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Source: *The Journal of Modern African Studies*, Vol. 23, No. 3 (Sep., 1985), pp. 463-482

Published by: Cambridge University Press

Stable URL: <http://www.jstor.org/stable/160661>

Accessed: 16-03-2017 21:46 UTC

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## ***Coping with Drought in Botswana: an African Success***

by JOHN D. HOLM and RICHARD G. MORGAN\*

SINCE African states began to obtain their political independence almost three decades ago, drought has exacerbated critical problems of social equality. In domestic politics, élites have used their control over food aid to enhance their power *vis-à-vis* those suffering from declines in agricultural production. Two scholars recently concluded that ‘food-relief programmes... have helped to widen the gap between rich and poor in virtually every country in which they operate’.<sup>1</sup> Internationally, the industrialised states have taken advantage of drought to impose policy directions on affected African states. Often the general public has had to bear the brunt of changes in, for example, the prices of consumer goods and wages. Sometimes, African governments have even altered their foreign policy drastically in the midst of a drought as part of their process of trying to cope with a national emergency. Most recently, the drought in Southern Africa left Mozambique little option but to reduce its support for liberation movements in neighbouring white-ruled South Africa.

The Government of Botswana is openly committed to an approach to development that accepts a certain degree of inequality as necessary for capital mobilisation. Such a régime might be expected to allow the inequalitarian effects of drought to become particularly severe. Instead, its political élite has sought to counter this result in the most recent drought and has, at least partially, succeeded. Botswana’s relief effort provides food and other forms of aid to those in need as a matter of right and not as a consequence of political supplication. Moreover, the poor have been able to maintain part of their pre-drought income rather than being depleted by the crisis.

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<sup>1</sup> Michael F. Lofchie and Stephen K. Commins, ‘Food Deficits and Agricultural Policies in Tropical Africa’, in *The Journal of Modern African Studies* (Cambridge), 20, 1, March 1982, p. 20.

International interference has also been minimised in Botswana. As in other parts of Africa, foreign governments and voluntary groups have aided in the relief effort. However, they work within a programme which the Government designed before the drought and has managed once relief was required. Rather than the aid-givers dictating the policies of this structure, they appear eager to become involved. Even South Africa has not been able to take advantage of the drought to extract a security accord from Botswana, similar to that with Mozambique.

This article examines the extent to which Botswana has countered the normal tendency of drought to enhance political inequalities in Africa, the process by which changes have been achieved, and the reasons for the relatively successful outcome. Not surprisingly, the Government still faces drought-related problems of equality, and it is, of course, not certain whether other African states can emulate the Botswana experience.

#### CONDITIONS OF DROUGHT IN BOTSWANA

All of Botswana is within the Kalahari Desert or on its semi-arid fringes. Rainfall varies from 700 mm in the north-east to 250 mm in the south-west, while most areas receive between 400 and 500 mm on an average. Even for crops such as sorghum and millet, which require relatively little moisture, farming is a high-risk activity with these levels of precipitation. The problem is compounded by the fact that the rain often comes irregularly within the growing season, leading to moisture stress on crops. Even in good years, the winter is a dry season and oxen are not usually in good condition for ploughing when the first rains come, thus forcing many farmers to prepare their fields late.

Drought in some form is present in the country seven out of every ten years, of which three on an average are considered severe. Particularly devastating and not unusual are when several bad droughts follow in succession, as has been the case since 1982. Indeed, by 1984, farmers had harvested almost no grain. As Table 1 indicates, the number of households planting has gone down each year. The area planted dropped one-third and that harvested reached 15 per cent of 1981. The tonnage obtained in 1984 was 13 per cent of the most recent favourable rainfall year. In recent seasons Botswana has at best produced 40 per cent of its cereal needs, which are around 200,000 metric tons, and by 1984 was almost totally dependent on imports.

Most rural households with any surplus income own cattle. Their survival strategy during a drought is to sell off part of their herds. Even

these Batswana are hard hit because the animals lose weight, calving rates go down, and death rates rise, as may be seen from Table 2. Those with small herds suffer disproportionately greater losses as they do not have the resources to protect their investment. During the first ploughing season after the drought, farmers cannot use cattle to prepare the fields until the plant life revives and the animals have grazed sufficiently to recover their strength. Thus, even good rains after a drought do not usually bring a return to anything like full production.

TABLE 1  
Impact of Drought in Botswana on Crops<sup>1</sup>

Season	1979-80	1980-1	1981-2	1982-3	1983-4
Households with land	70,240	70,800	71,000	60,900	59,200
Households planting	65,735	68,650	57,000	48,200	51,200
Households harvesting	54,630	57,545	23,400	11,230	18,150
Crop production (tons)	44,800	54,285	17,220	14,025	6,925
Total crop value (millions of Pula)	14.95	18.85	8.02	4.08	2.01
Family labour (no. of persons employed)	186,700	188,400	163,000	139,200	n.a.
Labour hired (no. of persons hired)	60,200	74,700	52,100	47,550	n.a.
Planted area (ha.)	286,700	290,200	204,500	225,000	185,000
Harvested area (ha.)	218,300	222,000	75,300	60,750	56,000

TABLE 2  
Impact of Drought in Botswana on Cattle<sup>2</sup>

Season	1979	1980	1981	1982	1983	1984
Cattle population ('000)	2,840	2,911	2,967	2,979	2,818	2,685
Slaughter ('000)	n.a.	227	237	242	294	n.a.
Death rate (%)	9.8	12.2	12.1	15.2	16.3	17.9
Annual offtake (%)	10.2	7.8	8.0	8.1	10.4	12.9
Calving rate (%)	n.a.	58.7	57.0	59.6	52.3	n.a.

Many of the Batswana still forage for food to varying degrees. Rural people consume, exchange, or sell over 100 varieties of fresh and dried wild fruits and vegetables. In the poorest ten per cent of the population, close to a quarter of their income comes from gathering,<sup>3</sup> a proportion

<sup>1</sup> Sources: Ministry of Agriculture and Ministry of Finance and Development Planning, *Botswana Agricultural Statistics* (Gaborone), 1979-81, and *Botswana Agricultural Census* (Gaborone), 1982-4.

<sup>2</sup> Sources: *ibid.*

<sup>3</sup> Government of Botswana, *The Rural Income Distribution Survey in Botswana, 1974/75* (Gaborone, 1976).

that expands with drought.<sup>1</sup> It has been estimated that up to one-quarter of all small-village income in Botswana comes from hunting and related activities.

The survival strategy of such foragers in periods of drought has in the past rested on increased migration: they searched widely for plants and wildlife to compensate for the effects of low rainfall. The penetration of desert areas by large numbers of cattle since the early 1970s has greatly reduced the opportunities for foraging, even during years of good rain. In addition, the fencing used to control the movement of animals has markedly restricted the area in which wildlife migration is possible. The result is that the hunters and foragers are believed to be the hardest hit by drought, not least because of the central administration's limited ability to reach such communities.

The one factor that mitigates the effect of the drought on Botswana is that the population has gradually integrated itself into the market economy of Southern Africa over the last century. As a result, most households obtain income that persists during the years of drought. Some members are active in local trading and small-scale industry, while others are employed by private enterprise and government in Botswana. And many households receive remittances from miners working in South Africa, although this source of employment has declined in recent years.

The economic effects of the drought are nevertheless devastating. The total national income from agriculture was P 121 million in 1981.<sup>2</sup> In 1983, the loss from the drought for livestock and crops alone was almost P 34 million, or one-third of the income produced by agriculture – see Table 3 – and the situation deteriorated further in 1984. Other sectors are also affected. For instance, in order to conserve water in the capital city, Gaborone, the Government stopped the construction of all new housing in 1983. The result has been overcrowding of existing dwellings, inflation in real-estate prices, and unemployment in the building industry.

#### PROTECTING THE POOR AGAINST DROUGHT

Botswana's relief programme has four basic elements. First, an effective system of food distribution has been developed for those who

<sup>1</sup> Robert K. Hitchcock and James I. Ebert, 'Foraging and Food Production among the Kalahari Hunter/Gatherers', in J. D. Clark and S. A. Brandt (eds.), *From Hunters to Farmers: the causes and consequences of food production in Africa* (Berkeley, 1984).

<sup>2</sup> Ministry of Finance and Development Planning, *The Midterm Review of NDPV* (Gaborone, 1983), p. 16. The Pula was introduced in 1976 and had a value of between \$1.35 and \$1.13 up through 1981. Subsequently it has slipped *vis-à-vis* the strong U.S. dollar until January 1985, when it reached \$0.55.

TABLE 3  
Livestock and Crop Losses in Botswana due to the 1983 Drought<sup>1</sup>

Livestock			
1. Cattle			
Deaths in normal year (1981)	359,000		
Deaths in 1983	458,800		
Cattle lost to drought	99,800		
Average value per head	P 180		
Total income loss:		P 18,562,800	
2. Small stock (sheep, goats, poultry)			
Total income loss:		P 2,000,000	
3. Total loss in income for livestock:			P 20,562,800
Crops			
Total production of food crops in a normal year (metric tons) <sup>a</sup>	60,000		
Total production of food crops in 1983 (metric tons)	14,425		
Decrease in crop production (metric tons)	45,575		
Average value per metric ton	P 290		
Total loss in income for crops:			P 13,216,750
Total loss in income for livestock and crops			P 33,779,550

<sup>a</sup> Includes sorghum, maize, millet, beans, and pulses.

are not able-bodied. With a few exceptions, supplies arrive on time and with almost no spoilage or theft. Close to 60 per cent of the rural population had been fed on a regular basis by 1984, in contrast to only about one-quarter during the devastating droughts of the 1960s.<sup>2</sup> However, coverage of the vulnerable population is still not complete, because many who live in the remote areas, such as the Bushmen, are not reached.

During non-drought years, food is provided several days a week in the primary schools, and through the health centres to medically selected pre-school children, to pregnant and lactating women, and to tuberculosis patients. As soon as a drought begins, the schools respond by feeding their children every day, while the health centres drop the criterion of medical selection and feed all in the three population groups they serve, as well as those who are registered as destitute, and children up to ten who are not in school. The rations provided through the health facilities are augmented from what is available in non-drought periods.

<sup>1</sup> Source: *Botswana Agricultural Census*, 1983.

<sup>2</sup> Steven Tabor, *Drought Relief and Information Management: coping intelligently with disaster* (Gaborone, 1983), p. 19.

These feeding programmes increasingly prepare and serve meals on site. This approach has several advantages. The opportunity for the food to go to other members of the family who are able-bodied is lessened. Staff can give special attention to the malnourished. Moreover, the feeding is complemented, where feasible, with education designed to encourage the use of local foods of high nutritional quality.

The second element of the Government's effort is a much expanded employment scheme to provide short-term supplementary income. Adults who can work are given an opportunity to do so, and they were paid at the daily rate of P2.00 during 1984-5. The idea is to provide poor households with an income to replace the resources they would otherwise have derived from agriculture. Jobs are available in all rural settlements of any significant size, employing between 40,000 and 70,000 per year. The projects are labour intensive and use traditional skills. One of the most productive and well-organised employs women to stamp sorghum grain into flour for school needs. Many involve the improvement of local infrastructure, especially roads, dams, firebreaks, airfields, government buildings. Most are operated after the harvest so that people are not drawn away from their fields. These labour-based projects provide several million Pula per year in added rural income. Farmers are offered a further source of cash, namely up to P120 if additional land is destumped for cultivation after the drought.

Water is the third focus of the relief programme. Wherever sources of domestic water fail, local councils are funded to provide temporary supplies, aided as far as possible by maintenance crews. The rural drilling programme for small settlements has also been speeded up. While there have been complaints about adequacy of supply, basically all the population, except nomads, has been able to obtain enough water for human consumption on a regular basis.

Finally, a number of agricultural projects stand ready to expedite recovery from the drought. The Government provides a basic seed package free to all farmers, as well as low-cost draught power to those who have few or no animals. Older cattle are purchased at a floor price in order to reduce grazing pressures during and after the drought, and to provide another source of rural income.

The success of these various schemes thus far in the most recent drought is best reflected in the containment of malnutrition among children, who are most likely to be victims. Government surveys have detected severe malnourishment, defined according to the Harvard standard as less than 60 per cent of expected weight for a given age, in under one per cent of the under-5 population. Even the incidence of undernourishment – defined as less than 80 per cent of expected

weight – only increased from 26 to 31 per cent during 1983, and has remained relatively stable subsequently, even though the drought has worsened. While there are no comparative figures on how the country fared in earlier years, those who have experienced previous droughts say that the decline in suffering among the disadvantaged is dramatic. At the most graphic level, there is no evidence of death by starvation and there is little or no increase in the number of public beggars.

In comparison with other African countries, the Botswana record looks particularly impressive. A recent report prepared for the Food and Agriculture Organisation stated that Botswana had less malnutrition than any other drought-affected economy in Southern Africa.<sup>1</sup> Botswana achieved this result even though it is more arid than any of the other countries in the region and by 1984 had almost no internal crop production.

Many analysts of Botswana's politics have stressed that the Government has largely served the richer cattle-owning group to the disadvantage of the rest of the population.<sup>2</sup> Of particular note has been the Livestock II Development Project that has financed the establishment of cattle ranches on a leasehold basis, albeit at a cost of P8 million between 1978 and 1984.<sup>3</sup> This élitist budget bias has at least been altered temporarily by the recent drought. The Government's relief programme basically goes to help the poor, and received appropriations for 1984–5 of over P40 million, a sixfold increase over the previous year's expenditures – see Table 4. Droughts used to be a time when the country's resources were most adversely skewed towards the rich.<sup>4</sup> The present remedial measures may actually have achieved a substantial temporary redistribution of income to the poorer segments of the population. At the very least, they have served to counter the worsening of inequality during a drought.

#### PROGRAMME ORGANISATION

In most African countries, drought relief involves setting up temporary organisations to handle the demands of the crisis. These structures provide excellent opportunities for corruption and foreign manipulation. Botswana's programme, by way of contrast, involves the expansion of

<sup>1</sup> John Mason, John Haaga, and Karen Test, 'Food and Nutrition in SADCC Countries', Ithaca, 1984, prepared for the Food and Agriculture Organisation, Rome.

<sup>2</sup> See, for instance, Louis Picard, 'Bureaucrats, Cattle and Public Policy: land tenure changes in Botswana', in *Comparative Political Studies* (Beverly Hills), 13, 3, October 1980.

<sup>3</sup> For a recent report on the details of Livestock II expenditures, see Ministry of Agriculture, *Livestock Development Project Progress Report, 1982/83* (Gaborone, 1983).

<sup>4</sup> Paul Devitt, 'Drought and Poverty', in Madalon T. Hinchey (ed.), *Proceedings of the Symposium on Drought in Botswana* (Hanover, New Hampshire, 1979), pp. 121–7.



TABLE 4  
Expenditures on Drought Relief in Botswana, 1982-5<sup>1</sup>

Pula

	1982-3	1983-4	1984-5 <sup>a</sup>
Agricultural relief	813,345	2,896,294	10,456,000
Food supplies and distribution	1,289,681	2,765,084	11,004,000
Labour-based relief	3,121,000	5,792,728	10,977,000
Water relief	2,403,306	621,673	8,100,000
Other (mainly cancelled school-fees)	20,406	313	n.a.
Total	7,647,738	12,076,822	40,537,000
Percentage donor-funded	33	13	9
Drought expenditures as % of overall development expenditures	3.4	8.5	12.0

<sup>a</sup> As allocated at the beginning of the financial year. Actual outlay will be closer to P 27 million.

existing institutions, notably in the five Ministries that have assumed additional responsibilities related to their functions.

The Ministry of Local Government and Lands, through its Food Resources Department, handles food-aid imports, local purchases, and distribution to schools and health facilities. The Ministry of Agriculture administers farm relief and recovery through its extension staff and veterinary cadres. The Ministry of Mineral Resources and Water Affairs, in liaison with local government, handles all water supply problems. The Ministry of Health monitors the nutrition situation and organises on-site feeding of malnourished children and vulnerable groups. The Ministry of Education oversees the feeding of primary-school children. To co-ordinate all these activities, there is an Inter-Ministerial Drought Committee. The fact that staff from the Ministry of Finance and Development Planning, with its control over financial resources, co-ordinates the I.M.D.C., ensures that the Committee's decisions are taken seriously in each Ministry.

If the Botswana Government is to handle drought on its own, it is vital that it mobilises itself before any crisis overwhelms its capacities. The Inter-Ministerial Drought Committee set up a small early-warning technical group to collect and make regular monthly reports on rainfall, soil moisture, crop production, nutritional status of the popu-

<sup>1</sup> Sources: Ministry of Finance and Development Planning, *Supplementary Estimates for the Development Fund, Financial Paper No. 1 of 1984/1985* (Gaborone, 1984), and *Project Review, 1984* (Gaborone, 1985). Figures do not include additional recurrent expenditures required due to drought. They also do not include commodity food-aid in kind, estimated at approximately P31 million for the calendar year 1984.

lation, and availability of foodstuffs. On the basis of this data, it then formulates, for I.M.D.C. adoption, policy directions for the various Ministries. In effect, the Government can monitor and direct its decentralised ministerial operations through this technical group, and there is good evidence to suggest that it is able most of the time to warn the Government of impending local problems, before responsible district politicians and civil servants are aware of what is happening. Indeed, local drought committees rely heavily on the data provided by the early warning system to determine the seriousness of the situation in their district.<sup>1</sup>

This use of existing institutional structures is not without problems. On-going activities not related to drought suffer, primarily through the diversion of the country's scarce trained personnel. The local government planners must forsake some of their regular duties in order to supervise 'labour-based relief projects', and this is often inadequate because the council staff lack the necessary technical expertise. Low productivity and costly over-runs often result. In other cases, staff are strained beyond reasonable limits. For instance, nurses at health centres and head teachers have found it difficult to continue their normal duties and to manage the vastly increased feeding operation. Moreover, they have received few support cadres to perform the additional tasks. But the fact remains that the central régime keeps the day-to-day direction of drought relief within existing, well-established command structures.

The Government also minimises foreign influence in the programme through other aspects of its organisation. Of particular importance is the fact that there is a considerable grass-roots input into policy implementation. Village committees make the initial project choice for labour-based relief. Only then do district officials assess and budget the various schemes proposed, and afterwards supervise their implementation.

Botswana has also been able to reduce foreign influence during the most recent drought, because it consciously accumulated surplus funds during the 1970s. As of the end of the fiscal year 1982, for instance, the Ministry of Finance and Development Planning had over P59 million in cash reserves, including more than P29 million in the revenue stabilisation fund.<sup>2</sup> In addition, the Government has a very favourable foreign-exchange position. Therefore, when foreign commodity food-aid could not be obtained immediately for critical needs, domestic resources

<sup>1</sup> Botswana's early warning system was said to be the best in the S.A.D.C.C. region. See *Report of Project Proposal for the Establishment of an Early Warning System for Regional Food Security* (Harare, 1983), cited in Tabor, op. cit. p. 85.

<sup>2</sup> Ministry of Finance and Development Planning, *Annual Statements of Accounts, 1981-3* (Gaborone, 1982), p. 185.

could be tapped. On a number of occasions, the food that was urgently required was bought on international markets, and relief agencies picked up the cost later, when they had completed their decision-making.

Equally important in terms of financial independence, the Government has rapidly increased its own funding of drought-relief measures. Outside of food-aid in kind, domestic resources now cover almost all drought-related expenditures. In the 1984–5 budget, the Government paid for 94 per cent of non-food costs, whereas two years previously the donors had covered 33 per cent outside of commodity food-aid.

The Government is seeking to become even more self-sufficient in future by making planning itself more drought-oriented. In 1983, the Ministry of Finance and Development Planning established a high-level committee of civil servants to design a national food strategy. It is identifying ways to increase local food production, to strengthen nutrition-oriented services, and to augment existing capacities to respond to drought. The results of this exercise have already had the effect of making the latest development plan, number six, the first explicitly to deal with drought-related issues. The document proposes securing strategic grain reserves, exploiting the irrigation potential of the Okavango delta and several river flood-plains, enhancing food-distribution capacity when the rains fail, and training civil servants to assume particular responsibilities in time of drought.<sup>1</sup>

In short, the attitude of the Government has changed dramatically in recent years. There is a growing recognition that drought is a 'normal' condition with which all institutions – from family to government – must be prepared to cope. While the élite welcomes foreign aid, it is prepared to respond regardless of the level of this external assistance.

#### DEVELOPMENT OF BOTSWANA'S DROUGHT- RELIEF PROGRAMME

The Botswana drought-relief programme did not come into existence all at once, having evolved through a long process of frank self-evaluation wherein remedies for earlier weaknesses were sought.

The country obtained independence as the prolonged drought of the 1960s was ending. The new leaders had little opportunity to prepare for the next crisis, not least because they were trying to reduce large budget deficits and to establish their authority. Besides, the 1970s were

<sup>1</sup> Ministry of Finance and Development Planning, *National Development Plan, 1985–91* (Gaborone, 1985).

years of bountiful rainfall. By the middle of the decade, however, international agricultural experts who had been resident in the country since before independence began to warn that the situation was bound to change for the worse soon. The politicians were willing to listen, in part because Botswana was so much better off economically due to the income beginning to flow from its first diamond mine.

The Government's initial move to create a drought strategy in 1975 was to hire a consultant, Stephen Sandford, who was asked to make recommendations for a plan of action for the livestock sector. At the urging of mostly civil servants outside of agriculture, particularly expatriates, Sandford emphasised the additional need to design a drought-relief programme that concentrated primarily on the inhabitants.<sup>1</sup> This same lobby subsequently also pushed the Botswana Society to hold a national conference in 1978 which focused on the human aspects of drought,<sup>2</sup> and which placed planning from this new perspective at the top of the Government's policy agenda. The participants pointed not only to the devastating effects of previous droughts – mid-1870s, mid-1890s, 1912–16, early 1920s and 1930s, 1947, and the 1960s – on the human population, but also to the inevitability of another crisis in the 1980s. They stressed that many simple things could be done to combat and ameliorate the effects of drought, if the Government took time to prepare.<sup>3</sup> Still another manifestation of concern about a future drought was the decision to establish a nutritional monitoring system in 1978. The idea was to have information available which would indicate, in concise quantitative terms, the seriousness of the next drought for the mass of the population.<sup>4</sup>

In 1979–80 the country was plunged into its first serious drought since the 1960s. The next year was also bad in the north, where the situation was compounded by the impact of foot-and-mouth disease on the cattle economy. Among the remedial programmes now begun were: paying farmers to destump fields, providing free vaccines and low-cost food supplements for cattle, expanding institutional feeding, and offering free seeds to crop farmers. The Government also used its nutritional monitoring system in drought conditions for the first time. In the north, programmes of public works were expanded to offer more opportunities for employment.

<sup>1</sup> Stephen Sandford, *Dealing with Drought and Livestock in Botswana* (Gaborone, 1977).

<sup>2</sup> Robert Hitchcock, personal communication, 1 March 1985.

<sup>3</sup> See Hinchey (ed.), *op. cit.*

<sup>4</sup> J. Kreysler, 'Nutritional Surveillance in Botswana as a Method of Planning the Prevention of Hunger Situations', in *ibid.* pp. 221–31.

Inevitably, a number of problems emerged, notably the ineffectiveness of the food-distribution system. Some regions suffered gross shortages of relief supplies, and others had more than they needed. Overall, both national and district officials were reluctant to take action until nutritional data revealed serious adversity. As a consequence, when governmental organisations actually reached the people with food or other relief services, the suffering was considerable. Moreover, there were very few contingency plans, so that all policies had to be thought through from the beginning, which also slowed down their eventual implementation.

The real significance of the 1979–80 drought was not so much the achievements of the Government, although there were some, but that an attempt was made to examine and deal with the failures of its new programmes. The Ministry of Finance and Development Planning hired two international consultants to evaluate the actions taken, and they produced a frank report about the problems that existed, as well as the successful achievements.<sup>1</sup>

According to Toby Gooch and John MacDonald, arrangements for the distribution of food were so poor that the entire organisation in the Ministry of Local Government and Lands needed to be abolished and re-established in the Ministry of Finance and Development Planning. They also said that the Government should organise public-works projects during periods of drought primarily for relief purposes, and that there should be less worry about whether the results were genuinely productive since it was important for people to have the opportunity to earn a minimal income. The realisation of a cost-effective labour-intensive programme would require the gradual creation of additional technical and management cadres over a considerable period of time. The consultants also called for effective contingency planning, improvements in the monitoring system, increased food rations for vulnerable communities, inclusion of more groups in the feeding programme, and higher wages for those employed on public works.

These recommendations were discussed at a conference organised by the Ministry of Local Government and Lands for national and local officials. Most participants supported the policy changes outlined by

<sup>1</sup> Toby Gooch and John MacDonald, *Evaluation of 1979/80 Drought Relief Programme* (Gaborone, 1981), and *Evaluation of Labour Related Projects in Drought Relief and Development* (Gaborone, 1981). Their findings profited from a number of studies which examined household behaviour and the adequacy of remedial programmes during the drought, especially in Kweneng District. See Christopher Sheppard, *Coping with Drought in Botswana: household strategy and government policy* (Gaborone, 1979), and Helga Vierich, *Drought 1979: socio-economic survey of drought impact in Kweneng* (Gaborone, 1979).

Gooch and MacDonald, apart from their proposal that food distribution should be transferred to another Ministry.<sup>1</sup> The Government later decided to upgrade the staff in the Ministry of Local Government and Lands concerned with food relief, and to expand their responsibilities. The budget of the re-titled Department of Food Resources grew by 22 per cent over the next three years, more than any other. In addition, the Government began to improve programmes undertaken during the previous drought in the light of various proposals made by the consultants, and the provision of basic welfare services was continued, albeit usually at a lower level of funding.

Most critical to allowing this growth process to go forward is that the Government sought frank, expert evaluations of the problems and then encouraged open public comment on the recommendations. The debate has given local officials opportunity to modify national policy proposals, and to respond to the grass-roots realities, e.g. income needs, training of staff, and public opinion. The end result has been a national policy which has shown increasing recognition of local needs.

#### WHY BOTSWANA'S SUCCESS?

Drought has stimulated the Government of Botswana to act differently from others in Africa. It has provided for the poor so as probably to increase what they get from the state relative to that obtained by the rich. It has also developed programmes based on indigenous institutions that limit foreign influence. There are various reasons for this success.

In part, Botswana has some advantages which make drought relief *per se* easier to undertake. Being so close to South Africa, it has immediate access to that country's highly developed foreign trade and domestic transport system in securing food and other supplies required for the relief effort. Also, most of the Batswana are concentrated in a series of large villages, ranging in size from 5,000 to 35,000 inhabitants, along a 500-mile road network in the eastern part of the country. Still another factor is that the economy has grown at an extraordinary pace in recent years with the opening of two major diamond mines. The Government has been the major domestic beneficiary of the resultant income – which now accounts for close to 40 per cent of its total revenues, double the percentage of six years ago<sup>2</sup> – and can therefore finance a substantial portion of the relief programme on its own.

<sup>1</sup> Ministry of Local Government and Lands, *Proceedings on the Drought Evaluation Consultancy Seminar* (Gaborone, 1981).

<sup>2</sup> Ministry of Finance and Development Planning, *Financial Statements, Tables and Estimates of Consolidated and Development Fund Revenues, 1984/85* (Gaborone, n.d.), p. 7.

Probably Botswana's most important natural advantage is that it is, in fact, so drought prone. As a consequence, the political élite knows that there is no way it can gamble on escaping from the problem. Most of the other countries in Southern Africa can more realistically hope that they may be spared a really serious drought on any more than an occasional basis.

These advantages only make it possible for the Government to deal with the problem of political equality. They do not assure the results just described. Of paramount importance are several overall aspects of how Botswana society is organised. The attention to the needs of the poor stems particularly from the competitive electoral system. The ruling Botswana Democratic Party has recently come to see drought relief as a very effective means of reinforcing its rural support, the principal source of its majority.

As the 1984 elections approached, the Botswana economy was slumping due to declining diamond prices and the drought. The B.D.P. élite increasingly looked at programmes of relief as a means of showing the population that the Government was concerned about their plight. The huge increase in drought-relief budgets from P 12 million in 1983-4 to P 40 million in 1984-5 can only partially be explained as the result of the deepening severity of the drought. The Ministry of Finance and Development Planning actually ended up resisting pressures from the Cabinet to push the figure higher. What the civil servants once had urged on the politicians with great difficulty, the latter have now come to perceive as an important means to obtain re-election.

The politicians have made certain that they are regarded by the public as playing a critical rôle in drought relief. The character of the action to be taken every year is personally announced by the President in a special speech to the nation. M.P.s attend meetings of their respective district drought committees, and civil servants involved in particular schemes at the local level make regular reports to the district councils, thus allowing their members to take credit with their constituents. Indeed, many councillors are active in the administration of the various relief programmes in their wards.

Drought relief is coming to assume a rôle in Botswana politics comparable to education and welfare in the industrialised countries. Indeed, it is already so popular that the leaders of the B.D.P. have resisted pressures for cuts from bureaucrats. It will be difficult for the Ministry of Finance and Development Planning, which quite naturally concerns itself with balancing the budget, to find a politically acceptable way of reducing the various relief programmes, once the drought is over.

It is very possible that Botswana could find itself with a fairly extensive and permanent set of social welfare services as an outcome of this process. After the drought of 1979–80, the Government contracted the relief effort gradually, but given the much higher levels of funding this time, P40 million compared to P3.7 million, the withdrawal may not be accomplished before the next drought begins, especially as many are coming to perceive post-drought recovery as a multi-year process.

The constraints placed on foreign influence in Botswana during the drought are made possible by other aspects of the organisation of society. Private investment has been encouraged throughout the economy, and this has resulted in the emergence of a number of foreign and domestic enterprises of various sizes, many of which engage in trade and transportation. In the most recent drought, the Government took advantage of their services: trading stores were well stocked with food so that those employed on public-works projects could buy what they needed, while local entrepreneurs could be hired to transport and mill the grain for the feeding programme. A particular consequence of this strong and extensive private sector has been that international voluntary organisations have played a much smaller rôle than in other African countries where private distribution networks are small or inhibited by unsympathetic policies.

The efficiency of the Government itself has also been a factor in reducing the influence of foreign organisations. Relative to other African ruling élites, the B.D.P. has been particularly inclined to favour productivity more than such alternative values as patronage or localisation. As a result, the national leaders listen and respond to international consultants, who have provided trenchant critiques of the efficiency of relief programmes. The Government has also not hesitated to employ Europeans at technical and managerial positions when no qualified Batswana are available. All the six second-level administrative staff in the Division of Water Affairs, for instance, are still expatriates, and probably will be so for a number of years. They provide the required technical and managerial expertise that comes often from several decades of relevant experience. Local staff with sufficient know-how in the implementation of relief or similar operations still do not exist in sufficient numbers to man the comprehensive relief programmes required to combat the emergency. In effect, expatriates are employed to ensure that relief efforts work technically. The Government incorporates these temporary specialists within its apparatus on a selective basis before the drought begins, rather than having to accept whomever a foreign government offers on whatever conditions in the midst of a crisis.



One further factor which has helped the local relief effort to retain its independence internationally is that the industrialised nations are eager to provide drought aid to Botswana. Even though this country has an income *per capita* which is one of the highest in Africa, it has been able to obtain substantial food aid. In 1984, close to one-fifth of its total cereal consumption came from foreign donors. A similar situation is likely to prevail in 1985 – see Table 5 for the figures for the last six years.

A contrast with Niger provides some indication of Botswana's favourable position. Whereas this French-speaking land-locked state is currently experiencing a comparable drought, it can expect to obtain only 25.4 kg per person in food aid in 1985.<sup>1</sup> Botswana, on the other hand, as may be seen from Table 5, will probably secure almost 39 kg per person, despite the fact that its G.N.P. *per capita* was \$902 as against \$336 for Niger.<sup>2</sup> In other words, although Botswana is clearly much more able to take care of itself financially, it receives more food aid.

The reasons for this foreign bounty have in part been identified in the preceding paragraphs. Botswana can move food aid to those who need it efficiently and quickly with little need for new organisations and with minimal loss. Foreign governments know that they will get results from their expenditures in Botswana. Western democracies are also eager to use food to reinforce the political stability of one of the few functioning liberal democracies in Africa. The fact that there is a flourishing private economy also helps ideologically. Finally, the western nations like to aid Botswana so as to establish their commitment to the black states surrounding South Africa, and thus to emphasise their non-racial orientation.

Privately, most aid personnel will admit that these basically political reasons assure Botswana of much more assistance than is justified, given its income *per capita*. Those who have made this known to their respective governments, however, have met with little willingness to cut Botswana's aid.

#### CONCLUSIONS

Botswana's successes are not unmitigated; indeed, its drought relief programmes have brought new issues to the fore, notably the need to confront the problems of post-drought recovery. It can be assumed that at the end of the present drought cycle, which may last several more

<sup>1</sup> Robert Charlick, personal communication, 15 February 1985.

<sup>2</sup> John P. Lewis and Valeriana Kallab (eds.), *U.S. Foreign Policy and the Third World: agenda 1983* (New York, 1983), pp. 210–11.

TABLE 5  
Availability of Food in Botswana, 1980-5<sup>1</sup>

Season	1980	1981	1982	1983	1984 <sup>a</sup>	1985 <sup>a</sup>
Domestic cereal production (tons) <sup>b</sup>	40,300	48,860	15,500	12,980	6,230	15-20,000
Total cereal imports (tons) <sup>c</sup>	109,288	79,423	111,020	178,718	170,000	n.a.
Food aid (tons)	13,462	9,248	4,906	24,278	31,333	43,240
Total cereals available (tons) <sup>d</sup>	149,588	128,283	126,520	169,698	176,230	n.a.
Total cereals available <i>per capita</i> (kg)	164	136	130	165	163	n.a.
Total food aid <i>per capita</i> (kg)	14.8	9.8	5.0	24.2	29.0	38.8

<sup>a</sup> Estimated figures.

<sup>b</sup> 10% deduction for losses and seed.

<sup>c</sup> Includes food aid.

<sup>d</sup> Does not include food stockpiles.

<sup>1</sup> Sources: *Botswana Agricultural Statistics*, 1981; *Botswana Agricultural Census*, 1982, 1983 and 1984; Customs and Excise Department, *External Trade Statistics* (Gaborone), 1981-4; and data supplied by the staff of the Department of Food Resources, Ministry of Local Government and Lands, Gaborone.

years,<sup>1</sup> a good number of small producers will have financial difficulty returning to their fields and, consequently, will seek alternative sources of income. The options available include gathering, casual employment, beer brewing, hawking, and continued public welfare. This last possibility is the least attractive in terms of promoting citizen self-reliance and cutting recurrent expenditures. Such redistribution does, however, provide greater income equality.

This means that the Government must face the task of determining how it can reduce current relief and also expand employment opportunities for the poor, particularly in agriculture. What kind of aid will enable small farmers to regain their productivity? If labour-based relief projects continue, will those involved invest in the needed inputs for increased output, or will they use their income for immediate consumption needs, as they do now? If those who do not have access to draught power receive subsidies to help ploughing costs, will they continue to farm when these are terminated?

If the average rural household is to have a greater capacity to deal with drought on its own in the long run, the distribution of productive wealth must be reallocated on a more equitable basis. The quickest way to move in this direction would be to allocate cattle more evenly among the population.

Thus far, the Government has been hesitant to consider such a solution. The significant attempt to alter the productive capacity of low-income rural groups has been the Arable Lands Development Programme, launched in 1982 to provide implements, fencing, and teams of draught oxen or donkeys on a generous grant/down-payment basis. Agricultural agents offer intensive extension assistance to the farmers involved. There are also expectations that on-going farming systems and seed research will bring some production advances in the near future. Even so, the most optimistic estimates are that many farm families will still only be able to meet part of their subsistence needs in non-drought years.

To what extent is the Government prepared to commit available resources not only to combat the immediate effects of drought, but also (1) to promote diversification away from small-farmer activities into which much labour is presently locked, and (2) to create the conditions for such a move in terms of new economic opportunities and wide access to productive assets? In these terms, the provision of minimum income

<sup>1</sup> See P. D. Tyson, 'Southern African Rainfall: past, present and future', in Hinchey (ed.), *op. cit.* pp. 45-52.

programmes and subsidised farm inputs will have to be complemented by experimentation with alternative forms of production organisation in occupations where rural incomes are potentially higher, notably beef production, irrigated farming, and dairying.<sup>1</sup>

Such a restructuring of the rural economy is a long-term process. Drought is thus bound to be a recurrent problem. There is no assurance, however, that funds will be available to sustain the present relief and recovery programmes which are being financed out of the budget surpluses generated by the diamond-led development of the economy and generous foreign assistance. What would happen if Botswana's food aid were cut because its level of economic growth renders it, in the view of donors, no longer a poor country? Or, what would happen if diamond prices or sales again slump? Either development could result in powerful interests squeezing the current relief measures. In years of good rainfall in particular, politicians might be tempted to cut drought-related expenditures very substantially in the hope that the needs of the poor can be put off until the next drought.

Other African countries will not easily follow Botswana's lead. Some are certainly drought-prone and thus recognise that they have little chance of avoiding the problem. What has really made the difference as far as changing Botswana's approach to drought is a combination of three forces. The diamond mines have provided a surplus of funds to finance the various relief programmes. The élite's commitment to an efficient system of government has meant a willingness to learn from past experiences and to make changes. And, democratic elections have motivated the Botswana Democratic Party to give drought relief an increasingly high priority.

It is unlikely that this combination of forces will be present in other African countries. Most lack comparable mineral resources. Because of corruption and political instability, many governments are reluctant to allow critical reviews of their policies, let alone to accept solutions proposed. And, of course, few have had to face the pressures of recurring elections. The uniqueness of the Botswana experience thus suggests that few may easily follow the same approach. Yet, the simpleness of most of the programmes makes their partial adoption possible. Most significant

<sup>1</sup> The Government is certainly aware of this need. See Michael Lipton, *Employment and Labour Use in Botswana* (Gaborone, 1978). However, it has done little with its considerable funds. The most notable attempt is its Financial Assistance Policy which in the first two years provided P 15 million in aid to private firms of all sizes in making new investments. The total number of additional jobs available (i.e. beyond those that would have been created anyhow) will probably not be much more than 1,000. See Ministry of Finance and Development Planning, *Report on Evaluation of FAP* (Gaborone, 1984).

in this regard has been Botswana's success in selecting existing institutions that reach the people – schools, health centres, agricultural extension services, village development committees, and local governments – and using them rather than allowing foreign relief agencies to take charge and develop their own organisations. In addition, the critical rôle that these programmes have come to play in the B.D.P.'s election success may convince less democratic governments that food relief can bring much needed popular support.