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# RECENT STUDIES ON TRADITIONAL AGRICULTURAL MARKETING IN THE SUDAN AND SAHEL ZONES OF AFRICA[1]

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Data on traditional trade in the Sahel and Sudan zones of Africa are probably too scanty and dissimilar to allow a synthesis, even a provisional one.

Accordingly, in the first part of this paper, I shall describe significant instances of spontaneous intra-African trade flows, mostly dealing with staple food products. Such is the meaning of the predicative "traditional".

The area under study includes:

-- the so-called Sahelian zone (250-500 mm isohyets)

-- the Sudan zone (500-1000 mm)

We shall also have to consider southern coastal areas with which Sudano-Sahelian Africa keeps close commercial ties.

Traditional African trade has an indifferent reputation. It is supposed to use too many intermediate agents, giving bad service at

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a high cost. Close supervision, or even downright suppression, is often recommended (Letnev, 1967). However, some writers point out that traditional trade exists -- which is already an accomplishment. They also remind us of the poor performance of some public or semi-public marketing organizations dealing with export products (Raynaut, 1975).

As far as marketing is concerned, choices are primarily political, therefore not fit for economic discussion only. These choices, however, also require an accurate appraisal of socio-economic realities, relying upon analytical tools improved by research. The second part of this paper will describe the contents of this improvement.

Traditional trade in Sudano-Sahelian Africa makes much more sense if one looks for complementarities inside and outside of the zone. In the zone, complementarities between cattle-raising and agriculture, or between fishing and agriculture, have given rise to a lively trade. Trade is also frequent between farmers engaged in different production systems.

On a wider scale, we find the great complementarities based upon the difference of latitude between dry Africa and rain-forest Africa. They support long-distance trade which, in a way, merges with foreign trade since coastal areas send to the Sahel both local products (such as cola) and imported goods.

## Complementarities in Sudano-Sahelian Africa

### 1. Agriculture/cattle raising

A good instance is found in Bernus (1972, 1974a, 1974b). This writer shows that the Illabakan Tuareg (Niger), "nomad herdsmen without agriculture", become involved in an exchange economy, both:

-- in the nomad zone proper (150 km north of Tahoua)

-- on southern market places lying close to the northern limit of the agricultural zone (Figure 1).

MARKETS FREQUENTED BY THE TOUAREG ILLABAKAN (NIGER)

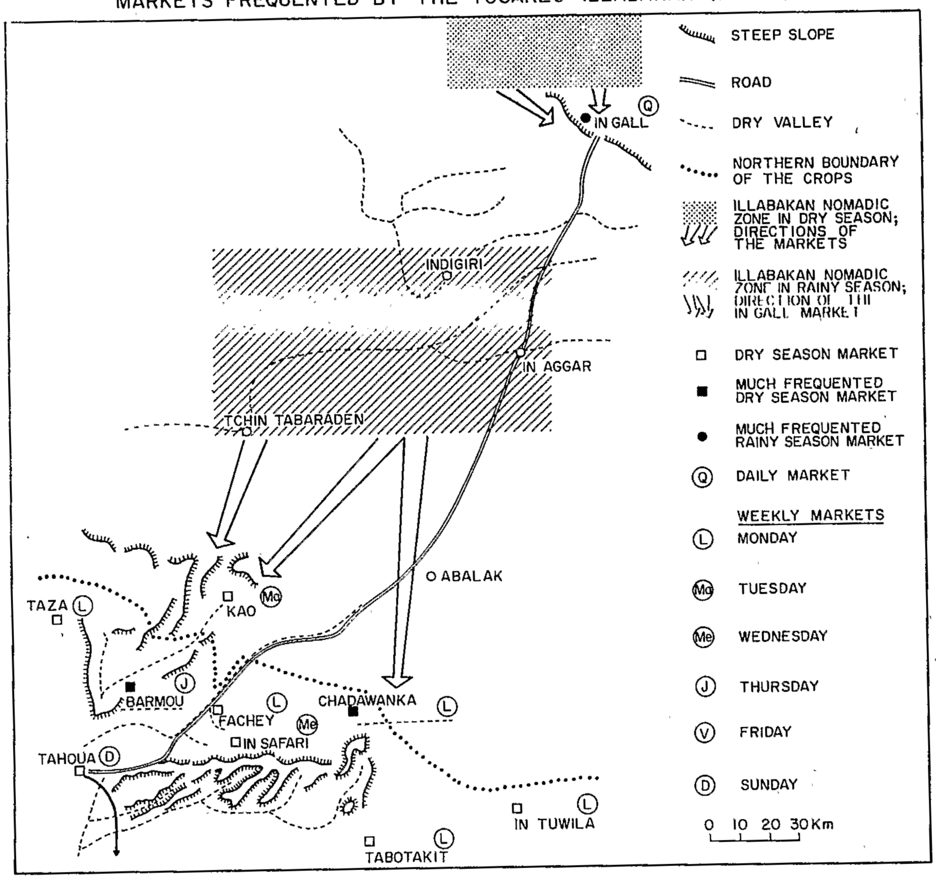


FIG. I SOURCE: E. BERNUS, LES ILLABAKAN (NIGER) ORSTOM, PARIS, 1973, P. 93

Trade goes on around watering and camping places. After harvest time, peasants come to the nomad zone with donkeys or oxen carrying millet and sorghum. Further south, on the limit between the sedentary and nomad zones, there are market-places where the Illabakan sell cattle in order to purchase millet and other products. They use the services of brokers called dillali,[3] who guarantee the deals.

In agreement with economic logic, the prices of cattle and grain vary in space and time according to the relative scarcity of the goods exchanged. On the southern markets, near the agricultural area, the price of cattle is high, the price of grain low. Conversely, cattle is cheap where it is plentiful, that is, in the nomad zone or on a northern market place called In Gall; but grain fetches a high price there, since that price includes a margin covering transport and risk. The variation in time is also easily explained. In October after the harvest grain is cheap but prices rise until the beginning of the rains. From November to January cattle, invigorated by the rainy season, bring in a good price but become cheaper during the dry season.

## 2. Agriculture/fishing

This complementarity comes into being as soon as certain groups specialize in lake or river fishing. First it gives rise to barter, changing gradually into trade. As early as 1926, in northern Cameroon, Gide (1928) saw instances of that trade among the Kotoko, those same Kotoko who later on chose to devote themselves to trade only as being more profitable than fishing (Couty, 1964; Couty and Duran, 1968; Bouquet, 1976).

## 3. Complementarities between agricultural production systems

In Cameroon, Hallaire (1972) studied trade going on between the inhabitants of the Mora plain and people living in the northern part of the Mandara highlands. In the highlands, Matakam, Mada, Ouldémé, Podoko, and other animists grow millet and a few groundnuts on stone wall bench terraces built upon the mountain slopes. Densities are frequently over 100 inhab/km$^2$. The lowlands, occupied by Muslim Mandara and others, are more fertile; cotton growing could develop. The agricultural system includes a cotton/rainfed sorghum rotation, intensive use of black clay depressions for dry season sorghum, and employment of pagan workers.

The whole area is pervaded by intense commercial activity, bringing into contact lowland Muslims and highland animists. In these commercial relationships, trade-prone Mandara play a very prominent part (Figure 2).

If we neglect long distance trade (cola, fish, cloth), we can trace three kinds of local flows:

-- First, short distance flows within a given geographical environment (highlands or lowlands): milk and millet exchanged by farmers and herdsmen, handicrafts (mats, pottery) and garden produce sold by highlanders to Mokolo town dwellers. However, the most interesting flows link highlands and lowlands.

-- Highlanders sell groundnuts to lowland Mandara, together with beans (*Vigna sinensis*) and a kind of tobacco used by women to dye their teeth red. To the pagans settled in the lowlands, highlanders sell products that these migrants go on consuming but do not grow any more. Mandara customers buy handicrafts, plucked or gathered products, pottery, millet mortars, writing boards for Koran students, tamarind fruits, firewood, etc. The latter kind of trade results from the difference between pagan and Muslim consumption levels; Muslims try to avoid painful chores which highlanders accept for money.

Lowland farmers sell millet and sorghum to highlanders, including the Matakam who have enough grain during the dry season but lack millet, like everybody else, during the rainy period.

THE NORTHERN MARGUI-WANDALA MARKETS
(NORTH CAMEROUN)

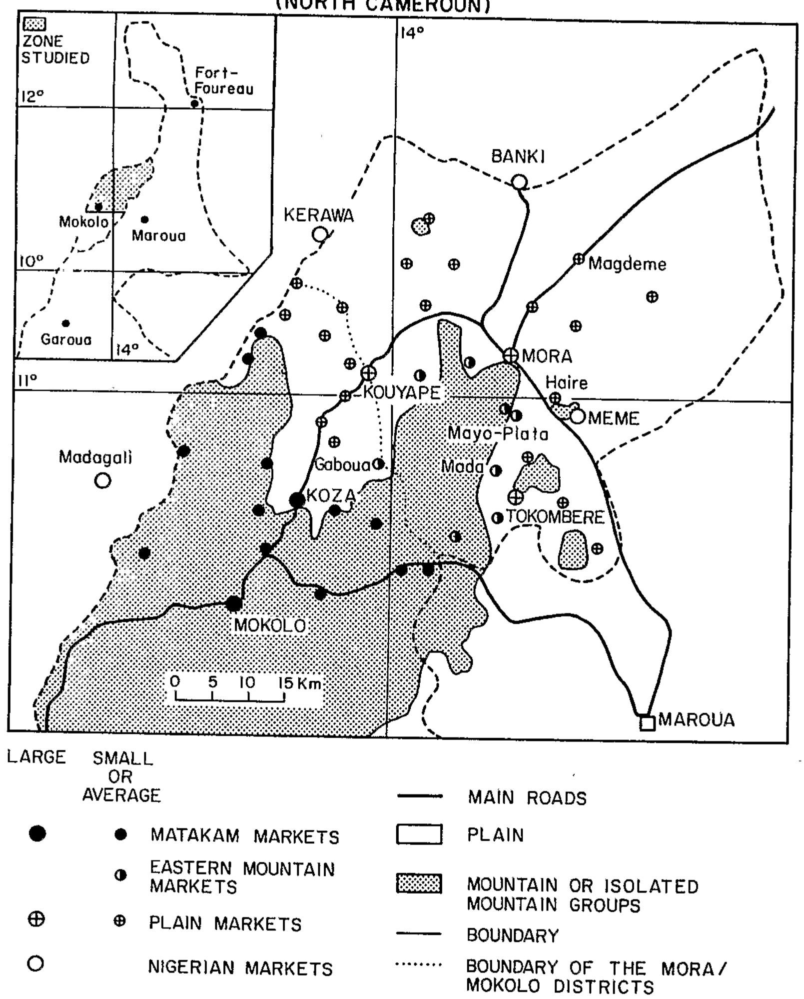


FIG. 2 SOURCE: A. HALLAIRE, MARCHÉS ET COMMERCE AU NORD DES MOUÉS MANDARE (CAMEROUN) CAHIERS DE L'ORSTOM, SÉRIÉ SC. HUMAINES, VOL. IX No. 1972, P. 261

-- The trade between lowlands and highlands merges with larger flows aiming either towards regional capitals like Maroua and Garoua (and hence towards southern Cameroon and Chad) or towards Nigeria. Tobacco, for instance, is grown commercially in the highlands[4] and is sent to Nigeria or to Garoua and Maroua. Sweet potatoes, grown in Matakam country, also go to these two cities. Again, millet flowing from the lowlands to the highlands merges with grain moving in the general direction Chad-Cameroon-Nigeria -- Mora lowlands being used as a relay. Hallaire (1972) mentions an earlier study by Couty (1965) about millet trade in Diamare (a department in northern Cameroon). This study made a difference between two kinds of market-places: centers of small self-centered zones, and links in a long-distance chain (Couty, 1965). The same study made it clear that there was a link between Cameroonian imports of Nigerian millet and exports to Chad, which was confirmed ten years later by Hallaire (1972). In other words, there is a gradual transition from local to international flows, the latter hardly being registered by the customs.

Onions, grown during the dry season along temporary water streams, flow in the same direction as millet: from lowlands to highlands, and from West (Nigeria) to East (Maroua, southern Cameroon, Chad, Central African Empire).[5] On the contrary, cattle comes from Chad to Cameroon, and from Cameroon to Nigeria (Frechou, 1966); hides move in the same direction. Hallaire (1972) also traces a local flow of cattle, from lowlands to highlands, highlanders must sacrifice cattle in certain ritual ceremonies.

Hallaire's study (1972) is an outstanding example of the kind of data which ought to be gathered periodically in a few test areas of Sudano-Sahelian Africa. However, an evaluation of trade performance would require a price and margin analysis, which ought to supplement geographical studies. It must be pointed out, moreover, that the importance of these trade flows should not be over-estimated. Hallaire (1972) legitimately reminds us, in her conclusion, that "export crops, as a rule, provide the greater part of farmers' income and help these farmers join a money economy". Actually, only a small percentage of millet crops is brought to the market, roughly 10% in Niger, according to the SEDES, and probably not much more in Cameroon. Price instability therefore is large, "since any slight variation of auto-consumption and storage has a widespread effect, in relative value, on the volume of grain brought to the market" (Raynaut, 1975).

Generally speaking, in Sudano-Sahelian Africa, trade is stimulated by urbanization, differences in population densities, price level differences due to boundaries, and export crops development. Lack of space allows for only a few remarks upon these problems:

-- Progress in grain circulation and trade first benefited town dwellers. Raynaut (1975) makes it clear in the case of Niger: "All grain distribution chains are now serving the needs of cities, particularly Niamey." Actually, some urban centers, now mostly supplied by imported food products, will have to be conquered again by Sahelian producers by means of adequate price policies and commercial organization. Moreover, as shown above, farmers also may benefit from grain trade.

-- Differences between agricultural production systems depend upon different population densities. Therefore density differences contribute to the rise of trade flows, and trade flows help maintain these differences. However, there is no simple relationship. Hallaire (1972) points out that in northern Cameroon millet flows from Mora lowlands to the highlands, that is towards high density areas. Whereas, if one looks at the plains only, high density areas export millet towards lower density areas (Benoue, Chad) -- not a surprising fact, since population concentrates in fertile areas (Couty, 1965).

-- The existence of a boundary, in itself, may give rise to profit. Raynaut (1975) considers that proximity of the Nigerian boundary enhanced the commercial prospects of Maradi, particularly in cattle trade. A number of such instances might be found in the zone, especially when the international borderline separates two monetary zones.

The last point is controversial. According to Hallaire (1972), "the development of local African trade is closely connected to the development of foreign trade." In northern Cameroon there are many justifications for this point of view. As far as production is concerned, the development of cotton very probably increased the cultivation of dry season sorghum (muskwari in Fulani) in black clay depressed areas, and this sorghum is sold to a very great extent. As far as monetization is concerned, it is also likely that cotton income helped further the circulation of dry fish, a product one finds everywhere nowadays. However, it is also possible to show that development of a single export crop may have a negative effect on local food production and marketing. Such seems to have been the case in Senegal, where income from groundnuts pays for imports of Thailand rice (170,000 t in 1972). In Senegal again, it may be said (Delaunay, 1976) that instead of a local food trade, a peculiar type of export gradually developed: "In the Dagana area, agricultural marketing is effective, but mediated by migration; food production maintains and reproduces a labour force that is sold on the market, thereby taking part in the capitalist circulation of commodities. . .". In other words, to understand how exchange begins and works, it would be necessary to analyze not only creative complementarities but also negative tensions which may drive a whole group into the road of extraversion and dependence.

Complementarities between Sudano-Sahelian Africa and coastal areas

These complementarities bring about many trade phenomena. In this paper, we shall disregard cases which are inadequately documented (grain, pulses) and deal only with cattle, fish and cola.

1. Cattle

Together with the Sudanian savannas lying on its southern border, the Sahel zone is first of all a cattle producing country. Rain forest regions, on the contrary, are in need of meat because the climate and parasites prevent cattle raising, whereas population and income growth give rise to a strong demand. Before the drought, net exports from the Sahelian countries (northern Cameroon not included) amounted to 150,000 t per year, mostly in live cattle (approximately 600,000 head).[6]

Instead of a distribution chain proper, one may want to consider composite channels (filières) combining modern and traditional trade, and including a regulation system. A good instance of such a "filière" would be the cattle and beef channel supplying Abidjan (Serre, 1973). The departure point (Figure 3) consists of Fulani or Tuareg herdsmen selling cattle in market places in southern Sahel, Abala, Ayorou, Markoye, Dori, and Ouahigouya. Slaughtering may occur at this stage but for old cattle only. Cattle are then led to large collecting markets such as Niamey, Ouagadougou, and Bobo-Dioulasso. In these cities, industrial slaughterhouses provide local people with meat. Also, cold storage facilities (Niamey, Ouagadougou) make it possible to forward frozen meat.

From these collecting places, the trade follows several routes:

-- Live cattle may walk all the way to Abidjan, but arrive there in very bad condition;

-- Railway shipping (Régie Abidjan-Niger, RAN) however, lack of freight cars curbs the growth of this kind of transport;

-- Dispatching of frozen meat by refrigerated railway cars from Ouagadougou or by plane from Niamey to Abidjan.

A distribution channel has to be regulated. Profusion of cattle after the rains and the relative scarcity at the end of the dry season cause price shifts which become larger and larger as one moves along the channel. Speculative operations of the dioulas,[7] however, provide a first regulating element. Besides, Sahelian ranches, if they manage their pasture grounds rationally, may bring to the market at any time cattle in good condition. Such is the function of the Ekrafane ranch, Niger. It supplies Niamey slaughter houses with cattle during the off-season. Thirdly, fattening centers in the Sudan zone might fatten

CATTLE MARKETING CHAIN:
FROM THE SAHEL TO ABIDJAN

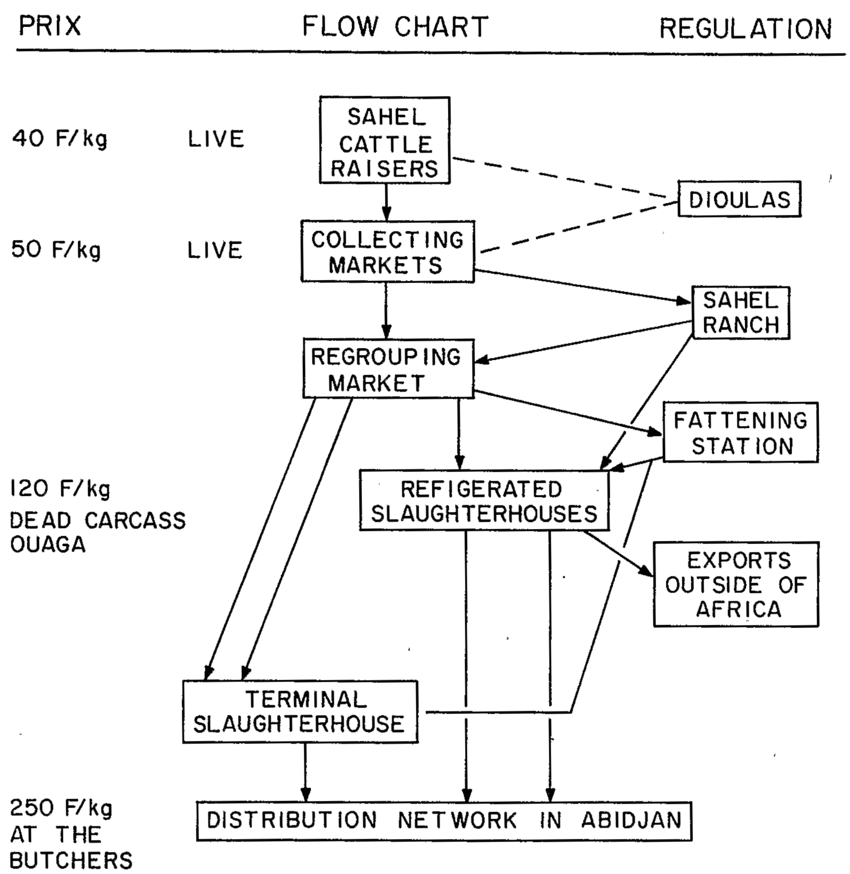


FIG. 3 SOURCE: M. SERRE, IN: GERDAT/ENSA MONTPELLIER, SÉMINAIRE D'ECONOMIE RURAL, JULY 1973 (FASCICULE IV: L'ANALYS DES FILIÈRES AGRO-ALIMENTAIRES)

lean cattle during all seasons and deliver directly to Ouagadougou and Bobo-Dioulasso slaughterhouses or to Abidjan via the RAN. At the time of the investigation, however, these centers were only a project. Exports might provide an outlet for the channel if they were not checked by the pathology of African cattle.

As a conclusion, Serre (1973) mentions that intermediate costs cannot be reduced. To raise payments to the producers (which is the only way to bring about modernization), prices ought to increase at the end of the channel, but such an increase is unlikely since prices are controlled by the government in Abidjan.

## 2. Fish

Again in the north-south direction, active and age-old distribution channels move dried and smoked fish[8] either from the Chad basin or from the Central Delta or Niger (Couty, 1964; Couty and Duran, 1968; Lagoin and Salmon, 1967). The prosperity of this trade seems to have decreased for some years. Actually, success was something of a paradox, since fish came as far south as the Atlantic coast although these regions are supplied with imported stockfish or sea fisheries products.

Linkages between the Chad basin and southern Nigeria were upset during the Biafra war.[9] Again, a sharp increase of sea fishing and frozen fish marketing (Krone, 1970; Couty, 1974) started to saturate coastal markets as far north as Ilorin apparently. Last, fishing decreased in the Inner Delta of Niger. Registered exports from Mali towards coastal countries fell from 6354 t in 1968 to 2860 t in 1972 and unregistered exports also seem to have decreased (from 10,000 t per year before 1970 to 5000 or 6000 t per year around 1974). There are several causes for this situation, import restrictions in the Ivory Coast and in Ghana (health controls), possible over-fishing in Mali due to too small-sized net meshing.

## 3. Cola

Cattle and fish movements are balanced by movements of manufactured goods or cola towards the north. Cultivated or fresh picked in rain forest areas, cola nuts are very much in demand in Sudano-Sahelian Africa. Verniere (1969) remarks that this specific trade may be one of the oldest in Black Africa. His study deals with Anyama, a town in the Ivory Coast from which, on the average, 8000 t of cola per year were sent by ship to Dakar around 1969, and 800 t by rail to Bouaké and Mali.

The main features of cola trade changed noticeably in the course of time. Whereas, cola had traveled towards the north mostly by rail or road, the eastern part of the Ivory Coast rain forest area now sends its produce to Dakar by ship. Upper Volta markets were abandoned apparently because of custom duties. Only Mali is still supplied by road, Bouaké being used as a relay. This capacity for change, this dynamism, is remarkable in a trade which is still called "traditional". Of course, trade organization still relies on kinship ties,[10] but traders unhesitatingly make use of the most modern communication systems to take advantage of price variations.[11]

From the foregoing examples, provisional conclusions may be drawn in the field of research, analysis and management. First, the concepts of a homogenous region and traditional economic sector, far from being useful, badly distort reality. Second, in view of the existence and resilience of private trade, observation and management ought to take appropriate forms.

a) Is it still possible to talk about homogeneous regions in Sudano-Sahelian Africa?

Concerning a regional development experience in the Tahoua area (Niger), Funel (1976) writes: "Only very seldom an administrative region chosen for regional development programs may really be homogeneous, ethnically, demographically, ecologically and economically. Apparent homogeneity may be surmised from a few criteria which vary little in a given space, but this gives no ground to state that the socio-economic system is the same everywhere."

Accordingly, this writer recommends locating and analyzing "heterogeneous or nodal (polarized) regions, taking into account production and consumption disequilibria, exchange and flows. . ." (Funel, 1976).

Are these mere academic trifles? By no means. Such a statement runs against the ideas which, explicitly or not, inspired rural management in the Sahel and elsewhere since Independence. It was taken for granted that in certain areas socio-economic systems were basically rural, that self-sufficiency was the rule, and that innovation was unlikely. Starting from that, it was stressed that rapid agricultural development ought to receive absolute priority. Such development was imagined in terms of "operations" (groundnuts, cotton). Technical progress, personnel, logistics, finance, everything was designed to support only these operations (Labonne, 1976). In the same line of thought, public and semi-public agricultural marketing organizations were created but only for cash crops.

In a report dealing with the groundnut basin of Senegal, Pelissier (1970) shows that such simplifications distort reality. However, six year later Funel (1976) still pointed out that in the Tahoua area (Niger), agriculture is not the only activity of rural populations and does not provide the greater part of money incomes.[12] He remarks that these people "do not try to maximize agricultural production, but endeavour to optimize it within a general scheme of activities. . .because it is necessary to diversify these activities in order to insure against uncertainty." Funel also shows that, at least until 1972 and in spite of a decrease in agricultural production (due to rain deficits), consumption levels in the Tahoua region did not deteriorate. On the contrary, according to Funel (1976) this unexpected prosperity is due to trade, which was itself made easier by the proximity of Nigeria, and the building of a road network, "Contrary to planners' forecast, the economic situation of the Ader could improve owing to an opening on the outside world and wide-ranging practice of traditional trade".

A comparison is made by Funel (1976) with what happened in Chad at the end of the 1966-1970 plan: "To reach their predetermined growth objectives, State planners relied upon the primary sector, because they thought of all the obstacles standing in the way of industrialization. What actually happened was different. Growth objectives were overtaken owing to the part played by the secondary and tertiary sectors. The average growth rate per annum was 10% in industry, 6% in transport and communications, 9% in trade and services, and only 2% in primary productions".[13] Bouquet's (1973) study on Southern Kanem substantiates planners' statements, at the same time giving further reasons to discard the concept of homogeneous region. Again, these reasons are mainly the existence of trade flows inconsistent with the notion of undifferentiated space.

b) National accounts and traditional trade in Sudano-Sahelian Africa

During the sixties, ORSTOM conducted a series of inquiries on fish, cattle, meat, sorghum and natron trade in the Chad basin (Chad) and in northern Cameroon and northern Nigeria. Most of these studies were designed to solve practical problems, cooperative schemes, road lay-out, market assessment, etc. However, taking the results as a whole it was deemed possible to make general remarks about the structure of Sudano-Sahelian economies (Couty, 1968a). Inferring from flows towards systems, it was suggested that the current dualistic model (modern/traditional sectors) be replaced with a more realistic one, including a so-called intermediate sector. This intermediate sector was seen as a peculiar feature of Sudano-Sahelian economies.

Actually, this view was in accordance with Bohannan and Dalton's thesis (Bohannan & Dalton, 1962). Traditional economy is not homogeneous; it combines several spheres of transaction. "Even in the traditional economy, some items may be transacted by the market principle". The Chad basin inquiries made it possible:

-- to emphasize the existence, within the traditional sector, of autonomous, monetized sector, producing for the market, linked to its customers by extended trade channels;

| | Subsistence Sector | Intermediate Sector | Modern Sector |
|---|---|---|---|
| Contents (examples) | - Food crops<br>- Cattle-raising<br>- Fishing, hunting<br>- Hut building and repair | - Grain production & trade<br>- Cattle raising and marketing<br>- Fish, fish preservation and trade<br>- Natron production and trade<br>- Hides, firewood, etc. production and trade<br>- Cola trade<br>- Handicrafts, services | - Industrial crops and export trade<br>- Import trade<br>- Industries and services managed by expatriates and/or under foreign control. |
| Monetization | - No use of money<br>- No money prices<br>- No market transactions | - Money used, at least in the later part of distribution chains<br>- Price sometimes difficult to ascertain (haggling)<br>- Well developed trade channels inside Africa. | - Extensive use of money<br>- Fixed prices<br>- Extended trade channels |
| Autonomy | - Complete<br>- Traditional institutional environment<br>- Infrequent innovations<br>- Low investment | - Significant<br>- Traditional institutional environment<br>- Frequent innovations<br>- Possibly high investment in some branches (fishing...) | - Nil<br>- Modern institutions<br>- Innovations imported or forced from the outside world<br>- High investment in a few selected projects |

Table 1. Summarizes the features and contents of the intermediate sector, together with those of the subsistence and modern sectors:

-- to show that this "intermediate sector," wholly controlled by Africans (unlike export trade), apparently was very active in the Sudan and Sahel zones, where field work had shown, for instance, that Islam, grain surpluses, and intermediate sector were often coextensive (Couty 1968 a).

This presentation emphasizes an important point as far as export crops are concerned. It may have seemed suitable to set up a public or semi-public marketing organization that is usually endowed with a legal monopoly. However, such was not the case for intermediate sector productions. In this case, one does not face an empty ground. On the contrary, there is a risk of conflicting with established powerful trade organizations operating to the advantage of groups bent on safeguarding their interests. Of course, the same situations had to be dealt with when former export channels came under public control as in Senegal, but since foreigners were the ones commercially injured or eliminated (Syrians or Lebanese) the operation was politically acceptable. But, when authorities attempt meddling with cattle, fish or grain trade, they challenge native operators, which is much more difficult. One can hardly doubt, for instance, that some Mali traders strove with some success against the Mali socialist experiment which took place after the 1960 Congress of Union Soudanaise-RDA[14].

More recent studies confirmed the importance of transactions which delineate, within the so-called traditional sector, a sphere directly influencing the consumption level of town-dwellers and farmers, particularly in so far as food is concerned. In Chad, Bouquet (1973) substantiates Couty's views with his studies of natron, fish and corn production. In the paper quoted above concerning northern Cameroon, Hallaire (1972) explicitly uses the concept of intermediate sector. Even more recently, Arditi's (1975) bibliographical survey intends to show that "there exists in the Sahel a well-developed intermediate sector. Such a sector is relatively independent in so far as it could adjust, and even grow, in spite of the adverse effects of colonial penetration." The selection of papers made by Arditi allows him to emphasize the early existence of the kind of trade he examines.

In Mali, according to Daniel (1973) recent national accounting practice seems to endorse the 3-sector distinction suggested in 1968. In these national accounts from 1968 to 1972, Daniel (1973) finds a division in modern/intermediate/traditional sectors, which "takes into account the stage of economic growth, the length of trade channels and the social groups concerned."

In the modern sector are found all national and foreign firms with a turnover greater than 10 million FCFA, keeping regular accounts, and marketing both imported goods and a few much demanded local products (controlled grain, cloth, export crops).

The intermediate sector distributes, at small town and village level, the same products as the modern sector, but it also markets local products such as spices, export cattle, paraffin, cotton cloth, wholesale cola nuts, etc. This intermediate sector keeps no accounts; each firm has a low turnover although the aggregate turnover of the sector may be higher than that of the modern sector. This kind of trade is controlled by certain ethnic groups.

The "traditional" sector proper is almost completely indigenous and operates short distribution chains and markets a limited range of local products. Daniel (1973) remarks that this "traditional trade" is the only one to have success in some markets. Its relationship with peasant producers may hamper modernization attempts, particularly, in the meat and grain trade. So far, it has been difficult to control these spontaneous activities by means of cooperative schemes.

To conclude: the term "intermediate sector" was picked up by social scientists studying other parts of Africa, who were not satisfied with dualistic models. Steele (1975) for example, brings out a 3-sector division of the Kenyan economy where the growth of an intermediate sector "means the growth of relatively high-income agriculture: of key central-places (not just towns because this implies only populations within town boundaries); of focal points for high-density (peri-urban) rural areas; and of unplanned urban settlements in the metropolitan cities which house, service and produce goods for the lower middle range of modern sector workers or for themselves."

This view of the intermediate sector coincides with the concept of an informal or unorganized sector, which seems more relevant in urban studies.

c) Observing traditional trade in Sudano-Sahelian Africa

Awareness of the importance of traditional trade is a first step towards real knowledge about the subject. Data, however, are insufficient. There are good monographs, often written by geographers or anthropologists, but price and margin analyses sometimes are absent. Arditi (1975) writes, "Actually it does not seem reasonable to go on ignoring the basic forces of food trade. In every country, inquiries seem now necessary, to provide a basis for grain policies favoring peasants. Experiments made with so-called 'Offices' and aiming at the regulation of food trade, were all unsuccessful attempts based upon a very imperfect knowledge of essential trade mechanisms. Surprising as it may seem, some countries (Chad, for instance) have no study of the grain trade, however thriving it may seem. It looks rather inconsiderate, as a consequence of the drought, to recommend food storage in countries where private grain trade completely controls the market, at a great disadvantage for producers. Now is the time for reflection upon past experiments in this field, as in the field of rural development generally."

Although I do not accept all the opinions of Arditi[15], I do agree with his proposal of systematically surveying and analyzing so-called "traditional" distribution chains in Sudano-Sahelian countries, particularly as far as grain is concerned.

Is it possible to suggest an agenda for research? The first recommendation would be to avoid any restricted economic approach. Available monographs make it clear that the operation of trade channels is "a total social phenomenon" (Amselle, 1971). An outline of inquiry was brought forward by Couty (1973), combining three aspects (physical, sociological, economic) and three objectives (description, evaluation, improvement). In this way a broad field of study is delineated, and it seems necessary not to restrict it. Of course, inquiries call for the cooperation of several sciences and/or techniques: geography and cartography, technology, sociology, economics and accountancy.

To keep within the economic aspect of the problem, Raymond (1973) showed on the basis of Voltaic examples that the notion of price has different meanings according to the type of trade channel. Raymond (1973) finds five such types in so far as circulation of agricultural products is performed by:

| | |
|---|---|
| -- licensed organizations<br>-- traders | -- money & market |
| -- re-sellers (mostly women)<br>-- producers in neighboring villages | -- money, but non-market |
| -- villagers (in a given village) | -- non-monetary, non-market |

In the first type of circuits, farmers deal with buyers belonging to official or licensed organizations. Trade is a part of a money economy, transactions may be aggregated (quantities multiplied by price). Price is a market price, reflecting international prices.

In the second type, traders move the products from production areas (villages or bush markets) to solvent consumers dwelling in towns or villages. Export, at least towards other African countries, is not unusual. Global turnover may be considerable. Trade channels are operated by a buyers' network, with whom traders entertain a relationship based upon family and personal ties (Raymond, 1973). Pressure may be

| Aspects/ Objectives | Physical | Sociological/Institutional | Economic |
|---|---|---|---|
| Description | - amounts produced and marketed controlled and uncontrolled seasonal variation localization of production zones<br>- categories and qualities, transformation procedures, processing, storage, etc.<br>- marketing and transport infrastructure<br>- weights and measures<br>- map of flows: distances travelled, network organization (collecting, regrouping, storage, distribution points, retail sales) | - collection and distribution agents (ethnic groups, social organizations, etc.<br>- credit<br>- specialization and hierarchy<br>- restrictive practices (monopolies, etc.)<br>- state control<br>- marketing boards, cooperatives, etc. | - price formation at production level<br>- gross margins and distribution costs at different stages<br>- concentration and competition<br>- origin and cost of commercial capital<br>- profit allocation<br>- market information and risk coverage<br>- government deductions (the fiscal system) |
| Evaluation | - ascertaining non-communication between production zones and zones of actual or potential consumption<br>- inadequacy of installations (volume, sanitary aspect)<br>- Inadequacy of transportation equipment, packing materials, etc.<br>- technical defects in transformation, packing and storage (losses due to insects, humidity, etc.) | - adaptation or inadaptation of modern and traditional institutions<br>- to evolving socio-political realities<br>- to present economic interests | - short term: will the market succeed in distributing production factors and marketed products in time and space (domestic and foreign) in terms of available information? What is the cost of this function? TEST: do the prices react rapidly and properly to variations in supply and demand in time and in space?<br>- long term: are commercial profits invested in production? |
| Improvement | - Creation of new infrastructures (roads, etc.)<br>- technical measures: insect control, plastic packaging, improved transformation (at the level of localized intervention or comprehensive planning) | - creation, modification of cooperatives, groups with monopolies<br>- interventions with respect to credit<br>- changes in the political order | - intervention in the market price of the products (storage & regulation, price control)<br>- incentives for competition or monopoly practices<br>- selective loans, Africanization<br>- various fiscal measures<br>- action in the area of data collection (statistics) |

Table 2. Chart of Traditional Commercial Networks

brought upon both consumers and producers. Produce may be bought at harvest time and sold again, sometimes to the same farmers, at sowing time or during the rainy season. This generates heavy indebtedness. Price is agreed upon by traders and farmers, the former endeavoring to take advantage of the latter. Purchasing is made by volume, not by weight. Average market price is difficult to calculate, in view of time and space variations of actual prices; margins are also difficult to estimate.

According to Raymond (1973) only the two first kinds of trade channels belong to a money and market system. Resellers' channels are women's activities, each agent being responsible for a small volume of transactions. However, resellers' trade provide a vital connection between market and non-market circulation of products. Price becomes blurred, in particular because women resellers incorporate into their purchases either the product of their own farming activity, or labor inputs, such as turning millet into beer or preparing fritters.

Circulation between producers in neighboring villages takes place on local markets, where exchange answers both a social need and economic necessity. Prices result from the encounter of a small volume of products and a small, rapidly circulating quantity of money. There is no commercial profit. The "price" asked by sellers is often the result of a predetermined objective (purchase of an animal for a celebration) accordingly quantities supplied vary so that the objective may be reached anyway (Couty, 1965).

The last type of circulation is non-monetary and non-market. It brings into contact members of family groups (food apportionment for each individual), family groups themselves (gifts, barter, dowries), family groups and work associations (Couty, 1972; Kohler, 1971).

"Prices" recorded upon the four first types of channels do not have the same meaning. It is not possible to use them all together to calculate an average price and estimate the value of total production. Raymond (1973) emphasizes that the nomenclature of exchange operations must be reshaped on the basis of a distinction between:

-- exchange performed in a non-market, non-monetary system (5th type);

-- exchange performed with money, but in a non-market environment (3rd and 4th types);

-- exchange performed in a monetary, market system (1st and 2nd types).

This typology may be discussed. Resellers' channels, and even channels linking producers in neighboring villages, probably give rise to real market transactions very often. In that case these transactions, not infrequently, qualify for economic analysis. I should therefore prefer to include them in the "intermediate sector" defined above. However, Raymond (1973) is right when he notes that national accounting systems are not quite convenient for description and analysis of African economies. It cannot be doubted that thorough investigation of product circulation offers a sound basis for improvements in this field.

d) Practical interventions in marketing

The existence of spontaneous trade flows organizing Sudano-Sahelian Africa compels us to discard spatial analyses conducted in terms of homogeneous regions, together with economic analyses based on simplistic models. But this spontaneous trade also calls for caution in setting up public or semi-public marketing organizations.

Actually, the performance of these organizations, in the grain trade particularly, is not always as negative as Arditi (1975) seems to think. In Niger, the OPVN (Office des Produits Vivriers du Niger) certainly helped in stabilizing millet and sorghum prices, when it marketed 47,000 t of grain in 1974-75.[16] In Upper Volta, the OFNACER (Office National des Céreáles) created in the early summer of 1974, was awarded a monopoly for the marketing and distribution of cereals, including food aid. Soon, however, improvements were found necessary in management and information (production statistics, price records etc.). In Chad, the SODELAC (Société de Développement du Lac) apparently could not prevent farmers from selling their corn to private traders, and the same thing happened with fish and natron.[17] Results therefore are unclear, and it is dangerous to generalize too quickly. Anyway, decisions in this field depend in a great measure on political choices which an economist must consider as given. At most, he may recommend that over-ambitious measures be avoided in the beginning. Except for serious reasons, it may be advisable to begin with a few steps suggested by Uma Lele (1976):

-- Developing professional and institutional capability for formulation and implementation of policy, for example, improving data base;

-- creation of an agency responsible for carrying out the task of purchase and sales and maintenance of buffer stocks;

-- regulation of traditional markets, including construction of storage facilities and development of a transportation network;[18]

-- guaranteed minimum prices for a few key food crops, the production of which needs to be increased.

In such a framework, traditional trade may keep a dynamic role, even if plans call for its future replacement by a cooperative or public sector.

By way of conclusion, it must be emphasized that the performance of a marketing system cannot be appreciated except in relation to the whole economy. It is not enough to ask whether goods move as cheaply as possible to the places where consumers want them. One must also inquire whether the market system favors economic growth. In other words, what is the allocation of commercial profit? There are many passionate opinions on this issue but few data. Samir Amin (1970) devotes only a few lines to the problem although he admits that "in sectors which depend very indirectly from outside markets, but on the contrary are connected with a broadening domestic market possibilities of rapid accumulation are greater, much less under the control of foreign capital. . ." (Amin (1970) gives the example of Senegalese cattle and meat brokers). Raynaut (1975) mentions the not very profitable agricultural investments made by Niger traders, and Rocheteau (1975) reports creation of agricultural estates made by successful Senegalese traders, whose main motivations seem of a religious nature. This difficult and important question must not be forgotten when proposals are made for encouragement, control, supervision or even elimination of private trade.

## NOTES

3. Dillali are found in northern Cameroon (Frechou, 1966), northern Nigeria (Jones, 1972) etc. Bonte (1967) thinks that these Dillali are a proof that trade cannot be separated from social intercourse. However, they perform obvious commercial services, in exchange for which they receive a commission. Their contribution is a part of the economic machinery of trade. Similar intermediaries are found in fish marketing, the Kanuri fatoma (Couty and Duran, 1968).

4. Tobacco is grown in other parts of Cameroon, in Massa country for instance. Gide (1928) already says that Massa farmers sell their tobacco crop to Nigerian traders.

5. The importance of this commercial crop in Sudan-Sahelian Africa cannot be overstressed. In Niger onion growing, a traditional crop in the dry season, has kept spreading in organized perimeters for some years. The whole produce is sold. In 1970 official exports of Niger onions amounted to 326 million FCFA (total Niger exports 8795 million).

6. Available quantities seem to have allowed, in the Sahel proper, an annual meat consumption of 17.5 kgs per capita in 1970 (SCET and SEDES inquiries quoted by Williams (1976).

7. In the Ivory Coast, every Muslim trader or carrier is called dioula. In the pre-colonial times, dioulas were the brokers of Mandingo princes for gold dust and other trades.

8. Trials of dried-salted fish did not give convincing results (Couty, 1968b).

9. Mostly managed by Ibo traders, these channels are apparently being restored (Bouquet, 1976).

10. Such is the case of the Korooko, traders belonging to the blacksmith caste in southern Mali (Amselle, in Meillasoux (ed.) 1971).

11. Cola trade may bring very high returns but is also a high risk activity, since cola nuts quickly alter by oxidation if packing is unsatisfactory. Here are early data about the chain from Ivory Coast to Mali:

| | |
|---|---|
| Price paid to producer | 15 FCFA/kg |
| Transport, handling, packing | 5 FCFA |
| Wholesale price Bouaké | 30-50 FCFA |
| Transport Bouaké-Bamako | 11 FCFA |
| Retail price Bamako | 120 FCFA |

(Etude régionale de Bouaké 1962-1964, II, l'Economie, pp.252-253. Rép. de Côte d'Ivoire, Ministère du Plan).

12. For Niger see Raynaut, 1975:31; For Mali and Upper Volta see Ancey (to be published).

13. Rép du Tchad, Ministére du Plan: L'exécution du plan quinquennal tchadien 1966-1970, p. 36.

14. Anonymous paper published in Revue Française d'Etudes Politiques Africaines, Jan 1969, 37:40-50.

15. Attempts to regulate food trade did not always completely fail; see following discussion (d) practical interventions in marketing.

16. Total production is over 1 million tons.

17. SONACOT (Société Nationale de Commercialisation du Tchad) was awarded a monopoly to buy natron but the operation of previous channels was hardly affected (Couty, 1966; Bouquet, 1973). Traditional fish trade between N'Djamena and Chad Lake quickly recovered after the failure to the SCPBC (Société Coopérative des Pêcheurs du Bas-Chari) (Bouquet, 1976).

18. Improvement only is suggested. According to a report written for the Sahel Special Bureau (ST/SSO/13/Rev. 1, 1974) major investment in transport should not receive priority in Sahel countries.

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