

Socio-Cultural Factors Affecting the Diet of the Northeast Coastal Bantu¹

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THE DIET of any people depends on their patterns of and capabilities in food production, distribution, preparation, acceptance, and consumption. In turn, these patterns are dependent on a host of socio-cultural and environmental factors. Those concerned with the problem of improving nutrition among any group of people must thus deal with a complex of dynamically interrelated variables, both to determine the existence and cause of nutritional deficiencies and to implement appropriate remedial measures. On one hand, they must attend to the technologic and economic factors necessary to produce and distribute foods, appreciating that since these factors are functionally related to social, political, magico-religious, and attitudinal as well as environmental factors, technical and economic change is, in a sense, both the cause and effect of pervasive socio-cultural change. On the other hand, they must be prepared to cope with the complex of interlocking attitudes and practices which prevent a people from (a) utilizing adequately the foods which their technology and economy make available to them and (b) understanding and eliminating the causes of malnutrition.

Scholars, such as Malinowski (1), Firth (2,3), Richards (5,6), Mead (7,8), Read (9), and Herskovits (10), have long commented on this need functionally to relate patterns of food use to their socio-cultural context. Similarly, experts of the Food and Agriculture Organization and the World Health Organization (FAO and WHO) have declared that the "existing system of beliefs and ideas" of a people must be taken into account in order to change their eating habits (11,12). Unfortunately, programs de-

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signed to help people improve their technology, economy, and diet may still be implemented without such "contextualization". This was true of development projects for the Digo, Duruma, and related Bantu-speaking peoples of the Kenya and Tanganyika coast, sometimes referred to as the Nyika group of tribes, amongst whom I conducted anthropological research from 1958 to 1960.

I should like now to analyze Nyika patterns of food production, distribution, and utilization, relating them to important socio-cultural factors and indicating how failure to understand these patterns and the factors which affect them prevented authorities from improving the Nyika diet. I shall pay special attention to the Digo and Duruma tribes (13-17).

Food Production Practices

The Nyika vary in their mode of livelihood. The Digo are primarily agriculturalists, specializing in maize, cassava, bananas, and coconuts. Most Duruma and Giriama are chiefly pastoralists, with large herds of cattle, sheep, and goats. The Shirazi and certain Digo who live within a few miles of the Indian Ocean are mainly ocean fishermen. A number of younger men and a few women from all of the tribes now work for wages on large Indian- or European-owned plantations or in such cities as Mombasa in Kenya or Tanga in Tanganyika. A growing number of young men are becoming full- or part-time traders in foods, livestock, trinkets, and notions. Such differences in occupation and livelihood are in part the function of differences in physical environment and in part of differences in attitudes about what constitutes proper work and the good life.

Motivation to work and to produce food relates to various key social and cultural factors. For example, many of the older Digo feel that hard physi-

cal work is demeaning, probably because this is the work that their slaves performed until slavery was ended some forty years ago. The Duruma, who apparently did not have so pervasive a slave system as did the Arabicized Digo, tend in general to have a higher regard for manual labor and often are hired by the Digo to work for them. Many younger Digo, who tend to have less concern than their elders about the slave system of the past, also indicate a greater willingness to labor with their hands.

It is even more important to note that most of the coastal people share the feeling that it is often not worth while to work hard and diligently in order to achieve individual success. For one, they believe that success is partly a function of impersonal supernatural forces, of the will of God and of fate. These forces do not always reward hard work with success. For another, if a coastal African is successful, he will be greatly envied by his neighbors and kinsmen, who also then fear that he may use his growing wealth to increase his power and to extend his influence and control over resources at their expense. His wife will probably also fear that he will now have enough wealth to be able to afford either another wife or a mistress and that this will be disadvantageous to her. A prosperous individual is typically called on to share his wealth with his kinsmen and wives, either by direct gifts or by financing ceremonials and rituals in which food and other goods are distributed. Those who clearly refuse to share their wealth will in turn be denied financial or other aid if they ever require it. Furthermore, they will perhaps be accused of being witches who became prosperous not by hard work but by cheating and stealing from others, often using black magic.

Such patterns and pressures tend to militate against individual striving and also to prevent individuals from saving profits and personally amassing capital for reinvestment. On the other hand, this system of sharing does facilitate food distribution and prevents a division of society into opposing groups of well-fed "haves" and hungry "have nots." In effect, prosperous individuals invest in their kin groups and thus obtain a host of social, economic, and political rewards. By helping others, a clever person can benefit by extending his sphere of influence and obligating others to aid him.

A small but apparently growing number of Digo and Duruma entrepreneurs are learning how to manipulate this system of sharing so that they obtain more aid and support than they give and are able to become successful businessmen in the developing market-exchange economy of the Kenya and Tanganyika coast. Certainly, one thing a coastal African should do to protect his assets and his reputation is to appear poor, hungry, and needy—not only to his neighbors and relatives but also to gov-

ernment officials and tax collectors. This misleads those interested in measuring local economic development and food consumption. They may well calculate that a people are poverty stricken and close to starvation when they are, in fact, living rather well.

AGRICULTURAL PRACTICES

Certainly an important factor in food production is technology. The food production technology of the Nyika peoples is probably not as inefficient as many Americans and Europeans like to believe. The Nyika practice slash-and-burn agriculture and shifting cultivation. After their gardens are exhausted by four to seven years of cultivation, they allow them to lie fallow. They clear a new field of trees and other large growth by girdling and by fire; and they clear a field of grass and light growth by cutting this at the roots. Firing often burns larger areas than will be cultivated, destroys valuable forest, and may become hot enough to damage the soil. The Nyika attempt to clear an area for cultivation immediately before the rains fall, but on occasion the rains come late or fail entirely and the burned fields become a wasteland of baked mud or dust. If it rains adequately, however, crops grow well in the newly-prepared soil, fertilized by the ashes of the burnt growth. Furthermore, as some local administrators and agricultural officers indicated, the fire clears the area of rodents, insects, rusts, and other diseases harbored in the soil.

If a field is covered only by grass and other light growth, they will often not burn this growth but rather chop it off at the roots, using their favorite agricultural implement, the all-purpose short-handled hoe (18). Then, instead of raking off this grass as American or European farmers usually do, they allow it to remain on the ground, where it serves as a cover from the sun, protecting the soil, seed, and plant, and eventually rots, becoming fertilizer. Nyika weed their crops only once or twice and again do not rake the weeds from the field but instead allow them to cover the soil. They do not plant their crops in neat and orderly rows, but since they do not use machines to plow, plant, or harvest, they have no real need for such order. They also do not pull weaker seedlings and plants from their fields, because they do not feel that this will actually assist the stronger crops to grow.

The Digo, whom we observed in the location known as Lungalunga, obtained good harvests using these methods. The Digo teacher in the local government primary school had his students grow crops using European methods which he had learned in teachers' college. His students used long-handled hoes in the American and English manner, although most found them awkward to handle and some cut their toes as a result. They raked the land clear of weeds and grass, and the hot sun baked the ex-

posed soil, killing most of the improved maize seedlings given by the government. Interestingly, the teacher's wife grew maize and other crops in a smaller adjoining field, using traditional methods. When I asked the teacher about this, he smiled and said in effect, "Well, women don't like to try new methods and, after all, we must get enough to eat." Indeed, she had a much larger harvest than did her husband and his students.

The government has a large experimental agricultural station near Mombasa and often invites Nyika peoples to see demonstrations of new and improved methods and seeds. The Nyika are not as slow to accept innovations as some of the government people believed, but they were not always as certain that the government station adequately demonstrated that European and American techniques were superior to Nyika ways.

LIVESTOCK PRODUCTION

The Duruma and Giriama, who manifest the typical East African cattle complex and desire to have as many cattle and goats as possible, have adopted many aspects of western animal husbandry technology, and veterinary medicine (19,20). Cattle and goats provide the chief source of food and income for most of these people. They are the most important form of inheritable wealth and investment and are used to pay bride wealth and blood debt and to provide food for rituals and ceremony. Men rise to power and influence by giving cattle and goats to kinsmen and friends to herd and milk.

The Duruma and Giriama have been quite pleased to see their herds multiply rapidly as a result of western technique and medicine, but they have not been willing to keep the size of their herds to that which their land can carry. In respect to their use of cattle, a few scrawny cows are worth much more to them than one fine animal. As a result, the introduction of western medicine and other technology has led to extremely serious overgrazing in this and other areas of Africa, and large areas of formerly rich grassland are rapidly becoming eroded wasteland and useless thorn bush desert. Clearly, rather sweeping socio-cultural change must accompany technologic change in this instance if this technologic change is not to have adverse consequences and lead in time to reduced rather than expanded food production.

PROBLEMS OF IRRIGATION

There are yet other cases where a number of socio-cultural factors in effect prevent the Nyika from accepting a technologic change which would increase food production. For example, the people of Lungalunga in Kenya know well how to irrigate their fields by channeling water from the neighboring Uмба River and that irrigation will enable them

to increase their rice production. They now grow "dry" rice in swamps filled mostly by rain water, although they are quite aware that the Arabs, Shirazi, and Digo of Vanga, less than 15 mi. away, grow much more rice per acre by irrigation from the Uмба. Unlike the people of Vanga, the Lungalungans do not have the social, political, or economic organization necessary to implement irrigation agriculture. The Lungalungans are afraid that they will quarrel with kinsmen and neighbors over land rights and water rights if they irrigate and that they will not have the production organization—the organization for work—required to assure that they work together where necessary instead of against each other.

Because of past Arab control of Vanga, the Vangans have a different land-tenure system and different production organization and are therefore able to irrigate. (Interestingly enough, recent conflict between Africans and Arabs has weakened the social and political supports for irrigation agriculture and rice production has declined.) All of this indicates that it is important to study the socio-cultural factors which relate to production organization since such organization is as important to food production as technology. Certainly, the key to the production of more food among the Nyika is not simply more and better western technology.

Factors Influencing Food Production

In any event, production is not enough to give people the food they need. Distribution is just as vital, and distribution clearly relates to all manner of economic as well as non-economic factors. Food is distributed partly by patterns of extensive gift exchange and reciprocal aid, partly by the practice of sharing in feasts at frequent rituals and curing ceremonies, and partly by patterns of trading and marketing (14). While the latter method is increasing in importance, the other forms of distribution are not to be ignored. The three methods together assure that the agriculturalists get fish and meat and milk, that the cattle herders get fruit and vegetables and fish, that the fishermen in turn obtain the products of garden and pasture, and that the wage laborer can buy what he needs.

Unfortunately, attempts by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) and governments to improve production and distribution have actually had the reverse effect in some instances. For example, the establishment along the coast of a governmental program in which Indian merchants and government cooperated to purchase, process, and market local milk inadvertently caused the cattle herders to sell more milk than they could part with, increased African enmity towards the Indian merchants and government agents who handled the milk program, and injured

the rapidly developing business of the African trader in milk, vegetables, and fish by raising the cost of milk and controlling the milk supply.

This program, known as the Mariakani Milk Scheme, has been lauded by local and international authorities and by representatives of the International Bank for Reconstruction and Development (IBRD) (21). Its major defects appear only when it is studied in the context of developing African trade and conflict between Africans and the Indian merchants who are their patrons and creditors. It would seem more desirable to stimulate the development of the Nyika entrepreneurs, since they have the capacity to market available foods, to stimulate or increase demand for new or traditional products, and to contribute to wide spread and basic economic development and political stability.

Acceptance and Consumption of Food

Finally, it must be emphasized that even if technologic, economic, and other changes do cause more food of different types to be made available to the coastal Africans, this does not then necessarily mean that these foods will be used and the diet improved. Habits of food preparation and consumption are hard to change. The coastal Africans, like many other peoples throughout the world, may well reject new and better foods in favor of more traditional foods, or they may continue to cook their food in such a way that much of its nutritional value is lost. For example, many coastal Africans still regard fresh fish as bad for their health and will eat only dried fish, such as shark from South Arabia (16). Digo, Duruma, and other coastal fish traders peddling fresh fish on bicycle are doing their best to change this attitude, and since about 1959 they have stimulated many women to demand that their husbands purchase fresh fish at least three times a week (13,14).

These traders characteristically market fish, meat, and vegetables, and governmental interference in the milk trade is hurting their over-all trade in all of their wares. Furthermore, the distribution of free powdered milk in this area has, in many cases, backfired because of local habits of food preparation and use.

Nyika women have been slow to believe that this substance was really milk which could supplement or replace milk from their breasts for their children. Also, they have frequently mixed this powdered milk with unboiled, contaminated water and have fed it to their infants causing illness and perhaps death. The Nyika, like many other Africans, believe that the only proper food, especially for infants and ill adults, is a starchy, protein-deficient porridge or gruel made from corn, millet, cassava meal, or rice (6). Only this can properly be termed "food" (*chakuria* in Digo, *chakula* in Swahili). Only

this is emotionally satisfying; only this "fills the belly" and makes one feel as if he has really eaten well. Meat, fish, eggs, animal milk, and the like are all regarded not as "food" but as "sauce" or "dressing" (*chitoweo*). The Nyika are convinced that while healthy adults can eat such *chitoweo* with relative impunity, children under about three or four years of age must be protected and should be restricted to a diet of mother's milk and *chakuria*. Those who are sick, no matter how old, should also be limited to a diet of *chakuria*.

We found it possible to encourage some women of one Digo location to mix their maize (corn) meal with chicken eggs, milk, and sugar (all available locally at low price) and to feed the resulting *chakuria*—like pudding—to their infants. Presumably, it would be possible to cause this innovation to spread throughout the coastal area, and it might be truly beneficial if enough were eaten. Presently, however, most infants do not obtain protein other than that in the customary *chakuria* and in mother's milk, and few mothers are able to provide adequate milk for the required period.

Malnutrition—Kwashiorkor

Protein malnutrition or kwashiorkor is hence not uncommon among infants and some adults in the coastal area, but when a local African sees a person suffering from what western observers conceptualize as inadequate nutrition, the Africans feel instead that this person is suffering because he or his parents broke important sexual taboos. The term *chirwa*, which is the passive form of the verb *kuchira*, meaning in effect "to do something forbidden," is used to identify those suffering from these violated prohibitions.

The major taboos, violation of which leads to *chirwa*, are sexual intercourse between husband and wife during the period before a child born to them is old enough to be weaned (three to four years of age) and adultery by either parent during this period or during the period of gestation of this child. If a new child is conceived before its sibling has reached the desired age for weaning, it is said that the new child will "steal the strength" of the former. While few Nyika are willing to abstain from sexual intercourse for the required period, they do make every attempt to prevent conception. If conception does occur or if there is other evidence that the taboos have been violated, the close relatives of the endangered former child may well accuse the guilty parent or parents of trying to kill this child.

Western observers have most incorrectly translated the term *chirwa* as "rickets" or "protein malnutrition," but it most certainly does not mean that to the Africans. When western medical authorities ask, as they do, to see those suffering from *chirwa*,

they are usually shown no one since the Nyika hate to admit publicly that they have broken the sexual taboos and that they have a child with *chirwa*. When the western officials argue that the Nyika should feed their children more "food" (*chakuria*) to counter *chirwa*, they are regarded by the Africans as quite foolish, if not presumptuous. First of all, the Nyika feel that they do give their children more than enough *chakuria*; second, they know quite well that one does not remedy broken taboos by eating more *chakuria*. They believe that only traditional Nyika methods administered by Nyika specialists can be employed to deal with *chirwa*.

Not even the best intentioned technical expert, nutritionist, aid administrator, or Peace Corps volunteer can effectively counter protein malnutrition in this area of Africa unless he understands the concept of *chirwa* and unless he can also change some fundamental attitudes and food habits so that available protein foods can be eaten by children and those who are ill. But even here, it must be noted that seemingly desirable change may perhaps have some undesirable consequences. Destruction of the concept of *chirwa* as a retribution for "out of season" intercourse, combined with improved health and diet, may well lead to such an increase in births and in longevity of life that malnutrition then does become clearly a result of too little food for too many people rather than primarily a result of inadequate use of increasingly available food.

In conclusion, it is seen that diet is dependent on a complex web of intertwining social, economic, political, magico-religious, technologic, attitudinal, and environmental factors. These factors influence food production, distribution, acceptance, and consumption. Those who wish to improve diet must, therefore, study *all* aspects of the food-getting and -using complex in its socio-cultural and environmental matrix and implement programs of change and development accordingly. Authorities who fail to do this may actually cause harm to a people's food supply and diet while attempting to help them.

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Men Chefs and Women Cooks

I leave it to others to rhapsodise about the *art* of cooking. To me it is an expression of love and care. I think most women will know what I mean.

Male chefs in the great houses I have known produce masterpieces of *haute cuisine*. Magnificent in every way.

If you do not happen to like a particular dish, then it is your bad taste—but that is not really the point. Is it, or is it not a masterpiece? They query anxiously. Whether or not you actually like it is another matter.

This I think, is the essential difference between the male and female approach to cooking. A man cooks with his head, a woman with her heart.—*From To Set Before a Queen by Mrs. McKee (who has cooked for Queen Elizabeth, the Queen Mother, and Princess Margaret). London: Arlington Books, 1963.*