had equally led to the over-exploitation of neighbouring forests by the logging industry, thus explaining the unhappiness amongst indigenous peoples regarding the creation of the park.

The third highlight was the presentation of certificates to delegates and participants, followed by a closing speech delivered by the Deputy Mayor of Fougamou, **Mr. Marius Gervais**. In his speech, he recognised that for over a week, the town of Fougamou was the centre of participatory 3D mapping, which brought together social actors from Italy, South Africa, Chad, Cameroon, Central African Republic, DRC, Congo Brazzaville, and at national level, nationals of the Ogooué Ivindo and Woleu Ntem Provinces, and many other places, to design a model representing a northern area of Waka National Park.



Mr. Marius Gervais was particularly pleased to speak at the occasion and to witness the presentation of the model by local people and Babongo Tsogho. For the record, said Mr. Leckie, creating a network of thirteen national parks in Gabon in 2002 was the will of the late President of the Republic, His Excellency El Hadj Omar Bongo, whose vision resulted from others in the fight against poverty and unemployment in rural areas. This network of 13 national parks represents 11% of the total land area of Gabon. Ngounié Province is home to Waka National Park; those are also Birougou Lopé which it shares with sister provinces of the Ogooué and Ogooué Lolo Ivindo.

Mr. Marius Gervais did not fail to recognise that at the time of the creations of 13 new National Parks, rural populations were not consulted or given information that they were included in the list of beneficiaries. According to the Mayor of the adjoining Fougamou, it is reported in the conservation program of National Parks, in the chapter of beneficiaries and stakeholders, in terms of local communities, that special attention should be given to villagers on the periphery of the parks, especially those involving young people and women.

The same park conservation program states that *"communities living on the outskirts of the parks will first be organised into interest groups to be able to effectively discuss their interests and further propose micro-projects."*

Mr. Leckie went on to say that he hopes the conservation program materialises in light of the involvement of indigenous peoples and local communities in the 3D mapping project, used to physically represent their territory. Social actors of conservation in collaboration with ANPN have demonstrated their commitment to policy development, according to the tenets of the workshop, concerning the environment and ecosystems, through "Gabon Green".

The Deputy Mayor of Fougamou expressed the wish that the people living around protected areas should be further involved in the participatory management of natural resources and ecosystems. Finally, he thanked sponsors, expressing how fascinating his experience had been at the workshop and that such a historic event had been held in Gabon, through the involvement of Waka National Park and the town of Fougamou. The delegates returned to Libreville on Saturday, October 2nd, 2010.



# Ikobey P3DM Legend Making

**Prepared by Nigel Crawhall (IPACC Secretariat)**

The legend is a guide to the map. It explains the meanings of symbols, colours and codes used on a map. It is centrally important to allowing the map to be read by people not familiar with the landscape or local terminology. In a participatory mapping project, all of the terms used for the legend come from the community members themselves, in their own language. This is a key aspect in creating a visible and readable platform for oral traditional knowledge to become accessible to policy and decision-makers. The legend confirms this is local knowledge and the expert competence of the local community, anchored in their historic and cultural relationship with the ecosystem and its stewardship.

Normally, the legend for a Participatory 3 Dimensional Model (P3DM) should be developed with community members ahead of time. This has been documented in a number of publications and the CTA training kit on participatory mapping (see <http://pgis-tk-en.cta.int/>). In the Ikobey case, the legend was only developed at the time of the building of the model. This was due to a number of factors, mostly relating to the remoteness of the community and the difficulty of transport into the mountainous forest commune.

A team of facilitators returned from Fougamou the provincial capital to the village of Nioye 1 to conduct the legend building exercise. Villagers were invited from neighbouring settlements, which could only be reached on foot, including Tranquille, a predominantly Abongo village.

Facilitation was done by Samir Nziengui Kassa (Brainforest Gabon) and Charlotte Essoka Mossounda (Mouyssi Environnement du Gabon), with coaching from Nigel Crawhall (IPACC) and Leonard Fabrice Odambo (MINAPYGA). Approximately fifteen to twenty community members participated, including men and women, youth and elders, with guidance from Benoit Nziengui (community member and Conservateur of Waka National Park). The process was filmed by Barend van der Watt and appears in the accompanying video, *Close to our Ancestors*.

Nziengui Kassa used a system of sketching features on the floor of a one-room school house, using charcoal. He helped create a sketch of two key rivers, and asked participants to locate their villages. Essoka Mossounda helped people work with the charcoal and capture the terminology. Conservateur Nziengui helped interpret between the Bongo and Tsogho languages, though everyone understands Tsogho fluently. Terms were translated into French for the visitors. People found this process easy and the map began to flow, with people adding elements, and starting to build a legend using their two local languages, Tsogho and Bongo.

This was the first time in an IPACC project where two languages were used on a single map. It was the community's choice that they wanted to map together, despite linguistic and cultural differences. The Mitsogho are associated with dominant Bantu-language cultures which migrated down into Central Africa from the Niger-Congo language area several thousand years ago. The Abongo appear to be aboriginal hunter-gatherers, whose presence in the region may date back tens of thousands of years. Stone-age hunter-gatherers have been present in the Congo Basin for at least 100 000 years (Clist 75). Today, the Mitsogho and Abongo speak closely related languages, but with grammatical, phonetic (sound) and terminology differences due to their long history. The languages are technically under the B30 category of Bantu languages, specific to south-central Gabon.

The history of the Abongo-Mitsogho relationship has been written about in anthropology and history, and there is a rich oral history. It appears that the two communities – one agricultural-hunters, and the other hunter-gatherers with some horticulture, have been in close contact since at least one thousand five hundred years (500 years into our Current Era (CE)), when the Abongo may have absorbed the Tsogho language (Klieman 95).

It is not possible to say how long the Abongo people have lived in the Chaillu Massif region of Gabon. Clist provides evidence that the Ngounié Estuary has been occupied for between 20 000 and 40 000 years, with

evidence of tropical rainforest occupation during some of this period. The heavy reforestation of this territory re-commenced about 6000 years ago, with the first signs of Bantu migration into the Congo Basin dating back as early as 5000 years (Clist 79, 85). It is also not possible to say whether this very early hunter-gatherer occupation was by the ancestors of the Abongo who live there today, but Klieman provides some evidence of continual contact between Abongo and Mitsogho for the last fifteen hundred years.

Klieman using language analysis, suggests that around 1000 CE, the Abongo moved away from the Mitsogho, creating changes in their language and trading with different peoples such as the Himba (also of the B30 language group) of south-central Gabon. New words entered the Bongo and Tsogho languages from different sources, suggesting a physical separation of the population, who later must have migrated back together again.

It is likely then that there have been complex and shifting relationships between the Abongo and Mitsogho, generally revolving around the Chaillu Massif and their central point of reference, Mount Iboundji (alt 1575 m), near Mimongo in Ngounié Province. Trade, slavery and colonialism, caused people to shift within the territory over the last two thousand years, though linguistic evidence supports evidence that both groups remained in and around the Ngounié Province.

What emerged in the legend building process was that the Abongo and Mitsogho people share a deeply rooted, historical topographical terminology. The noun classes have altered over time, so that the prefixes are different in each language, and there are some sound shifts where the languages are distinct from one another. Some speakers are bilingual, if they have been initiated together, but generally the Mitsogho say they cannot understand Abongo speaking their own language. This suggests that many words are not shared, however when discussing landscape issues, the vocabulary is strikingly uniform.

The legend demonstrated that traditional clan land rights systems have been altered to come into line with colonial / post-colonial village designation. Community informants used a term *mokabo* that distinguishes family / clan based territories for resource usage, but when these were placed on the map they coincided with village boundaries. Villagers confirmed that the boundaries had changed over time, and that today they use the old boundary terminology to coincide with administrative boundaries.

There were not many different categories of land varieties (polygons) on the model. The system was specific, but with fairly broad categories of land. More attention was given to detailed points and geographic features. The legend suggests two main axes are relevant to hunting and gathering orientations in the forest. The first cluster of distinctions was between dense undergrowth (*ghekaka*) and open forest (*motsagna*), virgin forest (*evinde*) and *egheko / digheko* which was used to designate sacred spaces in the forest where all mundane human activity is forbidden (i.e. no resource extraction is allowed). Interestingly these words were precisely the same in both languages, suggesting both an antiquity to them and conservation of the terms over time.



The forest density characteristics influence the technology of hunting, and this is now shaped by the impacts of deforestation and roads, which tend to lead to denser foliage and limited visibility. As one moves deeper into the more intact forest, the undergrowth is reduced and the forest canopy is higher, giving greater visibility to the hunter.

The other axis was about relative distance. People distinguished between nearby lands, and more distant lands. This is also an interesting feature which likely dates to earlier times when different game could be found in different territories, but all of which was considered part of the communal landscape.

Another detailed area of local topography involved references to riverine language. The Ikobey commune, like much of Gabon, is criss-crossed by rivers of different sizes and depth. In the Ikobey area, these are sometimes accompanied with steep embankments or even long deep ravines. Numerous terms apply to the relative depth of the river, the ability to ford at different points, and terms which indicated whether a river was actually a single river, or passing by an island, and hence the local would know that fording one part of the river did not necessarily give him or her access to the bank of the other shore. The villagers also demonstrated their control over human access to the river, where washing would be permitted and sacred activities which would not affect drinking water. No waste disposal is permitted into the rivers, and waste management was clearly mapped out for each village. Not all of these terms were deemed necessary for the map, but were of relevance to local navigation and resource use.

Pathways were relatively simple, two generic pan-Bantu terms for a footpath (*nzea*) and wider path or road (*ombamba*) respectively, and then a special local term for the path of forest elephants (*muombo*).

There was some discussion as the project was being designed and negotiated about putting sacred sites onto the model. Documentation from other parts of Central Africa had suggested that because sacred rituals are tightly controlled in terms of access, ritual membership and apprenticeship, that it would be a problem to indicate sacred sites on the map. This was discussed in detail with villagers and leaders, emphasising that nothing they felt was taboo needed to appear on the map. The map would be seen by people in government and elsewhere who were not ritually apprenticed and qualified.

Villagers felt that this was not an issue. Sacred sites are often highly visible, decorated with ribbons and other items, in part to warn people not to approach them. Sites are mostly segregated according to women's ritual sites and men's ritual sites, and the general view is that non-qualified people entering the site would die or experience a curse for the transgression. Most of the sites involved specific tree species, and in the case of the sacred *motombi* tree (*Copaifera religiosa*), which has red bark, it is often visible from far away in the forest.

It was not a problem to indicate a site while walking in the forest or by putting markers on the map. Villagers had been very upset by the Malaysian logging company destroying sacred sites before the Park was established, and would like to see government work with them to protect sacred sites.

The legend developed in Nioye 1 village was used in Fougamou for the community mappers working directly on the model. As is usual, more terms began to emerge once the process of mapping was underway and people gained confidence in the legend making.

There was some mild confusion when one new facilitator told participants they could use any colour they wanted for the legend items. The supervising trainer pointed out that because the map must be read by those outside the community, it should have some compliance with international norms. The map needs to speak to other people, not just those in the villages; hence a common visual language would be necessary to communicate what were indigenous concepts and terms. As a result, forest items were coded in variations of green, and the river items in blue. Villagers selected the combinations for the coding.

Overall, though the villagers were either not literate or only partially literate in the Western sense, they rapidly understood the logic of the legend making and were able to describe terms, select codes and apply these easily to the map. This again confirmed the degree of expert knowledge held by rural villagers which is usually excluded by those in positions of authority over land use. It also confirmed that it is relative easy to move from traditional oral expert knowledge to codification of a 3D model, which could create a shared language and inter-cultural understanding of the landscape.

## References

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MBEVI EKEEKE  
ETSELE  
Petite rivière

VIMBEVI VIGNEVIGHE  
VITSELE  
Tuisseau

MBEVI EPQONI  
ENENE  
Grand fleuve

MBEVI A MOTIBONGO  
Rivière encaissée  
PESOUKE

MOVOVA  
rivière qui contourne  
l'île

NZÉA  
Sentier

MOMBO  
piste d'éléphant

MOKÉKA  
contour d'un obstacle

OMBAMBA  
Une grande Route

EGHEKO  
DIGHENO  
FORET SACREE  
-> INTERDITE A TOUTE ACTIVITE

MOKABO  
La limite d'une territoire  
villagère ou familiale

EKAZA PONT

E BANDZA / DIBANDZA  
Corps de garde

ENDO  
lieu sacré des initiés des  
rites Gnebe (FEMMES)

MOTOMBI  
lieu sacré des initiés de  
Bwiti / gouter le bois motombi  
(HOMMES)

NZANGA  
lieu sacré des initiés de  
rites Mouiri (HOMMES)

NGUII/PEZI  
CIMETIERE

point

EVINDE  
forêt vierge

MOTSAGNA  
forêt à sous-bois clair

GHÉKAKA  
forêt à sous bois dense =  
Bouisson

TSAGHA A KONDÉ  
TSAA A KONDÉ (Babongo)  
champ de Bananes

GHENIGHA  
champ de canne à sucre

TSAGHA A MIBEGHO  
TSAA A MIBEO (Bob)  
champ de Manioc

TSETSE  
champ d'arachide

MOZAKO  
champ de proximité  
du village

GHEKOMISO  
(ANCIEN VILLAGE)  
EKOMBO

ÉEBA  
Maison

EBA A MEDGHA  
NDABO + - -  
Dispensaire

DIKODA  
IKOOL  
Ecole

EGHOUNDOU  
DIHOUNDOU  
la poubelle au village

ETOUMBA  
DITOUMBA  
entrée du village

MOTALO  
GHÉTSAO  
Toilette

MADEEKE  
campement de pêche ou  
de chasse

GHÉTOKA / ÉTOKA  
le lieu sur la rivière où  
puise l'eau potable

OTOUMBA  
abri avec un toit; ouve  
en bas - hors du village

NDJUBU  
Rivière profonde au  
des genoux

NGUBU  
Chute d'eau

TSHONGO  
source d'une rivière

GHÉEBA  
EDIBA  
Endroit profond

EBOONGO

# Annex 1: Respondent's Evaluation

CTA supports an online evaluation process for each of its sponsored events, in particular for all events having a capacity building component. Below is a selection of data and comments by respondents to the evaluation of the Ikobey participatory mapping project. The 16 respondents were trainees. Community feedback was provided orally and is shown in the film, *Close to our Ancestors*.



- 81% of respondents were from Non-governmental organisations;
- 44% identified themselves as community activists;
- 37.5% said they had some prior experience with mapping;
- 31% were GIS practitioners;
- 69% said they were satisfied with the workshop;
- 54% said they had both learned new things and made useful contacts;
- Between 61% and 77% positive responses regarding feeling confident to implement what had been learned (this varied according to specific content);
- 85% felt the mapping was most helpful in protecting land rights and ancestral territorial claims;
- 92% felt the mapping could help with disputes about land use and resource access;
- 92% felt it helped with heritage documentation and conservation.



## Participant comments on the process and methodology

The procedure set up to map information was designed not to define outsiders as holders of knowledge but rather to create a process of learning and stimulation of knowledge sharing, of understanding and community cohesion. It was interesting to see how the event provided the opportunity and freedom to communities to express knowledge of their land after studying the raw model.

Exchanges between those with experience and participants who had never experienced P3DM, the role of students as young as 12-13 years, the role of Babongo in coding the map, the guidance of the facilitator all made for meaningful interactions. I note particularly the ethical aspect of community participation because at the workshop, the responses of some participants demonstrated that they were not yet clear that in participatory mapping local knowledge should be highlighted. The facilitator should in no case impose his / her own views on a particular community in defining and identifying symbols. Patience is the mistress of success in the process of mapping in that the facilitator must respect the community's logic and provide sufficient time for them to reflect on any level stage process.

People now feel involved in the management of the park they wish to organise similar events in future.

The main impact for these communities has firstly been the appreciation that we are interested in their knowledge. Subsequently they were actually very surprised and delighted with the results of their work in terms of building the model. I think they now know they are capable of many things, and their knowledge can be a source validating their existence.

Community participants felt proud of being able to show participants and local administrative authorities that they have not only an historical-geographical knowledge of their environment but also that they are actors in their environment and their activities.

Since holding this exercise, we have received many requests to extend this [training] workshop to other sites in the Park; on seeing the model, people passing through Fougamou often expressed the wish visit the area represented (especially after all the explanations accompanying the model).



REPUBLIQUE GABONAISE

VOUS FRANCHISSEZ L'EQUATEUR ...

# Siat Gabon

ROME	5 000 KM
PARIS	6 000 "
LONDRES	6 500 "
MOSCOU	7 600 "
NEW YORK	10 300 "
PEKIN	12 500 "
TOKYO	14 400 "

LIBREVILLE	125 KM
LAMBARENE	110 KM
MAKOUKE	52 KM



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### Close To Our Ancestors / À Côté de nos Ancêtres

Gabon's autochthonous Abongo hunter-gatherers and their Mitshogo farming neighbours map their ancestral territory in this engaging documentary produced for IPACC and CTA. Close To Our Ancestors chronicles the impact on the Abongo and Mitshogo of Gabon's visionary declaration of 13 national parks, which include Waka National Park in the Abongo/Mitshogo heartland. The film follows the evolution of a Participatory Three-Dimensional Mapping (P3DM) project in which the hitherto marginalized Abongo and Mitshogo overcome logistical and social obstacles to map their ancestral terrain. The P3DM project provides the Abongo and Mitshogo with a means of engaging government and NGOs about their land rights and community needs in relation to the national park.

Watch the full movie and related videos at: [http://www.ipacc.org.za/eng/resources\\_videos.asp](http://www.ipacc.org.za/eng/resources_videos.asp)



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