IPACC Southern African Regional Workshop on the Formalisation of the Traditional Knowledge of Tracking

Prepared by Indigenous Peoples of Africa Coordinating Committee (IPACC)

Klein Dobe Camp Nǁq’àn’Àë Nyae Nyae Conservancy Tsumkwe East, Namibia

25 - 29 September 2006
Southern African Regional Workshop on the Formalisation of the Traditional Knowledge of Tracking

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Klein Dobe n!ore camp
Nǁq’ànǃàè - Nyae Nyae Conservancy
Tsumkwe East, Namibia
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# Table of Contents

1. **Introduction**

3. **Welcome address by the Honourable Leon Jooste, Deputy Minister of the Environment and Tourism, Republic of Namibia**

4. **Welcome from Tsumkwe East District Councillor, Kxao Moses ‡Oma**

5. **Short presentations**

   - IPACC Secretariat Director, Dr Nigel Crawhall on African Knowledge as a Resource for Development
   - Louis Lieberberg, Cybertracker: The Art of Tracking & Evolution of Science
   - Theunis Petersen, WWF Namibia: Sustainable natural resources management as a solution to poverty
   - Living in a Finite Environment (LIFE)
   - Nyae Nyae Conservancy Staff & Trackers
   - Setting out expectations of the participants

10. **Transmission of traditional tracking and biodiversity knowledge**

13. **Recommendations and Observations on the Threats to Knowledge Transmission**

14. **Tracking Assessment**

   - What is assessment?
   - What jobs are available?
   - In the Bush
   - Recommendations and Observations on Community Training
17 Formalising tracking: Tracker Training and the ||Uruke Story

Recommendations and Observations

Demonstration of Cybertracker

International agreements & indigenous peoples

21 Review of the Workshop

Closure

Appendices

22 Appendix 1: Summary Report on the Certification of Professional Trackers in Botswana, Namibia and South Africa

30 Appendix 2: Kotsi Mmaba on intergenerational transmission of traditional knowledge of biodiversity

36 Appendix 3: Traditional Knowledge and Formal Education

Some internet resources on TK and education

39 Appendix 4: What is the United Nations?

UN Framework Convention on Climate Change

UN Convention to Combat Desertification

UN Convention on Biological Diversity

43 Appendix 5: What is IPACC?

45 Appendix 6: Klein Dobe Workshop Participant list
The Indigenous Peoples of Africa Co-ordinating Committee (IPACC) worked with regional San organisations, the Nyae Nyae Conservancy, Cybertracker Conservation, WWF Namibia and traditional San trackers to organise a week-long advocacy training workshop on the assessment and certification of traditional knowledge of tracking.

The workshop was part of the IPACC plan to promote awareness of clauses 8J and 10C in the Convention on Biological Diversity (CBD) and to help regional indigenous peoples' organisations focus on how traditional knowledge can be formally recognised and used as a resource in both livelihoods and inter-generational transmission of knowledge.

Traditional knowledge of biodiversity, which is gained from tracking, hunting and gathering wild food, is reducing across Southern Africa, yet this knowledge is very important in the labour market. Formal schooling is contributing to the loss of skills and knowledge about nature. With the policy makers waking up to the impact of climate change and the need to monitor biodiversity and environmental changes and patterns, traditional knowledge of biodiversity has become substantially more important at national and international levels. All SADC countries have protected areas which require expert knowledge to fight poaching, monitor biodiversity and assist both researchers and tourists. Tracking is the core skill which feeds all of these efforts.

IPACC Secretariat designed the workshop in consultation with regional San leaders and in cooperation with the major San organisations of the region, Trust for Okavango Culture and Development Initiative (TOCADI), Letloa, Kuru Family of Organisations, Komku Trust, the Working Group of Indigenous Minorities of Southern Africa (WIMSA), SA San Council, !Xun and Khwe Councils, Integrated Rural Development and Nature Conservation (IRDNC - Namibia) and the South African San Institute (SASI).

We received excellent logistical and other support from the team at WWF Namibia and Ms Stacey Main working for a local mining concession, Mount Burgess Mining. Mr Louis Liebenberg of Cybertracker Conservation helped co-facilitate the workshop and ran orientation sessions on tracking assessment and accreditation. The workshop was primarily funded by the Finnish Foreign Ministry. We extend our thanks to the Finnish Embassy in Cape Town.

San participated in the workshop from the following communities:

- !Kung from Omaheke, Namibia
- !Xun from Platfontein, South Africa
- ‡Khomani from Andriesvale, South Africa
- Hai||om youth from the Outjo area, Namibia
- Ju'hoansi from Tsumkwe East and Tsumkwe West areas
- Khwe from Platfontein, South Africa
- Khwe from Rundu / Caprivi, Namibia
- Khwe and ||Anikhwe from Shakawe and Shaikarawe, Botswana
- Naro from D'Kar, Botswana

1 See 2007 Bujumbura Strategic Plan on Indigenous Peoples, Natural Resources and the Environment published by IPACC.
The workshop took place from 25 – 29 September 2006 in the Klein Dobe camp, north of Tsumkwe, Namibia. Tsumkwe is the main town of the Nyae Nyae Conservancy, the first community based Conservancy in Namibia and home to the Ju/'hoansi people, the largest San community in Southern Africa. N'qoq'á'n/'àè is the original name of the Conservancy, meaning ‘a stoney open piece of ground’. The workshop took place on the traditional n'lore territory of Mr. Bo Kga-Xha. His family hosted us during the 5 day workshop for which we are deeply grateful.

An important component of the Tsumkwe workshop was a dialogue between representatives of different levels of government and the San knowledge-holders. We were particularly fortunate to host the Deputy Minister of the Environment for Namibia at our remote location at Klein Dobe in the Nyae Nyae Reserve. The speech by the Honourable Leon Jooste is reproduced with his permission here.

The workshop was opened by the Tsumkwe East Councillor, Mr Kxao Moses ḪOma, previous manager of Nyae Nyae Conservancy and previous Chairperson of the WIMSA Board. We had active participation by the staff of the Ministry of the Environment and Tourism and staff of Nyae Nyae Conservancy.

There were 32 principal participants: 25 men and 7 women. The local Ju/'hoansi community participated in the workshop with many of the women and youth receiving translation on the edges of the workshop and in the report-backs in the Ju/'hoan language.

The workshop was facilitated by Nigel Crawhall (IPACC), Annetta Bok (ǂKhomani San representative on the IPACC Executive Committee) and Louis Liebenberg (Cybertracker). The workshop was conducted in English and Afrikaans, with interpretation to and from Naro, Khwedam and Ju/'hoansi.

This report follows the programme with notes from contributions and speeches given by the various delegates. The workshop alternated between discussions / workshop format and practical activities. Themes included:

- Namibia's strategy of using Conservancies to protect biological diversity and fight poverty in rural areas;
- How tracking knowledge can be assessed, how certification operates regionally, and how communities can develop their own curricula and certification capacity;
- Threats to inter-generational transmission of knowledge of biological diversity and the causality of this;
- Job creation related to tracking qualifications;
- How to lobby NGOs to better understand San culture and knowledge and use this as a resource;
- Women and traditional knowledge – a hidden resource in San communities;
- Cybertracker – using technology to strengthen the role and function of traditional trackers in scientific research and conservation.

Practical components of the workshop included going out into bush sites (we were camping at a remote bush camp) and learning how tracks are graded for difficulty of identification. Participants enjoyed this aspect and were sometimes surprised by their abilities. There was some confusion at the start about whether this was an official assessment. Despite previous emails and letters, some delegates thought they would receive a full grading and get certified at the IPACC workshop. Louis Liebenberg, a world expert in tracking and the most senior assessor in southern Africa, explained that it takes up to 10 days to do a high level tracking assessment and the maximum team of people is eight. It sometimes takes a full day to track animals like lions and identify their precise details (number, sex, age, health) without putting the tracking team at risk.

In this section, we have provided a review of the main discussions which took place during the four day workshop.
By the Honourable Leon Jooste, Deputy Minister of the Environment and Tourism, Republic of Namibia

We would like to thank the IPACC team for bringing people all this way to Klein Dobe in the Nyae Nyae Conservancy. We believe that this subject is very important. Traditional knowledge of biodiversity is so important but often gets left behind while we focus on other matters.

It is important to understand the message of the workshop, and share this with other people. I go to a lot of workshops. We learn a lot, but it is not helpful if you don't put it to use.

I grew up not far from here, near Grootfontein. I know this area. Many San here do not have work, do not have much money and sometimes the rain does not come. But there are also some things which you have which are valuable and should be recognised. You have your land. Nyae Nyae Conservancy and Nja Jaqna Conservancy are your land. Kxao ‡Oma knows this, but you need to recognise how valuable this land is for your future. People let the land go too easily. That land is what gives you a future. You have the veld, the plants, the animals, the trees. These are things which will bring income in the future. You know that the Conservancy system is helping fight poverty. We can do better; we can always learn more but the point is that tourism is going well in Namibia. Our new figures are excellent.

More than just land, you have something else that is very valuable – you have your culture. You have your values. Values are worth more than money. You cannot buy these at a shop. All these things – land, nature and culture – those things come together and each works because of the other components. You cannot make money out of values, but it is the glue that holds a community together, that allows you to make good decisions and be united.

You are going to be talking about this during the week about how culture, values and nature can help you in the future. Using traditional knowledge is a good way to strengthen the conservancy management and create sustainable livelihoods for your community. This week is a chance to focus on how to help yourselves using what you know. Everyone talks about how to help the San get ahead. In Windhoek, we don't see many San children getting jobs and getting involved in governance. That has to change. We have to think about the future. Your children need to get their grades, get good jobs. You need a chance too. And this is our dream for your Conservancy.

People come to you, they want to build a lodge or come hunting. But in the future, you should be the ones to build the lodges. You think it is too difficult, but it is possible. Your development is possible. You are in a position to manage the resources.

It seems that Windhoek is far away. You think government is far away, other than the MET people here. But don't think you have been forgotten. Our Deputy Prime Minister, Libertina Amathila has said that the San are her priority. She wants to address your issues as her last big contribution. Behind the scenes in the government, we are talking about the San; we are looking at ways to address your issues. I am not just talking about this District, but also the Caprivi, Oshiwelo. It takes time to change things and make them right. I am not saying sit and wait, but know that you are not alone.

The NGOs have a role to play. WWF has been really supportive and we all need to be thankful for their role. Where my Ministry cannot do everything, then we can rely on WWF's support. MET is here to support you. You need to remember that you can bring project proposals to us. It is not just for fun, we can put money together to help out.

I am going to sit with you in the workshop for a while. I think there is a lot to learn in the workshop. And as I said at the start, it is important that we take the message back to the communities.

We look forward to the recommendations coming from this workshop.
From Tsumkwe East District Councillor, Kxao Moses ‡Oma

Let me welcome you all to Namibia and to Klein Dobe. Let me take this opportunity to introduce myself. I am Kxao Moses ‡Oma, I am the Regional Councillor for Tsumkwe Constituency. Some of you might know me; I used to be the Chairman on the WIMSA Board. I am still involved in WIMSA's activities and other organisation.

Tsumkwe Constituency is a very special place with diverse cultures and diverse activities. I am very happy to welcome you to this workshop. It is the very first workshop of its kind to talk about tracking. We San people never knew we could have such a workshop. We knew about tracking only from our own experiences but normally we just kept that behind us. We did not share it with each other or other people. We have this experience but only between those who know about it. I think it is very important that we participate fully in this workshop. Let us share amongst ourselves.

I used to be a very good tracker, but I cannot promise you that I am so good today. What I am saying is that tracking skills are busy dying out. It is good that we come together to refresh this. It is for us but also for the upcoming ones. Tracking is a very expensive skill, even though we do not recognise that. When you go to schools you learn, you get a certificate, you get grade 12, then you can go to university and get a degree. In our case, where is our proof? How can I show that I have this skill? I do not have a paper to show what is my skill. Now is the time that we need to look into this. We should be the professionals in this area, I include myself.

Around Tsumkwe, there are many animals. We have elephants here. Some think elephant is easy to track. But then do you know how to say that this track belongs to this particular elephant. We have other animals which we can track in this week. Let us practice our skills.

You are all welcome to Tsumkwe constituency. Let us be together. Thank you.

24 September (Sunday): Arrival in Tsumkwe

Evening: Welcome by Kxao Moses ‡Oma - local government representative and Bo Kga-Xha, n!ore owner of Klein Dobe.

25 September (Monday): Official Opening

Address by Deputy Minister of the Environment and Tourism, Honourable Leon Jooste
IPACC Secretariat Director, Nigel Crawhall on African Knowledge as a Resource for Development

IPACC is an advocacy network of 150 indigenous peoples’ organisations across Africa. During the workshop we can go into detail about how IPACC operates, where its mandate comes from, and how to improve communications and participation.

This workshop emerged from a series of dialogues with indigenous leaders in South Africa and Botswana. We agreed that it would be good if IPACC brought people together to talk about the loss of culture, the loss of skills and the opportunities to turn that around – how can San people use their culture to fight poverty and keep their identity for generations to come?

Prior to working with IPACC, I was working with the South African San Institute supporting the ‡Khomani people in their land claim and then in an audit of their traditional knowledge.

Throughout the region, elders tell us that there is a problem that young people are not hunting and gathering in the bush any more. Some people see this as progress or development, but it comes at a time when the planet and Africa in particular, need more skills in understanding nature and biodiversity, both what exists and what changes are taking place. There is also a rapid growth in tourism and commercial hunting. Traditional tracking skills are increasingly valuable, but now just when they are needed the San people are losing them.

The other problem has to do with certification. It is easier for White or even Black people to get school and professional certification. This means they are worth more on the job market. They can show what skills they have and what level they have achieved. San people may be much better trackers but they do not have the paper to prove this.

The workshop is going to review what is going on with the traditional knowledge of tracking (is it increasing or decreasing), explore how San people can address this and create training, assessment and accreditation methods, and most importantly, have a plan of action to help governments understand these issues and create partnerships with San communities.
I was last in Nyae Nyae in 1992. Kxao Oma has explained to me that three Master Trackers have passed away since then. This is a big loss for the people of Tsumkwe. The best learning comes from working alongside Master Trackers. Learning with great trackers inspires young people – it shows us the highest level which we can aspire to. Let us remember these great trackers, from the time of the bow and arrow hunting.

I have been working for 25 years on researching tracking, but I still feel I am a long way away from the skills of the Master Trackers. We all have a lot to learn and a long way to go to develop our potential and the potential of our communities.

I am holding a smart-phone; it is a cell phone with a computer and GPS (Global Positioning System) in it. Later this week we are going to work on this technology. The Cybertracker was designed to allow older trackers who cannot read and write to collect information on biodiversity when in the bush tracking. We hope that this technology will help make trackers more recognised, but also to help them share their skills and knowledge with the world. This helps us store information and learning for generations to come.

Each time a Master Tracker dies, we lose an enormous body of knowledge and skills. It may take 10 to 20 years to rebuild that knowledge in a community of trackers. The Cybertracker can help elders transfer and store their knowledge for future generations. Let us be realistic that you cannot put on a computer everything a Master Tracker knows, but at least all his observations can be recorded.

How can we find ways of using traditional knowledge, but also capturing it to make it accessible to future generations? Cybertracker facilitates the transfer of culture and learning to young people.

We are losing precious resources.

Louis Liebenberg introduced the workshop to the Cybertracker. He explained that he studied tracking with old masters in Lone Tree, Botswana. N!ate and other !Xôô people taught him how to hunt and track. The !Xôô people are bow hunters. This is the highest form of tracking. Tracking with dogs is much easier as they follow the scent. If you have no dogs, you only have your own eyes, ears and nose to guide you.

Louis developed a small computer which you can carry with you. It allows you to capture information about what you see in the bush. This information becomes data when you apply it to study nature or animals. It allows you to use the satellites above the planet to record where you are and where you are moving. Technology provides a bridge between what good trackers know and what conservation managers need to know.
Theunis Petersen, WWF Namibia: Sustainable natural resources management as a solution to poverty

Mr Theunis Petersen, Game Utilization Specialist for WWF/LIFE Plus Project gave a presentation on WWF Namibia’s LIFE programme which includes WWF’s support for Nyae Nyae and N‡a Jaqna Conservancies. Below is an adapted summary based on the WWF website:

http://www.panda.org/about_wwf/where_we_work/africa/where/namibia/wwf_namibia_our_solutions/life/project/index.cfm

Living in a Finite Environment (LIFE)

Mission:

"To improve the quality of life for rural Namibians by assisting communities to acquire increased benefits in an equitable manner by gaining control over and sustainably managing their natural resources."

The “Living in a Finite Environment” (LIFE) project provides assistance to comprehensive community-based natural resource management programmes through the provision of technical support, training, grants, and regional coordination and information dissemination to government agencies, NGOs, and communities.

The concept that wildlife, when it becomes an asset, is worth preserving and using well for future generations is a revolutionary idea

"We began the LIFE programme in 1993 with a concept of people living and prospering alongside wildlife - and from wildlife - that had never been attempted on such a scale before," says Chris Weaver, the director of LIFE.

"We were assisting the Namibian government to put a theory to the test and the people of the newly independent Namibia were willing to give it a chance."

The objectives for LIFE include:

- To improve the social/economic/ecological knowledge base for managing communal natural resources in target areas.
- To develop and maintain the natural resource base in target areas.
- To increase community awareness and knowledge of natural resource management opportunities and constraints.
- To mobilize communities into legally recognized bodies that are capable of managing communal resources.
- To improve community skills in participatory and technical natural resource management and enterprise management.
- To improve the capacity of Namibian organizations to sustainably assist communities in the establishment of sustainable community-based natural resource management enterprises and management systems.
- To improve the capacity of Namibian organizations to establish legal, regulatory, and policy framework supportive of community-based natural resource management.
- To analyze community-based natural resource management dynamics, experiences and lessons learned, and share this information throughout Namibia and between LIFE and southern African colleagues.
Nyae Nyae Conservancy Staff & Trackers

Uijao and other staff and trackers of Nyae Nyae Conservancy explained how they select and train trackers. Elders and younger trackers agreed that good tracking skills arise from mentorship in hunting. Though tracking on behalf of the Conservancy is an interesting form of employment and keeps some skills sharp, without regular hunting and time in the bush, other types of knowledge of biodiversity are lost. The Nyae Nyae members and staff were positive about the workshop and welcomed all the delegates to their territory.

Later, Jakob Kolbooi (MET) led a presentation on how the Nyae Nyae Conservancy was founded and operates to the benefit of its members. All San families are members of the governing council. Community members have the right to hunt a quota of food annually, including selling trophy animals to foreign hunters. The Ministry of the Environment and Tourism ensures that quotas are adhered to. The fact that the community can still hunt and gather keeps traditional knowledge skills high. Revenue from trophy hunting is an important source of income for Nyae Nyae residents.

LUNCH

Delegates Introduction (see Appendix)
Setting out expectations of the participants

Om Jan van der Westhuizen, a traditional healer from the ‡Khomani community summed up the view of elders by saying:

“We have abused the earth, and now we suffer. We need to value water and rain, and share our traditional knowledge as our ancestors did.”

Namibian delegation

- To participate in the workshop and learn about this issue
- Training in skills including facilitation
- Improve communication and networking
- Support to the Conservancies
- Exchange information about projects and livelihoods
- Develop new skills
- Empowerment

South African delegation

- Learn about certification of tracking
- Training in skills
- How knowledge can be used to fight poverty
- How to protect and promote our culture
- Bringing different San people together to share
- How to be recognised by Government and other groups
- How knowledge gets passed between generations, or fades away
- How to protect nature in community conservation areas
- Tracking and learning about veld food
- What rights do others have to hunt?
- Promote traditional medicine knowledge

Botswana delegation

- This issue of traditional knowledge of biodiversity and tracking is very important. How is this going to be communicated to communities?
- How can old knowledge be communicated to the next generation?
- Who is going to speak with government on behalf of our peoples? We are not in Government. There is no San Minister, Councillor or even Chief in Botswana;
- NGOs are not focussing on this issue. They ignore our knowledge and speak for us. How do we work with NGOs to get them to focus on the issue of knowledge, partnerships with government and accreditation?
- Many of our people are illiterate. The ones who know the most about nature cannot read and write. The Government ignores people who are illiterate. You have to have diplomas and certificates before you are taken seriously and get recognised. Elders are key holders of our knowledge and skills, yet they are seen as ignorant.
- We do not have power. We do not have land security. It is very difficult for us to hunt on our traditional lands anymore. How can we pass on knowledge when we need to hunt to be able to do this?
Transmission of Traditional Knowledge of Tracking and Biodiversity

26 September (Tuesday)

The participants introduced themselves and spoke about the situation of traditional knowledge and tracking in their respective communities. Many told stories about how they learned about the behaviour of certain animals, how to track, the names of birds, how to respect the way that nature works. Appendix 2 includes an interview with Kotsi Mmaba about his experience of learning from his father.

Below is a summary of some of the comments by participants

• The skills of tracking and knowing biodiversity are best transferred through the experience of hunting with the family;
• When we lose our land and our culture is belittled, then it is hard to keep the skills and knowledge passing from one generation to the next;
• Protect knowledge for future generations;
• Youth need a chance to learn these things;
• When our elders die, we will remain with empty heads. Now is the time to learn from them;
• Women are also holders of knowledge, San youth can be helped by knowledge of their elders to create employment;
• Tracking is valuable when doing mapping, inventories of game and wildlife, including plants, knowledge of natural resources is very valuable;
• Some San communities are running game farms and tourism projects where knowledge of tracking and biodiversity is really important;
• Knowledge unites San people – it binds the community together across generations
• Knowledge is about healing, it is in the culture;
• Natural resource knowledge is very important in Community Based Natural Resources Management and managing protected areas;
• In our country, the San leadership is not good. They don't tell us what is going on, and they don't focus on our needs. Tracking does not get support from the leadership as they do not see the benefits for them;
• We should not undermine our leaders, but the reality is that farming and herding is seen as better and more important than our own knowledge and culture;
• Nature is our life – it heals us, it gives us medicine, it teaches us about life;
• The Government people cannot identify the spoor of a snake. All they know is about cattle and goats. How can we speak to these people about knowledge of biodiversity when they do not know what it is?
• Youth are shy about their culture. They want clothes from town. They want to be cool. Going in the bush is difficult and there is a lot to learn;
• As an elder, I am moved to see this discussion of our old ways and knowledge. The young people are forgetting. We used to know the bush so well. I am old, but I still know every sign when I go out in the bush. I was taught by my father and by my father's father. We must do something about this loss of knowledge;
• Our challenge has been to be more involved in the National Park. They looked down on us. Now we are qualified as trackers and tour guides they are more interested to work with us. Qualifications have changed how other people relate to us.
Reaction by Deputy Minister, Honourable Leon Jooste

"I think we have to face the challenge of communications. Helping everyone understand what is going on, what happens at workshops, what the policies are – this is a challenge for us all. We must all make our best effort to share information and keep people informed.

It is nice to hear so many young people talking about traditional knowledge, skills and culture. If young people are going to push forward with this type of project then we are already winning. Elders need to be heard, included and respected in our work.

I cannot speak for other countries in the region. In the Republic of Namibia there are San people in Parliament, Councillors and Traditional Authorities. Traditional leaders have access to State House. San people are involved in the Conservancy system and several San languages are taught in schools. Namibia values its cultural diversity.

The point you are raising about having secure land for learning traditional knowledge is important. This can be communicated more clearly to the government. In the past, when government wanted to create National Parks, we would proclaim them and people would have to leave that area. The Conservancy model is different, but the point remains the same. We cannot both keep our reserve of traditional knowledge and also stop people from using natural resources.

We recognise that the Conservancies could do with more support, more funding and training. We also know that transport is a problem both for you and for tourists coming out here.

My recommendation to you is that you take this workshop seriously. Listen to these people who have come here to help. And get youth, elders and leaders to work closely to promote your knowledge and culture. You need to speak directly to government, express yourselves and have more regular contact with Windhoek. From our side, the MET supports this idea and we are pleased to be partners in projects that help promote our natural and cultural heritage."
Reaction by Louis Liebenberg

We keep coming back to the problem of recognition. San people hold unique and sophisticated knowledge but it is not recognised. This is why certification is so important, and also why it has to be independent, of a high standard, and scientifically sound.

One of the frustrations we keep hearing is when San people help scientists and experts collect very valuable data, including here at Nyae Nyae. The professionals get paid for this, they develop their reputation, and sometimes they become famous. However, some of what they have learned and published was taught to them by San trackers, and in most cases the project would have been impossible without access to traditional knowledge and tracking. Better certification of San trackers puts pressure on outsiders to pay better, but also to treat their San counterparts as professionals who need to be recognised in publications and grant making.

By using Cybertracker technology, and including trackers in research projects, it is possible to publish your own data as well. Trackers in the Karoo now collect data while out in the bush, bring it home, put it into the computer and then are able to write about this and get it published in journals.

We have the irony, that when an indigenous person does get school qualifications, they tend not to know the bush very well and be scared of lions. Schooling, the way it is designed now, cuts people off from nature and knowledge of biodiversity.

In South Africa, all qualifications are linked to a National Qualifications Framework. In the current assessment system for tracking, the emphasis is on knowledge and skills and not on literacy.

On the issue of the link between hunting and tracking, there is no question that hunting is the best form of training. You need to be able to follow a spoor correctly. You need to know the likely behaviour of an animal and when you are putting yourself or others at risk. People who don't know wild animals are either too scared, or not careful enough.

Certification is not a way to become a great tracker. That requires training and time in the bush. Bow hunting is the single best way to become a Master tracker over time, with traditional training. The value of certification is that it provides standards and recognition. It is certainly a bridge between traditional skills and jobs in the modern economy. Even more, it can get you more deeply involved with research and monitoring of climate change and biodiversity, big growth areas in employment.

Above: Assessment at pan, with Louis Liebenberg
Recommendations and Observations on the Threats to Traditional Knowledge Transmission

After discussing the issues the participants made the following observations and recommendations:

There are three sites of work to promote awareness and implementation of these types of projects.

**At Community Level**

- We need to speak to elders, youth and leaders from our own and neighbouring communities about these issues;
- We can set up community-run training programmes that are nationally certified;
- We can negotiate with the support NGOs to take this issue more seriously and help us with fund raising and advocacy capacity;
- We need to protect our rights – we need to have better contracting with researchers and outsiders, and our knowledge needs to be recognised;
- *Hoodia gordonii* intellectual property right agreement is a good example of a negotiated access & benefit sharing case;

**We can fit in with current policy**

- We need to know how certification is happening;
- We need closer ties to National Parks, private tourism ventures, and in particular with our Ministries / Departments of the Environment;
- We need to understand who in Government is reporting to the UN on biodiversity and climate change and speak with them about our knowledge systems and skills;
- We need support from the NGOs to set up capacity for training and certification;

**We need to change the system**

- We need to reach out to Government to help it understand why traditional knowledge is important for the country and how it gets reproduced;
- We need to create national qualifications for tracking that focus on skill and knowledge, rather than school-leaving certificates, ability to speak English, or literacy;
- We need to seriously address the issue of school curriculum – the current situation is quite damaging to San youth – it reduces knowledge and skills related to biodiversity – it also undermines our families and our culture.
Louis Liebenberg spent the afternoon with the participants discussing how assessment and certification can be done. There was also input from Nyae Nyae and the southern Kalahari on their experiences of tracker training and qualifications.

**What is assessment?**

Assessment is a way of measuring how much one person knows about spoor identification or tracking an animal. The assessment method has to be fair and reliable, but it also needs high standards that are not going to slip to make it easier. You have to measure people on the same standards and not make one person's test much harder than the next person.

There are hundreds, perhaps thousands of marks on the ground, in the sand, on the bushes or trees which a tracker can successfully recognise. You want to test a range of spoor identification – small mammals, larger ungulates, bird spoor and insects. Each of these is part of the biodiversity and often intersects with other tracks and signs. Some rodents and birds only move around at certain times of the day or night. This helps when trying to identify and track fresh spoor.

You also need an assessment system that you can use in different locations that is fair for the local conditions. You cannot insist on recognising impala spoor if this antelope does not occur in the territory.

You need about 35 to 45 spoor for an assessment. It takes a lot of time. You need a mixture of really easy spoor, and then more difficult and some very difficult. A correct answer on an easy spoor is 1 point. A wrong answer on an easy spoor is minus 3 points. A correct answer on a difficult spoor is 3 full points. If the tracker can prove that she or he has identified a track which the assessor does not know or has got wrong, surplus points can be allocated. The point weighting allows very experienced trackers to stand out in their performance as well as minimises the bias of the assessor.

Assessment looks at different types of skills including:

- Identification of spoor (including age, sex, health of the animal);
- Ability to set a target for tracking an animal, finding the spoor and then trailing to the point of locating the actual animal. Trailing includes being able to read tracks and also predict animal behaviour;
- Being able to approach dangerous predators without placing trackers at immediate risk of harm (i.e. good judgement and knowledge of animal behaviour)

Higher level trackers are able to predict what is coming up ahead. They know animal behaviour well enough to identify a spoor, pick up a trail and be predictive about behaviour. (See Appendix 1 on national qualifications standards, and interview in Appendix 2.)
What jobs are available?

The workshop identified the following types of employment that are available to trackers:

- **Security** – South African San are being hired to track cattle rustlers and other criminals. Liebenberg has trained township youth as trackers in Cape Town and rapidly assisted police in finding dangerous criminals;

- **Anti-poaching** – Anti-poaching has put an emphasis on expensive equipment, helicopters and such resources, whereas tracking is a powerful technique for identifying the poachers, their movements and patterns, leading to arrest and prosecutions at a relatively low cost;

- **Nature Conservation** – Trackers are employed to do game counts, monitor natural resource indicators and the health of different animal species. Long term observation by a skilled tracker can show trends and identify serious problems such as epidemic diseases before they have devastating results. Many of the delegates expressed their frustration that San do not get hired to work in National Parks as they do not have high school leaving certification. Tracking is a core skill for rangers and others in nature conservation;

- **Research** – Most San communities have had the experience of their best trackers being hired to teach scientists about animal behaviour and helping to locate animals. Usually the San are not paid well and rarely recognised in the final research product, yet much of the knowledge and most of the practical skills come from their side. Researchers rarely if ever invest in training or upgrading the skills of trackers. Tracking can also be used in community based conservation areas;

- **Conservancies** – Nyae Nyae Conservancy has been a major success, other San groups are interested in running community conservation areas. Tracking is a core skill necessary for monitoring wildlife, fighting against poaching, guiding tourists and researchers;

- **Eco-tourism** – There is a major growth in tourism that focuses on a deeper understanding of nature, wildlife and biodiversity. Tourists want to see the Big 5, but they are increasingly interested in walking in the bush, not doing harm to nature, and learning about medicinal plants and other traditional knowledge. Local Safari companies can sometimes identify the best trackers in an area and then remove these people to work on game farms, robbing communities of the chance to train a new generation of trackers;

- **Heritage and Culture** – Tourists want cultural experiences that complement their nature interests. The ||Uruke project started off training trackers, but tourists also want to know about San culture and heritage. ||Uruke is training nationally qualified tour guides who work with trackers to give a fuller experience to outsiders as well as manage San heritage;

- **Climate change & biodiversity** – All SADC states are signatories of the UN Convention on Biological Diversity. There is a lot of pressure on African governments to start monitoring the state of biodiversity of wildlife and plant life, as well as look at the impact of changes to the climate. Traditional knowledge of biodiversity, particularly tracking is more accurate than are tools currently available through African universities. The challenge is to make trackers visible and certified, and to get observations of trackers into a format usable by scientists and environment officials.

Above: Tina Swarts, first accredited South African San woman tracker
27 September (Wednesday)

In the Bush

Throughout the workshop, participants took time out in the bush. There was an excellent water hole not far from our camp at Klein Dobe where some participants got to watch six wild dogs coming to drink.

On the Wednesday morning, the whole workshop went out to the main pan on the other side of Tsumkwe. There had been good rains so there was still water in the pan and thousands of flamingos. The muddy edges of the pan served as an excellent site for examining spoor.

Louis Liebenberg and one of the best trackers worked to test all of the participants on seven tracks of varying complexity. A real testing procedure would have a limit of 12 to 15 people and can spread over a three week period as the trackers move through different landscapes and contexts, looking for a variety of tracks of varying difficulty. This exercise was just to show people how assessment is conducted.

The results were interesting and showed that even experienced senior trackers did not know all of the tracks. Those working as trackers were more familiar with larger mammals than small birds, for example.

Later expeditions took us to other dried up pans and through grasslands. Each site involved different challenges. It was clear in the assessment practices that literacy or schooling had no role in determining the quality of the readings. Experience in the bush was the key factor. Though traditionally hunting is a man's skill, when it comes to tracking and particularly spoor identification, women were performing at a high-level.

There was not time to properly track a wild animal as would happen in a real assessment. Normally, a tracker would be asked to pick up a trail, describe the animal in detail, then follow it to the point of locating and having visual confirmation of the animal.

LUNCH

Visits to community projects: crafts, Conservancies, camp-sites, clinic

Participants had the choice of visiting the Ju'hoansi craft projects, the Conservancy office and the clinic in Tsumkwe. Local community people supplement their payouts from the Conservancy with craft production and sales. The Ju’hoansi were interested in the Ḳhomani health project which incorporates traditional medicine and modern treatment for TB and HIV.

Recommendations and Observations on Community-based Tracker Training

- Government departments, NGOs and communities need to understand how important tracking is to the monitoring, appreciation and understanding of wildlife and biodiversity;
- Leaders and traditional knowledge holders need to work more closely on their advocacy strategies;
- San communities must promote awareness of the possibility for job creation and control over natural resources that arise from training and certifying trackers;
- CBNRM is being seen by government as a passive exercise whereby communities allow other people to use and pay for natural resources. This approach kills off traditional knowledge and the sustainable use of resources by communities. Tracker training means being active in relation to tourism, job creation and natural resources management.
Formalising Tracking: Tracker Training and the ||Uruke Story

28 September (Thursday)

The programme was quite full and it was not possible to get into all of the details of the design of training curriculum. The curriculum needs to marry practical skills, with local community knowledge and link this to National Qualification standards. The qualification standards and existing assessment systems are presented in Appendix I at the end of this report.

The team from South Africa gave a presentation on how they set up the first San-run tracker training programme with support from Open Channels, SASI and Cybertracker Conservation.

The programme was founded in 2002 by Karel 'Vetpiet' Kleinman, a Master Tracker from the ‡Khomani community who worked for the Kalahari Gemsbok Park all of his life. Vetpiet helped design a curriculum where experienced trackers and total beginners could spend time in the bush systematically learning about spoor, animal behaviour, and tracking skills. This was then linked to an assessment system, which in turn was linked to the National Qualifications Framework.

Karel 'Vetpiet' Kleinman was raised by his San grandparents and uncles inside the Park area. He was taught traditional arts and skills of tracking and hunting. Later he was valued as an expert tracker and expert on wildlife. His experience working under an Apartheid administration in the Park was a bitter one. The Park was on the land of his ancestors, but he was treated disrespectfully.

"I was born in the Park and I worked there since I was eighteen years old. I started as a junior game ranger and later became a senior game ranger. I was also used as a tracker, a traditional skill for which my people are renowned. After I was made awarded a Master Tracker certificate, the Park manager made me work in the scrapyard. My skills were not acknowledged and I was humiliated by Parks officials"

(Quoted in Dutton et al 2003)

Karel Kleinman was not in good health when he retired at the age of 63. He felt that he had given his whole life to the Park but without thanks or acknowledgement. Now he wanted to give something back to his people, to give them skills and also for them to learn about their heritage.

The project was named "||Uruke", a N|uu word that also can be used in Khoekhoegowab which means the track of a wild animal. A good hunter will not stick to human walking paths. His eye is always watching for spoor and the track that an animal uses more than once. Here he will find food. This is a metaphor for how we need to watch out for opportunities in path, and not always follow the way of the majority.

Over 200 San have applied for some degree of training, with 53 going through sustained training. In July, 2003, 12 became fully qualified at the highest, nationally approved level. Particularly in the busy tourist months, all of the trained trackers find work in the area and the guides are often hired to go with them to interpret into English and explain more about San culture. Most of the best trackers do not speak English, but the guides do learn English so they can work as a team with the tourists.
Garuxab 'Toppies' Kruiper and Tina Swarts gave presentations on their experiences. Both were born and raised in and around the National Park. Neither have much formal education and they did not realise how much they knew about tracking and the bush until they joined ||Uruke, the tracking school. They found the programme challenging but empowering. Tina originally signed on as a cook but she did not want to stay alone in the camp with lions around so she joined the course. Soon she discovered that she was a talented tracker. Tina became the first South African woman to qualify as a certified tracker.

Lizelle Kleinhans presented a sample of the ||Uruke curriculum which includes the following elements:

1. Teaching tracking skills to new members and old members
2. Tracking interpretation
3. Biodiversity (explaining the concept)
4. Finding natural resources to make bows and arrows
5. How to prepare and use field food.
6. Using natural resources for bows and arrows, including target shooting.
7. Patrolling fences and signs for pouching
8. Hunting

There are ten qualified trackers in the programme, with accreditation ranging from Tracker 1 (4 people) to tracker 3 (3 people). The youngest tracker taking assessment was eleven years old. The oldest members are in their 60s. The programme emphasises young people learning from elders and experienced trackers from their community.

The original ||Uruke programme was expanded to include the training of tour guides. Most of the best trackers do not speak English, and often tourists need someone to speak English and explain more about the history and culture of the ‡Khomani. Annetta and Sussie Bok gave presentations on the oral history programme in the community and how they have gone through national qualifications assessments as tour guides.

Mr Kleinman died tragically in 2004. The project could have collapsed then. Mr Kleinman had inspired everyone and there was no one with his level of knowledge. However, the vision of the project was strong amongst the trainees. After the funeral services, when everyone wondered what would happen, different San elders came forward to offer their support and services. They did not have the range of knowledge of Mr Kleinman, but they did have expert traditional knowledge. Some were experts in wild foods, others in medicine, some were excellent trackers, others spoor specialists. Men and women had skills which they had not previously seen as valuable. ||Uruke has benefited from the generosity and knowledge within the community. It is the application of this knowledge which may change the future of the ‡Khomani people and gain them the recognition which has been lacking for so many years.
Recommendations and Observations

There was a discussion and sharing of different experiences from around the region. Everyone felt that the ||Uruke model was interesting and achievable in their local context. The following comments and recommendations were made:

- Tracking needs to be taken more seriously by the NGOs and CBOs;
- Land access is difficult in some areas;
- Young people sometimes do not have the patience to spend time in the bush learning from the old people;
- It would be possible to set up tracker training schools in several San settlements, including at Nyae Nyae, the Western Caprivi and near Etosha National Park.

Urgent Need: Identify San Master Trackers

Louis Liebenberg emphasised that: to have a successful tracker training programme you need to identify your Master Trackers first. There are likely only a handful left in the region. This has to be the highest priority, as they set the standards and train up the other most experienced people who later become the trainers and examiners.

29 September (Friday)

Demonstration of Cybertracker

On Friday morning the team went out again to one of the pans to explore tracks and get a demonstration of the Cybertracker. The Cybertracker is designed to capture data that is geo-referenced (linked to GPS coordinates). It can be coded to capture any type of information that a tracker would observe. The codes are linked to icons that allow a tracker who cannot read and write to still capture accurate data about the species, sex, age, movements and so forth of an animal or herd. The Cybertracker can download this information onto a computer afterwards.

Louis showed how the regular use of a Cybertracker by a Master Tracker can also capture his knowledge and ways of scanning the environment during his lifetime so that it is available to future generations. Master Trackers are almost always trained by deeply experienced elders themselves, and then add to this their own experience and curiosity about nature. Not all good trackers can become Master Trackers, even after many years. It is a state of mind – a will to observe and reflect on nature and its patterns.

Above Right: South African trackers
Tina and !Garuxab with Louis Liebenberg

Bottom Right: The earth tells us about dangers and opportunities
International agreements & indigenous peoples

Nigel Crawhall gave a presentation on the United Nations instruments related to indigenous peoples' rights and the environment. The main purpose of IPACC is to help indigenous people get access to the United Nations forums and learn about international agreements that can help them. However, IPACC is only a network, it is up to indigenous leaders to participate in these events and then bring the information home so that it can be used as part of local strategies and programmes.

The focus of the presentation was on the three Rio Conventions dealing with climate change, biological diversity and desertification. These are binding agreements that require African signatories to report to the UN. CBD in particular requires signatory states to work with indigenous peoples on the protection and promotion of their knowledge of biodiversity.

Several of the participants did not know what the United Nations was. Most of them knew and said that members of their communities had been to Geneva or New York but they did not know what happened there. Nigel gave an explanation of the overall structure and function of the United Nations and how the different agencies operate. The main issues including the Rio Conventions are explained below in Appendix 4.
Review of the Workshop

One participant said the following: “We did not know anything about IPACC. If you did not explain we would not have known, we would be blind. Our representatives never bring us feedback. We remain empty. Who gets chosen to go to these events? Who represents us? People keep this information to themselves. There are not enough meetings to explain what is happening.”

Another said: “We learned a lot at this workshop. Now we understand better how very important is the United Nations for the San. We need to work hand in hand with IPACC to participate and make sure this information gets shared. The part I do not understand is that here we hear all this language about human rights, dignity, culture, language rights. Where does this fit in? No one ever mentioned these things in school. It is like it is another place, another country. We would like to have more information on the United Nations, when and where the meetings take place. We need IPACC as our guide.”

A San elder said the following: “One of our trackers was killed last year by the police. We get no attention from our Government. Our committee listens to our problems, but that committee has two heads. One part just wants more sheep and goats. They are interested in money, not in our culture. There are others who know about our culture but they do not have power. The more you know about nature the less people listen to you! IPACC was not there to help us explain our way of living and knowing.”

A San youth said that the workshop was strong because people learned from each others experiences. The knowledge is in the community, and we are putting it to use.

Closure

Closure by local authorities and community leaders

Main: Xhara Qoma, Naro tracker and shaman
Appendix 1: Summary Report on the Certification of Professional Trackers in Botswana, Namibia and South Africa

This section was compiled by Yasmine Jacobs with assistance from ToCADL, ||Uruke Tracking, Volker Grellman and WWF

SOUTH AFRICA

Overview of Qualifications Authority

In South Africa, tracker certification and qualification has been incorporated in the National Qualifications Framework (NQF). The NQF is the set of principles and guidelines by which records of the achievement of learners are registered to facilitate national recognition of acquired skills and knowledge.

The South African Qualifications Authority (SAQA) is a body of 29 members appointed by the Ministers of Education and Labour. The members are nominated by national stakeholders in education and training. The functions of SAQA are twofold:

- To oversee the development of the NQF, by formulating and publishing policies and criteria for the registration of bodies responsible for establishing education and training standards or qualifications and for the accreditation of bodies responsible for monitoring and auditing achievements in terms of such standards and qualifications;

- To administer the implementation of the NQF by ensuring the registration, accreditation and assignment of functions to the bodies referred to above, as well as the registration of national standards and qualifications on the framework. It must also take steps to ensure that provisions for accreditation are complied with and where appropriate, that registered standards and qualifications are internationally comparable.

SETA/THETA

THETA is the Tourism, Hospitality and Sport Education and Training Authority. It is the Sector Education and Training Authority (SETA) for the Tourism, Hospitality and Sport Economic Sector.

A SETA’s main function is to contribute to improving skills. Training must be to agreed standards, within a national framework wherever possible. It is no good if someone is trained in one province and their qualifications are not recognised in another. It is not ideal for one employer to increase the skills of his or her staff if another employer does not recognise them. Wherever training is provided, it should be subject to quality control and where appropriate, be compared to the best international standards.

In its Guiding skills programme, THETA has three tracker training courses registered:

<table>
<thead>
<tr>
<th>SAQAid</th>
<th>Description</th>
<th>NQF Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>8460</td>
<td>Track animals using easily recognisable spoor</td>
<td>At NQF level 2</td>
</tr>
<tr>
<td>8518</td>
<td>Track animals and identify spoor using moderately</td>
<td>At NQF level 4</td>
</tr>
<tr>
<td>8530</td>
<td>difficult spoor</td>
<td>for a total of 50 credit points</td>
</tr>
</tbody>
</table>

The unit standards for all of the above courses clearly specify that no literacy is required. There are also a number of other courses registered that would be essential for a tracker in order to become a well rounded nature and tracking guide.
The NQF and Tracker training

Tracker training and tour guide training providers that are certified, and most often used in the field is the Field Guides Association of Southern Africa (FGASA).

FGASA: FGASA preceded THETA as the unofficial tracker training authority. It was established in 1992 as a non-profit organisation representing individual field guides and trackers. Their function is quality assurance and moderating field guide and tracking qualifications. They assess and endorse training providers. There are three FGASA endorsed training providers that provides tracker training. They are:

<table>
<thead>
<tr>
<th>Training Provider</th>
<th>Courses Offered</th>
<th>Contact Person</th>
<th>Tel</th>
<th>Fax</th>
<th>Cell</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bushveld Training Adventures</td>
<td>FGASA Level I / II, ARH, VPDA, Tracking</td>
<td>Sakkie van Aswegen</td>
<td>+27(011) 679-2298</td>
<td>+27 086 672 1205</td>
<td>082 337 1355</td>
</tr>
<tr>
<td>Eagle’s Wing Bushskills</td>
<td>Trails guide, Tracker I, II, III Advanced weapon handling and dealing with dangerous game course; Tracking courses; Assessments. On site anywhere in Southern Africa</td>
<td>Adriaan Louw</td>
<td>083 234 1493</td>
<td>T/F 014 743 3337</td>
<td></td>
</tr>
<tr>
<td>The Nature College Wildlife Training (Pty) Ltd.</td>
<td>Local Guide I, II Intro to Tracking Horse guiding course Local Field Guide Course; 10 days Introductory Field Guide Course; 14 days full time Advanced Field Guide Course; 10 days full time Introductory Tracking; 7 days full time THETA assessments on all levels; Equestrian Guide Course 14 days</td>
<td>Johan &amp; Jane Fourie</td>
<td>082 920 3765</td>
<td>028 551 2562 (t/f)</td>
<td></td>
</tr>
</tbody>
</table>

Both Bushveld Training Adventures and Eagle’s Wing Bushskills’ application for THETA accreditation is currently under review, whereas The Nature College Wildlife Training (Pty) Ltd. has been fully accredited by THETA since October 2004 with accreditation number 613/P/000016/2004.


**General issues**

For tracking alone there is no school certificate or literacy component required by providers but when trackers continue their qualification in other fields, the THETA requires that learners are able to write about her / his skill. However, when trackers continue their qualifications at higher levels of tracking, no school certificates or literacy components are required.

The site of learning for tracking is always in the field and that makes most of the assessment practical, hands-on and in the bush. The site of learning is kept as close to the workplace as possible, as diversity in content varies from site to site. Prior learning is always taken into account and evaluation is based on competency. Should there be a lack in competency, coaching is provided.

Although the certificate is associated with tourism and hospitality it is also associated with nature guiding (ecotourism) within the Tourism and Hospitality SETA. Liability insurance is separate from certification but strongly recommended. Someone not qualified doing a particular guiding or tracking function could be held liable should an accident take place. Fees are for assessment only, for guiding and tracking however there is a fee payable to the Department of Environment and Tourism every two years as a guide.

Assessments are done through accredited providers who are endorsed by THETA and FGASA. At this point, industry and government standards are the same and assessments are measured against the same unit standards. Providers like the FGASA training providers have up to level 6 certification within the National Qualifications Framework. In other words the certification can compare to any other unit qualification nationally.

**CyberTracker Conservation**

CyberTracker Conservation is a non-profit organisation that conducts tracking research and development. Its main objective is to develop the art of tracking into a modern profession and to promote the development of a worldwide environmental monitoring network.

Since 1994, CyberTracker Conservation initiated and developed the Tracker Evaluation system in South Africa. CyberTracker Conservation maintains independent standards for tracker certification. At present the only tracker certificates endorsed by FGASA are those issued by evaluators certified by CyberTracker Conservation. CyberTracker Conservation has also initiated Tracker evaluations in the USA, where it has been used to measure observer reliability in wildlife science.

CyberTracker Conservation acts as an External Evaluator to ensure the highest standards are maintained when certificates are issued to Senior Trackers, Tracker Evaluators and Master Trackers. To become a Tracker Evaluator requires a Senior Tracker or Master Tracker certificate, as well as an understanding of the evaluation criteria.

Once a Senior or Master Tracker has become an Evaluator, he or she can issue certificates for Tracker I, II and III, Track & Sign I, II and III as well as Trailing I, II and III. No evaluator can issue certificates for Senior or Master Tracker without an External Evaluator present. Once qualified, Tracker Evaluators work independently from CyberTracker Conservation, with no financial obligations to CyberTracker Conservation. For example, Eagle's Wing Bushskills and The Nature College have been accredited to issue CyberTracker certificates. The fact that there are no financial ties between CyberTracker Conservation and accredited Evaluators ensures that CyberTracker Conservation can act as an independent External Evaluator to maintain standards.

In addition, CyberTracker Conservation also developed the CyberTracker software that enables trackers, even if they cannot read or write, to record field data with GPS positioning. CyberTracker software was developed from exposure to !Xôô tracking techniques. It allows oral knowledge of animal behaviour, observation and tracking to be entered into a data base run with icons (so you do not have to be able to write). This information can be downloaded onto a computer and with the proper training can play a useful role in monitoring biodiversity.

*Below: JUi, Robert and Louis, three countries in dialogue*
**BOTSWANA**

**National Standards Authority**

In Botswana, certification in general is controlled by the Ministry of Education for Primary, Junior and Senior Secondary as well as Tertiary Education (Technical Colleges). Currently the government has set up two parastatal organisations to oversee assessment and certification, Botswana Training Authority (BOTA) for training up to Certificate qualification and Tertiary Education Council (TEC) for training above Certificate level, i.e. Diploma and above.

These statutory bodies are guided by the Botswana National Vocational Qualification Framework (BNVQF) which sets standards for training and qualification. The unit standards developed so far do not include tracking.

The Botswana National Vocational Qualifications Framework (BNVQF) is an integrated system of nationally recognized qualifications and nationally endorsed standards for the recognition of vocational skills, knowledge and competencies. The Vocational Training Act of 1998 set out broad plans for a three-tier vocational qualifications framework (which will eventually link to a broader National Qualifications Framework [NQF]).

BNVQF Regulations pertaining to the new qualifications system have been approved by Cabinet in Dec 2002. These Regulations further elaborate on the nature of the vocational qualifications and establish a fourth type of award – unit standards – which are registered components of the vocational qualifications.

The Framework also facilitates the coordination of vocational education and training (VET) provision in Botswana, assessment of learning, and the award of credits and certificates. The Framework sets quality standards in the provision of VET in Botswana, as well as moderation across fields of learning and levels of qualifications. Following assessment based on unit standards, learners will be awarded certificates of achievement.

**Recognition of Prior Learning**

The two bodies named above (BOTA and TEC) advocate for recognition of prior learning. Therefore, as much as a certificate component is required for most fields, it is possible to award certain competencies credits or certificate of competence based on the skills possessed.

**Approved courses**

At this point tracking is not yet certified in Botswana but in the process of becoming certified. Should tracker training be certifiable in the future it would likely be part of the Tourism and Hospitality industry.

**Fees**

Certification is not linked to liability insurance. As for certification for tracking, a fee does not apply. Certified guides have to pay a fee and their licence is renewable yearly at a fee. This would likely apply to tracking certification once it has been recognised.

**Standards**

Standards are generally the same for the industry and the government as industry is involved in formulation of standards administered through government institutions.
With the introduction of trophy hunting in the 1970s, trackers and skinners have had greater prospect to hone their hunting skills through extensive practical field experience that tests their knowledge of animal behaviour, trophy quality, botany and zoology and other fields of study that are required to pass the Ministry of Environment and Tourism's (MET) Hunting Professional Examinations.

It appears that the two main training providers in Namibia in this field are the Namibian Academy for Tourism & Hospitality (NATH) and Namibia Professional Hunting Association (NAPHA).

According to experts in Namibia, the likely system for certification will include the following:

- The authority controlling certification will in future probably be NQA or NTA (National Training Authority)
- There is no professional body yet, that oversees assessment and certification. NTA is in the process of development an assessment centre;
- Certified school literacy is not required at this stage to be a tracker;
- Prior learning is going to be taken into consideration in the assessment. There is no curriculum set yet;
- Tracking is only part of a professional hunter's registration after examination, but there is no separate certificate for tracking in Namibia yet;
- Current registration with MET for trackers falls under the guidance of Professional Hunter or Hunting Guide. A tracker has to be insured;

**Namibian Academy for Tourism & Hospitality**

NATH has a general tourism module but does not concentrate on tracking as a subject matter. The courses are geared towards catering for the tourism community with many of their modules taking into account illiteracy and offering oral examinations. Though NATH has the infrastructure to offer tracker training, it seems as if tracking is included unofficially in hunting and guide courses. There are tracking workshops offered by small private sector hunting schools. This is not part of a formal curriculum in Namibia. It does not comply with any unit standards and hence does not fall within any national qualification.

**Namibia Professional Hunting Association**

NAPHA is not an official training provider but they do provide basic workshops for community people wanting to work as guides and trackers. These include half day to full day workshops which cover gardening, basic cooking, etc. All hunting and tracking training is provided by the National Professional Hunting Academy.
Recognition of Prior Learning

Many of the expert guides working in trophy-hunting have low educational qualifications and little educational opportunity. In 1990, NAPHA recognised the need to establish a system to provide for illiterate and semi-literate trackers and skinners to be tested orally on their theoretical knowledge, thus providing a means by which they could obtain formal qualifications as hunting professionals. NAPHA drew up a syllabus for an intensive 12-day training course to prepare candidates for the examination conducted by MET officials for two days after the course. To date, 87 black Hunting Guides have qualified, some of whom have gone on to qualify as Professional Hunters. The courses are presented annually.

According to WWF-Namibia, 3 Damara contract workers have been certified as hunting guides. Namibian Hunting Professionals are divided into 5 categories: Hunting Guide, Master Hunting Guide, Professional Hunter, Big Game Professional Hunter and Bow Hunting Guide / Professional Hunter. A Hunting Guide may hunt only on his / her own (or family’s) land, or the land of his / her employer, as well as commercial conservancies where he / she is registered. A requirement is that the learner must be working on a hunting farm before enrolment.

The hunting sector in Namibia has no set unit standards yet as we are ruled by the ordinance of 1975, which hopefully will be changed shortly. Presently only hunting professionals are assessed by an archaic exam, set and tested by MET (Ministry of Environment and Tourism).

Additional information

The training for tracking is offered by Eagle Rock Professional Hunting Academy during their courses - assessment is by MET Hunting Guide or Professional Hunters examination. Standards are set by industry or in close co-operation with Government.

Namibia is distinguished by the close cooperation between government and the private sector to both set standards and create employment. NATH and NAPHA are the official bodies at present, but in practice Eagle Rock Professional Hunting Academy has been setting up curriculum regarding the professional hunting and guides system. There are no unit standards for professional hunting or tracking yet. Eagle Rock has had contact with San communities in Tsumkwe and Mut'ciku regarding the setting up of a tracking course under guidance of their most experience senior trackers.

Improvement workshops

The Education Committee holds two-day training workshops twice a year for Hunting Assistants and Camp Attendants to improve existing, and teach new, industry-related skills and basic education. The most recent workshop was held during February 2006 and covered topics such as: Competition and the Importance of Professionalism, Basic English, Assertiveness and Self-Esteem, Client Service, Western Etiquette, Trophy Photography, Tracking and Blood Trails, Estimation of Quality and Size of Trophy Animals, Basic Housekeeping Skills, Sharpening and Care of Skinning Tools and many more. Various specialists in their fields, including Professional Hunters, Taxidermists, MET Officials and previously disadvantaged Namibians who have qualified as Hunting Professionals, presented lectures.

Namibia is in the process of having tracking certified as a certificate course; at the moment tracking forms a part of the hunting industry.

In conclusion

South Africa’s national accreditation and certification system is substantially advanced compared to its SADC neighbours. It appears from Internet research that South Africa is providing standards and certification for guides in neighbouring states. Even Namibian and Botswana service providers are linking their certification to South African standards.

In Botswana they have started to put into place a National Qualifications Framework and it will not be long before tracking will be offered as a certificated course. In Namibia there is an opportunity within their tourism and hospitality academy to offer these courses and enough trackers who seek to have a qualification. Although there seems to be scope with the hunting organisations and clubs, the prerequisites for training does not allow for people outside of the farms to qualify. We were not able to confirm information on fees, insurance, standards and other general issues for Namibia. No central authority was able to give clear information. Namibia is the most likely country to recognise prior learning and not insist on school learning certificates for qualified trackers. It would be an ideal site for dialogue and lobbying on assessment and standards setting.
## CONTACT DETAILS

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ACRONYMS

BNVQF Botswana National Vocational Qualification Framework
BOTA Botswana Training Authority
FGASA Field Guides Association of Southern Africa
MET Ministry of Environment and Tourism's
NAPHA Namibia Professional Hunting Association
NQF National Qualifications Framework
NATH Namibia in this field is Namibian Academy for Tourism & Hospitality
SAQA South African Qualifications Authority
SETA Sector Education and Training Authority
TEC Tertiary Education Council
THETA Tourism, Hospitality and Sport Education and Training Authority
VET Vocational Education and Training
Appendix 2: Kotsi Mmaba on intergenerational transmission of traditional knowledge of biodiversity

Interview at Klein Dobe camp, Nyae Nyae Conservancy, Namibia on 29 September 2006
Interview by Nigel Crawhall (IPACC)

For indigenous and local people who grow up in the bush, the meaning of ‘traditional knowledge of biodiversity’ is clear and complex. For outsiders, it is often fascinating to listen to elders, hunters, medicine people, midwives and spirit mediums explain how they interact with the natural environment and use its resources within culturally constrained ways.

The interview below was conducted with one of the Botswana participants at the Tsumkwe workshop on tracking and traditional knowledge. Kotsi Mmaba is an important resource person in that he has a traditional education from his childhood combined with formal schooling. He speaks fluent Khwedam, English and Setswana and is comfortable with different cultures and knowledge systems. He is an activist with San community based organisations associated with the Kuru Family of Organisations (KFO) and the Trust for Okavango Culture and Development Initiative (TOCaDI).

Below: Kotsi Mmaba

This interview is included to help people new to the field get an understanding of how knowledge is transmitted and what types of knowledge get transmitted in a traditional education. His rendition is classic of hunter-gatherer studies. His father is a tough teacher. Learning is from didactic instruction as well as learning by doing, learning by seeing. There is no dividing line between culture, faith and knowledge. There are Khwe ways of doing things, which include knowing animal behaviour, plant diversity, skills and competence, and respect for ancestors and roles in the family. Learning is not always comfortable or easy. Endurance, patience and discipline are inseparable from knowledge. His father is teaching him not just knowledge but also wisdom – knowledge placed in the context of ethics and discipline.

What is also clear in the interview is that a great wealth of experience comes from not only tracking an animal but being able to know how to kill it. Scientists and other observers are rarely in a position to know the full range of an animal’s skills and behaviour. It takes a lot of observation to achieve real expertise. This is also true for the traditional hunter, but the experience is coached by those with a lifetime of experience and a language and cultural system built up around this relationship of man and nature.
In the interview, Kotsi spoke about the problem of leaving a traditional education and entering formal schooling. As with most African primary schools, teachers are extraordinarily ignorant about biodiversity and cultural diversity and the curriculum does not help integrate prior learning or village resources into the schooling of rural young people.

“When I started school” … I can say I went the wrong way. It was wrong because there at school I did not learn what my father taught me. The teacher was teaching me new things. I even failed. I did not go further for my Cambridge certificate. It was all new to me. When I went to start school I was already 11 years old. I knew a lot about the bush. But when I got to school I had to learn English, Setswana, mathematics, and social studies. I was not free. I was frustrated. I don’t mean that Education at school was not good – it was good. But if the school was able to teach me also what I learned from my father, then it would have been good. Even today I still have to go back to my father to learn more about nature. Nature is where I come from. What I learned is not where I came from.

Kotsi Mmaba recounts his experience of learning traditional knowledge of biological diversity.

“I was staying with my father and my mother, with my father's brother and my uncle, my mother's brother. We stayed in a small settlement called Mawana, in the east part of Botswana. It is like Klein Dobe: there were many animals and we were also practicing agriculture. Sometimes after ploughing we left our crops and went in the bush hunting and gathering.

Then my father used to teach me to track animals. He used to go with me in the early morning in the bush. I was about 10 years old by that time. We were not using dogs to hunt. We used spears, axe and bow and arrow.

I remember we went out several times. We were in the bush and would come to a pan. He would identify animal spoor. He would ask me: “When we come to the pan, as a hunter, what should we do?”

I would say: “We have to look around the for the animal's spoor. What kind of animals came to drink water, either yesterday or this morning? Then we can follow the animal spoors from today.”

He would say: “Ja, you are correct. Then let us look around and see. And you can identify each and every animal spoor.”

We would go around in the pan and identify every spoor in the pan. He can go one way around and I go the other way around. When I see a fresh animal spoor, then I will call him. And then I say “This is a kudu.” But maybe I am wrong and he says: “No, you are wrong. This is a springbok.” He would say “Let us follow this springbok”.

The amazing thing was that he would chase those animals and he could leave me behind easily. He would track the animal; track the animal. Then we would find animal urine or droppings. He would pick up the droppings and put it in his hands. And he would say to me: “Look at the animal droppings carefully and tell me what is going on.”

Then I would look at the animal droppings which are in his hand. And I'd say “I can't see anything.” And he would say: “It is moving. It is shaking, but not much. It shows you that this animal is alive; it is not sick, it is active. Then let's go”. If it does not shake it will show you that the droppings are fresh but the animal is weak. I don't know whether it works, because of his blood or whatever. Is he like a magnet, I did not ask him.

It would get hot, but what can I say, my father used to chase animals in the hot season. My father used to say: “It is good to chase animals in the hot season because at around 12 o'clock, 1 o'clock, then the sand is very hot, the animal will run and burn off its hooves, then after that it cannot run fast. It will hide itself under a tree; then you can kill it.”
We collected water in our containers and then we went. “When tracking the animal you have to be careful with wind.” He told me. “Where does the wind blow from? If the wind blows from where the animals is coming from you will never find the animal. You only see the tracks of the animal. You see that it has run away. It has your smell already. You have to be careful, especially with the kudu.”

The kudu is very sensitive and clever animal in the bush. It goes, and when it wants to rest, it turns and faces where it comes from. It carefully looks at where it came from to see what is coming behind – its enemies. If you are tracking a kudu, you have to predict that it is getting into the bush. You know when it gets in the bush it is resting now. But you have to predict the time still. If it is still in the morning, you know it cannot rest. It still has energy to walk around and search how many enemies are there before it rests. At 11 or 12, it has to rest.

“When tracking the animal,” he said that when there is tall grass, “you don’t have to follow the animal. You can go close to the track. When it is resting it has to look back where it came from. If you walk on one side, it cannot see you. But you must not make noise. When you are tracking you don’t step on the animals spoor. Maybe you will get lost at some point and you’ll need to come back to the spoor and pick up the track again.”

We tracked this kudu and when it saw us it ran. My father went after it and left me behind. It took us roughly four hours. I was just tracking him running after the kudu. I was afraid. I wanted to go back. We were deep in the bush. I was afraid, my father is very strict, and if I go back maybe he is going to beat me. [Kotsi laughs]. And I followed him. I lost his track and the kudu's track. I climbed a tree to look for him but I did not see him. I came down the tree, and I started afresh as he told me, back at the track.

What I observed from some animals: kudu, duiker and steenbok, when you chase one of these, when it is tired, it will go back where it came from. Then I was not careful, because he told me those things and I had forgotten. I was running around. But the kudu had already gone back and he was following the kudu. Then I was just running around searching for his track but I could not find it. Then I turned back to start tracking afresh and then I found their two tracks running back, his track and the kudu. And then I remembered my father taught me: “Oh, these things turn back. It seems they have turned back. The kudu is getting tired now.”

I found a hoof of the kudu. Then I pick it up, it looked fresh. “Ah, this is fresh because my father told me that the sand is deep and it is too hot, and it has burnt off the foot of kudu.” By this time my father had already killed the kudu. I ran and ran and I found him with the kudu. He is waiting for me.

I am the one carrying water. When I met him, he is first washing his face instead of drinking, washing his head. And I asked him: “Why are you wasting this water when we have so little? Instead of drinking you are washing your face and head with it? Why?” Then he told me: “If you are a hunter and you are running for a long distance, then you do not drink water, because your body is hot. The water is cool. You put the water in your body and you can get sick, fever, or flu or headache. You must cool your body first then you can drink.” I said: “Oh, these people, they have more knowledge than us.”

Then killing the kudu; we have killed this kudu and he skins the kudu as we have to go back. Then he took out a small intestine, but it is like a small round ball. He stabbed it with a knife. Then he took out some very soft grass, and he put it into the nose of the kudu. He cut off the tail, he took the liver and he said: “Let's go.”

Then I was standing thinking: “There are hyenas around here, lions around here; vultures… Arent they going to eat this kudu.” I was worrying and I asked my father: “Where are we going?” “No, we are going back home,” said my father, “we are going to skin this kudu. We are going to collect the meat tomorrow with your mother and your brothers. Why?” I asked him: “Don't you know that there are hyenas, lions and vultures here? And even jackals. Are they not going to eat the kudu?”

He said: “Boy, be careful, you a Khwe young person. These things I do, I learned from my grandfather and my father. See what I did. I opened the stomach of the kudu. I have stabbed the small intestine which is our culture, nothing will come to this kudu, even if you don't cover it with thorns.” I was worrying.
When we get back to the camp, there is a special place where we cook the liver. When we get there, he takes a piece of liver and he puts it on the wood of the axe, and he talks to the ancestors and he says: “I appreciate that you gave us this meat. Come and eat that even tomorrow and in coming years you can give us meat again.”

I was carefully looking at him. I asked him: “Can I have the power to do what you are doing when you are absent?” Then he said: “Yes of course, if you are serious, not joking. These things want you to be alert and be serious when talking to your ancestors. You do not see them, they see you. Play - then nothing will happen. You must be serious when doing this. If you work with your mother you can upset things. She should not make the fire. You need to make the fire and call your ancestors and tell them you are making this fire on behalf of her and on behalf of me so that they can save you when you go out into the bush.”

We finished. He ate first then he gave some to my mother. My mother was the second person to eat. But she did not react as he did. She just ate. Then he gave liver to my brothers and sisters. What he said is with the brothers and sisters they are all equal because we are young. We do not have more power than my mother. And our mother does not have more power than him. And he does not have more power than his ancestors. That is what he told me.

After we ate, I said to my mother: “Mother, we killed kudu. But I was amazed, after we killed the kudu, my father did not put thorns over the kudu that the lions, or hyenas, or vultures could not eat the kudu. We just left the kudu. He opened the stomach of the kudu and with his knife he stabbed the small intestine that looks like a ball, and with his knife he took small grass out and put it into the nose of the kudu. What does it mean?”

She said: “Yes, that is what is done. That is what we believe, it is our culture. You think that hyenas and lions or even vultures are going to eat that kudu. But I believe we are going to find it there tomorrow.” I only wanted to believe when I could see it in the morning. We slept. In the morning I went with my mother and my elder brothers. Our sisters and one brother stayed behind.

Below: Tracks in the mud
On the way, my father was searching for honey. I did not know he was searching for honey because he would leave us on the path, and he would go this side, then we would find him where he would tell us later at a certain place on the path.

He went for about 10 to 20 minutes, and I heard him calling me. I went to him. He was standing just next to a tree. And he said to me: “Come and tell me what is happening here…What do you see here?” I was standing. He said: “Look at all these trees.” I found a tree but I did not know what I could say about the tree. I saw holes. Something had been digging just around the tree. Then I said: “I can only see a difference in that something was digging just under that big tree. Something tried to climb the tree but could not manage.” He said: “Ja, that is the difference. This small animal, a honey badger, eats honey. The honey badger was trying to dig into the tree to get to a hollow in the wood and eat the honey. So it tells you there is honey there.”

He was searching and searching. He could see a hole high up, but it was hot and the bees were not active. He said: “Can you see that hole? There is honey there. Climb up and see.” When I climbed up, I could see bees just sitting at the hole. “I can see the bees” I shouted. “These are the things we have to learn boy”. He said to me to call my brothers. I called them and they came. We chopped out the honey and carried it with us to where we had killed the kudu. Nothing had eaten the kudu.

Then we carried meat back to our temporary camp. We were eating the kudu. That was our temporary base. And after eating we slept there. At night I heard a hyena, making a noise like it is laughing. My father shook me. He said: “Can you hear that hyena which is laughing?” “Ja, I can hear it.” “What does it mean?” he asked. I said: “I don’t know.” He said: “It means that he ate meat. Where does it find meat? No, it seems that lions have killed somewhere and it has eaten. It is laughing because it is satisfied. Then tomorrow, we are going to follow in the direction of the hyena’s laughter to see what it has been eating.”

In the morning we went with him. He was carrying his spear, axe and knife. I was also carrying a small axe and a small spear. We went with him. When we searched for the hyena, we found its spoor and tracked it. We saw where it was rolling. We saw fresh droppings. It went one way. He said: “No, no. Let us go where the hyena has come from.” We followed where it had come from. We identified there were three hyenas. The others went another way. “You see there are three hyenas; they are coming from the meat. Now each and every hyena has to go where it stays. Now that hyena (pointing to the track we were following) is a female, she is going to her young cubs. These others ones are males. They are going again for hunting.”
We followed the hyenas. We found that they were eating a gemsbok (oryx) which had been killed by a male lion. “Because the hyenas were three, they were able to drive away the lion.” He said, “Now it is a female hyena, it will come back tonight. Let us take the meat back to our camp.” I was starting to cut the meat to put up the tree. He made a table up in the tree. We took the skin and put it on top. We got my brothers and we carried the meat back home.

I asked my father: “How do you identify all these things in nature? How do you know what it means when a hyena laughs and you say it has eaten well?” And he said: “Stop asking that. Ask me what you do not know. Maybe I won’t be around for a long time. These are the skills you need when in the bush.”

One day we went to hunt. My father said: “Today we are not looking for meat. We have enough meat. I want you to learn about the behaviour of small animals and how to find honey.” Then we went in the bush with him. By the way, we went with my younger brother, we were not going far. He was only six years old and we were not far from camp. But my small brother was more intelligent than me because he used to stay with my uncle. He liked going with my uncle and cousins searching for honey. When we were busy searching in the bush, my younger brother identified the sound of a bird that would guide us to honey. He said to my father: “Listen, there is a bird this side which is talking to us. My uncle told me about that bird. Can we follow the bird?”

My father said: “You see, your younger brother is cleverer than you. He identified the bird.” [Kotsi laughs]. I was very ignorant. I did not believe a bird could communicate with a human being. We followed the bird. The bird was going far away, away for ten seconds, then away for a minute, then back to us. “You see,” said my father, “the bird is not away for long when he comes back to us. The honey is close by. If the honey was far, it could take him maybe 10 minutes to fly there and back. If it is only taking one minute, it means that the honey or something is very near. You have to be careful.”

When you follow these things, you should not make noise. You should not talk. You can whistle [Kotsi whistles]. You cannot talk because you don't know if he is going to show you an elephant, a lion, a hyena, even a big snake, so you have to be careful. If it is those things, it is dangerous. They can know a person is coming and they can be prepared to attack you. We went slowly, slowly, my father made a special whistling sound. The bird was sitting in a big tree. Not too high. He told us to sit down. We sat down. He was inspecting all of the trees around. Then he said there was nothing.

He said: “I am searching the tree, but you can watch the environment and look for dangerous things.” While we were searching the environment he kept searching. He told us: “Here is the honey.” He made a fire by rubbing wood together. After making the fire he told us: “We are making a fire here because we want to get the honey. By making the fire, we are telling the animals that there are humans here and we have fire, so the dangerous animals will not come.”

Then he chopped the honey out of the tree. He collected it. Then we went the other way around. He saw a spoor of a genet. He asked us: “What spoor is this?” I said: “This is genet.” I know genet because my uncle liked to hunt genets with his dogs. I said this is a genet. He said: “Let’s follow the genet.” We followed the genet. We followed the genet. Then the genet had climbed a big tree. We did not see where it went. The genet is a very clever animal. It knows its enemies will track it. It tries to confuse you about which way it went. It sits, then it jumps onto a tree. When my father had got there, he saw where the genet had been sitting. Then he was able to see which big tree it had jumped onto by its claw marks. So when we came he said: “Can you show us now - where is the spoor of the genet?”

With my brother we were looking around, looking around. He asked us to come back. He showed us where the genet was sitting. “There are no tracks, so it tells you that the genet jumped like a cat. Now, look at this tree, what does it tell you?” We saw the tree but we did not see much. We could see the bark had been moved. We said that some bark had been removed and it was fresh. It was not old, it was fresh. Then it seems like something was climbing the tree. He said: “Yes, and look up, there is a big hole. The genet is in that hole. It is the genet that removed the bark with its nails. He climbed the tree. As I told you the genet is here. Give me my spear.” We gave him his spear and he stabbed and killed the genet. We went back home.

Those are the things I learned from my father.
Appendix 3: Traditional Knowledge and Formal Education

From 31 August to 2 September 2004, thirty San language experts, including school teachers, lexicographers, development facilitators and language activists gathered at the Penduka Training Centre outside Windhoek to describe and analyse the current situation of San children’s marginalisation from formal schooling, including high drop out rates during Primary School.

One of the thematic areas for analysis was the impact of the marginalisation or non-inclusion of traditional knowledge of biodiversity and culture from the schools. Though some schools in the region accept indigenous cultural activities such as songs or dancing there are none with a concerted effort to link knowledge of biodiversity held by San elders into a structured curriculum.

Governments in the region claim they do not have resources for upgrading the science capacity of rural schools yet the expert local resources which do exist amongst elders, often equal to the competence of University educated post-graduates in urban areas, are not integrated into the school. The problem is not one of resources but of the colonial legacy in the Education departments that undervalue African knowledge systems. It is not clear that civil servants who design science curriculum for primary schools are themselves experts in biodiversity knowledge. The fact that civil servants cannot speak San languages also reduces the chance that they will be able to understand San complex knowledge systems and be able to integrate them into curriculum and teacher training.

The Penduka 2 Conference participants recognised that the hunting and gathering heritage of San peoples means that their elders have highly sophisticated environmental knowledge that could be tapped to promote science and other learning at schools (notably anatomy, biology, botany, zoology, medicine, aerodynamics, as well as human sciences, including the sociology of conflict management). A central factor in the performance of children from minority or stigmatised backgrounds is whether or not their parents understand the schooling process and reinforce the learning process with the children.

Research in Europe shows that students from middle class backgrounds, speaking dominant languages perform well not only because of better schools and teachers, but in part because of the parental role in building confidence in the child, supporting the child’s experience of the school, and directly educating the children themselves in the home environment.2

The exclusion of San elders and their knowledge from formal schooling undermines San children but also wastes valuable national assets and resources. As noted elsewhere in this report, world attention is turning to how we can monitor biological diversity, desertification and climate change. The San, amongst other African peoples are fully equipped to meet this challenge but the State has yet to draw indigenous and local peoples into the policy and implementation strategies necessary to make this data available.

The Penduka 2 delegates presented case studies from around the region and then proceeded to do logical framework analyses on key problems. Each exercise involved building a logical problem tree of cause and effect to understand root causes and long-term consequences of current negative conditions:

1. Why do San children drop out of formal schooling?
2. Why are San parents not active in supporting their children in formal schooling?
3. What are the causes and effects of not bringing San traditional knowledge systems into schooling?

The third working group on traditional knowledge came up with some important observations and conclusions. These can be summarised in a hierarchy of cause and effect. The first entry below is the effect of the negative condition (the exclusion of traditional knowledge from schools), each level below is a cause of the point above it, and an effect of the point below it. A full report on Penduka 2 is available from WIMSA’s headquarters.

- “Successful” San may reproduce the marginalisation of San who are holders of traditional knowledge;
- Those San who cope in school may develop negative attitudes to their own culture and knowledge systems;
- San youth drop out of school;
- San youth lose confidence at school;
- Parents do not take an active interest in their children's performance at school;
- San cultures are marginalised and undermined (seen as 'backwards');
- San knowledge does not inform curriculum development or teach training;
- Teachers and civil servants are not educated in traditional San knowledge systems about biodiversity;
- Primary school teachers generally cannot communicate in San languages;
- There is a bias in the Education departments against San people – San are invisible in the government and have no influence in policy making, even when they are national knowledge experts;
- San people are poor and are not represented in the political system, the more a San community is traditional, the less it is known or included in policy making.

The exclusion of traditional knowledge is caused by San people being marginalised from Education policy making, the fact there are very few qualified San teachers, and generally that their situation of being in remote rural areas and poor mean that they are considered to be without intellectual resources by the State and other influence makers. All of this is rooted in the colonial heritage of education in Africa. In pre-contact Africa, dominant peoples, in this case Bantu-speaking agro-pastoralists held indigenous San to be experts in rain making, spiritual skills and knowledge of biodiversity. The status of San people has decreased with the coming of Europeans and then the adoption of European bureaucratic systems by dominant Africans.

The effects of exclusion of traditional knowledge are far reaching. Current school policy and curriculum alienate San people from schools. Elders and parents are seen as ignorant, illiterate and somehow second class citizens. They are not seen as the most important factor in the performance of children in school, but rather as a threat. A parent, who does not speak the teacher's language, and allows a child to drop out and go back to the bush to learn to live a traditional life is seen as a threat to the child's education. The representative of the State is usurping the parental role and in so doing undermining family cohesion and intergenerational transfer of knowledge and values.

We end up with the perverse situation that the San young person who is excluded from formal schooling is more likely to be knowledgeable about biological diversity, and the one who is successful in formal schooling is likely to have a reduced knowledge of biodiversity and natural systems.

The exclusion of traditional knowledge means that children who are successful in school may end up looking down on their own parents and culture. One of the surprising outcomes in the Penduka 2 working group came when educated San activists said that they who have school qualifications sometimes treat their own parents as children when they have to interact with the school. Educated youth may have to interpret to their own parents, act as a parent in relation to younger siblings, and “manage” their parents during parent-teacher interviews. This role reversal also disempowers San parents and decreases the likelihood that the parents or grandparents are going to push to educate their child in traditional knowledge, skills and values. The net result is that the schools are decreasing the child’s chances of learning about biological diversity, anatomy and science overall.

The advocacy challenge for San people is to engage more directly with Education policy makers and develop an awareness and commitment to the integration of traditional knowledge of biodiversity into the school curriculum. With this initiative would need to come other changes, greater diversity in the teacher population, language capacity in the ministries and training centres and eventually the development of new and appropriate school materials that help teachers work with elders from diverse backgrounds and languages.
Some internet resources on Traditional Knowledge and Education:

Australia:

http://www.scidev.net/dossiers/index.cfm?fuseaction=printarticle&dossier=7&policy=35

Raising awareness of indigenous knowledge in science and technology education. Zane Ma Rhea is a lecturer and consultant at the National Centre for Gender and Cultural Diversity at Swinburne University of Technology, Melbourne, Australia.

Over recent years, a greater awareness of indigenous knowledge has increasingly been linked to global sustainability. But there is still little consensus about whether, and if so how, indigenous knowledge should be introduced into Western-based education systems. This paper points to a number of important aspects for those who wish to raise awareness of indigenous knowledge in science and technology education. Consideration of these issues will assist in the broader context of enhancing the contribution of science and technology to human development both locally and globally.

Philippines:

http://www.cs.org/publications/Csq/csq-article.cfm?id=1714

*Ifugao Knowledge and Formal Education - Systems of Learning in the Philippines. By Leah Enkiwe-Abayao*

The author examines the marginalisation of traditional knowledge of the Ifugao people in the Luzon region of the Philippines. “Teachers inside the Philippine educational system are trained in a Western-oriented educational perspective. Western scientific knowledge is promoted and forms the core of the curriculum developed by the Philippine Department of Education. The Philippine education system has historically led indigenous peoples to accept Western knowledge, which has become a measure of progress.”

Canada:

http://members.ozemail.com.au/~mmichie/april06.htm

The "Aboriginal Knowledge and Science Education Research Project" is a collaborative venture between the Aboriginal Education Enhancements Branch of the Ministry of Education and the University of Victoria, and was created to address issues associated with the under representation of Aboriginal peoples in the sciences. The main purpose of the project is to determine why Aboriginal students are under-represented in high school science biology, chemistry and physics classrooms, to find ways to significantly improve their involvement and achievement in both elementary and high school science leading to post secondary, and to encourage Aboriginal people to consider science related occupations.

Global:


United Nations dialogue on education, culture and development for indigenous peoples.
Appendix 4: What is the United Nations?

IPACC’s mission is to improve communication and understanding between the United Nations system and rural indigenous communities in Africa. In Tsumkwe, some people knew about UN meetings dealing with indigenous peoples, but most of the group wanted an explanation about *What is the United Nations?*

The United Nation Organisation is a world body that brings together all of the governments of the planet to make decisions, promote peace, solve conflicts, and protect the rights of people on earth. The UN's primary purpose is to deal with such conflicts, but over the years its mandate has spread to deal with issues of global health, agriculture, food security, refugees, women, children, disabled people, the environment, housing,

The UN is a bit like a parliament or committee. Each government has one vote at the General Assembly. The UN has to respect each government's right to its own views.

The UN was set up after World War II to try to settle conflicts so that nations would not have to go to war. It has been successful in some cases, but often fails. The UN played a major role in helping Namibia go through the transition from being occupied illegally by apartheid South Africa to becoming an independent and democratic state.

What is most important about the UN is that it sets standards of what is right. A really important part of the UN is that governments work together to say which rights are 'universal'. This means that the right not to be tortured, for example, applies to all people on earth. If you are tortured by a police officer, soldier or anyone, it is illegal regardless of what you have done or what your government says about it. In this way, the United Nations is increasingly recognising issues where human rights are more important than sovereignty of States.

In 1994, the United Nations declared the 1st International Decade of the World's Indigenous Peoples. This was intended to make governments more aware about the needs of indigenous peoples and to set international standards to respect the human rights and cultural self-determination of indigenous peoples. The first Decade had a big impact on Africa. Many peoples who live or lived by hunting and gathering, or by nomadic pastoralism identified themselves as 'indigenous peoples'.

Some governments reacted by saying that all Africans are indigenous so the concept does not apply here. It is better to talk about minorities or just about the rights of citizens. However, the UN experts showed that there was a problem in Africa. The African Commission on Human and Peoples' Rights (ACHPR) studied the question and in November 2003 adopted a report that says there are indigenous peoples in Africa, including the San peoples, who have the right of self-determination (in the framework of the African Charter on Human and Peoples Rights).

We are now in the 2nd UN International Decade of the World's Indigenous Peoples (2005 – 2015). Currently, the focus at the UN is getting the General Assembly to adopt the Declaration on the Rights of Indigenous Peoples. This is a document crafted over 22 years to define which rights apply to indigenous peoples and to make governments and communities more aware of these issues. The Declaration is a legal instrument at the UN. It was adopted at the Human Rights Council in June 2006, but it has not yet been adopted by the General Assembly due to resistance by African states.
There are two major UN forums which deal with indigenous peoples rights. Likely someone from your community has been. But do you know what they do?

1. **UN Working Group on Indigenous Populations.** This is a committee of 5 experts who study different aspects of human rights for indigenous peoples. They conduct studies and make recommendations to the UN about major human rights themes. This work is under the Human Rights Council. Many indigenous peoples go to the July meetings in Geneva to explain their issues of human rights to the experts.

2. **UN Permanent Forum on Indigenous Issues.** This is a high-level committee of the United Nations which is part of the Economic and Social Council (ECOSOC), the highest operational body in the UN system, directly under the General Assembly. UNPFII was created in 2001. It sits once a year. It has 16 members, 8 of whom are indigenous people, and 8 nominated by States. The PF looks at all the work of the United Nations agencies and attempts to make recommendations on how to improve delivery to indigenous peoples and their participation in the work of the UN. The PF meets in May each year in New York City and accepts reports and recommendations on human rights and development issues from indigenous peoples organisations. It is meant to stimulate dialogue between States, indigenous peoples and UN agencies.

Another major instrument is the office of the **UN Special Rapporteur on the Human Rights and Fundamental Freedoms of Indigenous Peoples.** This is an expert chosen by the UN to investigate the situation of indigenous peoples around the globe. He visits countries where the government has invited him and inspects the situation of indigenous peoples. Where there are human rights violations he can ask to speak to the President or a Minister and find out what is going wrong.

IPACC is working closely with the 3 Secretariats of the UN which deal with Environmental issues. In 1992, a major UN conference held in Rio de Janeiro in Brazil adopted three binding conventions:

- UN Framework Convention on Climate Change
- UN Convention to Combat Desertification
- UN Convention on Biological Diversity

Each of these is important to indigenous peoples and they are explained below.

**UN Framework Convention on Climate Change**

The core issue in this convention is that industrialised Western countries are releasing too much pollution (greenhouse gases) which are in our atmosphere and causing the planet to heat up. The effects are varied, but they include more extreme weather, such as droughts, floods, very bad storms, and a general heating up of the planet. The polar ice caps and glaciers of ice all over the world are melting and also causing the oceans to rise and changing sea temperatures. This is affecting all of life on earth and is generally going to cause a lot of suffering, particularly in dry parts of Africa and on small island states.

The convention is meant to put pressure on Western countries to reduce their greenhouse gas emissions and try to protect the global environment. The most important issue for indigenous peoples in Africa is that they know how nature ought to be, what is normal over long cycles of time, and people in the bush see the changes with the new weather patterns. Often desert peoples have back up plans of how to deal with bad droughts. This is called 'adaptation', and is an important aspect of the FCCC. Indigenous peoples in Africa can work with their governments and scientists to monitor the changes to nature and the environment, and make recommendations on how to cope with drought and reduction of biological diversity. In particular, indigenous peoples see which birds, insects, plants or mammals are starting to disappear and they can help warn scientists about this.

IPACC is looking to run more training on what the FCCC means for indigenous peoples in Africa. If you want to know more about this process contact the Secretariat. If you have email we can add you to a list that sends out information about training and meetings.
UN Convention to Combat Desertification

The UNCCD deals with the global fight against land degradation and the spread of deserts and related phenomena like siltation of water systems and loss of top soil. The Convention was especially designed for Africa where land degradation is particularly serious and there is a spread of non-arable lands. The Convention recognises that there are both human and climatic causes for land degradation. There is an irony in climate change that the countries which are causing it are the rich countries and can cope; whereas the countries in Africa which did not cause it are the ones that suffer the most. There is a similar irony about desertification. Hunter-gatherers and nomadic pastoralists do not cause desertification. Their cultures traditional protect biodiversity and rely on human mobility (moving camp, following the rain or the game, trekking from one water hole to another, transhumance) and letting nature recover from human impact.

Colonialism promoted the political power of agricultural peoples and they are the ones primarily destroying the land in Africa from over-grazing, slash and burn agriculture, cutting down forest lands, and over-using the top soil. Also, agricultural people have many more children than indigenous peoples. They are causing the population explosion in Africa and are invading the lands of hunter-gatherers and pastoralists. Desertification is caused primarily by poor government policies and the political power of agricultural and dominant peoples. Indigenous peoples are mostly not consulted in policies which could measure and protect arid and semi-arid areas.

As with Climate Change, indigenous peoples can be more involved in the monitoring and analysis of desertification. Namibia, South Africa and Botswana are all signatories to the CCD and have national action plans on desertification. Traditional knowledge is a recognised aspect of CCD and indigenous peoples should be regularly in contact with their Environment ministries about their role in fighting desertification.

CCD requires of States the following:

**Article 16**

The Parties agree, according to their respective capabilities, to integrate and coordinate the collection, analysis and exchange of relevant short term and long term data and information to ensure systematic observation of land degradation in affected areas and to understand better and assess the processes and effects of drought and desertification. This would help accomplish, inter alia, early warning and advance planning for periods of adverse climatic variation in a form suited for practical application by users at all levels, including especially local populations. To this end, they shall, as: …

(g) subject to their respective national legislation and/or policies, exchange information on local and traditional knowledge, ensuring adequate protection for it and providing appropriate return from the benefits derived from it, on an equitable basis and on mutually agreed terms, to the local populations concerned.

**Article 17**

The Parties undertake, according to their respective capabilities, to promote technical and scientific cooperation in the fields of combating desertification and mitigating the effects of drought through appropriate national, sub-regional, regional and international institutions. To this end, they shall support research activities that:

(c) protect, integrate, enhance and validate traditional and local knowledge, know-how and practices, ensuring, subject to their respective national legislation and / or policies, that the owners of that knowledge will directly benefit on an equitable basis and on mutually agreed terms from any commercial utilization of it or from any technological development derived from that knowledge;

These articles are obligations for your government and you can speak to your respective Ministries about what they are doing and the role that your community can play in these matters.
UN Convention on Biological Diversity

All three Rio conventions are important, but the CBD provides the greatest opportunities for indigenous peoples in Africa. Article 8j of the CBD states that:

Signatory states agree to comply with the following:

**Article 8j**

Subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of benefits arising from the utilisation of such knowledge, innovations and practices.

**Article 10c**

Protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements.

There has been a strong involvement of indigenous peoples in the work of the 8(j) working group and the Conference of Parties (COP). A further document emerged from the CBD that emphasises the most important principle in the protection and management of indigenous IKS – namely that the practice of natural resource usage and management by local and indigenous peoples is the basis for intergenerational transfer of IKS related to biological diversity. This is embodied in the 2004 *Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity*.

Your community has the right to participate in the CBD discussions on traditional knowledge, in the national Programme of Work (PoW) on protecting and promoting biological diversity, and on the working group dealing with protected areas. It is an IPACC priority to help your communities understand what these agreements mean, and how your community, elders and activists can be more involved in environmental policy making, monitoring and implementation.
Appendix 5: What is IPACC?

The Indigenous Peoples of Africa Co-ordinating Committee (IPACC) is a network of indigenous peoples' organisations across Africa. In 2007, we reached 150 member organisations in 20 countries. IPACC members elect an Executive Committee which guides the network, implements projects and represents the network in public forums.

We have six geographic and cultural regions: North Africa, West Africa (Sahara), Sahel-Horn, Central Africa (Rainforest), East Africa and Southern Africa. IPACC raises funds to help indigenous peoples strengthen their sub-regional networks, advocate for the rights of indigenous peoples, and participate in multilateral forums, particularly UN events related to human rights and the environment.

Most of our members belong to communities which are politically marginalised due to their particular economic modes (e.g. hunting – gathering, nomadic pastoralism or oasis and drylands traditional agriculture); or due to the in-migration of groups which became dominant due to their relationship with European colonial powers.

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### IPACC Executive Committee - 2006 – 2008

<table>
<thead>
<tr>
<th>Name</th>
<th>Ethnic Group</th>
<th>Representing</th>
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<tbody>
<tr>
<td>Handaine MOHAMMED</td>
<td>Amazigh, Morocco</td>
<td>North Africa</td>
</tr>
<tr>
<td>Abdellah HITOUS</td>
<td>Amazigh, Morocco</td>
<td>Deputy North Africa</td>
</tr>
<tr>
<td>Kamira SID NAIT</td>
<td>Amazigh, Algeria</td>
<td>Women, North Africa</td>
</tr>
<tr>
<td>Kanyinke SENA</td>
<td>Ogiek, Kenya</td>
<td>East Africa</td>
</tr>
<tr>
<td>Jackson OLE LENKAI</td>
<td>Maasai, Tanzania</td>
<td>Deputy East Africa</td>
</tr>
<tr>
<td>Mary SIMAT, IPACC CHAIR</td>
<td>Maasai, Kenya</td>
<td>Women Rep. Africa</td>
</tr>
<tr>
<td>Kabo MOSWEU</td>
<td>Khwe-San, Botswana</td>
<td>Southern Africa</td>
</tr>
<tr>
<td>Cgara CGAASE</td>
<td>Naro San, Botswana</td>
<td>Deputy, Southern Africa</td>
</tr>
<tr>
<td>Annetta BOK</td>
<td>‡Khomani, South Africa</td>
<td>Women, Southern Africa</td>
</tr>
<tr>
<td>Mohamed EWANGAYE</td>
<td>Tuareg, Niger</td>
<td>West Africa</td>
</tr>
<tr>
<td>Sada ALBACHIR</td>
<td>Tuareg, Niger</td>
<td>Deputy, West Africa</td>
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<tr>
<td>Vacant</td>
<td>Mali</td>
<td>Women, West Africa</td>
</tr>
<tr>
<td>Vital BAMBANZE</td>
<td>Batwa, Burundi</td>
<td>Central Africa</td>
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<tr>
<td>Leonard Fabrice ODAMBO</td>
<td>Bakoya, Gabon</td>
<td>Deputy Central Africa</td>
</tr>
<tr>
<td>Helene NZE</td>
<td>Baka, Gabon</td>
<td>Women, Central Africa</td>
</tr>
<tr>
<td>Fadematou DAHIROU</td>
<td>Mbororo, Cameroon</td>
<td>Sahel-Horn</td>
</tr>
<tr>
<td>Hindou Omaru IBRAHIM</td>
<td>Mbororo, Chad</td>
<td>Gender, Sahel Horn</td>
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<tr>
<td>Vacant</td>
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<td>Deputy, Sahel - Horn</td>
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</tbody>
</table>

Names in **bold** are the core Executive Committee. The Officer Bearers are the Chair, Deputy Chair and Women's Representative.
Staff

Nigel CRAWHALL    Director of Secretariat
Mala MAREACHEALEE   Operations Manager
Dewald COETZEE    Administrator

IPACC is a registered NGO with ECOSOC, UNESCO, UNEP, GEF, the UNFCCC and the African Commission on Human and Peoples Rights.


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                    (en français aussi)
Email:             ipacc@iafrica.com
## Appendix 6: Klein Dobe Workshop Participant List

<table>
<thead>
<tr>
<th>Name</th>
<th>Community, Country</th>
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<tbody>
<tr>
<td><strong>SOUTH AFRICA</strong></td>
<td></td>
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<tr>
<td>Annetta Bok</td>
<td>IPACC &amp;</td>
</tr>
<tr>
<td>Lizelle Kleynhans</td>
<td>SASI,</td>
</tr>
<tr>
<td>Elizabeth Aries</td>
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<tr>
<td>Tina Swartz</td>
<td>Sisen Craft Project</td>
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<tr>
<td>Jan van der Westhuizen</td>
<td>Sisen Craft Project, traditional healer</td>
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<tr>
<td>Nanette Lee Flemming</td>
<td>SASI,</td>
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<tr>
<td>Andries !Garuxab Kruiper</td>
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<tr>
<td>Piorro Mushavanga</td>
<td>Footprint of the San</td>
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<tr>
<td>Rennie Mishe</td>
<td>!Xun Council</td>
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<tr>
<td>Wentzel Katjara</td>
<td>Khwe leader, SA San Council member</td>
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<td></td>
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<tr>
<td><strong>BOTSWANA</strong></td>
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<tr>
<td>Sefako Chumbo</td>
<td>Kaputura, Letloa Land Centre</td>
</tr>
<tr>
<td>Kotsi Mmaba</td>
<td>Shakawe, Letloa Land Centre</td>
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<tr>
<td>Dindo Pove</td>
<td>Shakawe, Letloa Land Centre</td>
</tr>
<tr>
<td>Ronnie Mahindi</td>
<td>Teemacan: traditional tracker</td>
</tr>
<tr>
<td>Robert Swartz</td>
<td>Dqāqe Qare San Game Farm</td>
</tr>
<tr>
<td>Xgaiga Qomatca</td>
<td>Komku Trust, traditional tracker and dancer</td>
</tr>
<tr>
<td>Xhara Qomo</td>
<td>Komku Trust, traditional tracker and dancer</td>
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<tr>
<td>Bega Cg’ase</td>
<td>D’Kar Trust</td>
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<tr>
<td><strong>NAMIBIA</strong></td>
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<tr>
<td>Alfred Tcadao</td>
<td>IRDNC, tracker</td>
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<tr>
<td>Benson Kupinga</td>
<td>IRDNC, tracker</td>
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<tr>
<td>Liep Kamba</td>
<td>IRDNC</td>
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<tr>
<td>Anna Ais</td>
<td>Haï</td>
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<tr>
<td>Smithley Haneb</td>
<td>Haï</td>
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<tr>
<td>Hermanus Kari</td>
<td>Omaheke San Trust</td>
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<tr>
<td>Joram</td>
<td>Useb</td>
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<tr>
<td>Jakob Kolbooi</td>
<td>Ministry of the Environment and Tourism</td>
</tr>
<tr>
<td>Raymond Peters</td>
<td>WWF</td>
</tr>
</tbody>
</table>

Ju||hoansi and !Kung delegates from the Nyae Nyae Conservancy and N‡a Jaqqa Conservancy also attended, including trackers working for the Conservancy and families from the Klein Dobe n!ore.

‡Oma Leon Tsamkxao, N!ani |Ui, |Ui Gkao, G\jai Dawud Jaqaece, Komtsa Saxoari
Indigenous Peoples of Africa Co-ordinating Committee

www.ipacc.org.za