



Livelihoods of poor people in the Orange-Fish River Basin, Namibia

**Mary Seely
July 2009**

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Mary Seely was Director of the Desert Ecological Research Unit at Gobabeb in the Namib from 1970 and later, Executive Director of the Desert Research Foundation of Namibia. She is widely recognised as an authority on desert ecology and resource management and has received, amongst others, three honorary professorships, a fellowship and several DSc and medal awards, and most recently, an appointment as Land Degradation Advisor on the Scientific and Technical Advisory Panel for the Global Environmental Facility. She is author and co-author of more than 132 peer-reviewed publications, ten books, numerous environmental reports, conference proceedings and popular articles. She is deeply committed to training and enhancing the capacity of young scientists in Namibia. She is presently an associate of the DRFN and an environmental resource person and led the Participatory Poverty Assessment in Hardap.

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This series of reports presents findings from research carried out in the Ephemeral River Basins Project - ERB. The project, implemented in three ephemeral river basins in southern Africa - one each in Namibia, Botswana and South Africa - is funded by the Norwegian Ministry of Foreign Affairs through the Royal Norwegian Embassy in Pretoria.



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Ephemeral River Basins in Southern Africa Project

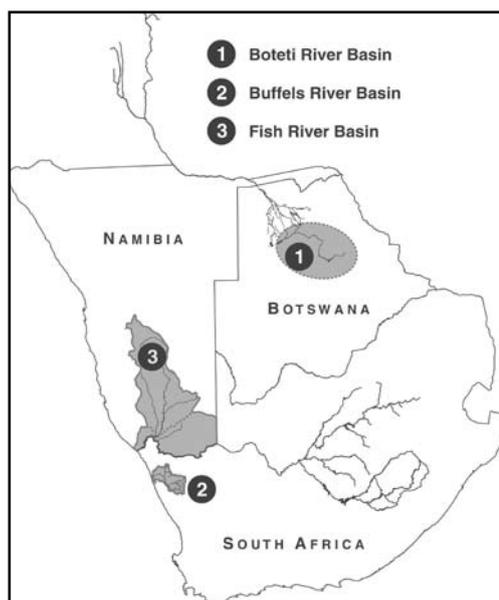
Ephemeral River Basins (ERB) in Southern Africa is a project that promotes the sustainable, equitable and improved use of water and other natural resources in ephemeral river basins in southern Africa through the process of integrated water resource management (IWRM). Although IWRM is accepted - internationally and regionally - as the approach promoting sustainable management of water resources and the river basin is considered the ideal unit over which to apply it, the basin management approach has not been widely tested and implemented in ephemeral river basins in southern Africa.

The ERB in Southern Africa Project, however, explores the potential and options for basin management in three ephemeral river basins in southern Africa - the Boteti, an outflow of the Okavango Delta, in Botswana, the Buffels, a westward-flowing ephemeral river in the Northern Cape, in South Africa and the Fish River Basin, a tributary of the Orange River, in Namibia.

Despite being ephemeral, all three river basins are essential water resources in their areas. The three basins have different biophysical and socio-economic characteristics and are managed under different legislative, policy and institutional arrangements. Together, they thus provide good examples to explore the potential and options for basin management in ephemeral rivers and on which to base a comparative analysis for wider application.

The purpose of the project is met by five main activities:

- Sensitising managers and users of natural resources to the concepts of IWRM and basin management
- Assessing the potential for the application of integrated basin management
- Establishing appropriate forums for promoting IWRM in the three basins
- Documenting the biophysical and socio-economic status of the three basins
- Documenting best practices, lessons learnt and case studies as a comparative analysis for wider application.



This is one of many reports emanating from the ERB in Southern Africa Project. For more information on the project, visit our website at <http://www.drfn.org.na/erb/index.html>

The project is funded by the Norwegian Ministry of Foreign Affairs and co-ordinated by the Desert Research Foundation of Namibia (DRFN). Work in the Boteti River Basin is being led by the Harry Oppenheimer Okavango Research Centre (HOORC), in the Buffels by the Surplus People Project (SPP) and in the Fish by the DRFN.

Glossary

<i>kapana</i>	grilled meat sold by vendors on the street
<i>shebeen</i>	informal liquor store, often illegal
<i>slasto</i>	flat sedimentary stones used for paving
<i>stukwerk</i>	piecework
<i>veldkos</i>	food found in the natural environment, often also used as medicine
<i>vetkoek</i>	fried dough that can be filled with jam or condiments

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Orange-Fish River Basin, Namibia

1 Introduction

The Orange-Fish River Basin (OFRB) is located in the south of Namibia covering parts of Hardap and Karas regions and a small portion of Khomas Region. It covers a total area of 119,692 km² which represents 15% of Namibia's surface area. A major part of communally owned land in Hardap and Karas regions lies within the OFRB while poor informal settlements on townlands surround each of the 'urban' centres. In general, however, 72.4% of the basin is privately-owned freehold land while only 14.8% falls under traditional authority (communal lands). Further, 11.2% of the basin is state-owned land while a mere 1.6% is represented by the local authorities.

Approximately 77,000 people live in the Orange-Fish River basin representing 56% of the population of Hardap and Karas regions. In the Hardap and Karas regions as a whole (7.5% of the Namibian population), male-headed households are relatively more common than female-headed ones. In the rural areas most households are headed by men (Karas 70%, Hardap 71.6%), which is far above the Namibian average of 53%. Male-headed households represent 68% of all households in the OFRB.

In the Hardap and Karas regions, 46% and 54% of the population respectively, are classified as living in urban areas. In the ten years between 1991 and 2001, Karas experienced a 9% rise in the urban population, while Hardap a much lower 2%. If major formal and informal settlements, which require sanitation and water service delivery are taken into account, urban population figures rise to 72% (Karas) and 63% (Hardap). Such percentages probably also reflect that of the basin, although Lüderitz, a major urban centre, lies outside the basin. The higher level of male-headed households in urban areas in the OFRB could be ascribed to the availability of employment at irrigation schemes and mines and the strong presence of migrant labour.

Development opportunities in the basin are constrained by the aridity which, in turn, results in a sparsely distributed population. Farming with small stock, that is goats, dorper (meat) sheep and karakul sheep, is the most common income-generating activity over the broader area. Hardap and Karas regions, which encompass the basin but extend beyond the basin, support 78% of karakul sheep in Namibia, 62% of dorper sheep and 15% of all goats. The Fish River itself presents the opportunity of building dams and supporting irrigation farming which is undertaken by commercial farmers at the Hardap Irrigation Scheme and Naute Dam. Run of the river irrigation for grapes takes place at Aussenkehr on the Orange River above the confluence with the Fish River. Combined, they represent somewhat more than 60 km² of land cleared for crops (Mendelsohn et al. 2002). At the same time, however, the aridity and its spectacular landscape have contributed to a growing tourism industry in the basin, often a supplementary income, particularly to commercial farming. Several communal conservancies have been established as well.

Other development opportunities in the basin are limited. The main south-north road runs through the basin and has led to the development of small businesses. Mining has been a major income-generating activity in Karas Region particularly and several new, large mines have been established over the past decade. These mines and irrigation farms employ few residents of the region and, instead, rely on migrant workers from northern Namibia. The entire coastline of Hardap and Karas regions is part of the proclaimed Namib-Naukluft and Sperrgebiet National parks but primarily commercial farmers and conservation enterprises have taken advantage of the resultant opportunities.

Livelihoods, as discussed in this paper, refer to the activities and strategies that people undertake in their communities to make a living in this arid basin. These include both productive and reproductive activities carried out to sustain the lives of individuals and households. This paper focuses on the livelihoods of poor people in the Orange-Fish River Basin, but reference is made to commercial farming in some instances.

2 Background and methodology

From October 2005 to February 2006, the Namibian National Planning Commission (NPC) undertook a Participatory Poverty Assessment (PPA) initiative in the Hardap and Karas regions which encompass more than 95% of the Orange-Fish River Basin. This process involved a team of researchers spending one week at a time in each of six localities in each of the two regions. The localities were identified by service providers in the region as poverty-stricken, but with a variety of different characteristics.

During the week-long process the community and the researchers examined a variety of topics. These included: poverty, vulnerability, well-being and social exclusion; livelihood systems and strategies; gender differences in livelihood activities; external support to communities, and recommended strategies and interventions to address the challenges identified.

Seven of the 12 PPA sites were located within the Fish River Basin itself. In Hardap Region, the three sites within the basin were:

- Gründorn - a communal farm and old age home on an Odendaal farm in Gibeon Constituency,
- Nabaseb - a freehold farm with communal farmer tenants in Rehoboth Rural Constituency, and
- Uibis - a communal farming area on an Odendaal farm in Gibeon Constituency.

Three other research sites in Hardap Region were not located in the OFRB, but conditions are not so different from sites in the basin and some of the generalisations are supported by results from: Bernafay, Hoachanas and Rehoboth's Block E.

In Karas Region, the four sites within the Orange-Fish River Basin were:

- Aussenkehr - a largely un-serviced informal settlement of seasonal workers employed on a commercial grape farm in Karasburg Constituency,
- Gabis - a rural (unproclaimed) village in the Bondelswarts communal area in Karasburg Constituency,
- Pfalz - a remote communal farming community on five Odendaal farms in Berseba Constituency, and
- Tseiblaagte - a densely populated urban area in Keetmanshoop.

Two other research sites in Karas Region were not located in the Orange-Fish River Basin but conditions are not so different from sites in the basin and some of the generalisations are supported by results from Aroab and Lüderitz.

The PPA used a set of fifteen Participatory Rural Appraisal tools to solicit the qualitative opinions, views and inputs from the involved communities. For both regions the sampling units varied according to geographic and socio-economic realities. The results reported here represent a synthesis of the views and perceptions of people living in poor communities in the basin and are not applicable to one particular place.

Regional government officials were present to start the PPA process at most sites, while local leaders helped with mobilising and sensitising community members. The fifteen exercises were mainly undertaken with assembled groups of community members or with groups divided on the basis of gender or age. The results were visualised during the exercises and the conclusions were agreed upon by all participants. A last step was corroboration of the community-gathered information with government officials. The final, integrated results were reviewed, discussed and key issues drawn out at a Regional Poverty Forum in the capital of each region with community representatives and regional and national government officials in attendance.

Since the PPA, a number of activities have taken place in the basin from which further information and observations are drawn. These include the Ephemeral River Basins in Southern Africa (ERB) Project, funded by the Norwegian Government, implemented in the Orange-Fish River Basin in Namibia, the Buffels River in South Africa and the Boteti River in Botswana. As an off-shoot from that project, a survey was made by students from Worcester Polytechnic Institute of water and sanitation services delivery by local authorities in the basin. This survey is now being augmented by the Local Authorities Capacity-Building Project, funded by the Finnish Embassy, under the Desert Research Foundation of Namibia (DRFN) that focuses on capacity development for the service providers. Regional plans, for integration into the National Development Plan 3, were elaborated by regional governments for the Hardap and Karas regions.

3 Livelihoods

A first observation in terms of livelihoods of the poor in the Orange-Fish River Basin in the Hardap and Karas regions is the lack of congruence between the main sources of income, as recorded by the Namibian 2001 Population and Housing Census Survey (2003) (salaries and wages), and the primary livelihoods identified by the community members (livestock husbandry) (see Table 1). This was true even in the *urban* area of Rehoboth in Hardap; despite living in urban areas or owning few or no livestock, most people identified themselves as livestock farmers.

As mentioned above, livestock husbandry was stated to be the primary livelihood preoccupation among many of the poorer people throughout the basin. Nevertheless, while strongly identifying themselves as farmers, unemployment is their major problem; both livestock farming and unemployment seem to be part of the same broad family livelihood for poor families. Meanwhile, resources for farming are limited in the arid basin, for those on rural farms as well as for those urban residents who have some sort of direct or indirect interest in farming. On rural farms and on urban townlands, communal rangeland is limited and water scarce and expensive. It is only commercial farmers who are able to take aridity and a fixed amount of accessible rangeland into account when planning their farming activities.

Table 1: Comparison of identified sources of income (2001 population census) and livelihoods (2005/06 PPA) in Hardap and Karas regions

Hardap		Karas	
Sources of income	Livelihoods ¹	Sources of income	Livelihoods ¹
<ul style="list-style-type: none"> ▪ Wages and salaries (61%) ▪ Pension (15%) ▪ Farming (9%) ▪ Cash remittance (7%) ▪ Business, non-farming (5%) 	<ul style="list-style-type: none"> ▪ Rearing livestock for subsistence ▪ Cultivation and crop production ▪ Pensions ▪ Employment ▪ Harvesting natural resources (wood, <i>veldkos</i>) ▪ Alternative livelihood activities (e.g. self employment) 	<ul style="list-style-type: none"> ▪ Wages and salaries (69%) ▪ Pension (10%) ▪ Farming (7%) ▪ Cash remittance (6%) ▪ Business, non-farming (5%) 	<ul style="list-style-type: none"> ▪ Livestock husbandry ▪ Cultivation and crop production ▪ Pensions ▪ Employment ▪ Harvesting natural resources and products ▪ Small businesses ▪ Other alternative activities

¹ Listed in order of importance

For most of the PPA sites, and assumed to be so throughout communal areas in the basin, livestock farmers were mainly pensioners, older men and women who have few livestock today. Many talked about owning more livestock in the past, particularly when they worked on commercial farms and were allowed to graze some of their own animals there. On the other hand, the unemployed often referred to younger family members who were expected to find work and provide remittances to the family, even though remittances were never large amounts and often could be only a small amount of food. In contrast, on commercial farms, farming may be a primary or perhaps secondary income source for individual families who are not poor and own their own freehold tenure land.

There are a few localities on communal land, e.g. at Pfalz, where people are able to devote a major part of their available time to livestock farming. There, and elsewhere, people farmed with goats, sheep, donkeys, horses, pigs and chickens. In most of the rural areas, e.g. Gabis, Gründorn, Nabaseb and Uibis, farmers commonly owned fewer than ten goats although they often talked about trying to build up their herd or, alternatively, having to sell them to pay school fees. At several sites, examples were given of large herds (>1000) of goats that were owned by a single absentee member of the community (often called a 'fax farmer') who then hired his sons or relatives to run the livestock. This is said to be a not-infrequent arrangement throughout the two regions. Aridity keeps the number of cattle in the basin at a minimum, particularly on communal lands.

3.1 Animal husbandry

Rearing of livestock for subsistence is a principal livelihood preoccupation of most poor people in the OFRB. Nevertheless, many people in towns no longer have livestock and those living in the rural areas often have few animals. Since livestock rearing relies on the natural environment, natural communal resources such as water, grass and land are important productive resources limited by overall aridity. Nevertheless, on communal land there is usually no system for managing, assessing or improving veld conditions. The marginal return to labour in communal farming in arid Namibia is so low that households cannot put all their energy, labour or household members into it.

Marketing by the poor in the basin takes place infrequently, while the commercial farmers have active marketing systems. Poor households sell only a few livestock each year, to neighbouring commercial farmers, at community auctions if the price is right, or to shop owners. This is usually done out of necessity to meet immediate cash needs or to avoid loss of livestock during severe dry periods.

Livestock, referring mainly to goats, provide a variety of products to communal households in the basin. These include: transport, meat, milk, cream, butter, cheese, fat, wool, hides, fertiliser and sports associated with horses. These products are consumed mainly by household members but some may be sold for cash. Chickens also provide products to community households for domestic use or sale. Donkeys are kept mainly for transport but may be eaten as a delicacy on occasion.

3.2 Cultivation and crop production

Rainfall is inadequate for dryland farming in the OFRB so all gardening is dependent on groundwater, or impounded or diverted surface water from the Orange or Fish rivers. Large-scale commercial irrigation farming is carried out on the Fish River below the Hardap and Naute dams and along the perennial Orange River. These commercial irrigation farms provide employment to many labourers living in or migrants into the basin.

Communal gardens in rural or urban locations usually involve only four or five community members that work in gardens, often started by well-intentioned development projects, e.g. at Uibis and Gabis. Nevertheless, a successful community garden has been established at Misgund (near to Pfalz) with the produce either consumed by participating households or sold for cash. Limited fencing, lack of pesticides and thieving baboons all provide challenges to community gardening. However, many people have small, fenced gardens close to their homes where flowers or vegetables are grown.

3.3 Pensions

Pensions, although meagre and sometimes difficult to access, make a proportionally major contribution to income and livelihoods of poor people in urban and rural households in the basin. For many households this is the main source of income often having to serve the pensioners, as heads of households, their children and their grandchildren - and sometimes great-grandchildren. Pensions may be paid out in the village, may be fetched at the post office or may be collected by an authorised person on behalf of the pensioner. Pensions are paid out monthly except in November when pensions for November and December are paid at the same time. This often causes a shortage of cash in January leading to increased livestock sales for school fees and other 'unexpected' expenses. The amount paid out for pensions at the time of the PPA was N\$300, and is currently (2009) N\$460 per month. This money may be used for food and other necessities but may also be used primarily for alcohol in some households.

3.4 Employment

Employment for poor people in the basin is a very important aspect of their livelihoods in both urban and rural locations. While it is important and desired by most community members, for themselves or for their children if they are elderly, many hurdles were identified that prevented employment from becoming a reality. Education is just one of

these hurdles. In-migration from northern Namibia is another hurdle to employment by long-term residents of the basin. Employment remains a central concern to poor people despite the basin being one of the most economically active areas of Namibia.

The most likely employment for men is 'piecework' (or 'stukwerk') which usually consists of hard labour on farms or building roads for a short period of time or on a seasonal basis. This farm work may include sheep-shearing, hunting jackals, fence building or butchering during the hunting season. Few people from poor families in the basin are employed in mining or irrigation farming in the basin and many employed in government services were not originally from the basin. Employment opportunities appear to be more plentiful for men than for women. Women, however, may have longer-term employment as domestic workers, in towns or on farms. Food-for-work programmes of short duration are sometimes available for men and women in rural and urban areas.

Employment, if it is found, often requires leaving home and living in town or on another farm. Many households talked about family members living in distant towns and sending back small and irregular remittances. Employment also requires more education than in the past and even people with Grade 12 may not be successful in their search.



The community garden at Misgund



PPA participants at Gründorn



A small, informal business selling clothes at Aussenkehr



Water points away from homesteads on communal lands are few



Goats are reared mostly for home consumption and occasionally sold to meet cash needs



Drawing up factors affecting livelihoods, Aussenkehr



Employment and other livelihood opportunities for youth are extremely limited

3.5 Harvesting natural resources and products

Woody vegetation for fuel is the primary natural resource harvested by poor people in the basin. Women may collect small twigs from bushes nearby the homestead, but it is mainly men who collect wood at a distance using their donkey carts.

Aussenkehr on the Orange River presents a unique situation where unemployed people looking for work on the irrigation farms may harvest reeds, and fish for sale to employed labourers, as well as offer services such as building and repairing huts, hairdressing, *shebeens* and shops. Raisins collected after the harvest and sold throughout Namibia are another valuable product accessible to all residents.

Veldkos is collected for consumption or for sale by poor people throughout the basin although in small amounts. Kalahari truffles and sedimentary stones or *slasto* are two natural products that are harvested and sold commercially - sometimes by better-off residents in the basin as well. Hoodia plants, veld potatoes, wild berries and a worm similar to 'mopane worm' are eaten, sometimes for medicinal purposes. Throughout the basin, *veldkos* is reported to be less abundant than in the past and permit requirements hinder use.

3.6 Small businesses and other activities

Small businesses are a limited source of income in villages throughout the basin. These may include: *shebeens*, leatherwork, needlework, brick-making, hairdressing, prostitution, small shops, theft of domestic stock, poaching and dressmaking. Begging and stealing is also considered an alternative activity to generate income. *Kapana*, bread and *vetkoek* may be sold at events such as auctions while flavoured ice can supplement income in summer. Shops and *shebeens* are more often owned by a rich person living outside the basin but they provide employment for poor people where they are established. Generally, poor people avail themselves of any opportunity they can find.

4 Gender differences in livelihood activities

Livestock farming in general, whether it is mixed farming or subsistence/ community farming or farming for the pot, is the most common livelihood activity described by poor people in the basin. This was pointed out to be the area where men had the most knowledge and responsibility. When men are not present, however, women handle livestock with little disadvantage. Gardening, where it takes place, is undertaken by men and women. The greatest gender differentiation arises with employment, where men are primarily engaged in piecework, which is usually hard labour, while women find jobs as domestic workers. Within the household, women maintain their responsibilities for cooking and cleaning, even if they have employment during the day, while men mainly socialise and drink with their friends.

Pensioners are integrated into household activities according to gender differentiations described above. Activities of a single pensioner, man or woman, encompass all activities as diverse as cooking and fetching wood.

5 Seasonal factors affecting livelihoods

5.1 Rainfall

Rainfall is very important for livelihoods in the basin particularly as it provides for grazing and *veldkos*. The most rain occurs in the basin from September to April, although winter rainfall is not unknown.

5.2 Livestock farming

Despite the small number of livestock owned by poor people in the basin, the farmers are well aware of necessary livestock management activities. These are also thought to reflect the activities on commercial farms in the basin where poorer people go for piecework.

Lambing can be a busy time for farmers in the basin particularly if they have a number of animals or are karakul farmers. This usually takes place between May and September. The timing of lambing could be better managed, although fencing to keep the rams separate from the ewes is expensive.

Livestock is most vulnerable to sickness and death during the lambing season and the rain season. Eating poisonous plants may also pose a threat. Disease prevention is an important but expensive part of livestock farming in the basin so many poor people use traditional medicines which are not always effective.

Fodder for livestock is most available in the basin in the summer months after the rains. The lambing season occurs when fodder is least available so farmers sometimes have to collect grasses and cut bushes to assist the ewes during this time. Small stock is kraaled each evening and keeping track of animals when they are grazing is one of the biggest jobs related to communal goat farming. This is particularly difficult in the dry seasons when goats move further for grazing. Moreover, if one rich or better-off person on a communal farm owns many livestock, availability of grazing for poor people's few livestock may be severely reduced.

Goats may be sold throughout the year although poor households usually only sell when cash is required. January is the prime selling month to meet school fees and other necessities.

Farmers rarely slaughter their livestock, but when they do it is for special occasions or during the December festive season. Cattle, if they are available, are only eaten in tough times and horses never. Donkeys are sometimes slaughtered for eating or sale to tourist lodges. Chickens are kept for eating and eggs all year round.

5.3 Piecework on commercial farms

Piecework on commercial farms in the basin varies with the farming calendar and includes sheep sheering, hunting assistance, gardening, construction and fencing. Piecework at Naute Dam may last for eight months of the year. Seasonal work is also available at some of the other irrigation farms too. Casual work with tourist lodges newly developing in the basin is also seasonal during all but the rainy season.

5.4 Gardening

Few people work in community gardens. It is said, however, that the busiest time in the gardens is June and July when people plant crops, which includes digging holes and preparing the soil. Different crops may be planted at different times throughout the year.

5.5 Water availability

Throughout the basin, water is generally available throughout the year. A broken pipe, a broken pump or overuse of a borehole may reduce availability for short periods. Having water available only at homesteads limits the use of potential rangelands away from the homesteads.

5.6 Food availability

For poor people in the basin, food is always available but varies from month to month. Poor people always have the most food in December and the least in January reflecting availability of money rather than agricultural production. Basic food consumed throughout the year includes: maize meal, bread meal, tea/coffee, sugar and milk all of which, except milk, have to be purchased.

Veldkos is available in the basin throughout the year although it is more abundant at certain times of the year, e.g. May to July. Some people use *veldkos* when there is no alternative, others to supplement their staple diet. Although important, availability of *veldkos* has decreased over the years where people live. It is said to be fenced in on commercial farms now, where poor people have no access. For some people in the basin, indigenous foods are received from relatives living in the north.

5.7 Human health

Human diseases affect people throughout the year with colds and flu more prevalent during the winter months. Tuberculosis, HIV/AIDS, high blood pressure and old peoples' diseases were mentioned as affecting the poor in the basin, but not given a seasonal dimension. Alcohol consumption in the basin is high throughout the year.

5.8 Income

Pensions provide a small but steady income throughout the year for some households in the basin although sometimes they are difficult to access. Livestock may be sold at auction in December to provide income for the festive season. Prostitution, a source of income for some households, has no seasonal dimension. Other sources of income, e.g. piecework or domestic work, do not have a seasonal dimension.

5.9 Expenses

Expenses are incurred throughout the year in the basin. These expenses include: food, water contributions, church contributions, transport to town, clothes, repayment of debts and similar recurring costs. Nevertheless, expenses are generally highest in January and other school holidays. Christmas and other holidays also incur higher expenses when children are at home from school and people visit. The festive season is

also the time when alcohol consumption doubles and people need new clothes. For the seasonal and permanent workers at Aussenkehr, the balance of their earnings goes to the family back home in the north as well as social activities and school fees.

6 Livelihood analysis

The ways by which people make a living, including the resources they use as well as the manner in which such resources are used to secure livelihood outcomes, represent a livelihood analysis. Degree of well-being, to a large extent, is defined by the degree of access individuals or households have to a variety of assets and resources in their communities. It also depends on their ability to use the assets and resources to derive meaningful benefits that sustain or improve their livelihoods. This reflects on three issues, namely, who owns, controls and uses these assets.

Throughout the basin, people associated well-being ranks with livelihoods. The overlapping results are summarised as:

- *Very poor people*: one pension, livestock/subsistence farmers,
- *Poor to average people*: pensions, piecework, self-employed, one salary, livestock/subsistence farming, gardening project, domestic employment,
- *Better-off people*: permanent work, self-employed, salary, business, permanent weekend farmers with salary, livestock/mixed farming, employment.

6.1 Assets and resources

Throughout the basin, well-being groups were asked to identify their primary livelihoods and the resources upon which they depend. It is clear that residents of urban areas, despite their defined livelihoods, continue to depend on, or at least refer to, assets in rural areas. It is also clear that the very poor are more fixed on a few specific resources or assets to pursue their livelihoods, while the average and better off tend to identify a wider range of assets and resources they draw upon. Nevertheless, the assets and benefits identified were fairly site-specific with different options being available to different locations. For example, people living in those small settlements surrounded by commercial farms are more likely to obtain piecework, at least occasionally, than those living in larger towns. Where employment for cash is the basis for the settlement, e.g. Aussenkehr, the options are more focused.

The very poor in the basin have a limited set of resources that they consider essential for their livelihoods. They are mainly and most importantly common property resources, e.g. water, wood and grazing, or state provided resources such as pensions or social grants. Less important is piecework which they rarely obtain. Pensions, once received, are considered to be privately owned, as are remittances and any livestock, usually chickens or a few goats or donkeys for transport.

The poor to average people in the basin consider salary and an employer as a very important resource. Health, identity documents and education, which facilitate employment, were also taken into account in some areas. Land, including water and grazing, livestock, gardens and pensions are also considered important, to differing levels in different parts of the basin.

For some of the better-off people in the basin, salary and money were considered very important while others focused on livestock, land, water and grazing. This varied

according to the options available in their immediate vicinity. Pensions and remittances were not mentioned by the better-off who had access to other, more valuable resources.

In summary, assets and resources for people's livelihoods in the basin varied along two different axes: the level of well-being of the people and the place where they lived. For the very poor, the number of resources available was limited; in some instances only meagre pensions were mentioned. For the better-off, a larger variety of resources were considered important for their livelihoods while pensions were not important enough to mention.

On the other axis, the assets and resources available for pursuing livelihoods depend on the place where the people live. In places where people can actually make their livelihood from farming, natural resources, primarily land, grazing and water, are key to their existence. In small villages close to commercial farming areas, piecework in farming or hunting is a key livelihood resource. In areas influenced by the emerging tourism industry, mainly in the western part of the basin, temporary or seasonal employment for both men and women can be found in lodges or through guiding. Longer-term or even permanent employment can be found at irrigation farms, on the Orange River or the Fish River. In urban areas employment is scarce and farming options are negligible. Despite the different localities, very poor people are those less able to take advantage of any of the options available. Table 2 summarises the relative importance of four categories of livelihoods in the basin for people in the three categories of well-being.

Table 2: Importance of livelihoods for people at different levels of well-being in the basin

	Pensions	Piecework	Employment	Farming
Very poor	+++			+
Poor to average	+	++	+	++
Better-off		+	+++	+++

6.2 Benefits

Benefits resulting from people's identified livelihoods did not vary greatly among different levels of well-being. Benefits fall into two main categories. Some are the direct production from their own rural farming, e.g. meat, milk, fertiliser, fruit and vegetables. Other benefits revolve around money and what it can purchase including, for example, funeral and study policies, school fees and church contributions, food purchases from a store and transport.

For the very poor in the basin, the most important benefit from their livelihood is money, often in the form of pensions. This is used for food, water and shelter; the basic needs of life.

For the poor to average in the basin, money to buy goods and services, including for savings, school fees, to repay loans and for recurrent services, is most important. Farm products are also valued when available.

For the better-off in the basin, money is again the most valued to be used for a wider variety of goods and services. Herd growth was considered an important benefit in the strong farming communities. Less important benefits, and taken for granted in some areas, are those derived from farm and garden.

6.3 Expenditure

Expenditure patterns of people in the basin were not studied directly, nevertheless some observations can be made. In many of the very poor and poor households in the basin, most of the money in the household goes to alcohol, food and other consumables such as toiletries and candles. Transport is another frequent expense. Rent, water and electricity charges are paid in some sites. School fees, hostel fees and associated school charges are frequently mentioned as major expenses and consume a large amount of funds available to a household. To pay these expenses, a variety of strategies are required, although the main one appears to be selling small stock as the need arises.

Food and other necessities are said to be more expensive in town, by those living in town, while those living in the rural areas believe food is more expensive there. For those with access to their own farm and garden products, expenditure for food could be less.

6.4 Survival during shocks, primarily droughts

The Orange-Fish River Basin is a naturally dry area with a variable climate. Droughts are said to be frequent but still a shock to people's livelihoods. It affects the farming livelihoods of poor people in the basin particularly. Decreased availability of open access resources such as grazing, browse, veld foods and other natural products is a key consequence. Open water is no longer available and use of borehole water must often be paid. During drought times, livestock produces less milk and may even die, while the farmers are forced to rely more on less expensive, traditional medicines for their livestock. Droughts are seen to contribute to greater poverty or at least prevent people from rising out of poverty.

Throughout the basin, communities have developed strategies and systems to cope with and survive droughts. Most of the strategies are not alternative actions, however, but intensification of the ongoing coping which poor people use throughout the year. These actions include borrowing from each other and buying food on credit. Pensions become comparatively even more important during times of drought.

Poor and average people are said to suffer most from drought as they may lose most or all of their animals. Very poor people have few or no livestock to begin with but are dependent on the better-off for support. The better-off have less surplus to share during droughts but start off with more animals to begin with. In general the very poor and poor are more dependent on others, including government, and are less secure with or without a drought.

6.5 Ownership of, control over and access to resources

Ownership of, control over and access to resources to support livelihoods in the Orange-Fish River Basin are basically governed by traditional values with respect to gender roles and responsibilities. This is strongly tempered by pragmatism, however, as many households are headed by women or pensioners of both genders, and livelihood roles are then more equalised.

In general, ownership is less often contested in discussions among poor people than control or access. While ownership may be close to equal between men and women, control is less equitable and tends to follow traditional cultural and gender lines. For

example, anything to do with livestock, except chickens, is controlled by men. In a woman-headed household, the school-going son may assume control when he is home for holidays, although his mother does the managing while he is away. In a parallel fashion, matters to do with the household, e.g. water and food, fall under the control of women or girls even though men are said to own and use close to half of the goods. This may be true even when the woman has a job and the man is unemployed.

Overall, traditional and culturally ingrained perceptions in the basin tended to reduce women's assertiveness and their ability to recognise their own critical role in the livelihoods of households. Both women and men agreed that women's roles were increasing with time, although men did not necessarily think this was a good development. Some men in the basin believed the situation was better in the past when men had total control and others felt that anything beyond 50-50 in terms of women's control of resources would not be acceptable at all.

Sometimes the discussion over ownership, access or control of a resource in the basin depended on where the resource was located in the household. Open access, communal resources in the environment, for example grazing or wood, are considered the men's responsibility even though the land is owned by the state. After firewood has been brought into the household, however, it becomes a reproductive resource that is predominantly the women's responsibility.

Community resources that required technical ability, for example water from a borehole, would be disputed. Women are mainly responsible for carrying water in small containers to use in the house, and often for water payments from household funds, but men sometimes claimed ownership based on the fact that they maintained the pump or at least reported to the authorities if it did not work. Men may transport larger quantities of water using a donkey cart. Similar distinctions were made with wood where men owned, controlled and transported large quantities using a donkey cart, while women collected small twigs near the homestead and were responsible for its use in the household.

Economic resources and assets are usually individually owned, as in the case of money. A fine distinction was frequently made concerning the location of money. If it was still in the man's pocket, assuming he was the bread winner and had earned it, it was his to do with as he pleased. Using it for alcohol was the stated implication. He would then give the women a certain proportion, often unknown but probably small, over which she would have access and control to use for household needs. Nevertheless, women 'controlled' expenditure of the household as food and school related costs were the biggest expenses. Businesses are mainly run by women but owned and controlled, including the profits, by men.

6.6 The role of gender in poverty

The role of gender among poor people in the basin has an impact on their abilities to move out of poverty or to cope with their current situation. The power men have over women, in interpersonal relationships, has a major impact on the physical and mental health of the family as well as the way assets are used or squandered.

Women's roles and responsibilities revolve around taking care of the household including children, family health, clothes, food and housekeeping. Men are more often considered the 'bread winner' even if they are unemployed. Nevertheless, these roles appear

to be changing slowly, although the change is considered to be too rapid by many. Unfortunately, some of the opinions related to changes are based on misinterpretation of new government directives, e.g. women's and children's rights, often termed gender equality, and banning of corporal punishment. The changes in some directions appear to be more rapid than in others and people's concepts of changes and the actual situation in which they live on a day-by-day basis also seem to be somewhat at odds.

At some more urban localities in the basin, the upliftment of women has left many men feeling disempowered and useless and has contributed to the erosion of their self esteem. This in turn could contribute to other problems such as alcohol abuse, HIV/AIDS and domestic violence.

Men are more likely to find jobs in the basin, often consisting of heavy labour such as pruning vines, road work and piecework on commercial farms. Men may collect firewood or sweep people's yards while women might take on domestic work or cook for resale. As coping strategies, men are more likely to turn to theft while women to prostitution.

Gender involves age as well as sex. In the basin it is common for older members of the household to be raising their own children and their grandchildren. Young people expect to go to town and look for work while sending their recently born children back to the old people to care for, feed, house and send to school. The older people may or may not have a pension and the parents of the children may or may not contribute to their upkeep.

From another perspective, relationships between young and old people have changed rapidly. With the abolishment of corporal punishment, old people feel that they can no longer discipline their own children and children take advantage of the situation to provide less input into the household than they did in the past. These various skew gender relationships all contribute to increased poverty or at least keep families mired in poverty with little hope of change.

6.7 Inheritance

The traditional inheritance system mostly disadvantages women, whether married or not. In the event of a man's death, his family may lay claim to some of the assets and the son will usually inherit the livestock. If a woman dies, her husband will probably remarry and take over the house and children or, if very young, return them to her family. The situation varies from household to household in the basin while the advent of wills has made inheritance simpler and is resulting in fewer conflicts.

6.8 HIV/AIDS and livelihoods

Awareness and knowledge about HIV/AIDS, its mode of spreading and the underlying socio-economic factors contributing to infections is high among poor people in the basin in many instances. It is only in the communities where residents are mostly migrant labourers from northern Namibia that awareness of transmission of HIV/AIDS and what constitutes safe or risky sex is low. However, even those communities with knowledge and awareness admit that safe sex practices are usually not applied after the consumption of alcohol.

Generally people appreciate the negative impact the pandemic is having on household economies, the productivity of individuals in the household and the future prospects

of orphans and the entire family. Even if medication is free, the additional food required to supply appropriate home-based care, the time of the care-giver and the reduced income when the infected person is incapacitated are all added expenses to an already over-burdened household. A particularly heavy burden is placed on the elderly, especially in rural settings, who not only end up looking after their children's orphans, but having to use their pensions - the only incomes for the expanded family.

7 Summary

As is expected, livelihood opportunities differ between the rich and the poor people in the Orange-Fish River Basin. Nevertheless, aridity is the over-riding factor for everyone living in the basin. For the comparatively rich, having access to freehold tenure land provides the opportunity to plan and manage their farming or tourism activities, despite the regular occurrence of dry periods. For the comparatively poor, having to share communal farmland and having few or no alternative income sources means that dry periods contribute to ongoing or worsening poverty.

Livelihood opportunities differ between urban and rural localities. Most people in the basin, particularly the poorer people, identify livestock farming as their main livelihood. Nevertheless, it is only a very few rural areas where poorer people can devote their major efforts towards farming. In most instances people have only a few head of livestock and maintain them as insurance to provide funding when emergencies such as school fees crop up. For urban residents, farming opportunities are even less secure and are not a reality in most instances. Rural farmers on freehold land do have the opportunity to pursue farming as a livelihood, although aridity can have an impact.

Social structures and norms have a direct relationship to livelihoods. HIV/AIDS is having a major impact on family structure and hence on capacity to stay out of or rise out of poverty. Alcoholism is also a major factor in causing poverty or maintaining a family in poverty. Education deficiencies and inadequate family support impact on potential for employment or the opportunity for employment. A seemingly downward spiral of poverty, alcohol abuse and breakdown of social structures and norms seems to be the defining element of a majority of livelihoods in the Orange-Fish River Basin.

8 References

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