



Workshop

Drug lifecycle control in Sub-Saharan Africa

From production to responsible safe disposal and elimination in
wastewater treatment plants

(Med4Africa)

Pharmaceutical Waste and environmental experience in Botswana

Barbara Ntombi Ngwenya

Oarabile Mogobe

University of Botswana, Okavango Research Institute

Drug Life cycle control in Sub Saharan Africa

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Golden Crest Hotel, Arusha Tanzania



Republic of Botswana

OKAVANGO DELTA WORLD HERITAGE SITE

1000th World Heritage Inscription

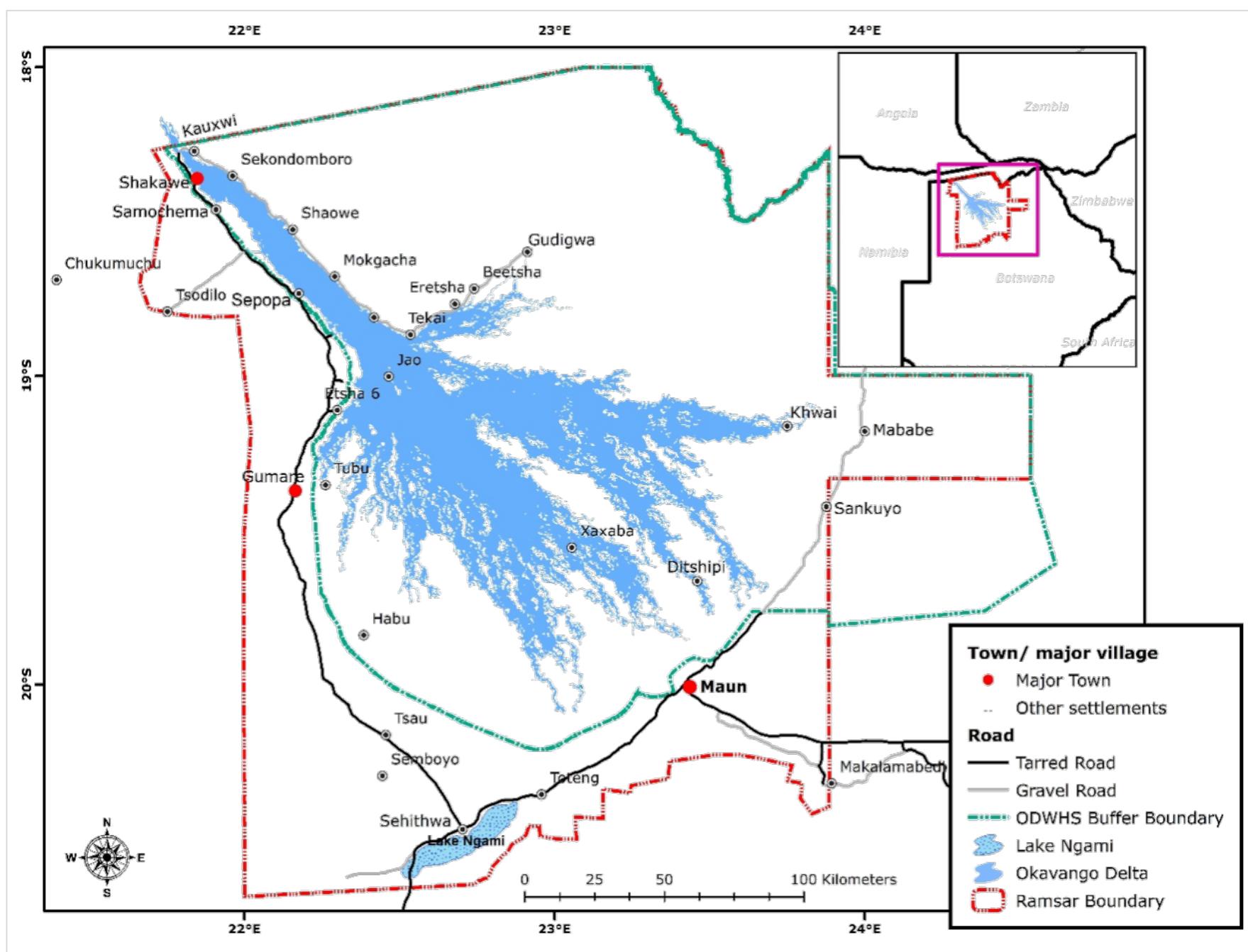
The Okavango Delta was inscribed on the World Heritage list of the convention concerning the protection of the world cultural and natural heritage on the 22/06/2014 in Doha, Qatar.

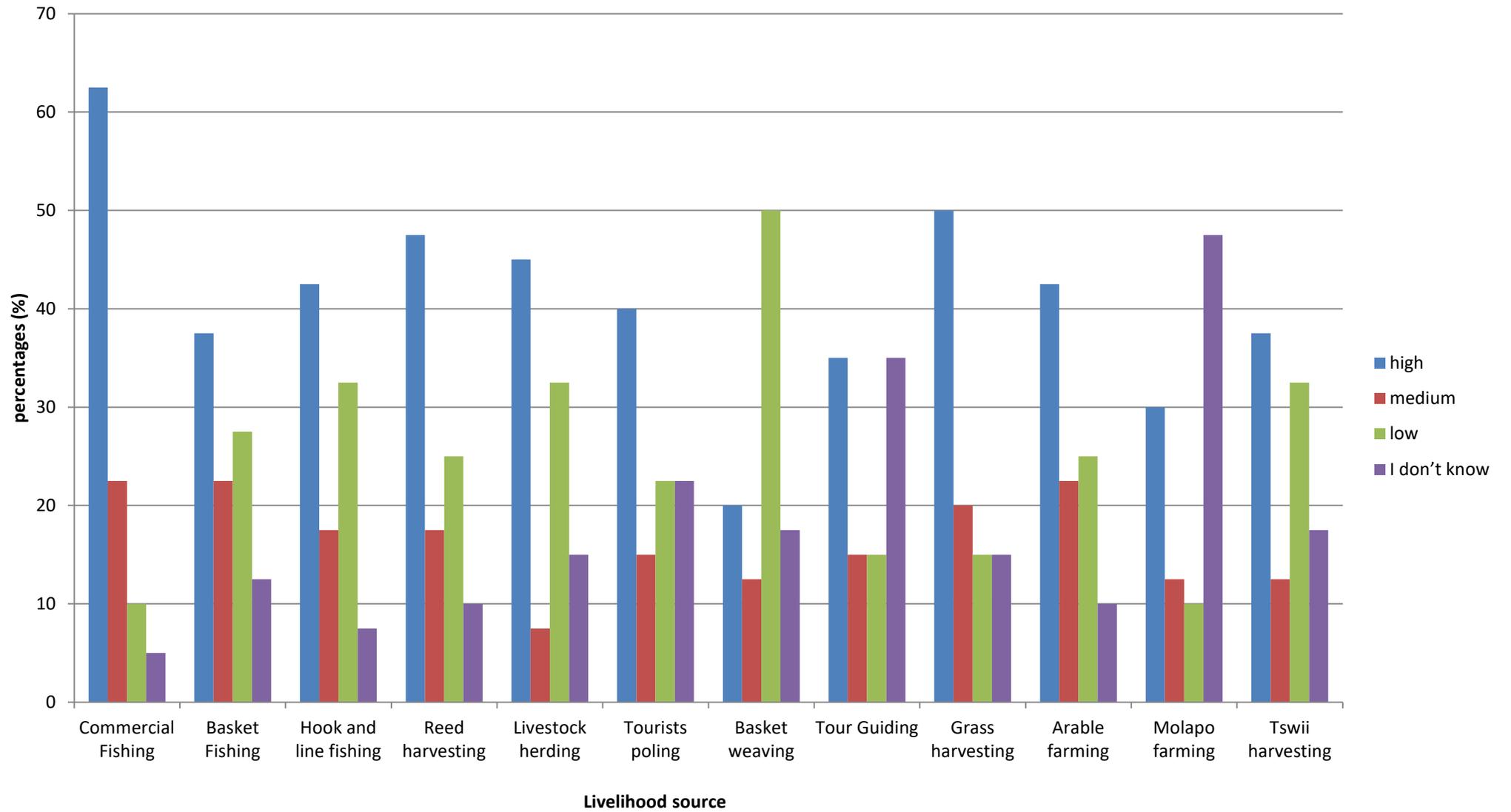
The Okavango Delta is a large low gradient alluvial fan or "Inland Delta" located in north western Botswana. The property encompasses an area of 2,023,590ha with a buffer zone of 2286,690ha.

The site has been inscribed based on the following Outstanding Universal Value.

- a) Exceptional beauty and aesthetic importance
- b) Outstanding Ecological biodiversity and Hydrological Process
- c) Protecting threatened & endangered Species







Livelihood sources and perception of malaria exposure \ key informants



— Dithou - kgotha le hache

— Melelo ya naga e e bakwang
ke dikgadi

— Go kgala ga nabo ^{needs} = cocodles

— Dipheto tse dintsi/merapo-rapo

— leuba

— Kgato ya kgotha-kgothana ma ga
ring ga batho le dipologolo

— Go sa tshuba naga





SITAKAWA
UMANGSIZ
KING KAWA





Human, animal and environment health

Environmental health to drug lifecycle and disposal

- Participatory rural appraisal research design in the Okavango River ecosystem, vector borne disease endemic region in north western Botswana.

Glaring data gaps

Disposal and monitoring of clinical and non clinical waste including pharmaceutical waste from households and health as has well

- Sampling debris from Shakawe dumping as a case study would provide useful baseline data and context specific insights regarding malaria and other drug waste disposal in environmentally sensitive the Okavango Delta.



Thank you so much for your
attention !!!!! Kea leboga