

Annex 6

**LOCAL AND INDIGENOUS KNOWLEDGE SYSTEMS
SUB – REGIONAL EXPERTS WORKSHOP**

INDIGENOUS WATER KNOWLEDGE OF THE SAN

Nairobi, Kenya

28 June – 01 July 2004

by

Joram |Useb

Working Group of Indigenous Minorities in Southern Africa (WIMSA)

1. Introduction

Not so long ago within in the last decades in fact our parents and grandparents live on the land. Survival was part of their daily life as hunters and gatherers. They depended on the movement of game and abundance of bushfood (veldfood) and the predictability of weather. A small thing a simple mistake, a run of bad weather, or a shift in the wind could mean the difference between starvation and survival. Our parents learned to be attentive to what was happening on the land and among the animals. These were the skills that enable us to survive as we have for decades in a land so harsh. The land was so good and despite the dry climate provided our ancestors with what they needed for life. By the turn of the century other people became aware of the land's richness in resources. In the past the culture of the San people had been destroyed over the decades. They were dispossessed from their traditional land and resources. Access to land resources became limited for San as they were pushed into more marginal areas. Some San became slaves on their own land. With the long history of 300 years of oppression the San were almost eradicated from the earth by killing

By the early 20th century only small San population remained in southern Africa, majority of who lived in and around Kalahari Desert in Botswana and Namibia, southern Angola, southern Zambia and north-west Zimbabwe. Being relatively isolated, they continued practicing a hunting and gathering life-style supplemented by occasional trade with others.

2. Tsumkwe District

Eastern Tsumkwe District is officially termed as the Nyae Nyae Conservancy, about 8000 square kilometres large. The inhabitants are approximately 2 000 Jul'hoansi speaking San. The Tsumkwe West District, the Nꞑa Jaqna Conservancy about 9 000 square kilometres large and inhabitants are about 4500 !Kung speaking San. The average ground water table is 20 to 80 metres in

Nyae Nyae. There are two artesian springs at Djoxohoe and |Aotcha. The Nyae Nyae pan and Nama pan keep water for 6 to 8 months a year. In Tsumkwe District West, the groundwater table ranges between 80 to 200 metres. There might be large water deposits some 300 metres deep. The west is not a waterless area. The pans in the south keep water for about 4 months a year and in the past Omtako Valley had surface water almost all year round. By now the livestock industry has spoiled all water sources due to over-utilization of grazing land and the surface water. The !Kung of west and the Jul'hoansi of the east used to utilize the very open and far away bush food area in the rainy season only. They travelled over 100 km to collect major bushfoods for storage. Due to the tsamma melon patches in area the people had no problem to find a substitute for water when travelling.

3. Indigenous Water Knowledge of the San (Bushmen)

The San (or Bushmen) are indigenous to Southern Africa and possess ample traditional indigenous knowledge of water (re) sources enabling them to survive in the arid and harsh Kalahari environment. Seasonal streams, large and small pans, water holes, fossil river valleys, hand-dug wells and sip-wells (special locations where water can be filtered out from underneath the sand using a straw and dry grass) played a crucial role in seasonal movements of family groups within the boundaries of their traditional territories, while in areas without any surface water (such as the Central Kalahari of Botswana) during the dry season the only remaining sources of water were plants: various tubers and bulbs and of course melons.

A n!ore territory normally meets the subsistence requirements of the resident family group. Its size depends on the relative endowment of the area with bush-food resources and most importantly water resources and is therefore closely linked to the prevailing regional climatic conditions. In the Kalahari region of northwestern Botswana and adjacent Namibia rainfall conditions are more favourable compared to the Kalahari regions of the Central Kalahari in Botswana and the Gemsbok Kalahari region in South Africa and adjacent Botswana. The size as well as the resource-utilization arrangements of an individual n!ore reflect such climatic differences.

The sip-well was another very old source of water in the sandy parts of the Kalahari. Sip-wells are places where water could be sucked through the sand. The sip-wells were usually located on the edge of a saltpan that was fringed by dunes on one side. The elders told us how the technique was used: First the loose white sand was removed. The people then prepared an approximately 60 cm deep hole with the digging stick and inserted a straw cut from the Kalachoe plant with a grass filter attached to the lower and upper end. The sand around the straw was then compacted and left for about half an hour to accumulate moisture. By using the mouth to create a vacuum, the San then sucked the water out of the sand. This was stored in ostrich eggshells or other containers.

4. First Water Court

The residents of |Kandu in the Tsumkwe District West filed a claim against the communal farmer to allow them access to fresh water. The San asked the court to order the farmer to give the villagers access to a borehole and reservoirs. It was established through enquiries at the High Court the |Kandu villagers' case was the first to be filed in the Water Court since independence in 1990.

In terms of the 1956 Water Act, a piece of South African legislation that is still on Namibia's statute books, the water court has power to adjudicate disputes over access to public water resources. The villagers had complained to the government official at nearby Mangetti Dune village with little success. No one in the village owned a motor vehicle and could not afford to travel long distances to collect water. The farmer obtained the Court Order not to deprive the residents of |Kandu village of using water from the borehole and the reservoirs in |Kandu. The farmer did not oppose the case and the case is very important as it allows the community from unhindered access to water sources in the village. Another important matter was the first case in the Water Court of Namibia since its establishment in 1956.

5. Indigenous Rights

While outsiders learned from the Bushmen about survival in the dry Kalahari and by improving upon their technologies created new economic opportunities for themselves, the San lost not only their land but also even their most valued (permanent) water sources. Even water resources in the form of tamma melon groves were taken from the San by others and turned into food/water for cattle. Deprived of their land, their game, their bush-foods and even their water, the San ended up as dispossessed and demoralized groups living in extreme poverty. Even in resettlement areas set-aside specifically for them, other (cattle-owning) population groups often joined the San residents to benefit from government provided drinking water supplies to water their domestic animals (Hitchcock, 1996).

6. Dispossession and loss of Land and Water

In recent historical times, the Bushmen all over southern Africa have lost access to their traditional hunting and foraging lands and their subsistence resources of water, bush-foods and game meat. Cattle herding population groups, white as well as black, encroached upon their traditional territories lured by good grazing and the water resources of the Bushmen. In other areas traditional San territories were converted into Game Reserves or National Parks and resident San were resettled elsewhere.

In some areas, such as the Dobe area of the Jul'hoansi, the cattle herders simply took over the water sources for their cattle or caused pollution of the water, making it unsuitable for people (Marshall-Thomas, 1989). In other areas occupied by Bushmen (such as Ghanzi district in Botswana) farms and ranches were demarcated for white farmers. They fenced the land and thereby took the water sources away from the people (Barnard, 1980).

In yet other areas, the grazing by many cattle reduced the supply of water bearing tubers and of course depleted the melons. Even in the land remaining for the San, water became a problem because due to the many bore-holes drilled for cattle ranching, the water table tended to become lower, causing many of the old water holes to dry up.

The following References were consulted.

Barnard, A., (1980), Basarwa settlement patterns in the Ghanzi Ranching area. *Botswana Notes and Records*, Volume 12: 137-149.

Department of Wildlife and National Parks, (1998), Second Draft Management Plan Central Kalahari Game Reserve and Khutse Game Reserve. Gaborone, November 1998.

Hitchcock, R.K., (1996), *Kalahari communities: Bushmen and the politics of the environment in Southern Africa*. IWGIA document no 79, Copenhagen.

Hitchcock, R.K. and L.E. Bertram, (1998), Social Boundaries, Technical Systems and the Use of Space and Technology in the Kalahari. In: Stark, M.T. (1998).

Kent, S. (ed), (1996), *Cultural Diversity Among Twentieth Century Foragers. An African Perspective*. Cambridge University Press, Cambridge.

Lee, Richard B., (1984), *The Dobe !Kung*. (Holt, Rinehart and Winston, New York).

Lee, Richard B. and Irvén DeVore (Ed.), (1998), *Kalahari Hunter-Gatherers. Studies of the !Kung San and Their Neighbours*. Harvard University Press, Cambridge.

Marshall-Thomas, E., (1989), *The Harmless People. (Revised Edition)*, Vintage Books, New York.

Stark, M.T. (Ed), (1998), *The Archaeology of Social Boundaries*. Smithsonian Institution Press, Washington.

Tanaka, J. (1998), Subsistence Ecology of Central Kalahari San. In: Lee (1998).

United Nations (1998), *Compilation of general recommendations from human rights treaty bodies referring to indigenous peoples*. (Ref: E/CN.4/Sub.2/AC.4/1998/5, 10 June 1998).