

NOTES DE RECHERCHE THE DESSICATION OF LAKE CHAD IN 1990

by Roger BLENCH

Lake Chad, by virtue of its situation in the centre of continent, has become an almost symbolic reference point for geographers. There is voluminous technical literature describing its geomorphology, hydrology, fauna and flora, summarised in SIKES (1972), CARMOUZE et al. (1984) and GROVE (1985).

The region marked as open water on current maps was overflowed twice during 1990, in May and September, as part of the Nigerian National Livestock Resource Survey.

During neither flight was any open water observed either within or outside Nigeria.

This suggests that the Lake has virtually disappeared and that published information is presently of historical interest.

There have been major fluctuations in the extent of the Lake both in historical times and in prehistory and it may therefore re-appear. If the height of the water is a function of the rainfall, the low levels reflect no more than a series of low rainfall years at the end of the 1980s. However, it is more likely that the levels are also a function of the river systems which feed it, in particular the Komadugu Yobe, which is an extension of the Hadejia-Jama'are system in Kano and Borno States in Nigeria.

The swampy grasslands between Hadejia and Gashua have traditionally been a significant resource for fadama cropping, fishing and livestock feed. However, since the construction of the Tiga Dam for irrigation purposes in Kano State in the mid-1980s, the flooded area west of Gashua has fallen as much as 50 % leaving the Komadugu Yobe virtually dry in its upper reaches for most of the year. If the proposed Kafin Zaki and Challawa Gorge dams are completed, the

river-flow on the Hadejia River will be virtually zero downstream of the town (ADAMS & HOLLIS, 1987).

Lake Chad has been replaced by open plains of swampy grassland or even dry savannah. The most dramatic illustration of the changed situation is the presence of a dry season road across the centre of the Lake from Baga (in Nigeria) to Baga Sola (in Chad). The consequence of this is that the traditional production systems in the Lake have undergone radical alterations during the last few years.

The most notable effect is the creation of extensive new regions of pasture. The former flooding regime covered most of the grassland during the period of high water, leaving only tumuli which were the encampments of the Yedina (Buduma) people. The high densities of biting flies and mosquitoes in the flood period drove out almost all livestock except the highly adapted kuri cattle, which could swim from island to island as the water rose. This acted as a natural limitation on overgrazing and restricted cultivation to small patches of flood retreat (decrue) farming on the islands.

Now that much of the Lake no longer floods, the challenge from biting flies is much reduced, which has attracted pastoralists from a wide area of the Sahel. The kuri no longer has a comparative advantage and most of the incomers are FulBe with zebu cattle especially Rahaji, Bunaji and Sokoto Gudali breeds. In addition, there are Kanembu (Sugurti and Kuburi), Kanuri-related groups such as the Koyam and the various group of Shuwa Arabs. In addition, camel-herders such as the Uled Suliman are using the lake-floor in the dry season.

An additional attraction of the Lake is that the density of farming is still low so stock do not have to be intensively managed to prevent crop damage. The consequence is that the aerial survey recorded some of the highest densities of livestock ever recorded in Africa. At peak periods there may be as many as half-a-million cattle in the area marked as open water on conventional maps.

The other aspect of the opening of the Lake for settlement is the

immigration of cultivators. There has been a movement of fishermen from other parts of Nigeria onto the Lake since colonial times and a certain amount of associated small-scale opportunistic cultivation. However, the expansion of the Nigerian economy in the 1980s stimulated the migration of market-gardeners and dry-season cultivators to many parts of the semi-arid and subhumid regions of the country. The dense network of roads and transportation in Nigeria allows them to produce tomatoes, onions, waterleaf and peppers for sale in the cities. As a result, cultivators from many parts of the semi-arid zone have moved to the Lake and are now farming within it. The single most numerous group are the Hausa from Sokoto, especially the Kebbawa and Argungawa, who have experience in a comparable environment along the Sokoto Rima River.

The consequence of this is extreme pressure on the "new" environment of the lake-floor from both migrant livestock and farmers. At present there are virtually no controls on settlement or land-use and an administrative mechanism for restricting access does not exist within Nigeria. Unless action is taken promptly, this potentially productive ecology is threatened with serious degradation.

References :

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