

# Human Resources of the Okavango Area: Some Implications For Development Projects

E. K. AFRIYIE, UNDP/FAO Project "The Investigation  
of the Okavango Delta as a Primary  
Water Resource for Botswana," Maun

## Introduction

Two contributors have already given us some very interesting accounts on the historical migration into the Okavango Delta region by different ethnic groups (Tlou)<sup>1</sup> and the traditional utilisation of the Delta's resources in historical times (Campbell)<sup>2</sup>. Presently available written records on the area have dealt predominantly with either historical or anthropological data — and to some extent with administrative issues. Limitations imposed by the paucity of documented sources of earlier times, coupled with inadequate oral data and archaeological findings, have left certain gaps in our attempt to gain a fuller insight into the past history of the Okavango region. For example, no comprehensive sociological studies had been undertaken in the past involving the Delta region as a whole until recently (i.e., 1974), with the inception of the UN-assisted Okavango Delta Project based in Maun.

Briefly, the main purpose of the current sociological studies of the Delta and its environs, is to provide a clear picture of the demographic, as well as the socio-economic, structure of the region in relation to the present utilisation of the Delta's resources for livelihood by the people — especially in terms of cultivation, fishing, hunting and the gathering of wild plants for food and other uses. In addition to providing the needed baseline data for planning and decision-making, this aim also fits in with the overall objective of the Okavango Project, which is to investigate the Delta as a primary resource for Botswana.

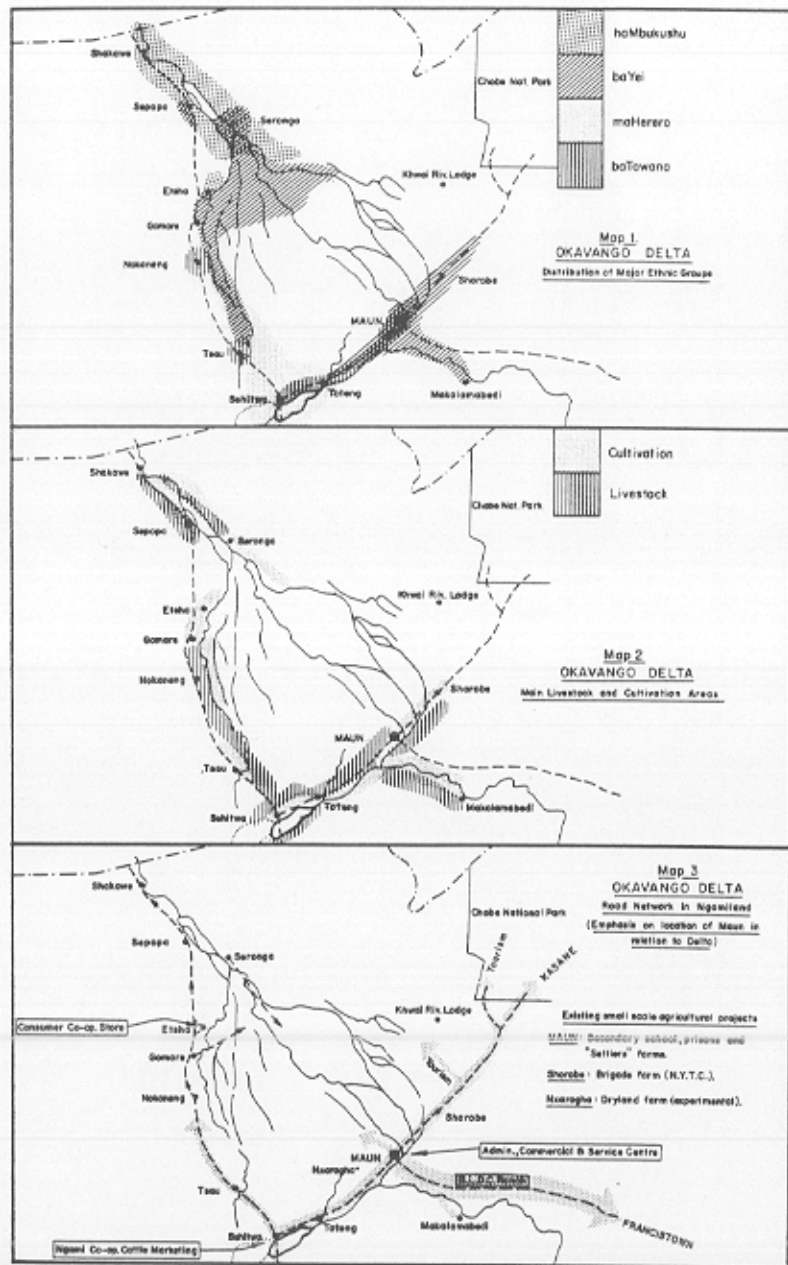
The intention of this paper is to highlight the human factors of the Okavango area, some of which may either impede or assist the effort to develop the resources of the Delta in the best way possible for the general welfare of the people of the area, and for Botswana as a whole.

## The Okavango region

The region coincides administratively with the north-west district — better known as Ngamiland. Physically, it is dominated by the Okavango Delta — a riverine environment peculiar to dry Botswana. Isolated geographically from the mainstream of development, especially along the line of rail in the southern section of the country, the Delta environment has remained by and large "unspoiled" and sparsely populated. Coupled with this geographical isolation in the past was the tsetse fly menace (now contained in the Delta proper), which imposed considerable limitations to development of the Okavango region as a whole. Now the overall development strategy for the area is gradually taking shape and discussions are currently in progress as to how best to exploit the resources of the Delta for the benefit of Botswana as a whole.

## Location of the people

The existing pattern of human settlement around the Okavango Delta is clearly defined, and largely determined by the incidence of tsetse fly. Today, all the large population concentrations are located mainly along the tsetse-free north, west and south-south-east fringes of the Delta. Big villages such as Shakawe, Sepopa, Seronga



and Etsha are found to the north; Gomare, Nakaneng and Tsau to the west; Sehitwa, Toteng, Maun and Shorobe to the south and south-east. Inbetween these villages of varied sizes are small, scattered communities designated either as lands or cattlepost areas. There is considerable mobility between these areas (i.e., village, lands and cattlepost), residence in any one of them depending to a large extent on the season of year and the dominant economic activity for that particular period. Most of the people tend to have at least two different dwelling places, although three is not unusual. The eastern fringe is still largely uninhabited. This area, together with most of the swamps, corresponds closely to the wildlife as well as the tsetse belt. Despite the tsetse menace and lack of easy accessibility, small and isolated groups have been observed on islands in certain parts of the swamps proper. No detailed information on the population exists at present. It is hoped that aerial observations from the periodic project ecological flights, together with limited ground investigations, may provide valuable data in the near future on the exact nature of the swamp population.

Today an estimated 40 000+ inhabitants live in and around the Delta. The total population for the whole of north-west district (as projected from the 1971 census figures) is slightly over 53 000. Maun is by far the largest population centre with some 13 000 inhabitants — i.e., about 25% of the region's total population. Its growth and importance are derived from its dominant position as the administrative, commercial and service centre for Ngamiland. Although Maun appears to have the basic characteristic of an urban centre (i.e., Government offices and housing, three primary schools, post office, hospital, public library and some catering facilities), its general outlook and economy are still largely rural. The successful implementation of the rural development programme currently in progress here may go a long way to enhance not only the status of the "village," but also the general welfare of its residents.

#### Social and cultural considerations

The heterogeneous nature of ethnic groupings in this region makes it one of the most culturally-interesting areas of Botswana. The major groups are the *baTswana*, the *baYei*, the *haMbukushu* and the *ovaHerero*. Small groups such as the *baSarwa*, the *baKgalagadi*, the *baGcerekwa*, the *baSubia* and others, live in close association with the major groups in varying degrees throughout Ngamiland.

One key assumption underlying the 1974 Sociological Survey of the Okavango area, was that some of the sources of variation on such factors as demographic characterisation, economic activities, residence, health, nutrition and the dependence of the people on the resources of the Delta were likely to be among different ethnic groups.<sup>3</sup> Thus, one key variable or consideration which was incorporated in the survey design was that of ethnic composition.

Culturally, certain economic activities are best performed by some ethnic groups and not others within the Okavango region. This variation in economic and cultural practices among the various groups may best be explained in terms of their different environmental and historical origins.

Thus, the *ovaHerero* and related Damara groups who migrated into Ngamiland from Namibia — a much drier environment — are best known for their deep attachment to cattle, and hardly engage in cultivation. Some of the large cattle herds in Ngamiland are found in the Lake Ngami region, inhabited mainly by the *maHerero*. The *baYei*, like the *haMbukushu*, originated from the riverine region of the middle Zambezi valley, and, therefore, are much more adaptable to similar conditions of the Okavango area. Both groups engage in cultivation, although the *haMbukushu* appear to excel in this activity (evidenced by the extensive fields in



Etsha), while the baYei excel in fishing and perhaps hunting. Considered as a single group, the baYei at present appear best adapted to the Delta environment — although all the various groups within the Okavango region seem well-adjusted to this peculiarly-complex environment.

The baTawana, unlike the ovaHerero, combine both pastoralism and agricultural cultivation. In the past they were known for their organisational abilities through the efficient operation of a traditional administrative machinery, which greatly assisted in establishing them as the ruling group in Ngamiland.

From the standpoint of sociological consideration, especially as this relates to development planning, the variation in the age-sex distribution for Ngamiland is quite crucial. In general, there is a slight preponderance of women over men. The proportion of dependents to the economically-active population is also high. This situation is further aggravated by a fairly high rate of male absenteeism, attributed mainly to migrant mine labour recruitment in Ngamiland by WNLA for South African mines. In 1975, a total of 2 056 males were so recruited, not counting those then still serving their contracts in the mines during the same period. On the whole, employment opportunities are limited to relatively few positions in Government branch offices, private organisations, such as safari companies offering seasonal employment and a few expatriate-owned catering enterprises and trading stores based in Maun. Thus, migrant mine labour serves as an alternative means of earning cash wages in South African mines. Apart from the income generated into the local economy by mine earnings (estimated to total close to R1 000 000 for the current calendar year) in the form of deferred payments, the only direct contribution of the region to the larger Botswana economy, is through cattle sales and tourism (respecting the latter, surveys are presently in progress to provide the relevant economic and statistical information for sound planning. These aspects will be discussed more fully elsewhere during the course of this Symposium).

The realisation of the importance of mine labour recruitment and the consequences for the socio-economic development of Ngamiland has led to a preliminary report on this subject being prepared by the sociology section of the Okavango Project.<sup>4</sup> At this stage, a few general remarks with regard to future manpower requirements and employment promotion in the Ngamiland region would appear pertinent. The major considerations should be directed to the areas having the greatest potential for development, but at the same time providing large numbers of recruits for South African mines. In this respect, Shorobe and Etsha/Gomare areas deserve special attention in view of the prospects for agricultural development programmes being sited in one or all of these areas sometime in the future. For example, 228 recruits from Etsha enlisted for mine work over a period of six months (July-December) in 1975. Indeed, the influence of such frequent absence of the menfolk (over proposed improvement for agricultural production in the future) is bound to have far-reaching socio-economic consequences on the areas concerned. Although not fully supported at present by detailed empirical data, some of the adverse effects of the long-established migratory currents on this region have pointed to the breakdown of family life, with its consequent disruptive effects on the social and economic wellbeing of communities so affected.

Other sociological considerations relate to the level of education and training needed for the future development of Ngamiland as a whole. There is a high rate of adult illiteracy, reaching close to 100% in many of the remotest villages — especially among the haMbukushu and related groups to the north. However, there is considerable variation existing from one broad area to another around the Delta. Maun, as the major population centre, has the largest share of formal educational facilities for the entire region, accounting for some 60% of the total enrolled children

in primary schools throughout Ngamiland, currently estimated around 5 000 children. In addition to three primary schools, there are the English-medium school, a secondary school and a youth training centre.

The implications for future development projects would seem to point to the attainment of an appreciable level of education and trained manpower required to participate in innovative practices, as may relate, for example, to large-scale agricultural projects in Ngamiland.

#### Major economic activities

Subsistence arable cultivation still occupies considerable time of a large majority of the population around the Delta. Any occasional surpluses obtained by the farmers are either kept for the next lean season or else sold to the trading stores in the big villages to obtain cash for other essentials.

The present agricultural situation is characterised by small producers, fluctuating harvests (or nothing), marginal returns, limited marketing and service avenues. For these and other reasons (mainly climatic), there is very little incentive for farmers to produce beyond their present level of operation.

Dryland farming (*masimo a pula*) is the popular form of cultivation, accounting for some 80% of fields in Ngamiland. Floodplains, or *molapo*, farming (*masimo a bokgola*) is more evident in areas most conducive to this type of cultivation, particularly around Shorobe and Gomare/Tubu areas.

Sorghum and maize are the major cereal crops grown — maize tending to do best in *molapo* areas. Millet is widely grown in the north among the haMbukushu and related groups, likewise groundnuts. Minor crops, such as pumpkins, melons and beans, are grown in varying quantities throughout the region, but mainly around Maun. On the whole, family members together (especially women and children) tend to do the bulk of the work in the fields.

Cultivation is mainly by plough, using oxen and donkeys, depending on the availability of one form or the other. However, hoe cultivation is still practised mostly among the haMbukushu, baGcereku and baYei. Etsha, a predominantly haMbukushu-inhabited community, presents a good example. Traditional methods of cultivation still predominate and no readily-observable new production techniques, such as the use of fertilisers, pesticides or improved seed varieties, are utilised. Average agricultural land sizes are usually small, just adequate enough for each household's needs. In general, the decision either to cultivate or not during a particular ploughing season, tends to rest on the womenfolk, due mainly to the fact that the menfolk are away from home much of the time in the mines or elsewhere in Botswana seeking or engaged in wage employment. It would be interesting to see what impact the operations of the Grain Marketing Board would make on the cultivation situation in Ngamiland when its activities are extended to this area.

At a different level of consideration, no agricultural projects of any significance are presently located in Ngamiland as a whole. The only small-scale projects in the region are all located in or close to Maun:

1. The irrigated vegetable farm operated by Maun Secondary School;
2. The Prison's vegetable farm;
3. The Settler's, or "Chinese," vegetable farm;
4. The Shorobe Brigade farm;
5. The recently-established dryland experimental farm (2,95 ha) at Nxaragha.

In the case of the latter, the intention is not to apply chemical fertilisers for the first five years while knowledge is being acquired on the behaviour of virgin land under varying conditions. "Kraal" manure is, however, being applied on certain portions of

the farm as part of the experiment.

Livestock-keeping (i.e., cattle and goats), like cultivation, is widespread along the western and southern fringes of the Delta, and as far east as Shorobe, beyond which tsetse fly is encountered. There is considerable variation in herd sizes from one broad ecological area to the next, with the heaviest concentrations occurring in the Lake Ngami region — a predominantly ovaHerero area. For example, the Botswana Livestock Development Corporation has estimated that about 50% of all cattle purchased by the organisation in Ngamiland originate from the Lake Ngami area alone, 40% from the rest of the region and 10% from the Boteti area.<sup>5</sup> Accurate figures on average herd sizes and sales are currently being computed, although it is now estimated that a total cattle population of some 200 000 adults is located in Ngamiland.

One major constraint — from the point of view of development — on marketing and distribution of goods and services in the region, is the difficult and rudimentary nature of the transport and communication system. In this respect, one of the current important development projects for the area is the upgrading of the Maun-to-Shakawe trunk road to an all-weather, gravel surface, scheduled to be completed by 1980. Another planned project is the installation of a pontoon at Mohembo to link up with the existing Mohembo-Seronga road (to be improved) along the eastern bank of the Okavango River. The immediate impact of these development projects will be the opening up of an area with the potential for agriculture (otherwise little-utilised and isolated at present) for the benefit of the local economy and some 5 000 inhabitants of the area.

### Conclusion

Emphasis in this paper has been placed mainly on the broad human factors and their implications for future development projects likely to be initiated in the Okavango area. Certainly, the close association between the social and physical environment cannot be overlooked for planning purposes. From the development point of view, the Okavango region is a complex environment. There are vast distances and difficult terrains to be traversed from one large population centre to another. The traditional residential pattern of scattered and isolated communities (i.e., villages, lands and cattleposts) is likely to provide setbacks for projects located in areas of either sparse population or intense mobility between different dwelling places and seasons of the year by the people. The effects of migration (especially migrant mine labour), complicated by the limited trained manpower presently available to the region, may pose labour problems in the future.

Under the present circumstances, it is unlikely that the people at the present level of subsistence and marginal production will be able to undertake development programmes of any high magnitude on their own. It seems obvious that substantial Governmental support will be required to undertake large-scale projects for the benefit of the area, such as road construction, improvement of social infrastructure, etc. A partial solution to this dilemma is to encourage the formation of economically-viable groups (e.g., co-operatives), in which members will pool all available resources for investment purposes, which, in turn, will open up job opportunities, even if initially on a modest scale, for their respective communities. Thus, a sustained motivation of the people to self-reliance and self-help, will, no doubt, go a long way to provide the needed supplement to Governmental efforts in social and economic development.

Solutions for the kind of problems now under discussion are difficult to find; there are no easy or quick answers, especially considering the interlocking, or "vicious

circle," nature of many of the problems. So far, views and approaches have differed considerably. However, the "total picture" approach provided by the present inter-disciplinary Okavango Project to the development effort in the Okavango region, points in the right direction. Although much more work is yet to be done in finding the final answers to the problems, it is hoped that the desired results will eventually be produced (after a careful appraisal of all the available information provided by the various disciplines involved) for the benefit and general welfare of not only the local population of the Okavango region, but the whole of Botswana.

### REFERENCES

1. Tlou, Thomas. 1976. "The Peopling of the Okavango Delta c.1750-1906." Okavango Delta Symposium.
2. Campbell, A. C. 1976. "Traditional Utilisation of the Okavango Delta." Okavango Delta Symposium.
3. Afriye, E. K. May 1975. "Sociological Survey of the Okavango Delta and its Environs: An Interim Report." BOT/71/506, Technical Note No. 3.
4. Afriye, E. K. April 1976. "Report on the preliminary investigation of migrant mine labour in Ngamiland." BOT/71/506, Technical Note No. 7.
5. Personal communication with Mr J. P. Reynolds, Manager, Botswana Livestock Development Corporation Ranch, Makalamabedi (May 26, 1976).