

PROGRESS REPORT

Exploring Future Ecosystem Services: A Scenario Planning Approach to Uncertainty
in the South East Lowveld of Zimbabwe

by

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Introduction

This report outlines progress made under the project entitled 'Exploring Future Ecosystems Services: A Scenario Planning Approach to Uncertainty in the South East Lowveld of Zimbabwe' which received funding from WCS-AHEAD Seed Grants Programme. The report includes activities carried out between January and August 2009. The report gives insights derived from empirical data from three wards located the South East Lowveld in Zimbabwe. The research explores the complexities of local level participatory planning in the context of the Great Limpopo Transfrontier Park, focusing specially on selected villages within three wards. The long term aim of using participatory scenario planning is to give local populations neighbouring the GLTP an enhanced ability to adapt and change to the challenges and opportunities in the implementation of the TFCA. The implementation of the wider GLTFCA thus far has been characterised by high uncertainty and complexity requiring innovative approaches that allow for stakeholders to explore their plausible futures in a participatory manner and call for negotiation in the policy arena. This is exacerbated by the fact that there appears to be mismatches between ecological and institutional scales which affects decision making and policy on the TFCA. The study argues that participatory scenario planning can afford an opportunity for resources users are given envision and experiment on finding alternative solutions or plausible futures for their regions or localities. Once achieved, this not only contributes to empowerment of marginalised local populations but also assists in shifting the balance of power between or among resident communities in the GLTFCA on the one hand, and governments, developers and on the other. To date, the evolution and implementation of the GLTFCA has been embraced differently by various stakeholders in the Lowveld. For the state and private enterprises (e.g. commercial ranchers) transfrontier conservation areas are viewed as an economically attractive and ecologically sustainable land use option for drought-prone marginal lands. A high proportion of subsistence farmers currently have high expectations for development of their remote areas in light of the GTFCA initiative but nevertheless feel threatened by the possibility of being sidelined or even dispossessed of their land and resources and hence livelihood opportunities. It is against this that participatory scenario planning is being used to explore the potential alternative futures for the SEL as a coupled socio-ecological system. Such an approach lends credence in that until there is a proper understanding of the plausible futures for the South East Lowveld, local communities will always treat it with suspicion and their understanding of benefits streams and alternative futures will be vague.

This study for which the Seed Grant was received aims at generating insights and we argue that exploring alternative scenarios for the development of the South East Lowveld is critical for the TFCA evolution itself as success will very likely depend on co-operation amongst stakeholders. From meetings and workshops held in the three wards to date, it appears scenario planning offers a promising collaborative approach for building resilience to the future's unpredictability through providing an opportunity to local villagers to develop scenarios for the future of ecosystems services and their relationships to human wellbeing. This report details results from a preliminary assessment of issues at stake and this information will be useful in further work on integrating scenarios that emerge from local and higher scales¹. Although, the intention of the research is to explore cross-scale interactions, this has not been achieved partly due to the study's focus on understanding more the complexities of the methodology at a local level.

Objectives

The research's overall objective is to develop insights on the dynamics surrounding local level participatory scenario planning and explore how this can enhance self organisation, learning and empowerment of marginalized stakeholders and promote negotiation within the GLTFCA. The objectives of the research are:

1. To explore key livelihood strategies of Sengwe Communal Area and provide an overview of key TFCA developments likely to affect them
2. Develop community scenarios and relate the community scenarios to higher level scenarios developed for the GLTFCA on concerns such as livestock/veterinary disease control, tourism etc with the aim developing multi-scale scenarios for the GLTFCA in the long term
3. To explore and define the key system processes, drivers and interactions for the future of the Lowveld using participatory scenario planning methods
4. Highlight key lessons and make comparison across wards from the preliminary scenario exercises.

¹ A draft paper is being prepared and is available for circulation on the experiences of local level scenario planning processes in the entire GLTFCA. Although focus has tended to be at local scale, the next phase of the work will be on promoting a stakeholders engagement programme so that community scenarios can also relate to higher level issues affecting the entire GLTFCA with a focus on the South East Lowveld.

Project Progress

The project has progressed very well up to August 2009 and addressed partially the objectives stated in the proposal. The focus of the seed grant has been to support on site PhD research and generate useful information for the regional CASS project on livelihoods of people in the SEL, key drivers of change and develop (in a participatory manner) community scenarios and relate them to concerns on livestock/veterinary disease control, tourism development among other issues. Methods used for data collection included key informant interviews, focus group discussions and institutional mapping, community historical profiling and literature review of previous work on the area. The study also benefit from research assistants who were recruited from the study area and trained on the basic skills and methods for conducting research. These research assistants (or local facilitators) were particularly trained to stimulate creative thinking on issues affecting their areas in the context of the GLTFCA. Key informant interviews were conducted with councillors, headmen, village heads and RDC executives, chairpersons of communities (Malipati Irrigation Scheme, Sengwe Vamanani Crafts Association etc) representatives of development associations such as the TSDA and Malipati Development Trust. The next section provides details on the key livelihood characteristics and strategies of the people in the three wards. After the livelihoods characterisation, the process and experiences of building scenarios in the three sites is discussed. The last section discusses the project challenges to date.

Livelihood characteristics and strategies

The Sengwe Communal Lands are generally regarded as critical in the development of the TFCA concept in that it espouses the characteristics of a multiple land use zone. The Sengwe area is important in that it provides the link through the Sengwe Tshipise corridor, which is a very strategic land area in terms of the Great Limpopo Transfrontier Park (GLTP). The area is characterized by low rainfall and frequent droughts which threaten household food security and negatively impact on crop and livestock production.

Institutions and political history

Traditionally, ownership of land in the community is based on kinship, but vested in the traditional authority in the area which in this case is Chief Sengwe. Chief Sengwe is assisted by substantive headmen (*sadhunhu*) Gezani and Samu. Village heads (*sabhukus*) and

councilors play an important role in controlling access to resources like water, land and grazing and other forest products. Presently, various types of land tenure arrangements were encountered in the community. These include family land inherited through lineage: family land inherited through paternal lineage, spouse' family land, land rented or leased.

In terms of village histories, information obtained from archival material and through oral interviews shows that the original inhabitants of the area were reported to have been the Baloyis and Pfumbis. They were subsequently displaced by various Hlengwe (Shangaan) people, particularly the Chauke's, who migrated to this area from further south in Mozambique and South Africa in the 1950s. The motivation for these movements appears to have been to escape tribal wars in their former areas. The present ethnic diversity is largely as a result of migration. About 75% of the population in the three wards are Shangaan, 15% are Karanga, and Ndebele constitute about 7% while Ndau and Venda each comprise about 3% of the population. Culturally, there are strong linkages across the national borders and people share a common language which is Shangaan. Around Malipati, there is a significant minority of Ndebele people, who were moved to from Filabusi in 1954. The enactment of the Land Apportionment Act in the 1930s and subsequent legislation led to movement of people from the hinterland and settled in semi-autonomous villages within the Sengwe Area, predominantly occupied by the Shangaan and Venda speaking people. Apart from the Ndebele being moved into the area by the colonial government, Karanga people also moved in after initially being attracted by the area's potential for cattle production and later cotton.

The Shangaan are the dominant ethnic group and a few Venda, Karanga and Ndebele people. The Ndebeles and Karangas contest the religious, political and cultural authority of the Shangaan. The two groups are now calling for more authority over their lives and "areas" by openly defying orders to participate in circumcision events called by the Paramount Chief and (Chief Sengwe) his three headmen. Such conflicts also exist even in terms of harvesting of communal resources such *Hyphenea petersiana*. From interviews with village heads, it appears the Shangaan people monopolise its use by making a local beer called *njemani*. Though in some way destructive to the plants the product is highly valued both culturally and economically. Ndebele women, especially use the leaves of the ilala palm to make baskets and other artefacts for sale in neighbouring towns and to South Africa. The Shangaan claim

that they are indigenous to the area and tend to exclude other ethnic groups from harvesting such resources.

The inhabitants of Sengwe were heavily affected by the Zimbabwe liberation struggle and the war in Mozambique. The repressive and oppressive instruments of colonialism linger in their minds – with most people referring to “keeps” where villagers were forcibly moved into by the colonial regime to prevent them from providing support to the armed combatants during the liberation struggle. The social networks of family bonds between Shangaan in Zimbabwe and Mozambique and South Africa have persisted especially given the economic opportunities in South Africa with most households benefiting through chain migration. This type of migration occurs when migrants go to destinations where one already has relatives or friends who originated from the same area of origin. As the area is generally inaccessible, communities perceive the development of the GLTFCA as an opportunity for infrastructural development and especially providing an immigration route between South Africa and Zimbabwe. From interviews and FGDs, the people in the area consider themselves to be ‘one people’ maintaining cultural and family ties which are constrained by international borders. The proposed Crossing Point and bridge across the Limpopo River emerged as a major development a majority of the people are expecting as part of the GLTFCA initiative.

Cultural differences determine the means of production, accumulation, consumption and social networks for different households. These in turn shape the nature of social organization and perception towards various livelihood strategies. It appears conflicts are multi-layered including those over fertile Banyini soils, grazing for cattle, access to borehole water for cattle and people, as well as political authority and cultural practices such as circumcision. Circumcision ceremonies held by the Shangaan for both men and women are a strong force that influences one’s belongingness to the way of life. Conflicts are sometimes over such traditional practices with people from other ethnic groups (such as Karanga, Ndebele and more often Shangaan themselves) defying orders to undergo circumcision. Male circumcision is locally known as *Hoko*; although women are not circumcised, they attend the *Komba* which is a ceremony where young women reaching adulthood are trained for womanhood. Women from other ethnic groups are forced to attend *komba* only if they marry Shangaan men. Males from non Shangaan ethnic groups e.g., Karanga and Ndebele are only asked to attend *Hoko* if they marry Shangaan women, especially daughters of Shangaan leaders such as chiefs and headmen, kraal heads or if they want to assume leadership

positions such as members of parliament or local leaders (*sabhuku*) or if they want to assume any other post that may expose them to lead Shangaan people. For these roles circumcision is eminent-can only be redeemed by receding the post or marriage. Such issues are causing conflicts among the different ethnic groups in the SEL finally leading to calls by the Ndebele especially to establish their own autonomy especially having their own headman.

Natural Resources and Land Types

The livelihoods of people living in the Sengwe Area are not homogenous but diverse and heterogeneous. The livelihoods of people are shaped by ecological, economic and institutional factors affecting them. These factors shape the relationships of people among themselves, local people and other actors and people and the resource especially those located within the protected area such as the Gonarezhou National Park. Heterogeneity is shaped and characterised by socio-economic differentiation such as origin of households, level of education, farming practices, sources of income (whether on or off-farm) and technologies employed and natural resource access among other factors. There is diversity at spatial and temporal dependence scales with resource extraction in some cases being occasional (only in time of needs such as in drought years), regular for specific seasons of the year and continuous where resources are important to people's livelihoods. Although recognising such diversity, it appears there are various types of natural resources utilised in the area which a key distinction make between resources located in the protected area (Gonarezhou National Park) and those under communal tenure. There is a key distinction made in terms of land types, between valley and upland areas. The valleys comprise the alluvial areas, which occur principally in association with major rivers like the Bubi, Limpopo and Mwenezi. The villagers distinguish three main valley types: *Pfungwe* comprises areas of thick riverine vegetation that occur immediately alongside rivers (but especially along the Limpopo River) and streams. *Bhanyeni* or *Gumbini* is a more open type, which where undisturbed is typically dominated by ilala palms (*Hyphanae petersiana*) which is used to make an illicit local beer called *njemani*. These plains occur further away from the main rivers and generally comprise older alluvial deposits, comprising soils of relatively high clay content and are highly prized for cultivation. *Liphaleni* comprises patches of saline soils, which support sparse vegetation dominated by salt bushes and interspersed by areas of short grass. This type is restricted to the Mwenezi river system. All valley units are prone to flooding. The ecological conditions prevailing are such that people are increasingly looking

for alternative sources of food and income as frequent droughts affects their livelihood options. From participatory mapping exercises conducted in with locals, resources considered to be important for sustenance include rivers, water pans, fish, ilala, reeds, honey, wild animals and mopane worms. Key resources utilised by both humans and livestock show a high degree of seasonal variations. Interestingly, forest resources appear to have a dual role: forest resources are harvested by households as a coping strategy to overcome shortfalls in periods of stress and as a survival strategy where resources are used for sustenance and informal financial asset used to cover persistent shortages.

Vegetation in the study area is predominantly characterised by woodlands comprised of mopane (*Clophomospemum mopane*) which provides useful forage to livestock especially in dry years. Mopane woodlands and mixed species shrubland are common in the area. Mopane worms (*Gonimbrasia belina*) are widely abundant as their distribution follows that of its primary host, the mopane tree. Mopane worms are a valuable source of protein at a household level but are also processed and sold within the villages and to neighbouring towns like Chiredzi and Beitbridge. Mopane worms show seasonal variations occurring usually from December to January and March to April. Apart from mopane worms, forested landscapes provide options for multi-enterprise livelihood strategies including harvesting of thatch and other non-timber products such as honey.

The area is sparsely settled with most villages having a low population density. The variability in rainfall distribution influences human settlements with most preferring to settle close to areas with rich alluvial deposits. Rainfall acts on water resources, grazing, livestock, and wildlife, fields (due to flooding and so stimulating opening of new fields in the uplands) and thus influences availability of wild fruits and ilala which are used especially in drought years. The liberation war impacted strongly in terms of human, livestock and wildlife populations. The availability of grazing influences both livestock and wildlife populations with livestock production more dominant in areas with enough grazing. The forced movements of people to protected villages (known as “keeps”) impacted on production capacities in the colonial era. The post-independence support that the area has received from donors such as World Vision has helped in building of infrastructure such as schools, clinics with humanitarian aid agencies continue to provide food relief in drought years and especially to vulnerable resource poor households and child headed households. Disease control programmes such as the erection of veterinary fences are an important landmark in

people's memory and even influence how they think about future efforts to controlling disease transmission within the GLTFCA.

Livestock production

Land use outside the protected the Gonarezhou National Park is predominantly subsistence agro-pastoralism and small-scale irrigation. Livestock production forms a major component of the livelihoods for most households in the three wards but is concentrated where there is availability of grasses such as *Urochloa mosambicensi*, *Brachiaria brizantha* and *Colophospermum mopane* leaves during the dry season. The area is serviced by the Veterinary Department whose mandate is on disease control and management. Livestock data from the Animal Health Centres in the wards show relatively high levels of ownership of cattle. For villages that own cattle, the mean number of beasts is about 15.5 per household. From interviews with cattle owners, it appears in areas especially further from the rivers and Gonarezhou National Park, grazing and watering of livestock are problems that villagers normally confront and in a majority of the cases, rely on well and boreholes for livestock watering. Most grazing is in valley plains and in drought years, the GNP is used for grazing of livestock. During wet season, cattle are kept in grazing zones away from fields and in dry season they graze in crop fields. For villages located close to the Limpopo floodplains, grazing is often in uplands during wet season and in the floodplains during the dry season especially around Sengwe Village². Livestock production is practiced and used as a livelihood strategy both at specialisation and diversification levels. Some households specialise in cattle production without cropping and these use livestock as a source of income for food security. Other households practice livestock production as a way of diversifying risks associated with droughts and do cropping of drought resistant crops such as sorghum and millet.

Cattle tick-borne diseases are mainly controlled by dipping which is performed regularly during the rainy season. The CIRAD Lowveld Livestock Lowveld project resuscitated dip tanks in the area and has various programmes underway to assess the level of human/livestock/wildlife interactions. Dipping committees exist at each of the Animal Health Centres have promoted dipping for livestock farmers and this has contributed to healthy

² The Limpopo floodplains are used by a majority of villages for grazing and fishing. At interviews and FGDs held in Lisenga, Hodela and Mpandle, the villagers were worried about the effects of fencing of the Limpopo strip on their traditional grazing areas and access to water in the Limpopo.

cattle populations as the frequency and efficacy of dipping has reduced the incidence of tick-borne diseases. There is an increasing awareness of threat of diseases at the wildlife/livestock interface, given the increased movement of wildlife into the Gonarezhou National Park especially during the dry season. Diseases commonly mentioned from interviews with livestock farmers include Foot and Mouth Disease (FMD), heart water and trypanosomiasis and Newcastle for chickens. Most livestock farmers mentioned that they received information from the extensive campaigns that are carried out by the Veterinary Department and also CIRAD. Watering of livestock is mainly done at rivers and streams during the wet season and wells and boreholes are used during the dry season. Cattle movements in search of grazing conditions and the future movement of livestock will be influenced by developments such as the erection of FMD control fences. From discussions held with livestock farmers, disease control remains one of the key challenges for livestock production. Other important issues were drought, losses to predators, theft and losses to landmines especially in Mpandle, Maguvisa and Dumisa villages. Mozambique is seen as an important market for cattle due to significantly higher prices than those obtainable in Zimbabwe. Cattle rustling activities are reportedly carried out by Zimbabweans and Mozambicans.

Crop production

Outside protected areas, landuse can easily be linked to the moisture gradient with the intensity of cultivation increasing especially with increasing distance from the GNP and the safari hunting areas. In terms of cropping patterns, maize dominates in the fertile and wet areas and sorghum, groundnuts, roundnuts and cowpea (*Vigna unguilata*) are generally grown in upland areas. Watermelons and sweet sorghum are planted in every field but with greater emphasis in upland fields. Cropping patterns and preferences vary with ethnicity of households with Karanga specializing more in maize and Shangaan and Ndebele oriented towards sorghum and millet. However, sorghum and millet tend not to be severely affected by periodic moisture stresses which characterize the area. Small scale irrigation schemes like the Malipati and Magogogo are important for household food security. Malipati Irrigation Scheme has about 120 plot holders with an average of 0.1 ha each. Irrigation scheme supports household and activities are more pronounced during the dry season when labour is available to work on the plots. The Malipati irrigation scheme is currently functioning below capacity largely due to high costs of pumping water and maintaining irrigation infrastructure (pumps, canals and pipes) and purchasing of fertiliser while Magogogo has been resuscitated

by local women to support vegetable production and ‘green mealies’ which are sold locally in schools and business centres.

Household Sources of income

From a sample of 120 households, 75 % of the household income is from sale of cattle as a majority of the population own livestock including goats. Remittances are also an important household income source. On average, about 80% of the people in Sengwe have family members – mostly sons – working in South Africa and these send money and goods. These migrants are mostly absent in the area but invest mainly in cattle and house construction. A vast majority of the villagers engage in cross border trade to South Africa and Mozambique. This explains why most villagers in Mupandle, Maguvisa, Dumisa, Kotswi and Sengwe among others, are supportive of setting up a border post close to the Chikwarakwara Business Centre in Beitbridge. Cross border migration determines the socio-economic welfare of households in the long term and has an impact on household composition in terms of headship and remittances which are often used to buy cattle and food especially in drought years. Migrants are often young men and women aged between 17-35 years and this affects household labour availability during the farming periods. For a majority of the cases, young married men spend long periods working in neighbouring South Africa. Cross border migration is particularly important for the Shangaan who view it as a maturity ritual. Ironically, recent data shows that cross border migration is not an all people affair as it is expensive: requires money for transport, food and bribes along the way. Migration out young men has resulted in a preponderance of female-headed households and widens the gap between rich households relying on remittances and poorer households (without remittances) who remain more dependent on agriculture and often poorly-paid wage labour. Household decisions drive the broader livelihood strategies and produce a great variety of micro adaptations, as function of: herd composition for those with livestock; livestock movements; seasonal cropping patterns; access to agricultural inputs (seed, labour); social arrangements affecting crop production (land tenure, communal institutions, economic differentiation, political power); cultural factors (crop and livestock preferences, religious prohibitions); level of commercialisation vs. subsistence goals. In general, household economies rely on a close integration of a wide range of resource management and production systems

Generally, there is great heterogeneity between livelihoods of households in the area and this is shown at a range of scales: between and within villages, land use types and between households depending on households relative access or location to key livelihood resources such as forests, grazing, park etc and between households in villages. This heterogeneity is shaped by a range of forces that change over time and household's capabilities to either cope or respond to shocks to their livelihoods also vary.

Exploration of key drivers and building community scenarios

To date, several community level meetings were held with assistance of field assistants to familiarize the villagers with the aspects of scenario planning and identify drivers of change which would be useful in coming up with generic community scenarios in each of the three wards. In February and March, the focus of the research team has been to introduce the project especially to traditional leaders (such as the Chief, headmen and village heads) and the focus over the past six months has shifted to understanding drivers of change in the three areas and generating community plausible futures. During introductory meetings, the common remark by communities in the three wards has been the slow pace of implementation of the GLTFCA in general and the increased realization of the importance of eco-tourism which was expressed also by the members of the Malipati Development Trust³. The intention of these diagnostic exercises was to generate as much useful information from the villages and then integrate the activities from each through bigger workshops were such exercises would continue. To achieve this, the study area was divided into five "sites", with each site having on average 4-5 villages neighboring each other to allow for relatively small groups that can hold meetings possible to decide on common interests. Generic names for these sites are Pahlela, Dhavata, Chishinya, Dumisa and Malipati and total number of households in each area are shown below.

General Area Name	Name of village	Number of Households
PAHLELA	Bhekani	75
	Jimson	51
	Makapakapa	43
	Mthombo	74
	Mahunze	68
	Masiya	77

³ A number of scenic sites are being considered by the Malipati Development Trust for tourism lodges. Also at Mashawu Hotsprings (07/05/09)

DHAVATA	Kotsvi/Dhavata	160
	Sengwe	62
	Chari	67
	Pfariseni	53
	Mupandle	75
CHISHINYA	Samuel	89
	Mbalati	38
	Matanasa	75
	Mapolisa	70
	Chinyakanyaka	95
DUMISA	Maguyaka	50
	Mugwambami	47
	Mugiviza	40
	Samu	75
	Chilothlela	97
	Chirhilele	33
MALIPATI		
	Manzini	117
	Mafunjwa	52
	Mlekwani	68
	Ngwenyeni/Wachi	67
	Haphama	49

Fig 1 Total Households in Villages areas under study

Key Drivers of change

Key drivers affecting the livelihoods of the communities in the three wards were investigated. So far the study has moved with the scenario planning process to indentifying key drivers of change at a local level and doing preliminary scenario building at community workshops at Malipati, Chishinya and Dumisa⁴. When coming up with drivers of change for the South East Lowveld in general, there was increasing the level of awareness and understanding of the complexity of the wider socio-ecological system. An appreciation of key drivers affecting helped in creating of visions “*muvono*” by the participants during groups. Drivers were identified with the locals and the level of impact of the drivers varied from local, national to regional. Political and macroeconomic drivers affected people in the sites in numerous ways especially over the past 20 years. In post independent Zimbabwe, the political instability of neighboring Mozambique and South Africa during the apartheid era dented peoples’ livelihoods. Political uncertainty and severe economic crisis over the past decade pose constraints to internal and transboundary resource arrangements especially in terms of implementation of initiatives.

⁴ Introductory meetings were done at Pahlela and Davhata. During the last visit conducted in August, meetings could not be held in the two sites because of circumcision ceremonies that were being held at Gezani and Sengwe respectively were all men are obliged to attend.

The poor financial performance of CAMPFIRE over the past five years has tended to make locals view the state and especially RDCs with suspicion in delivering services⁵. The weakness of state institutions and general collapse of the economy has pushed locals to migrating to South Africa and Mozambique in search of better opportunities to improve livelihoods⁶. The influence of external drivers on the system were least understood as the tendency by most participants in the scenario exercises was to focus on drivers that are more immediate. Capturing explicitly the major areas of uncontrollable uncertainty, which means unpredictable external drivers (e.g. climatic patterns, national economic growth, etc.) is also difficult when developing scenarios with people whose education and literacy levels are low.

The Sengwe area in which the study falls is generally fragile ecologically and receives less rainfall. This negatively affects cropping in the area and persistent water problems for livestock. Major uncertainty persists in our understanding of the extent and direction of change and causal factors and external drivers of change. Changes in the national policy context; government-led and/or development interventions in the management of resources within the area and changes in the external economic environment all have effect on the opportunities for locals who live in a transient mode: migrating to areas with opportunities now and again.

From the series of scenario building workshops and Focus Group Discussions held to date, identifying system drivers and their relationships helped in developing an awareness of possible shocks and surprises in the future. However, at two workshops held exploring these issues, the locals seemed not to have a solution except to refer to donors⁷. Details of these exercises will be compiled in the final report. What we also emphasized was the need to come up with resilient locally-crafted plans which can withstand the shocks affecting the region in general. Most interviewees noted that this can be achieved through involving communities in making decisions over their territories.

⁵ Expressed by Headman Samu 19/08/09 and during interviews with villagers who argue that they have not received any benefit from the programme since 2003.

⁶ Focus Group Discussion held at Samu School 19/08/09

⁷ Workshops held at Chishinya and Maose Primary Schools and attended by Bhazela, Samuel, Mapolisa and Mbalati villages. At these meetings people were afraid of being moved from the area (Meetings held 12 and 14 April 2009). Even well informed members of the Sengwe Development Trust were worried about removals to pave way for the corridor (interview with Mr D. Moyo 15/04/09)

Building of scenarios with communities

The primary purpose of building scenarios with communities in our case was for exploratory purposes and also decision support in the evolution of the TFCA. The adaptation of the methodology from the earlier projects and especially building on the successes and failures of past programmes as CAMPFIRE involved a long process of explanation, elaboration, and discussion with the local farmers and especially the leadership. We explained the rationale of using the methodology to our district level officials who are responsible for planning functions. We hope that through understanding alternative development trajectories and the impacts and interactions of the key driving forces of change mentioned above, we can influence stakeholders in numerous ways. When building local scenarios, we used both the forecasting and backcasting approaches to help locals in appreciating the complexities of their environments. In the backcasting approach local people selected desirable end points based on an appreciation of the key drivers which we helped to group when forming driver matrices. The ultimate aim was to generate identified sets of short to medium term plans (which we called strategies) aimed at achieving the desired futures. This method stimulated a critical reflection of key drivers affecting these areas as focus was given to local specifics that act as stressors to local livelihood systems.

Workshops started from mid morning and ended around lunch time and in all cases observed the cultures and traditions of the participants such as prayers before and at the close of meetings. Due to the difficulties of trying to explore alternative futures over long periods of time, we changed from also moved the scenario 'endpoint' was moved backward from 2050 to 2030, in order to better suit to the realities of the participants' conceptions. When looking at the future, we based the visions on a current understanding of the default environment and then used SWOT analysis to gain an informed understanding of the opportunities that can be harnessed by each community as the GLTFCA evolves. The process itself set out to actively engage key local stakeholders in a dialogue process in which they could discuss and create a series of different futures, as well as to propose a series of short-term actions and policy options in accordance with each of the respective scenarios. A synthesis of the exercises from all the sites will be compiled. It was meant to provide an opportunity for the groups to be actively involved in identifying policy paths for long-term.

Creation of local scenarios is dependent upon the knowledge of those most familiar with the immediate situation, and those concerned about and affected by long and short-term decision-making in their region. These processes need to include a wide group of participants from different knowledge and institutional backgrounds, as well as having varying degrees of decision-making power. In each study area, initial meetings were held with the leadership of the areas (such as headmen, village heads). At introductory meetings, we held the workshops with all participants present and realised that large groups are difficult to manage especially during the actual scenario development process. In future meetings we hope to split participants into groups representing the main sectors such as livestock and veterinary issues, irrigation and tourism etc.

Structure and sequencing of processes

At first we used exploratory scenario development and visioning approach. In this approach emphasis was completely upon construction of long-term visions. The process involved the presentation, discussion and deliberation of thoughts and perceptions followed by a more creative process of producing collective, long-term visions of the future. Interactions amongst participants were encouraged but it was difficult especially in one meeting where locals with positions of authority tended to stifle debate⁸. In order to enhance interactions we decided to break the participatory scenario development into two parts with separate but complementary emphasis—forecasting and backcasting. Forecasting is exploratory and backcasting is more anticipatory in nature. Exploratory scenarios begin in the present and explore trends into the future while anticipatory scenarios start with a prescribed vision of the future and then work backwards in time to visualise how this future could emerge. In the coming months we will use the backcasting approach to explore and identify clear policy proposals and actions for achieving the desired futures. The intention is to experiment with different sets of driver configurations to create futures from which participants can then develop narrative storylines that are understood by all participants.

Preliminary Results and Lessons

The process so far has been welcomed by most participants and this was expressed at three workshops (at Muhlekwani, Chishinya and Maose) during ‘question and answer sessions’

⁸ From interviews held after the workshop, participants who held positions in ZANU PF political party structures tended to control the debates in most meetings and locals are afraid to contribute if these party members are present.

that we held after introducing methodology. Participants welcomed this as a valuable, unique and innovative that tackles the key issues in planning processes that would be useful in informing better policy and development options for their areas especially given its strategic importance in the implementation of the GLTFCA. The series of meetings that we have held so far have resulted in a generic orientation in terms of using scenario planning approaches. What is still lacking is the ability of the locals to name and critically understand the scale and impact of the identified drivers on plausible futures. This may be due largely due to the education levels and lack of experience of using such approach amongst the farmers in the study area. In one instance, experiences of the theatrical and visual representations that were performed by Resource Africa proved a useful tool to both develop and communicate drivers and issues affecting the locals⁹. Such methods will prove useful when they complement the efforts of researchers constructing scenarios at a local level. Such interest and engagement is often lacking and innovative methods for communicating messages will be sought to promote stakeholder interactions at various levels.

Although the focus of the main Scenario Planning Project is on crafting institutional and organizational capabilities for locals to design resource management regimes that are responsive to the emergence of the GLTFCA, this has not been fully internalized by most communities so far. From the scenario building workshops that we have held so far, it seems that the degree of control that stakeholders (especially local farmers etc) have over the driving forces of change is not related to the scale at which we carry out the exercises. We noted that driving forces of change at the local scale are often outside the control of the affected farmers and do not really vary across the sites. For example, when exploring the potential of irrigation in the area and the value that markets can play in improving their livelihood futures, a majority of the participants thought donors would play an important role. The solutions to reach the desired end points often rest in another sphere that they do not control. In addition, setting up such initiatives often requires the provincial/district authority to support infrastructural development. What emerged is that these exercises help position local farmers to generally better understand the larger forces affecting their communities. In the next months, we seek to undertake an engagement programme in which representatives of the agricultural sector; tourism; local, district organisations

⁹ Meeting held at Headman Gezani Court, 01 July 2009. At this meeting after the performance by Resource Africa theatre group, participants could freely identify the issues affecting them and engage in debate on diseases, illegal crossings to South Africa and Mozambique, HIV and AIDS, climate change among other issues. They hailed the performance and wished this could be repeated in all wards in Sengwe.

Project Challenges and recommendations

The main challenge of the project to date has been the slow pace of implementation of the main CASS Scenario Planning Project. Whilst the seed grant was mainly aimed at supporting on-site PhD work in the framework of this regional project, implementation progress on this main project has been slow, inevitably affecting the research in as the PhD was framed more as an ethnography understanding issues within the main project. In addition, lack of transport posed a major cost as the researcher had to rely on hiring vehicles for field trips. The researcher will continue to look for cost effective and convenient means of transport especially for local travel within the study sites.

Institutional representation and communication

The institutional framework driving the implementation of the GLTFCA is based on a three-tier system: the ministerial, joint management board (JMB) and the various sub-committees (e.g. Conservation and Veterinary, Tourism, Safety and Security and Finance, Human Resources and Legislation). The challenge of the research project so far has been the absence of a framework to continuously link with these committees. This is crucial so that local planning aspirations and livelihoods are to be considered in overall implementation of the GLTFCA. Communication from local level to higher level is critical for success. Although the three-tier system was adopted to ensure representation of stakeholders at various levels, there are no active ward/village-level structures in place to facilitate dialogue amongst stakeholders. This is an opportunity where facilitation and scientific research can inform policy debates on the alternative futures of the area based on participatory scenario generation with villagers from the three wards. We argue that if affected communities are continuously made aware of the available options, it is quite empowering and that they can further harness opportunities for them to benefit from the GLTFCA. Once this occurs at a local level, local resource management regimes can effectively be better informed on larger regional GLTFCA ecosystem, and development plans and their effects on livelihood strategies.

Scale and cross-scale linkages

The emphasis of the research thus far has been greatly at a local scale; i.e. understanding participatory scenario planning within wards. One challenge that ensues is how to address cross-scale linkages within the GLTFCA context given the fact that technical planning occurs at higher levels. Recognizing such cross-linkages is important to avoid the inherent risk of getting very much focused at community-level and neglect the big picture, which is testing the applicability of the scenario planning methodology and trying to link between different levels in planning for its implementation. The focus is on investigating plausible alternative livelihoods (futures/scenarios) for the GLTFCA and various components within it. Although, the focus has been on building scenarios at a local level, the extent to which these scenarios can be linked to across scales has not been explored. This is especially so given the fact that no formal scenario planning initiatives exist in the GLTFCA aimed at influencing stakeholders in the long run. Even though scenarios were to be developed at a higher technical level, they still need to be linked to social and economic realities at a local level. In this study general scenarios developed will be aggregated for the three wards and linked to technical issues emerging for the GLTFCA such as disease and livestock controls and tourism promotion. The intention of the current study is explore how single scale scenarios constructed at a single focal scale (in this case with communities at the local level) can loosely be linked to higher scales. Giller et al (2007) have argued that complex problems around natural resource conflicts frequently cannot be solved at one societal level or sphere, and that especially the local space for manoeuvre is compressed by realities and dynamics at higher levels. We observed that a major difficulty of involving diverse stakeholders is the difference in epistemologies or knowledge systems and in the perceptions of the actors. The same words or concepts are often understood differently at different scales, between scientists and stakeholders, and among stakeholders and communication will be facilitated amongst locals and other stakeholders. Facilitating scenario exercises that seek to promote dialogue between stakeholders at different scales are particularly challenging. In developing scenarios, particularly at different scales, it is of utmost importance to identify and capture differences in values and perceptions. In the study areas, different sets of issues and opportunities came into focus, and so far the focus has been emphasising awareness of the complexities of living within the GLTFCA. To date, the focus has been on ensuring issues are framed from a perspective appropriate to each site and these will be linked to higher scales. Even though logistics have proven to be complex and scenario exercises consume a lot of resources, with costs rising as network of stakeholders widens the benefits are

enormous. Often, it results in an increased appreciation of perspectives from other scales and a greater appreciation of cross-scale processes and trade-offs between scales.

PHOTOGRAPHS

Below is a selection of pictures depicting meetings, visited places and livelihood issues in South East Lowveld. Additional photographs from the workshop series and meetings are being kept by the author and can be showcased as a digital album at the AHEAD meeting next year.



Photo 1 Maize Plot on Malipati Irrigation Scheme



Photo 2 Plot Holders at Malipati Irrigation Scheme



Photo 3 Training of Research Assistants at Malipati Business Centre



Photo 4 Research Assistant explaining tools to peers



Photo 5 Meeting with Research Assistants and Village Heads (Sabhukus) in ward 15



Photo 6 Introducing Theatre by Resource Africa at Headman Gezani's Court, Ward 13



Photo 7 Women attending meeting in Ward 13



Photo 8 Councillor Chauke (Left) and Headman Gezani (holding stick) at Gezani's Court, Ward 13



Photo 9 Cattle crossing the Mwenezi River from Gonarezhou National Park



Photo 10 Famous Tourist Place: Chilojo Cliffs, Gonarezhou National Park



Photo 11 Manjinji Pan Bird Sanctuary: Famous for bird species, fishing and other biodiversity