



Briefing Paper

No 2 1981
June

THE SAHEL: PROBLEMS AND PROSPECTS

Within recent memory, the Sahel countries have always seemed to be in crisis – largely, it has been reported, as a result of natural misfortunes. As commonly used, the word ‘Sahel’ has taken on two meanings: first, an *ecological zone* of sparse rainfall bordering the Sahara desert; and second, a *group of countries* whose governments have formed common policies in order to combat the effects of drought. This Briefing Paper focuses on the Sahel taken in the second sense, although some of what is said may also apply to the Sahelian zones of countries not included in the group. The present familiarity of the Sahel *zone* results from media coverage of the region’s drought and food problems; and familiarity with the Sahel *countries* results largely from the assistance efforts of official donors which act via the relevant governments. In recent months governments of Sahelian countries have been affected by initiatives taken by outside powers – notably Libya, France, Morocco, and Nigeria; and in recent years the strategic position and the potential mineral resources of the Sahel states have acquired prominence. Simultaneously the Sahel drought problem has worsened and the original issues of food production, distribution and self-sufficiency have asserted themselves.

The Sahel zone

The Sahel is an ecological zone of sparse rainfall (between 250mm and 500mm per annum). It comprises just under a third of Niger’s and Mali’s area, about a fifth of Senegal, Chad and Mauritania, less than one-tenth of Upper Volta, and encroaches on part of northern Nigeria; the belt of sparse rainfall does not end abruptly eastwards at the Chad border but merges into the Sudan’s savannah zone. Moreover, the incidence and effects of recent droughts have been felt further east in countries containing similar climatic zones – Ethiopia, Somalia, Uganda, and Kenya.

It is precisely because the Sahel zone accounts for only part of what we describe as the Sahel countries, with the result that their governments have other preoccupations, that the Sahel’s problems cannot easily be analysed – or solved – on a country basis.

The Sahel countries

Six governments – those of Senegal, Mauritania, Mali, Upper Volta, Niger, and Chad – were the founder members of CILSS (Comité Inter-Etats de Lutte contre la Sécheresse dans le Sahel: Drought Committee of Sahel States), which was established in 1973 when the drought was at its peak. The Gambia and the Cape Verde Islands added themselves to this group later.

The OECD-sponsored Club des Amis du Sahel – now renamed Club du Sahel – was established in 1976. It is a coalition of the eight Sahel governments plus approximately twenty donor governments and multilateral agencies. It serves as an information centre for prospective donors, co-ordinates aid policy and performs an aid-raising function; and it works alongside CILSS in the planning of a regional development programme for the countries concerned.

The Sahel countries are among the poorest states in the world. Taking the original six CILSS members on which this Briefing Paper focuses, all except Senegal are classed by the UN as least developed countries (ldcs). Mali and Upper Volta have an estimated per capita income of \$90 per annum, and the weighted average for the whole *region* is only \$150. The adult literacy rate is under 10% in all of the Sahel countries. In Senegal, primary school attendance covers 43% of the school-age population, but elsewhere the rate is below one-third. The six countries have other doleful characteristics in common. All are heavily dependent on rainfed agriculture under low and erratic rainfall conditions, on imports of food and fuel (particularly oil) and on international aid. Although they are now net importers of foodgrains (Niger alone managed a cereals surplus in 1980), as recently as the mid-sixties, the situation was quite different: then, only Senegal and Chad were not self-sufficient. The Sahel countries do however export foodstuffs and other agricultural products.

The six are all former French colonies which were given independence in 1960. They all remain members of the Franc zone except Mauritania, which withdrew in 1973. As a result, their currencies are tied to (but also backed by) the French Franc; national treasuries must deposit 65% of their reserves (formerly 100%) in Paris, and national credit policy remains substantially determined by decisions taken in France. The two newer Sahel Club members – the small states of the Gambia and Cape Verde – differ from the above pattern. Geographically, they are sited outside the Sahel zone, and they have a different colonial past.

The Sahel countries are all small states in terms of population but mostly very large in terms of area. Chad, Niger and Mali are each nearly the size of Western Europe, but the total population of the Sahel states is only about 30m (1980 estimate); none has more than 7m inhabitants. The rate of population growth is estimated at 2.75% per year, indicating that the mortality/fertility balance is little different from that obtaining in Africa as a whole. One further common characteristic is that all are predominantly Moslem countries.

All the Sahel governments suffer from severe budget and balance of payments constraints and from inadequate administrative resources. At the time of writing, all were under military regimes with the exception of Senegal and the Gambia.

The problem of inadequate and highly variable food production in the Sahel states has led to an initiative by Sahel governments and aid donors (OPEC as well as OECD) to increase food production. Ambitious targets have been set for self-sufficiency in cereals, meat and sugar. The Club du Sahel at its November 1980 meeting announced that \$6.8bn of official aid had been committed to the Sahel countries since 1974.

DROUGHT AND THE 1973 CRISIS

In 1973 an international disaster was declared in the Sahel. This was the culmination of some five years of drought, which was diagnosed at the time as particularly irregular and low overall rainfall resulting in harvest failure, scarcity of pasture and consequent livestock mortality, human malnutrition and, in certain areas, famine. 1972 and 1973 were the worst years: harvests fell by one-third on average, and herds of cattle were reduced by at least one-third. It is notoriously difficult to collect and interpret figures for human mortality resulting from drought: estimates varied between 50,000 and 100,000. In response, various nations sent large quantities of food – a record 709,904 tons in 1974 – to the governments of the Sahelian countries; this was distributed mainly in the refugee camps which formed on the outskirts of the main towns in the affected areas.

Periods of drought over several years are not unusual in the Sahel zone, and studies of rainfall readings since the beginning of the century do not show any overall deterioration in the climate of the Sahel zone. Even though the drought – analysed strictly in terms of rainfall – is over, repeated food shortages have been reported. Instead of a crisis, then, we are dealing with a long-term problem with social, economic and environmental dimensions for which the label 'drought' is inadequate and possibly misleading.

There is evidence that population increase and other factors have forced people to try to make a living in more marginal areas. The northern limits of cultivation have been pushed further north into lands which are unsuitable for crops because rainfall is too irregular. Fallow periods have been reduced, and pasture has not been given time to recuperate. Deforestation has accelerated, and the Sahelians have to go further and further away from where they live in order to collect fuel wood. Pastoralists and their animals have likewise been forced into more arid areas as the zones of richer pasture have gradually been taken over for farming. Many rural people are finding it increasingly difficult to earn their livelihood.

More controversially, it has been alleged that an expansion of cash crops for export – particularly cotton and groundnuts – which has been encouraged since the colonial period has occurred to the detriment of food crops: sorghum, millet and, in the higher rainfall areas, maize. On this view the reduced emphasis on the local production of food crops together with a gradual erosion of the traditional forms of storage and

distribution of surplus food via the local leaders has meant that the rural population has become increasingly vulnerable to food shortages. Moreover, the problems of distribution over the often vast distances within Sahel countries have resulted in regional food shortages even when the country as a whole has had sufficient food. The landlocked states face yet further problems since they rely on the ports and railways of the coastal countries for their deliveries of food; in 1974, for example, the ports were not able to cope with the volume of food aid.

Development programmes in the rural areas on the Sahel have an indifferent record. The Sahel is a particularly tricky area for intervention, since the ecological balance is so precarious, and urban-based governments tend to allocate a high priority to satisfying the food consumption needs of their key supporters. Unintended consequences of inadequately tested programmes can sometimes have disastrous effects. For instance, the proliferation of deep boreholes in some pastoral zones – each of which replaced several shallower wells because of the much larger volume of water produced – diminished the amount of pasture available to the animals, since the latter can only travel a limited distance away from their water supply to graze. The areas surrounding the boreholes became increasingly overgrazed and during the drought years of 1972 and 1973 livestock died in large quantities around the wells, not out of thirst but out of hunger and consequent exhaustion.

Against this background the Club du Sahel/CILSS established priorities for development in the Sahel so that if there was another bad drought, the worst effect of the 1968-73 drought – namely starvation – would be avoided. The first priority was to reduce the gap between food consumption and food production so that the landlocked countries in particular would not be so vulnerable to delays in the delivery of food from abroad. Furthermore, the Club established two targets. They calculated that the production of maize, millet and sorghum (4m tons in 1969-70) would have to be increased by half to 6m tons by 1990 and more than doubled to 8.5m tons by the year 2000. The Club du Sahel is less precise about how to achieve these targets but irrigated agriculture has been singled out as the most promising means by which to increase production. Some agronomists feel that more emphasis should be given to improving productivity within traditional farming. For example, the introduction of high-yield and drought-resistant varieties, animal power to increase acreage and to ensure earlier planting; improved tillage and husbandry practices, such as line planting and intercropping to improve fertility and reduce fallow; moisture conservation; pest and disease control measures; and better storage. But this requires a long-term and gradual approach which many donors and host governments do not appreciate, and anyway there is a deficiency of experienced agronomist staff in research and extension.

Trends since 1974

Yet the latest Club du Sahel report produced for the meeting with CILSS in Kuwait in November 1980 claims that the Sahel has not made any progress towards food self-sufficiency despite aid totalling

\$6.8bn over the previous six years: the self-sufficiency rates in cereals for the Sahel countries are gradually decreasing; with the exception of Niger which produced a surplus of cereals in 1979 and 1980. The production of cash crops continues to be given high priority and remains one of the principal means whereby governments raise revenue and generate foreign exchange which is used, *inter alia*, to finance food imports.

Food aid is another method of financing food imports. The amounts of cereal food aid committed to the eight Sahel countries are as follows: 395,500 tons in 1973 and a record 709,904 tons in 1974; then a sharp decline to 217,279 tons in 1975, 113,727 tons in 1976, and 117,134 tons in 1977; but a commitment of 503,339 tons in 1978 was made as a response to the 1977 crisis. The importance of food aid may be gauged by the fact that in 1978 food aid deliveries were several times as large as commercial purchases of imported food for most Sahel countries. Governments and donors alike have always known that food aid, while providing short-term relief, does not offer any long-term solution to the problem of insufficient domestic food production and may even worsen the situation by acting as a disincentive to local production or to reform of the government's agricultural policy. The value of free food aid even as short-term relief has been questioned, because of the difficulties encountered in attempting to deliver food speedily and to distribute it widely amongst the needy. But food aid continues to be requested and given.

This situation is exacerbated by a change in attitudes towards food, namely an increasingly marked preference for wheat and rice rather than the traditional local staples. This trend is strongest in the towns but is also spreading fast into some rural areas. Food aid has encouraged such changes, since most of it comes in the form of cereals which are not the local staples (which are usually millet and sorghum). The production of wheat and rice in the Sahel is much more of a challenge than the traditional cereals, and is usually only possible in irrigated fields. But difficulties with irrigation technology in recent years have meant that wheat yields in the Sahel have been dropping. Meanwhile, a taste for bread has been spreading. Such changes make it more unlikely that the Sahel will become self-sufficient in food in the foreseeable future.

Uses of aid

Despite the verbal emphasis given by the CILSS governments and donors to food self-sufficiency and increased agricultural production it is striking that only 24% of aid commitments during 1975-79 have been to rural development (see Table), and this share is not increasing. Moreover, the priority given to irrigated agriculture is regarded as crucial in the Club du Sahel/CILSS strategy for increasing the Sahel's self-sufficiency in food. But aid commitments for irrigated farming represent a small share of the total. Moreover, while they increased gradually until 1978, there was a large decrease in 1979. Many problems have been experienced with the implementation of irrigation projects and the construction of new schemes barely compensates in terms of output for the deterioration of old ones.

Sahel aid commitments by sector (1975-79)

	Total (\$m)	%
Project aid	3906	65
Rural development	1443	24
Of which: – irrigated farming	342	6
– livestock	188	3
Infrastructural aid	1260	21
Of which: – transport infrastructure	415	6
Education and health	558	9
Industry and tourism	111	2
Other	534	9
Programme aid	2147	35
Grand total	6053	100

Source: Club du Sahel/CILSS, *The Sahel Drought Control and Development Programme 1975-79: a Review and Analysis*, 1980.

Commitments to the livestock sector actually declined as a share of total aid between 1975 and 1979, but the share of aid committed to transport infrastructure, in contrast, is large and growing. It represents as much as is provided to the priority sectors defined by Club du Sahel/CILSS in their aim of food self-sufficiency. This suggests that, despite efforts of the Club du Sahel/CILSS, the development of the Sahel continues along much the same lines as before 1968, and the priority allocated to food self-sufficiency has yet to be given due weight in government policies and in the allocation of aid.

THE WIDER ISSUES

Food production, self-sufficiency and output targetry may be the proximate issues at hand. But the Sahel countries have other means of raising income. So far, the post-independence governments have all displayed a marked urban bias in their policies as revealed by the use of export strategies based usually on agricultural raw materials, of crop marketing boards and administered food prices which have benefited urban consumers at the expense of rural producers.

Cash crop exports represent in most Sahel countries the chief component of export earnings. But the Mauritanian economy has undergone substantial structural change as a result of the development of iron ore and copper production and Niger's budgetary and balance of payments position has in the last decade been transformed by the development of uranium exports. Other Sahel states are judged to have considerable unexploited mineral and energy potential.

Much of the infrastructural expenditure referred to in the Table has been designed to facilitate export growth in hard as well as soft commodities. Finally, the sheer size of the Sahel states and their location, wedged between Black Africa and the Arab world, enhances their strategic value.

Export prospects

1. Agriculture

Senegal is the Sahel country which is most dependent on cash crop exports. In good years, *groundnut*

production exceeds one million tons; exports of groundnuts, groundnut oil and derivatives account for three-quarters of total export earnings, and the processing industry is a key factor in the Senegalese economy. But in recent years groundnut production has been in decline – not only for climatic reasons. The EEC's Stabex fund has paid out over \$100m in cash to the Senegalese government over the past three years to compensate for falls in export earnings on this crop – though the parastatal body, ONCAD, responsible for services to groundnut producers was itself disbanded by a decision of the Senegalese Parliament on grounds of mismanagement in 1980. This season's harvest is expected to be the lowest for decades, and well below the 725,000 ton crop of 1979/80. Producer prices have now been raised, but the long-term prospects for export-led growth for Senegal are not promising.

Groundnuts figure quite prominently in the export economies of other Sahel states – notably Mali, Niger and Chad, but *cotton* grown in the southern parts of the Sahel states is now the main export for Upper Volta, Mali and Chad. In Chad in particular there is a clear economic distinction between the cotton-producing South and the rest of the country, which produces virtually no export crops and few cash crops apart from experimental wheat-growing on reclaimed polder land. *Beef* exports were formerly the main export of Upper Volta and Mali, though it has been overtaken by cotton in both cases. In two countries, Mauritania and Niger, agricultural exports now take second place to minerals – at Mauritania's independence (1960) agriculture contributed over half of GDP; its share is now barely one-fifth. Exploitation of mineral deposits in these and other Sahel countries seems much more likely to be a growth area than export agriculture.

2. Mining

A most striking transformation has occurred in Niger. Thanks to the development in the 1970s of the Air mountain deposits, *uranium* now represents 60% of export revenues, earning CFA fr 83.4bn (\$417m) in 1979 for exports of 3,850 tons and the Niger budget's investment appropriation in 1980 of CFA fr 23.6bn was wholly financed from uranium revenues. The country has reserves estimated at 100,000 tons. It is at present the world's fifth largest producer and is likely to become the second largest (after the USA). But falling prices (the spot market price fell from \$43 per lb to \$30 per lb between January and December 1980) have forced a revision of state investment plans – a consequence of new dependence on a single commodity. *Coal* deposits could eventually be developed, subject to massive investments. Revenues have been deployed in the most southerly and densely populated areas of the Sahel zone, rather than in the more arid and sparsely populated pastoral zones, and have had the effect of attracting the minority populations away from the nomadic pastoral life to contribute to the production of cotton, groundnut and food crops. The mining industry itself employs relatively little domestic labour.

The Zouerate *iron ore* deposits in Mauritania generated large revenues in the 1960s and early 1970s. Production fell after the mines (partly owned by British Steel) were nationalised in 1974, but exports were close to 9m tons in 1980 and account for four-fifths of

the country's total export earnings. But the deposits would have been depleted within 10 years (copper mines were already closed in 1978) had not a \$1bn investment for the development of the marginal Guelb deposits been secured. Falling demand from the world's steel industry is currently a pressing problem. Mauritania may also have prospects for uranium, oil, chrome, and tungsten mining.

Near the Senegalese border in Mali lie substantial iron ore deposits which have been known to exist for a long time but remain unexploited because of severe transport problems and political uncertainties. Mali also has uranium, gold, and possibly oil. Chad – at present only a very minor petroleum producer – is believed to have substantial oil deposits both in the South (Salamat province) and in the central Lake Chad region, plus uranium and tungsten in the North (including the northernmost Aouzou strip, annexed by Libya as long ago as 1973). Apart from small petroleum deposits off the coast of Casamance, some inland oil shale and phosphates, none of which is currently exploited, Senegal has few prospects as a mineral producer, while in Upper Volta manganese, phosphates and bauxite deposits remain unexploited. Of the new Sahel Club members, Gambia's foreign exchange earnings now depend on tourism and groundnuts rather than minerals, while Cape Verde survives on bananas and migrants' remittances.

3. Other prospects

The strategic factor has until recently been neglected by the media's coverage of the Sahel 'problem'. Yet in early 1981, Libyan forces completed a *de facto* takeover of Chad, and announced a 'merger' of the two countries. In effect, Libyan troops filled a vacuum which had been left by French forces after their withdrawal from Ndjamenas less than a year earlier. The Mauritanian government was nearly toppled by a Morocco-backed attempted coup in March 1981 and some observers foresee the replacement of a series of traditionally Western-oriented governments by a chain of radical Moslem states across the Sahel. Some measure of economic equilibrium and social and political harmony in the Sahel region will not be achieved easily. Chief among the ingredients of the Sahel's current insecurity are:

- the delicate strategic position between the Arab world and equatorial Africa
- dependency on outside assistance for food, and for recurrent finance and investment capital
- insecure borders and in most cases vast landlocked territories
- ambitious neighbours – the most prominent being Libya, Nigeria, and Morocco
- the lack of structural and political adjustment by gradual means to decolonisation
- unstable and often unrepresentative urban-oriented governments
- highly coveted mineral and energy resources.

This combination means that it is highly probable both that the Sahel will continue to hit the headlines, and that the underlying causes of these 'crises' will remain complex and long term.

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