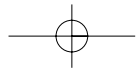
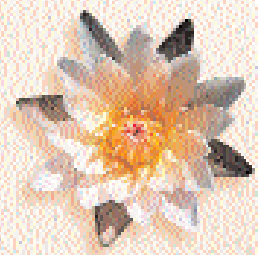


SAND AND WATER
CHAPTER
TEN

PROSPECTS

Into the future





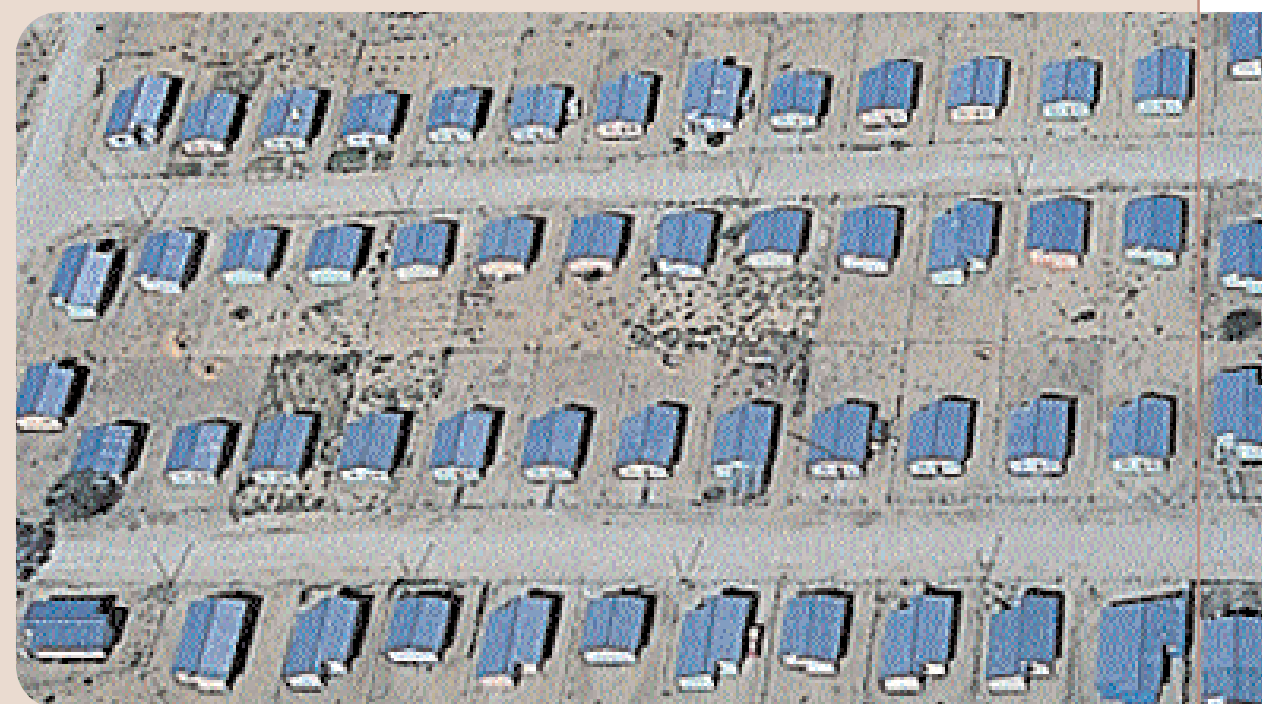
Everyone is keen for Kavango to develop: its infrastructure, economy, levels of education, medical health, and the like. Most people would also want development to occur on a sustainable basis so that the gains made now are not at the expense of future generations. This is particularly true for environmental resources, which have often been so depleted that little remains in many places. But how should development proceed, what aspects have the best potential to improve, what is possible and what can't be done? Will many people remain in poverty because development initiatives are misdirected? These are questions that should be on the minds of all leaders in Kavango, senior government officials, foreign development agencies and everyone else concerned about the future of the region. But before looking at issues of development it is useful to review how Kavango got to be the way it is, since it is on this foundation that the Kavango of the future will be built.

Most of Kavango is covered in sediments laid down over the past 65 million years. Wind-blown sand makes up much of the upper layer of deposits, which means that soils in most areas are too poor to cultivate crops unless specific fertilizers are applied at

appropriate times. Kavango's sandy mantle also means that surface water is extremely scarce, so much so that drinking water for people, livestock and other animals is not available in most places. This is why much of inland Kavango has been so sparsely populated. Only in recent years has this changed in some places where pumps now draw fairly abundant and good quality water from sediments underground. The layer of sand also has important effects in determining the types and structure of vegetation, and the nature of the wildlife. These living resources give Kavango beauty and also provide people with building materials, pastures and opportunities to gain economically from tourism, for example.

Rainwater is often scarce because the climate is characterized by a short rainy season of unpredictable falls of rain. However, water is permanently available in Kavango's greatest asset: the Okavango River. This lifeline has been meandering through the vast expanse of dry woodland and sand over millions of years. Its overwhelming effect has been to provide a home to all manner of things that would otherwise not be there: people and livestock, fish and wildlife and a rich diversity of plants associated with the riverine

The killing of countless trees – and other effects – caused by the hundreds of fires that sweep across Kavango and other parts of north-eastern Namibia is perhaps the most serious environmental problem in the country.



It is a simple fact that urban life offers most people better economic opportunities than rural areas. The surge of people moving to live in Rundu will continue, and preparations need to be made for tens of thousands of new urban dwellers in the years ahead. The seriousness with the preparations are taken will determine whether most Rundu residents live in squalid shacks or in a town that offers decent homes and other infrastructure. In short, can Rundu be a well-ordered economic centre or will it slump into yet another shambled mass of squatter townships?

environment. The social economy of most people evolved and revolved around the river and valley: its water, wild fruits, and abundance of wood, grazing pastures, wildlife and somewhat more fertile soils. The abundance of resources made life fairly easy for the relatively small number of people scattered along the valley. But there was also an abundance of risks. Crops failed as a result of inadequate rain or attacks by pests and predators, most people suffered from one or other disease, and slave trading and frequent tribal raids all added to expectations that much could fail. Perhaps it was this combination of abundant resources and the likelihood that investments could be lost that led people to adopt practices that required low inputs. Production was also low, of course, and the tradition of low input-low output strategies continues today, as so clearly illustrated by the unproductive farming methods.

Moving to more recent features of Kavango's foundation, social and economic conditions have changed very rapidly in recent decades. A high proportion of people now have access to schooling and health care, two of many services that few people enjoyed one or two generations ago. Improved medical care has led to higher survival rates and a dramatic increase in the population. Growth was accelerated by the many Angolan immigrants attracted by better economic opportunities, social services and infrastructure, and who also left to escape repressive conditions in Angola. The enlarged population has caused severe environmental degradation of the river valley due to the extensive clearing and cutting of its woodlands. Natural resources available to rural people living near the river have thus declined, such that there is no wildlife to be hunted, soils are less fertile, fish catches are lower and fruits and other plant products are much harder to harvest.

The decline in natural resources has been tough on many people, especially those unable to find their way into jobs and the modern cash economy. This is another recent change, because salaries and income from informal businesses have brought substantial improvements to many livelihoods. Not only have cash earnings replaced subsistence incomes, but the values of wages are many times higher than incomes from farming and the hunting and gathering of natural resources. This is true for both the value of products consumed at home and for any sales of surplus farm produce.

The possibility of making a living in new ways has placed Kavango in a transition between traditional livelihoods and these new opportunities. Everyone faces this transition, but it is mainly the 72% of all

people who are under 30 who will carry it forward. One consequence of the new, relatively lucrative cash incomes is that rural households now vary greatly in wealth. Another is that many households have a variety of incomes contributed by different family members. And yet another change is that people who have become comparatively wealthy from cash incomes often invest savings back into farming activities. Much of this goes beyond subsistence agriculture, however, because their savings are used to acquire very large farms and/or herds of cattle.

In summary, some of Kavango's physical and social foundations offer opportunities, others are constraints and yet others are in rapid transition. This is the complex base upon which future development must work. If low inputs are characteristic of rural life in Kavango, how can rural livelihoods be improved to the extent that people achieve high outputs? From what natural resources can people possibly profit to a real

Secure on her mother's back, so too have people enjoyed secure resources provided by river water flowing through a vast landscape of sand.



degree, and how can entrepreneurial activities be promoted? Some improvements to rural lives have been made through the introduction of ploughs, tractors, improved mahangu seed and craft production, but the overall gains from these innovations and developments have been generally small. Other successes may come by promoting vegetable production and from developing small-scale farmers linked to large agricultural projects. Incomes from tourism and wildlife could be increased (a topic explored below) but these too would only benefit fairly small numbers of people.

It is hard to escape the bleak conclusion that there is little chance of significantly improving the livelihoods of most rural people. This is particularly true if development agents continue to see land and small-scale farming as the means by which livelihoods can be improved. Kavango's low soil fertility, unreliable rainfall, farming traditions and difficulties in marketing (see page 99) simply make small-scale farming extremely unproductive.

Development initiatives would be more successful if they lessened the use of land for small-scale farming and instead encouraged people to seek other sources of income. In fact, many people are already making that choice by moving to Rundu (an average of 160 people move there every month) and other towns. Some funds and efforts to improve conditions in rural areas could be switched to the development of Rundu and other towns, where activities should concentrate on creating jobs, planning urban growth and developing infrastructure. Several villages – such as Mpungu, Nkurenkuru, Ncamagoro, Ndiyona and Divundu – can be expected to grow into towns in their own right. Giving priority to their development would attract people away from the hardships of rural life and it would ensure that the towns become viable, orderly centres.

Rundu should also develop into a regional and border centre trading into Angola. In the hope that peaceful conditions continue, significant development and economic growth can be achieved in Angola. South-eastern Angola is very remote, thus giving Rundu an advantage as an entry point to that area. Many more jobs and business opportunities could become available in Rundu, and useful steps could be taken to promote small and informal business opportunities to help draw people away from rural poverty.

Almost one quarter of the communal land in Kavango has been allocated as large farms to fewer than 300 people. In exploring various problems and advantages associated with the allocations (see pages 117), our overall conclusion is that the farms would probably bring more benefits than disadvantages to Kavango. What needs to be done, however, is to give the 'owners' some kind of secure leasehold or title over the farms. This will allow secure developments and investments to be made, which would hopefully lead to the farms being used more productively. Similar changes should be considered for smaller



Considerable efforts have been made to develop Kavango's craft industry in recent years. Some items are sold at local roadside stalls, while most others find their way to outlets in Windhoek and elsewhere.

farms, since it is hard for any farmer to make major improvements to farming methods without cash acquired from other incomes or from loans. And yet loans cannot be raised over land if farmers lack secure tenure. In addition, farmers and other rural residents would probably take greater care and responsibility for land and natural resources over which they had secure ownership. Indeed, this raises the bigger question of whether the present informal and customary tenure system over communal land should continue. It is beyond the scope of this book to debate that fundamental question, however.

Although about 15% of Kavango is allocated to conservation, little of this area is gainfully used for tourism (see page 75). It is true that large parts of the game parks consist of rather monotonous woodlands where it may be difficult to see wildlife that attract tourists, but the fact remains that few efforts have been made to derive benefits from tourism. While the development and use of the parks for tourism is one obvious option, another is to capitalize on Kavango's position in being close to the Okavango Delta and tourist attractions in Caprivi and western Zimbabwe. Many tourists already visit these areas and more of them could be attracted to Kavango. There is also the possibility of encouraging more overland movements between Etosha National Park and the attractions in Botswana, Caprivi and Zimbabwe, and thus developing lucrative stop-overs in Kavango.

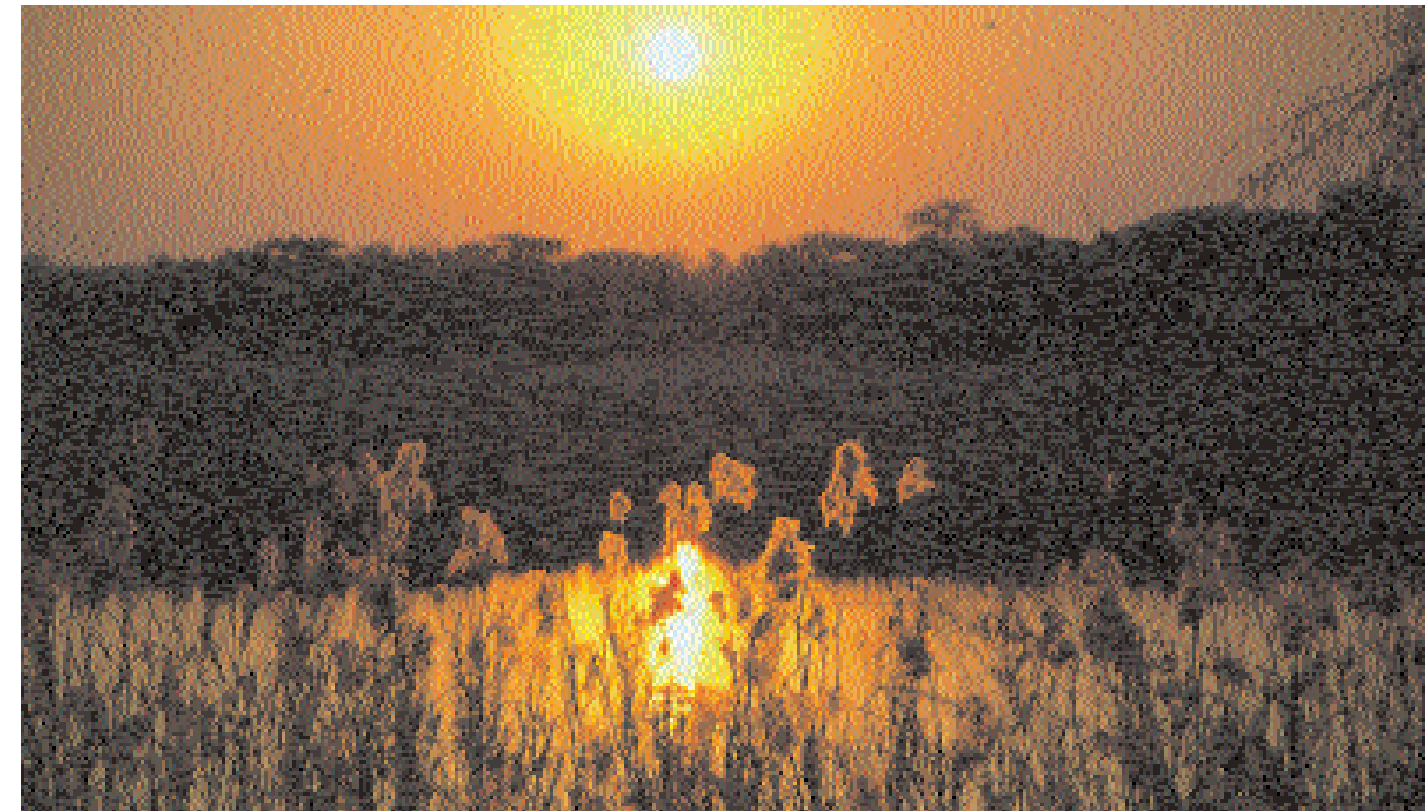
Most resorts that cater for tourists in Kavango lie between Divundu and Mahango Game Reserve, an area close to the Okavango Delta and well-placed for transit tourists. The proclamation and opening up of the Bwabwata National Park (FIGURE 39, page 73) should add further reason for tourism to expand in this area, but thought should also be given to the development of tourism in the Andara area. The mission at Andara is an interesting historical site, and so is the island of Thipanana where Mbukushu chiefs and rainmakers lived until 1900. The many other islands in this area are covered in dense riverine forest of a kind and beauty

found nowhere else in Namibia. Serious attention should be given to affording these islands more protection, a step that would be easier if the area had greater value in attracting revenue from tourism.

FIGURE 77 provides an overall measure of pressure placed on natural resources in Kavango. Areas where pressures are greatest have already been badly degraded with the result that most of the original vegetation has gone. This is especially true along much of the river. The small riverine areas that remain in fairly pristine condition, such as the ones around Andara, should also be protected, perhaps as conservancies with the addition of community-run tourism and recreational fishing camps. The potential income from these sources could be higher than that created by any kind of small-scale farming, for the reasons suggested above.

There is also an urgent need to reduce the widespread and frequent fires that result in the loss of woodlands, pastures and soil nutrients (see page 68). Other problems are caused by the massive extent of burning, and this is perhaps the most severe environmental problem in Namibia.

Firebreaks need to be re-established and stiff penalties imposed on anyone who sets a bush fire. Although many more large trees are killed by fire than by other causes, the effects of the growing export of wood for craft production, timber and firewood should be evaluated and monitored.



A final comment on Kavango's most important asset: the Okavango River. Much of the water coming into the region from Angola simply flows out again, into Botswana. Given the extreme shortage of water in Namibia generally, many people see the flow of Okavango water as something of a missed opportunity: a resource to be taken and exploited. However, the impacts of any new uses of the water need to be assessed extremely carefully. The volume of water is limited, and flows fluctuate greatly from season to season and from year to year. The river water is also the key component that makes the whole Okavango valley in Namibia and Okavango Delta in Botswana so ecologically valuable and attractive to tourism. Many potential economic benefits are to be achieved from tourism and these may outweigh the short-term gains to be made from other uses of river water. Namibia needs to guard against any developments or processes that would add chemical pollutants to the river, such as from effluent or crop fertilizers. Special efforts should also be made to protect floodplains along the river, especially the very large flooded areas between Tondoro and Bunya, between Mupini and Shambyu, and around the Cuito confluence. Most fish breed in the floodplains and they need to be conserved if fish populations are to be maintained. Likewise, developments that would change patterns of flooding could damage fish populations.

From an international perspective, a variety of new developments in Angola could have an impact on the river. For example, the potential of the river as a water source for irrigation schemes and electrical power has long been recognized, and inappropriate designs of hydroelectric dams would alter patterns of flow downstream. (These are scenarios for Angola, but ironically Namibia is also planning several large irrigation schemes and a hydroelectric power station at Popa Falls.) Pressure to pursue such developments will come from within Angola and from external agencies keen to help exploit Angola's resources. Most changes will be in the Cubango catchment since this area is more populated and less remote than the Cuito catchment. One effect is that the flow and quality of water in the Cubango could be more influenced by developments than that of the Cuito. Angola, with its relative abundance of water from rainfall and many tributary rivers, will also be less concerned about the impacts of developments than Namibia and Botswana. In fact, Botswana has much the greatest interest in the wellbeing of the river because water is so scarce and the Okavango Delta has such great economic and ecological value. As custodian of the Okavango passing from a country rich in water to one where the river is a lifeline, great responsibilities lie ahead for Namibia and Kavango to ensure that the Okavango River remains in the best health.

FIGURE 77-

Overall pressure on natural resources in Kavango, as a measure of where natural resources have or are being lost as a result of the combined presence of people, livestock, the clearing of land and frequent burning.¹

