FOOD SECURITY AND AGRICULTURAL SUBSECTORS IN WEST AFRICA
FUTURE PROSPECTS AND KEY ISSUES FOUR YEARS AFTER THE DEVALUATION OF THE CFA FRANC

INSTITUT DU SAHEL November 1998

BEEF SUBSECTOR

Background

At the time of the devaluation of the CFA franc (CFAF), the beef subsector in the Sahel was facing very stiff competition in its traditional export markets in the coastal countries from imports of beef from outside of Africa, particularly highly subsidized exports from the European Union. These had led the coastal countries to gradually substitute extra-African imported beef for imported Sahelian cattle.

Consequently, the main impact expected from the 1994 devaluation of the CFAF on this subsector was the restoration of the competitiveness of Sahelian exports in the coastal countries.

Four years after the launching of the PRISAS studies on the cattle and beef subsectors in Burkina Faso, Côte d'Ivoire, Ghana, Mali and Senegal, which were carried out in collaboration with teams of researchers from these countries, this bulletin synthesizes the main lessons learned from these studies, focusing on the following aspects:

- the new incentives created by the devaluation
- the responses of the various actors to these incentives
- the impact on revenues
- the key issues and challenges that the subsector needs to address
- the implications of the studies.

Before addressing those points, it is useful to recall that the livestock and meat subsector is characterized by a low level of direct public-sector involvement in its organization and support. Consequently, the statistical data base on the subsector is weak. In addition, even though this subsector produces an internationally tradable good, it differs from the other typical tradable goods of the subregion, such as peanuts and cotton. For this subsector, the challenge is not so much to capture global markets as it is to substitute for imports from outside of Africa in the coastal markets and to promote regional integration through trade.

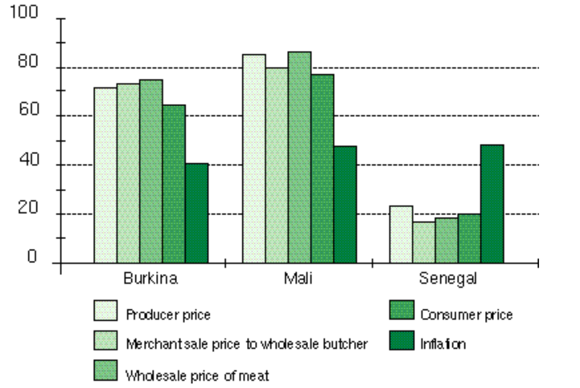
Changed Incentives Resulting from the Devaluation

The changed incentives came about principally from price changes, which were among the first consequences of the devaluation.

The adjustments in the price of cattle and meat were very substantial and occurred in the very first year of the devaluation.

In Burkina Faso, Mali and Senegal, as shown in figure 1, the price of beef increased from between 20 and 78% over the period 1993-96. In Côte d'Ivoire, the increase was on the order of 20% between 1993 and 1995. The percentage price increases were greatest in the exporting countries such as Burkina and Mali. This is consistent with the observation that, in Senegal, the increase in beef prices were 41 to 50% in Dahra (a producing zone) as contrasted with 9 to 20% in Dakar.

Figure 1: Evolution of Prices (in %) between 1993 and 1996



The prices of live animals followed a similar pattern. The producer price increased by 72% in Burkina Faso, 86% in Mali and 19% in Senegal between 1993 and 1996. Like meat prices, the increase in livestock prices was greatest in the livestock-exporting Sahelian countries, which faced increased demand from the coastal countries. In addition, the price of beef received by the various actors, from the producer to the butcher, increased faster than the general price index, except in Senegal.

Figure 2 shows how well the price increases were transmitted from one actor to another in the subsector, i.e., the part of the increase in price received by a given actor that was passed on to that actor's supplier. Thus, in Mali, 97% of the increase in price obtained by the cattle merchant was passed on to the herder. **In general, in all three countries, the producers and the wholesale butchers benefited most from the increased prices.**

More specifically, in Mali, the data show that between 1992/93 and 1994/95 it was in the market for heifers that the price increased the most (+75%) and the price transmission was the strongest (91%).

This synthesis was written by Mbaye Yade, Bakary Kanté (INSAH) and John Staatz (MSU) in collaboration with Cheikh Mbackè Ndione (ISRA), Youssouf S. Koné (IER) and Seydou Sidibé (TMG/CILSS) on the basis of studies undertaken by Samuel T. Kaborè (CEDRES) and Pierre T. Zoungrana (FLASHS) in Burkina Faso, Kama Bérté and Daniel Zongo (ESA) in Côte d'Ivoire, K. Yerfi Fosu (University of Ghana) in Ghana, Youssouf Siaka Koné and Ousmane Sanogo (IER) in Mali, Cheikh Mbacké Ndione (ISRA) in Senegal in addition to other secondary information.
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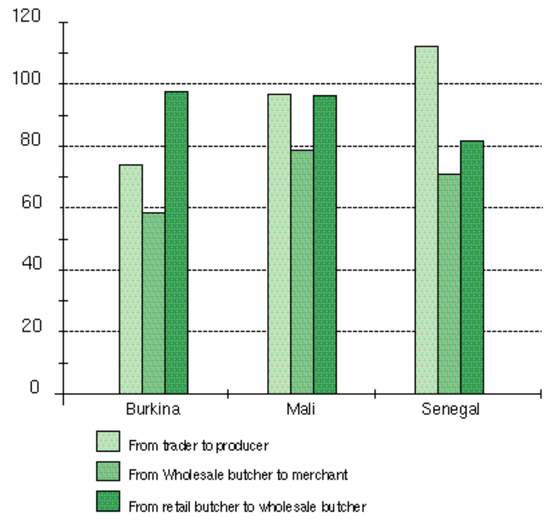
Figure 2 : Price Transmission between 1993 and 1996 in %



These price incentives were tempered by the shortage and higher prices for inputs, notably imported imputs such as veterinary products, but also agro-industrial by-products (AIBP) that are produced locally and whose export towards Europe became more profitable with the devaluation. This led to an increase in the price of AIBP on the order of 40 to 50% in Burkina Faso during the 1994/95 marketing year. In Mali, the price of livestock feed based on cotton seed increased by 43% between 1993 and 1996. Nonetheless, the considerable increase in the price of cattle and meat more than compensated for the higher price of inputs for producers who were able to adjust their feeding strategies, as will be seen in the subsector accounts presented below.

The devaluation occurred at the same time as several other actions that favored increased exports from the Sahelian countries to the coastal countries: the simplification of export procedures on the Sahelian side and the reduction of import taxes in the importing countries; reduction of between 25 and 30%, between 1993 and 1995, of the subsidies on European meat exports to West Africa; and the introduction, by Côte d'Ivoire, of an import tax on European meat, called «compensatory duties», which were intended to offset the effects of the European subsidies on the local subsector. It should be noted that these developments were the result of consultations among the different countries, both at the subregional level, particularly in the framework of the Central Corridor, sponsored by the CILSS and the CEBV, as well as between the African countries and the European Union with the contribution of the CMA/WCA.

These different factors as well as the price incentives contributed to the Sahelian countries regaining their competitiveness in exporting cattle to their traditional trading partners.

Responses

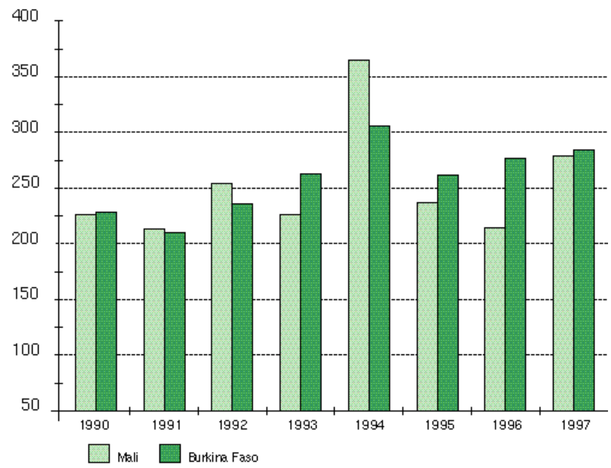
Offtake

In general, even if the official statistics cannot be considered terribly reliable, it is clear that **producers responded favorably to the price incentives by massive destocking in 1994, as shown in figure 3.**

The recovery of the beef subsector in Mali was full of contrasts. After a very strong reaction to the favorable conditions in 1994, characterized by a substantial increase (on the order of 58%) in recorded offtake compared with 1993, the level of offtake fell in 1995 and 1996 to levels comparable to those prior to the devaluation. Nonetheless, in 1997, offtake levels were back up to 18% above the levels of 1990-93. Is this a case of a one-time increase? Or is it the consequence of producers adapting to the new situation, three years after the devaluation? Without doubt, we'll have to wait for a few years to see whether this «trend» toward higher offtake is confirmed.

In Burkina Faso, the increase in offtake was more modest in 1994 but, in contrast, seems to have been more sustained. Compared with the level of 1990/93, offtake increased by 30% in 1994 and, despite a drop in 1995, it has thereafter settled at a level 17% above that of the pre-devaluation period (1990-93).

Figure 3: Officially recorded offtake in thousands of head



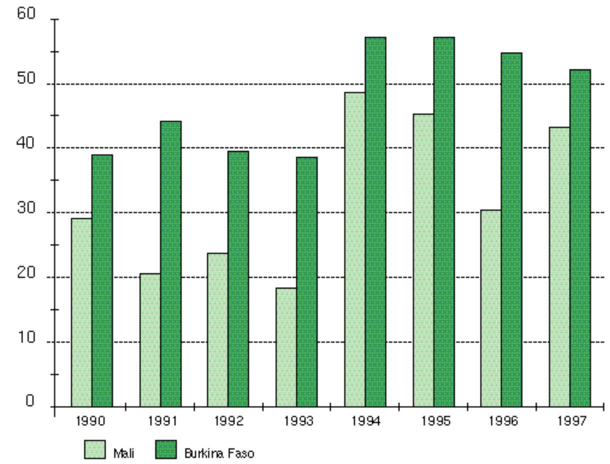
The explosion in recorded offtake in the Sahel in 1994 was above all due to increased exports towards the coastal countries. Indeed, since the devaluation, there has been a change in the distribution of the offtake, with more animals going towards exports and a consequent reduction in local slaughters. Given the limited scope for the actors in the subsector to increase supply to meet the growing demand, market forces favored the coastal countries, which have higher purchasing power than the Sahelian countries.

Figure 4 shows that in Mali, the share of exports in total offtake went from an average of 23% during the period 1990-93 to 42% in the post-devaluation period.

This share is historically higher in Burkina Faso than in Mali. From 40% prior to the devaluation, it increased to 55% after the devaluation. The pressure on local slaughter in Burkina is very strong, given the large price differential between Ouagadougou and coastal cities such as Abidjan and Accra.

In absolute terms, compared with the period 1990-93, exports have increased by 58% from Burkina and 85% from Mali, while local slaughter fell in those countries by 11% and 18%, respectively, since the devaluation (excluding 1994, which was a highly exceptional year).

Figure 4: Evolution of the share of exports in total offtake (in %)



The data show that Burkina has diversified its export destinations. Prior to the devaluation, between 1990 and 1993, more than 90% of Burkinabé exports of cattle on the hoof went to Côte d'Ivoire. A substantial reallocation is occurring in favor of Ghana, which, since the devaluation, has been absorbing on average 27% of Burkinabé exports. The pattern of exports to Ghana has been full of contrasts, with a slow-down in 1995, which seems to have been due to the continual depreciation of the cedi, which by the third quarter of 1995 was back to its pre-devaluation exchange rate with the CFA franc. Nonetheless, despite the constant depreciation of the cedi compared to the CFAF, the trend in livestock exports to Ghana has reversed itself since 1995, to the point where in 1997 Ghana accounted for 37% of the exports of cattle on the hoof from Burkina Faso. It's worth noting in this context that in 1997 Ghana reduced its import taxes for Sahelian cattle.

If one looks at the offtake figures, it's apparent that the response to the new incentives that followed the devaluation is, for the moment, more stable for Burkina Faso. The offtake level there after the devaluation is 17% higher than it was prior to the devaluation, while in Mali, after a substantial increase in 1994, offtake has returned to rather modest levels.

Changes in strategies

The increased prices for inputs pushed producers to change their strategies, with the aim of reducing costs in order to profit from the devaluation.

In Senegal, cattle feeders experimented with **reducing the length of the feeding cycle or adopted a forage-based feeding system.** Wholesale butchers there also changed their strategies; faced with an increase in purchase prices, they vertically integrated by going to buy animals directly in the production areas.

In Mali, there was an increase in the number of old cull cows being sold and a shift by some producers towards animals with shorter reproductive cycles. Although not statistically documented, it appears that livestock feeding activities increased in certain localities, such as Bamako, Segou, and Sikasso.

The large increase in the price of heifers observed in the markets of Mali and Burkina Faso suggests that herds are being rebuilt. This can be taken as an indication of herders' intentions to increase production.

At the level of meat processing and marketing **in Mali, the distinction between the functions of the wholesale and retail butcher is becoming blurred.** The «classical» role of the wholesale butcher is progressively disappearing in favor of the butcher who holds a license to slaughter his own animals and who also custom-slaughters for his colleagues who do not have such a license.

And finally, consumers reacted to the increased prices by reducing their consumption, judging by the trends in officially recorded slaughters, especially in Mali and Burkina Faso, which registered the biggest increases in the consumer price of beef. In Côte d'Ivoire, Ghana, and Senegal as well, there was a reduction in supply, particularly in the first two countries mentioned. This fall in consumption is confirmed by the surveys carried out as part of the PRISAS food consumption studies in Burkina Faso, Côte d'Ivoire, Mali and Senegal. (Cf. the policy synthesis presented at this conference summarizing the consumption studies.) For Côte d'Ivoire and Ghana combined, there was a considerable reduction in imports coming from the European Union, on the order of 35,000 tons of carcass equivalent per year since the devaluation, compared with the period 1990-93. The increased imports of livestock from the Sahel and local production certainly have not been able to compensate totally for this reduction.

Impact on Revenues

The subsector accounts which are presented in figure 5 show the break-down of the consumer price into the producer price, intermediate costs (IC) of the other actors in the subsector, and their net revenues (NR)

Both before and after the devaluation, the consumer price is made up mainly of the producer price (up to two-thirds (2/3) in Mali) and the net revenue of the wholesale butcher (up to one-third (1/3) in Burkina Faso). It is also these two actors whose margins increased the most after the devaluation.

The proportion of the final consumer price of meat due to marketing, transport, and processing stayed relatively stable after the devaluation. These costs were higher particularly in Senegal but also in Mali due to, among other things, higher slaughter fees and marketing costs.

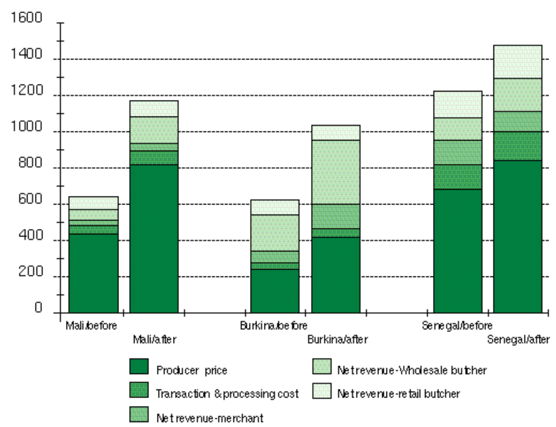
On a per kilogram (kg) basis, the cattle merchant had the lowest net revenue, even though it increased after the devaluation everywhere except in Senegal.

The revenue of retail butchers tended to fall in Burkina Faso and Mali, countries where it accounted for less than 8% of the consumer price of beef after the devaluation. This downward trend is in contrast to that observed in Senegal and Côte d'Ivoire.

It is important to remember that the revenue figures presented above are calculated on a per-kg-of-meat-sold basis. Thus, it is necessary to take into account how the quantities handled by the different actors changed, as well as the rate of inflation, in order to have an idea of how their purchasing power evolved. For example, the significant increase in wholesale butchers' net revenue per kg of meat sold appears to have occurred at the same time as the volume handled by wholesale butchers in Mali fell drastically. For herders, whose situation is better documented at the macro level, a more detailed analysis taking account of changes in offtake and sale prices as well as inflation shows that their real average earnings increased by 18% in Mali and 28% in Burkina Faso between 1993 and 1996.

The revenue of exporters is higher than that of traders operating within national boundaries. This has resulted in the export trade regaining its competitiveness, as witnessed by the reallocation of offtake towards the export market, discussed earlier.

Figure 5: Evolution of subsector accounts, expressed in CFA F/kg of red meat



Sahelian exporters operate in a competitive market and do not earn exorbitant profits. Indeed, comparing the net earnings of traders operating in the export circuit from the Sahel to Côte d'Ivoire with the earnings of traders in the domestic Ivoirian cattle subsector reveals that they are roughly equal.

Key Issues and Challenges

The Sahelian countries have regained important parts of the markets in the coastal countries, particularly in Côte d'Ivoire and Ghana. However, this success in the cattle export subsector was accompanied by adverse effects on meat consumption in the Sahel. This continual decline in meat consumption, which threatens the quality of life and the health of the Sahelian population, may end up being the downside of the efforts undertaken during this decade to promote economic integration. The challenge facing the beef subsector in the Sahel is to satisfy simultaneously, to the extent possible, the needs of lower-income Sahelian consumers and the increasing effective demand of the coastal states.

On the one hand, the demand of the coastal states for Sahelian beef may increase because the current trend towards lower export subsidies from the European Union should continue with the implementation of the terms of the World Trade Organization (WTO). However, mad cow disease represents a threat that may lead to the rebuilding of European stocks of unsold meat. European stocks of beef, which fell from 1,100,000 tons at the end of 1992 to 9,000 tons at the end of 1996 following reforms, had increased again at the end of 1997 to 640,000 tons. Nonetheless, the policy instituted by Côte d'Ivoire to protect its local subsector through compensatory import duties reduces the pressure of competition from Europe on Sahelian exports.

On the other hand, the current offtake rates from traditional livestock production systems as well as the low profitability of more intensive systems make it unlikely that all of the needs of the Sahelian countries as well as the growing demand of the coastal states can be met at the current market prices. The perspective of an increase in real prices would, without doubt, improve the proportion of the market covered by local production, but would also reduce effective demand. In addition, the production potential of the region has deteriorated considerably when one considers that today the Sahelian countries possess approximately the same number of cattle as they did at the end of the 1960s, while the human population has more than doubled during this period.

Finally, the adoption of the Euro in a few weeks, even if it is has no immediate effect on the parity of the CFAF, constitutes a source of uncertainty for all the subsectors that are integrated into the international market. Indeed, the behavior of the Euro in relation to the dollar will be decisive in determining the evolution of the competitiveness of the Sahelian subsector compared with other world trading partners such as Australia and Argentina. This is particularly true given the exorbitant transport costs facing Sahelian exports: US $230 for the transport of the equivalent of one ton of red meat from the Sahelian countries to Côte d'Ivoire compared with only US $80 for the transport of the same quantity from the world market.

Implications

Given the findings outlined above, in order to respond to the challenge of adequately supplying consumers with beef at politically acceptable prices, in addition to any actions taken by other animal protein subsectors, it will be necessary for the beef subsector to:

1. **Put in place policies to increase offtake rates and physical productivity in the subsector.**

2. **Increase the offtake rate in traditional production systems, by a strategy of promoting the availability of consumer goods and equipment that are capable of considerably improving the welfare of herders.** Such a strategy will be important given the weak response of offtake to the large increases in real prices. This increased supply of goods must be physically accessible on a permanent basis to herders.

3. **Avoid all policies that favor overstocking, such as those that can result in opportunity costs for holding cattle that are too low, even negative.** The herder, whom we assume acts rationally, bases his policy regarding destocking on, among other things, the comparison of the price he can get today for his animal with the net returns he could get from a sale at some later date. The net returns take account of the sale price compared with the costs of feed, upkeep, and risk. Such policies could range from subsidies on feedstuffs to the reduction in watering charges through subsidization of bore holes.

4. **Promote measures that are compatible with the market but at the same time assure a greater availability of modern inputs such as veterinary products and agro-industrial byproducts and help stabilize their prices.** It is certainly premature to evaluate the reforms in the provision of veterinary services undertaken in most of the countries, but it has been found that with liberalization, the supply of veterinary services doesn't cover the entire country. In addition, the main constraint to increasing productivity through intensification lies in the difficult access to agro-industrial byproducts, the instability of their availability on the market, and their price. Given that the variability in the price of these products is not compensated for by equivalent variations in the price of animals, the profitability of feeding cattle becomes problematic in some periods of the year. Thus, improved organization of the market for these agricultural byproducts in terms of increased transparency in how it operates and a reduction in distortions could benefit both the agricultural subsectors which provide these byproducts as well as the livestock subsector.

5. **Undertake actions that tend to reduce costs of transferring cattle from the Sahel to the coastal countries**, particularly through reducing physical transport costs and illicit taxes.

6. **Encourage the production of reliable statistics for the subsector,** without which it will be difficult to improve the efficiency of development policies for the subsector.

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- Ministère Burkinabé de l'Elevage
- Ministère Ivoirien de l'Elevage
- European Union
- CILSS/Projet FERAP

ADDRESSES

Institut du Sahel (INSAH)
293, Av de l'O.U.A, Badalabougou
B.P. 1530 Bamakou - Mali
Tel.: (223) 22.09.18 / 22.22.48 / 23.02.37
Fax : (223) 22.09.18 / 22.23.37

Centre d'Etudes et de Documentation pour la Recherche Economique et Sociale (CEDRES)
03 B.P. 7021 Ouagadougou 03 - Burkina Faso
Tel.: (226) 31.19.67
Fax: (226) 31.26.86

Ecole Superieure d'Agronomie (ESA)
B.P. 1313 Yamoussoukro - Côte d'Ivoire
Tel.: (225) 64.07.70 / 64.11.96
Fax: (225) 64.17.49

Department of Agricultural Economics
University of Ghana
P.O. Box 323
Legon, Ghana

Institut d'Economie Rurale (IER)
B.P. 258 Bamako
Mali
Tel.: (223) 21.59.04/23.19.05
Fax: (223) 22.35.75

Institut Senegalais de la Recherche Agricole (ISRA)
B.P. 3120 Dakar
Senegal
Tel.: (221) 832.23.13
Fax: (221) 832.33.61