

CEPF Lubombo Waterways Report

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1. Background To The Report

Based on continuing work on the Phongolo Floodplain, field trips to Swaziland and more recently to Southern Mozambique (see Appendix 1) – this report attempts to draw together the various components that constitute a broad

based environmental and economic platform from which a range of initiatives are possible.

As per the CEPF Maputaland-Pondoland-Albany Eco Systems Profile finalised in April 2010 - the Maputaland-Pondoland-Albany Eco System constitutes a Biodiversity Hotspot that spans an area of nearly 275,000 km² and includes portions of South Africa, Swaziland and Mozambique.

The Lubombo Waterways as a small system within the whole also includes portions of South Africa, Swaziland and Mozambique. Although the waterways is part of the larger hotspot, for proximate planning purposes it needs to be considered within the geographic context of a contiguous system of eco zones that comprises the Maputaland sub system.

As stated “The Maputaland-Pondoland-Albany Hotspot is one of the biological wonders of the world, with globally significant levels of diversity and endemism and ecosystems that characterize the world’s image of Africa. The threats to this unique region have compelled significant global, national and local commitment to make significant investments in its conservation.”

What needs to be considered however, is that a number of conservation efforts have been thwarted by the reality of poverty, increasing population pressure as well as political, livelihood and economic opportunities driving people into areas of high biodiversity value, often illegally. The intensification of substance activities to meet cash needs, the cultivating of commercial crops in critical eco zones, the plunder of resources through over harvesting and poaching with various tiers of government either unconcerned or unable to enforce legislation – is culminating in irreparable damage to Maputaland’s ecosystems. Some segments within these ecological zones have most likely reached a point of no return.

.....CEPF Support to the Lubombo WaterWays Programme

As has been reported previously, the scope of the CEPF supported programme was extended beyond the Maputa River to include the broader Lubombo WaterWays Programme, which in turn is part of the Maputaland.

The broader waterways programme, which started in the early 90's was shelved and has now been resuscitated. The waterways programme is intended to explore economic and ecological linkages on the Usuthu, Phongolo and Maputa Rivers within the broader Maputaland region. The Phongolo and Maputa Rivers make up the major waterways of Maputaland and with the Usuthu, straddle the Lubombo Transfrontier Conservation Area (LTFCA) also referred to through its economic developmental objectives as the Lubombo Spatial Development Initiative (LSDI).

The objective of the Lubombo WaterWays Programme was to introduce a transfrontier conservation and development programme based on joint management of the waterways by the authorities in the three countries.

2. History of Resource Use

The most significant migration and movement of people from Mid to Southern Africa occurred in the period referred to as the Mature Iron Age between 1 000 to 2 000 years ago. .

This period was the most formative for Southern Africa accounting for cultural adaptation to ecological factors before the increasing impact of external factors such as trade and the colonial scramble for Africa. (Poultney – unpublished expanded historiography of Maputaland)

Archaeological evidence profiles the increasing mobility and influence of “agro-pastoralist” people in the movement of language and material culture, supported in more recent history through oral and manuscripted records. Advances in technology and environmental adaptation led to the formation of social and political systems where sedentary populations, many the remnants of Stone Age period were invaded, assimilated or subjugated by stronger polities. Polity used here refers to social and political structures that emerged in response to better control over socio-economic and environmental elements with increasing impact and threat from less controllable external developments.

Iron spear and hoe heads for example, enabled more effective command over the environment and more effective farming. Surplus food production in turn supported specialisation through metal smiths and other artisans supplying tools and weapons to develop stronger and more competitive polities.

.....**Resource Use in Maputaland**

Prehistory, is captured in the excavations of Border Cave in the Lubombo Mountains above Ndumu. Stoneage and Iron Age implements date back through various archaeological layers where 69 000 implements dating back 110 000 years and five fossils of homo sapiens sapiens were uncovered.

Later Stone Age and early Iron Age indicate sophisticated social and spiritual systems with evidence of a range of wildlife and natural resources from large animal species hunted on the savannah to fish and whale fossils caught from the sea.

Hunter-gatherer and survivor are the characteristics that personify the region where larger groups of Mature Iron Age Embo Nguni clans gathered in the region of Ndumu below border cave after the gradual migration from central Africa in the 1600’s. The largest group the eMalangeni then split into three of the major tribes which preceded the formation of the Zulu and Swazi nations. The remaining groups then merged with the other clans who came into the

region such as the Thonga clans who migrated down the coast from the headwaters of the Limpopo River.

Although the ecosystems of the region were inhospitable to man and domestic stock, to a large extent the environment protected those who choose to live there and escape subjugation during the rise and fall of the Zulu empire as well as the vicissitudes of Portuguese, British and Boer colonists.

The independence of Maputaland's inhabitants has been fiercely protected and survival still depends on sustainable interchange with the ecosystems in which people reside.

3. Ecological & Ecological Overlap – Inter-Zone and Inter-Dependency

The Lubombo Waterways and broader Maputaland region is a matrix of interconnected and overlapping resources and resource use. Local livelihoods have depended on the broader resource base to support socio-economic activities based on animal husbandry, crop cultivation, fishing and small commercial enterprise mostly linked to inter-ecological zone (inter-zonal) trade.

With environmental changes such as tsetse fly eradication and malaria control there was a more fluid movement of people across ecosystems.

Increasing cattle herds after the eradication of nagana caused by tsetse fly saw increased seasonal livestock migration from for example the mountainous zone of Ingwavuma and Swaziland to the water and winter pasturages on the Phongolo floodplain.

A similar pattern probably occurred where cattle from the Mambane area in eastern Swaziland abutting Mozambique, moved to the floodplains in the Catuane-Mayiseni area of the Usuthu and further onto the Maputa River.

Similarly, to the east of the Phongolo floodplain, livestock moved onto the floodplain during the winter months from grazing in parts of the Sand Forest and impermanent pans on the Muzi drainage zone which dry up in winter.

Traditional harvesting of wild foods, hunting of game, the harvesting of sedges, reeds and timber for homestead construction has been inter zonal. Agricultural pursuits saw and still see people with fields on the floodplain where traditionally flood recession agriculture and slash and burn farming was practiced, also with fields in the sandy soils off the floodplain where crops such as ground nuts, sweet potatoes, cassava and millet are grown.

Spreading risk and the use of a wider range of resources has been part of livelihood strategies. Trade was also conducted across zones. For example trade in *injemane* (palm wine called *ubusulu* in its natural form) occurred across zones trading palm wine for fish or various food produce which do not grow well in the Muzi Drainage and coastal savannah where the iLala (*Hyphaene coriacea*) and iSundu (wild date palm - *Phoenix reclinata*) palms grow in abundance.

Historically the resident population called the “coastal clans” traded valuable wildlife product and farm produce out of the area with dominant elites such as the Zulu, to maintain their independence rather than submit to subjugation.

In a similar manner, current ecological and economic solutions need to be sought in the broader regional context.

3.i. Tourism Sector :- Inter-Zone and Inter-Dependency

For the purpose of the Lubombo WaterWays programme the *tourism industry* has been deemed to be the most strategic common economic sector. Tourism is the least environmentally destructive with the ability to be practised in all ecological zones and having the potential to provide the most economic benefit in remote rural areas.

With a traditional trade in goods to supply markets, tourism related enterprise should flourish by bringing a market, i.e. tourists, into the area to buy services and tourism related product ranging from accommodation to activities and artefacts.

As per the Convention on Biodiversity (CBD) in recent 2015 Guidelines on Biodiversity and Tourism Development¹ -

“Tourism has been identified as a priority sector for development of the vast majority of least developed countries and small island developing states, and has primarily been responsible for the development of such countries as Botswana, Cabo Verde and the Maldives. In terms of tourism volume, according to the World Tourism Organization, developing country destinations have grown twice as fast as destinations in developed countries, a trend that is expected to continue. Travel to developing countries, approximately 47 per cent of the total volume in 2011, is expected to grow to 60 per cent by 2030.”

However as a sector, as with the biodiversity profile, tourism opportunities on the Lubombo Waterways need to link to tourism in the broader region as was abundantly clear in an industry analysis of Maputaland undertaken by TBCSA in 2006 (*see Appendix 1*).

Without a primary “must see” attraction, Maputaland needs to cluster its array of attractions and activities to develop a competitive destination. Having interacted with tour operators in each of the countries and in different parts of the region – there is a realisation that cooperation in developing the destination is essential if the region is to compete in the tourism sector. Secondly, if tourism is to compete with other sectors that could eventually

¹ Foreword – “**Tourism Support for Biodiversity**” Braulio Dias Executive Secretary, Convention on Biological Diversity

eliminate tourism, such as sugar cane cultivation particularly in zones outside of the statutory protected areas such as along the waterways and in communal areas – tourism will have to provide feasible alternative economic options.

As reported previously after a trip to Swaziland in 2014 –

Swazi Component CEPF supported Lubombo WaterWays Programme

In brief what the operators are agreed on, are transfrontier circuits. There seems to be agreement that in order to develop a competitive destination – product, activities and services need to be clustered and packaged in an innovative manner. The region does not have a stand-alone unique selling point, but rather a rather a range of complimentary attractions which in combination could offer superb value to the market.

The Maputaland region's location next to Swaziland and Mozambique as one of the Trans Frontier Conservation Areas (TFCA's) was primed for trans border development supposedly to be launched through a the Lubombo Spatial Development Initiative (LSDI).

A strategy in order to position the TFCA's as a premier international tourist destinations, was proposed in a strategy paper². Whether in the first phase to leverage off the 2010 football world cup or in the post 2010 phase, the attractions, activities, plant, product and all tourism related elements needed to be clustered in a coherent manner.

Clustering the various essential elements into a coherent destination, would firstly attract business into the region to establish and develop the product offering and secondly attract tourists into the region to use the product.

² Positioning the SADC TFCA's as Africa's premiere international tourism destination A Strategy paper – Phase one – 2005 to 2010

This was not done so the Lubombo TFCA remains an incoherent, uncompetitive destination. Additionally there has been little effort to attract the type of reputable private sector operators into the area who would be able to develop the product base to competitive satisfaction and standard and help market those products in developing a distinctive but diverse value proposition.

Tourism needs to be structured along a continuum that stretches from the demand side, essentially the market end, to the supply side, the provision of tourism amenities to meet the demand developed in the market.

At the market end of the continuum there is a need to create a coherent demand for the range of products, services and activities on offer within the transfrontier destination.

Branding, market positioning, market segmentation, market targeting and other functions required at the demand end are designated to elevate the destination into the global arena and sustain its long-term performance as an international and regional competitor and iconic brand.

Thus in terms of developing the demand for people to come to the region there is not much innovation to attract tourists and at the supply end there is very little to ensure that tourism amenities and activities meet the requirements of global competitiveness to service that demand.

3.i.i Tourism Development

In a recent survey undertaken by the UNWTO (United Nations World Tourism Organisation) called **Towards Measuring the Economic Value of Wildlife Watching Tourism in Africa** Briefing Paper – tourism as a lead economic sector in Africa is appraised in terms of its dependency on and interconnectedness with environmental factors.

Although focussed on measuring the economic value of wildlife watching the brief addresses a range of interconnected elements and has a stab at measuring the value added to tourism through biodiversity conservation.

Poaching and Tourism

The results of the survey reflect the serious concern of both governmental institutions and tour operators related to the poaching crisis and its negative impact on tourism. It is clear this criminal activity is viewed as a threat to the long-term sustainability of tourism and potentially jeopardizes the development opportunities linked to the sector. Pg. 30

3.4.2 Poaching has a negative impact on the tourism experience

Out of the 46 governmental institutions that replied to the first question, 93% confirm that there are problems with poaching in their countries or in their protected areas. The majority of the governmental institutions state that terrestrial mammals are the most commonly poached (70%). Marine wildlife and birds are threatened to a much lesser extent (indicated by 25% and 30% of the participants respectively). Other species were mentioned by 5% of the governmental institutions that replied.

- Poaching decreases wildlife populations and adversely affects ecosystems;
- Poaching has a deteriorating effect on the tourism experience: reduced wildlife populations and changes in animal behaviour diminish the chance to observe wildlife. Animals become shyer and are harder to find and approach;

- Bad sightings occur (carcasses, rhinos without horns, marked animals, slaughtered and living animals on sale) that significantly affect the tourism experience;
- Poaching threatens security. Shootings in the parks, no-go areas, warning signs, encounters with poachers and armed anti-poaching patrols make tourists feel unsafe or are put in actual danger;
- It creates a bad image of a country or a destination and therefore fewer tourists visit the places affected by poaching;
- Anti-poaching measures are a big financial burden for the protected areas and countries in general; and
- Poaching results in lower numbers of tourists, reduces tourism receipts and affects the long-term sustainability of tourism. While a majority of the tour operators state that tourism is affected by poaching, of the 145 tour operators that replied, 49% state that they fund anti-poaching initiatives pg. 31.

On the positive side however the survey continues :-

From a policy perspective, it is important to note that over 30 African countries have identified tourism as a national priority within the Enhanced Integrated Framework (EIF³). This underlines that tourism is considered a priority sector for many African countries and much hope is put into future tourism development as a vehicle for economic growth, job creation and poverty alleviation pg 11. The multiplier effects on local and national economies due to the broad range of goods and services included in its value chain have benefits beyond generating income and revenue pg.12.

³ The Enhanced Integrated Framework (EIF) is a multi-donor programme, which helps least-developed countries (LDCs) play a more active role in the global trading system. The programme has a wider goal of promoting economic growth and sustainable development and helping to lift more people out of poverty. It is strongly linked to UNTWO.

Research related to pro-poor tourism and experiences have demonstrated the functions of tourism from the perspective of sustainable development and poverty alleviation :

- Tourism can support the transformation and diversification of national economies;
- Tourism can be developed in remote areas and developing regions that do not offer other export options;
- Tourism is a labour-intensive industry and can create decent employment for women, young people and marginalized populations;
- Cultural and wildlife heritage is one of the assets of many developing countries that can be harnessed for economic development; and
- Tourism can create net benefits and offers a wide range of opportunities for micro, small and medium enterprises (MSMEs). Pg 13.

Interconnectivity – economic and ecological resources

There are 6 contiguous terrestrial and one marine zone running from KZN across into Mozambique. Considering the ecological damage that is happening in the south such as on the Phongolo Floodplain which from its confluence with the Usuthu becomes the Maputa River and its floodplains - it is critical that similar developments are prevented elsewhere in the TFCA.

The Phongolo floodplain is being irreparably overrun with sugar cane farming (illegally) and similar developments should not happen on the Maputa floodplain and foreclose more environmentally sustainable opportunities such as tourism.

To support economic development through tourism, circuits or routes are the most practicable and strategic way to both use the unique ecological zones as a feature to create a competitive destination and to protect biodiversity in those ecological zones.

The concept of *tourism routes* have been successfully developed elsewhere around the world, and as noted by Meyer (2004: 3),

“The essential concept of route tourism is simple, namely that of the linking together a series of tourism attractions in order to promote local tourism by encouraging visitors to travel from one location to another. The characteristics of routes can vary considerably in terms of length and scale, themes and visitors attracted⁴.”

Meyer was part of the research team on the Pro Poor Tourism In Practice Southern Africa Pilots programme ⁵, where it was found that routes and rambles were suited to, particular in combination or in adding value to, conventional product.

She then pursued the concept of rural trails or heritage routes throughout several regions of the world particularly in the context of promoting rural tourism.

In general, routes are initiated with one or more of the following objectives in mind:

- To diffuse visitors and disperse income from tourism;
- To bring lesser-known attractions and features into the tourism

⁴ Meyer, D., 2004: *Tourism Routes and Gateways: Key Issues for the Development of Tourism Routes and Gateways and Their Potential for Pro-Poor Tourism*, London: Overseas Development Institute.

⁵ Ashley CA, Poultney C, Haysom G, Harris A, MacNab D, September 2005. *Tips and Tools for Southern African tourism companies on local procurement, products and partnerships*. Four manuals produced by Business Linkages in Tourism (BLT) and ODI (Overseas Development Institute) in collaboration with Tourism Business Council TBCSA, Department of Trade & Industry DTI, DEAT Department of Environment & Tourism, supported by IFC (International Finance Corporation – the commercial arm of the World Bank)

business/products;

- To increase the overall appeal of a destination;
- To increase length of stay and spending by tourists;
- To attract new tourists and to attract repeat visitors; and
- To increase the sustainability of the tourism product

Since Meyers seminal work on “Tourism Routes and Gateways: and their potential for Pro-Poor Tourism”, there have been a number of studies appraising critical success factors.

In order to provide a coherent route framework and safeguard the interests of tourism adherents in the region, which includes unlocking new opportunities for community based stakeholders through developing circuits and routes – there is a need for a strong, functional stakeholder structure.

Unfortunately however, attempts to establish effective tourism associations for the region have been fractious and dysfunctional.

Again there is precedent in Meyers work where strong stakeholder participation is one of the essential prerequisites to successful and sustainable route development. The underlying need for strong stakeholder structures is that, as with developing a regional Lubombo destination, the initiative needs to be predicated on how each country and each stakeholder can achieve more in combination than on its own.

Thus, with a strong stakeholder structure, transfrontier routes will better achieve what individual operators cannot achieve even if they are competitors. Furthermore, a strong destination will attract a larger volume of tourists and bigger tourism spends. This, in turn, will enable individual operators to compete and diversify within in a larger market with more diverse market segments.

More employment and work opportunities would accompany tourism growth and contribute towards reducing pressure on resources. In the absence of less proximate livelihood options, communities derive their livelihoods from the immediate external environment. In an attempt to meet cash needs they intensify subsistence farming with little economic gain and massive environmental destruction.

KAZA Master Integrated Plan and reliance on the immediate external environment.

A larger TFCA, the Kavango Zambezi TFCA, KAZA, covering nearly 520,000km², the KAZA TFCA is set to become the largest transfrontier conservation area in the world.

KAZA's total population is estimated at 2,677,086, giving an overall population density of 5.15ppkm², with the majority of people living in the 29% of land that is not protected for wildlife. In the last two decades, population growth has tended to be high, averaging 2% per annum and, this has given rise to human encroachment and increased human-wildlife conflict especially where the unprotected land borders protected land.

A 2014 livelihood baseline survey highlights the extent to which communities derive their livelihoods from the immediate external environment. However, it also highlights that this environment is affected by trends, shocks and seasonality that can lead to the destruction of assets both directly and indirectly. The most common threats to livelihood assets are human wildlife conflict, human health, animal disease, floods and droughts, as well as variable rainfall. Master IDP – September 2014 Page 4 of 25

Thus growth in the tourism and tourism related sector would be a plus for community benefit and conserving biodiversity on which this type of tourism is dependent.

A structure of tourism stakeholders will be invaluable in contributing their

knowledge, experience and expertise to various facets of tourism development.

To this end a *transfrontier tourism development association* needs to be considered in concept and then strategically structured.

Discussion with some of the operators in the region has elicited strong support for such a development.

A tourism association per se is difficult to structure in a strategic manner since experience in the area has shown that bogus and opportunistic operators are quick to ensconce themselves in such an association to gain credibility or legitimacy. Thus besides a tourism development association going broader than simply an association of private sector operators there needs to be criteria that attach to membership.

3.i.i.i Transfrontier Tourism Development Association in support of Biodiversity.

Thus a *transfrontier tourism development association in support of biodiversity* made up of private sector operators and associations, national tourism boards, as well as government agencies, ngo's and in particular communities, could go a long way in making the interdependency and link between tourism and biodiversity more prominent and sustainable.

As per the Convention on Biodiversity (CBD) in a recent 2015 Guidelines on Biodiversity and Tourism Development publication – “Developing countries are the stewards of the vast majority of Earth’s biodiversity, and this provides their tourism industry with a competitive advantage”.

Even with the WTO pronouncement that travel to developing countries, approximately 47 per cent of the total volume in 2011, is expected to grow to 60 per cent by 2030 – experience demonstrates that the natural resource base is under constant threat. Poaching and the movement of ecological contraband is testimony to this.

3.iv. Water Management

Water management is far more complex since it is not reliant on private non government agencies as its operational core. It nonetheless is critical that a development association supports the interests of its members in a sector such as tourism, where it can advocate, leverage and bring pressure to bear on government and other water users.

At a recent extraordinary meeting requested by the Mboza Trust, the current circumstances of the Imfunda yoPhongolo Water User Association were discussed and appraised. The extent of its powers and position with regards to developments on and in the proximity of the Phongolo Floodplain and the impact on the water resource in terms of abstraction and water quality was discussed.

Rumours of plans to increase abstraction above the dam, a range of proposed agricultural developments on Phongolo Floodplain itself and developments downstream in Mozambique – are critical in this regard.

The recent field visit to Mozambique (see Appendix 2) confirmed that there are definitely developments such as rehabilitation of rice paddies by a Chinese work force on the Maputa River Floodplain, that will impact on the size of the floods released. Irrigation equipment that is being installed on the floodplain will be damaged by flooding.

As with increased abstraction of water above the dam, there would be less water released into the entire floodplain. With reduced peak flood levels floodplain pans will not adequately fill. If pans are not filled this would create hardship for domestic stock in getting water and make it difficult for people to collect water for home consumption. The potable water systems established through the Shemula Water Scheme and Amanzi Trust that abstracts water from the Phongolo, is in a derelict state of repair with no supply of water to many homesteads in the vicinity of the pipeline or with water erratically available at water points.

This situation will also need to take into consideration a proposed hydro electric plant on the Usuthu River Gorge and other development in various locations on the Lubombo WaterWays – Phongolo, Usuthu, Ingwavuma and Maputa Rivers.

On the Phongolo Floodplain itself confusing and conflicting statements abound through 3rd parties about the rehabilitation of the Shemula Water Scheme, the Makhathini Master Plan, the Mfongozi Nondabuya Irrigation Scheme, the Mashabane Community Conservation Area and various other developments that all require water supply. These developments need to be verified and their impact assessed, since for the most part except for the Mashabane Community Conservation Area, they have not been reported to the IUWA, which is the official statutory partner to DWAS.

Thus if the IWUA⁶ is to perform an effective public function it needs to do an investigation of all proposed developments above the dam, on the Phongolo Floodplain and downstream in Mozambique.

There is already a major conflict between sugar cane farmers and stock farmers on the floodplain where cattle are being prevented to water at pans and on the river, and have been denied access to traditional winter pasturage (cynodon dactylon lawns that emerge as the pan levels drop) on the floodplain which is being inundated by sugar cane. The result is cattle dying from thirst and starvation, which could be prevented.

Sugar cane and other commercial crop growers are also aware that commercial crops like cane and cotton are being illegally grown on the

⁶ Imfunda YoPhongola WUA was declared a Water User Association by the DWAF Chief Director of Institutional Oversight in February 2007 (Government Gazette No.29611 Notice No.127 of 16 February 2007). As a new Water User Association characterized by historically disadvantaged individuals in the form of subsistence and emerging farmers, there is a critical requirement of financial assistance to enable its operation. (See Appendix 1 Water Research Commission)

floodplain. However in the absence of alternatives such as access to finance for irrigation, they claim they do not have options.

Recourse to the National Environmental Act in addition to understanding of the National Water Act is a basic requirement for the Water User Association for it to determine what sorts of development are desirable and legal. The IWUA must be able to reconcile developments that require water with the needs of their community based constituent users.

Thus at the meeting of 14 July 2015, IWUA management resolved that an inventory of current and planned resource use be carried out to accurately locate various developments and assess what their impact is / might be. A proper inventory of environmental and economic use and its impact needs to be undertaken. This can then be committed to more detailed analysis through system such as LUCIS – Land Use Conflict Information Systems development by the University of Botswana.

The Water Act and Water Research Commission stress that a major function afforded water user and catchment management agencies is to assess what impact any development will have on the water system. Provision is made for these organisations to do impact assessments and bring in experts to advise.

Where a tourism development association is important is that the IWUA has certain statutory rights associated with water management. These rights and responsibilities are derived from the National Water Act where the IWUA is designated as the statutory partner of the Department Of Water Affairs and Sanitation and through its participation on the broader uMzimkhulu Phongola Catchment management agency.

**Business case for the Pongola-Umzimkulu catchment Management Agency
Nov 2012.**

Stakeholder participation pg 18/19

As has been mentioned above, stakeholder participation in water resources management is required by South African policy and legislation, but also by international best practice. Participation of stakeholders is necessary to find appropriate and acceptable solutions to a number of the complex issues facing water managers in the Pongola-Umzimkulu water management area.

Both public confidence and stakeholder participation are mutually reinforcing objectives where one strengthens the other to create a synergistic relationship. Stakeholder participation will ensure that the needs for use of water resources are provided as best expressed by the stakeholders. Mechanisms put in place must promote ongoing and continuous engagement with stakeholders and between stakeholders, and particularly with historically disadvantaged communities.

4. Conclusion

There is an urgent need to consider ways in which to shore up resilience of the waterways and broader regional Maputaland ecosystem to prevent the onslaught of destructive agribusiness and other damaging and often, illegal developments. Various conservation and legislation measures that attach to the Lubombo TFCA and SDI need to be mobilised. However, what is also critical, is to afford people whose livelihoods are intimately connected with those eco systems the opportunity to participate in conserving the systems they are dependent on. In particular, equitable measures need to be implemented through community based organisations such as the Water User

Association to include those who have become increasingly marginalised in the face of agro industry such as sugar cane cultivation and similar developments. Those marginalised are dependent resource users such as fishermen, women, stock owners, subsistence farmers and traditional healers who rely on the health of the resource base for their livelihoods.

Under representation or lack of recognition of these users and being made to look inferior by dominant groupings with more powerful economic or political linkages and agendas –

is how newly introduced dominant and destructive practises have been able to permeate the eco systems and damage the resource base to the detriment of other dependent users.

An Ecosystem Services for Poverty Alleviation investigation on the Phongolo floodplain in attempting to quantify the economic benefits accruing to different livelihood sectors from the water resources of the Pongola floodplain states :-
“the study identified the lack of structured and effective governance as a key threat to ecosystem services in the region.

In addition, the management of flood releases to support a single sector economy again illustrates a trade-off to enhance a particular provisioning service at the expense of the less tangible regulating and supporting services. The lack of attention afforded to ecosystem regulating and supporting services may result in a lack of resilience and render the socio-ecological system on the Pongola floodplain more vulnerable to environmental change or extreme events such as droughts and flooding.”

Pg. 1258 7. Conclusions – PRESIPA in the Journal of Environmental Planning and Management – 2011

Besides derogatory and derisive attitude of some commercial farmers for example, other users are actively intimidated and humiliated without recourse to good governance. Constantly at meetings these dominant dismissive attitudes persist where it is claimed to Water Affairs or other government officials that for example people don't fish any longer. This is absolute untrue, however for perfunctory officials who make decisions about the floodplain but don't venture onto it – this works out well. For that reason WUA meetings like the recent one convened by the Mboza Trust are imperative to allow all users equitable opportunity to represent their user constituency. In rushed meetings convened by incompetent DWAS officials the purpose of flood releases, dominant voices drown out and marginalise users who have needs that differ from their own.

Collateral damage experienced by marginalised users for example occurs in their cattle, donkeys and other livestock being run over, injured or killed by sugar cane haulage trucks with no compensation. Rutted roads being are damaged by these trucks causing taxi operators to increase their fares, with even the cane farmers themselves complaining about the criminal costs levied by the haulage operators to transport their cane to the sugar mills.

It is imperative that a community-based structure like the Water User Association be supported through international agencies and donor funding to escalate their role to lobby government and industry on behalf of their constituents. The business case is that in the longer term an expanded Water User Association along the waterways would be able to collect and manage revenues and levies from abstraction and other use functions that are remunerated.

The role of a *transfrontier tourism development association* would have influence within the IWUA and is a first step to making economic and ecological links across the border into Swaziland and Mozambique. This in turn would encourage other constituent users to make the link across the

waterways to influence policy and water management and look after the needs of its members.

Appendix 1

The first tourism inquiry aligns to two tourism feasibility studies in the Umkhanyakude region undertaken by Tourism Business Council of South Africa (TBCSA) in 2006 which posits a cluster approach to tourism succeeding in the region. The cluster plan would consist of a regional network of tourist activities, attractions, regional features and ecological biodiversity, linked through essential infrastructure and access. For the Maputaland region to function as a tourism destination it is essential that products, services and activities are clustered and circuits introduced since the region does not have one unique selling point but rather a series of selling points that need to be combined and aligned.

The second is a feasibility undertaken by Fair Trade In Tourism SA (FTTSA) and associated organisations such as Business Linkages in Tourism (TBCSA) and Harvest Tourism which looked at the viability of “Heritage Homestead” as a product and brand at Mboza and at Qunu in the Eastern Cape. Again the findings concurred with clustering product and service around a range of facilities and activities aimed at different market segments to spread risk and offer diversity through the natural and cultural resource base.

Appendix 2

A recent expedition to Southern Mozambique organised by the Mboza Trust, included Zeph Nyathi (Mboza Trust and Chairman of IWUA), Charel Bruwer (hydrologist previously from DWAS and part of establishing the Phongolo

Water committees in 1986) and Clive Poultney (Mboza Trust IWUA management committee – tourism portfolio) and Jonson Mlambo a former senior guide and manager at Wilderness Safaris

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