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THE END OF UTOPIANISM
A PROPOSAL FOR A REALISTIC SYSTEM OF STABILIZING
CEREAL FARMERS' INCOME IN THE SAHEL
AND OF INCREASING FOOD SECURITY

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CONTENTS

	Page
A. INTRODUCTION	5
B. UTOPIANISM	5
1. <u>ORIGIN</u>	5
1.1 The 1971-73 drought	5
1.2 The example of cash crops	6
1.3 The model of rich countries	6
2. <u>THE CURRENT PRICE REGULATION SYSTEM</u>	6
C. REALITY	7
3. <u>REGULATION OF PRODUCER PRICES</u>	7
3.1 Setting a minimum guaranteed price or official purchase price	7
3.2 Inadequate organization	9
3.3 Pan-national prices	9
3.4 Pan-seasonal prices	10
4. <u>REGULATION OF RETAIL PRICES</u>	10
5. <u>TWO MISTAKES</u>	12
5.1 Announcing prices before sowing	12
5.2 Guaranteed minimum price	13

D. A REALISTIC PROJECT FOR SUPPORT AND STABILIZATION OF FARMERS' INCOMES	13
6. <u>REQUIRED CONDITIONS</u>	13
7. <u>PRINCIPAL OPERATING MECHANISMS</u>	15
7.1 Public security stock and regulating stock	15
7.2 Calls for tender	17
7.3 Support and stabilization of farmers' incomes	18
7.3.1 What the State can do	18
7.3.2 What the producer can do	20
7.4 Stabilization of retail prices	24
7.4.1 What the State can do	24
7.4.2 What the traders can do	24
8. <u>BRIEF SCENARIOS</u>	26
8.1 Basic assumptions	26
8.2 1 November 1990 - a year of surplus crops	26
8.3 1 November 1991 - a second surplus year	28
8.4 1 November 1992 - a deficit year	29
E. CONCLUSION	32
Appendix 1. Summary in English	35
Appendix 2. Summary in French	39

A. INTRODUCTION

This paper is designed to explain how the present system of cereals market price regulation, originally based on generosity to farmers, proves in practice to be utopian, for which reason it has never operated satisfactorily and cannot so operate while it is restricted by the present resources of the Sahelian countries.

The paper first gives a brief idea of the conditions under which the present system arose and then analyses the causes of the inability to operate satisfactorily of a system based on government price control (official prices) and on the confused notion of guaranteed minimum prices.

The paper continues with a new system for support and stabilization of farmers' incomes, that is more suitable to the resources of the Sahelian countries thus increasing its chances of being effectively applied.

Sketches are finally given of a few operational scenarios to show how the new system could be involved in various situations such as years of surplus or deficit crops.

B. UTOPIANISM

1. ORIGIN

The current price regulation system for Sahel cereals markets started early in the 1970's, stemming from a certain number of factors of which three stand out particularly:

- a) the 1971-73 drought,
- b) the example of cash crops,
- c) the model of rich countries.

1.1 THE 1971-73 DROUGHT

The 1971-73 drought spared none of the Sahel countries and deeply marked them all, even leading to major political tensions. This was one of the most serious droughts of the century with traumatic consequences that were projected on television screens throughout the world. The notion of food self-sufficiency became a slogan around which the development strategies of the Sahel countries were centered, by both the national governments and the international development agencies. Attempts were then made to incite farmers to produce more; costs had little importance and only the results counted.

1.2 THE EXAMPLE OF CASH CROPS

The results of planting cotton and ground nuts and, a little later, cow-peas in Niger, were encouraging at the start of the 1970's; they brought in foreign currency and certainly contributed to increasing the income of the farmers who produced them, and were important features in the modernization of agriculture. One of the major factors in the success of cash crops was doubtless the guarantee of a profitable price given by a Government agency. This model was of great influence when finalizing the present system of cereals market regulation.

1.3 THE MODEL OF RICH COUNTRIES

Agriculture made a great stride forward in the rich countries at the start of the 1970's, notably in Europe where cereal deficits were considerable only a few years earlier. Some European countries had even experienced very grave food deficits hardly 75 years before, such as Ireland and Sweden where part of the population was obliged to emigrate. Yet at the start of the 1970's, not only had the European community achieved self-sufficiency but it had also become a competitor of North America, Australia and Argentina in the export of agricultural products to the international market (1).

This success could of course be explained by the work of research that had allowed spectacular increases of crop yields and also by a deliberate price support policy. The model was even more attractive in that the costs involved were still relatively low when compared with overall economic resources. There were buyers for the surpluses at the start of the 1970's (how times have changed) and the impact on the budgets of the EEC countries was still quite tolerable.* The Sahel countries were influenced by this model, as were all those involved in the development of a food policy for the Sahel.

2. THE CURRENT PRICE REGULATION SYSTEM

Basic features are the following although the system may vary slightly from one country to another:

2.1 An official price is generally set before sowing to allow the farmers to adjust their behaviour patterns to the prices announced. The great majority of the Sahelian people consider this price as a minimum guaranteed price at which the Cereals Boards are obliged to buy marketable surpluses. One price only is set for the whole of one country and for a full one-year period.

(1) The United Kingdom was the principal buyer of Canadian wheat before the Second World War but is today an important exporter of cereals.

2.2 Each Board possesses buying points throughout the country where it is able to receive cereals. Some Boards set up "buying teams" that visit rural markets to buy cereals at the official prices.

2.3 "Collection bonuses" in certain countries are added to the official price when the farmers bring their cereals to the regional centres. The bonuses are designed to encourage grouping and concentration of cereals.

2.4 The official buying season generally extends from November to the end of March and the cereals purchased constitute a regulating stock that is sold in towns or in regions in deficit when market prices tend to rise, that is, when bridging the gap between harvests - the hungry season or gap.

2.5 The cereals sales and distribution system is based on sales points throughout the country or on "officially approved" co-operatives; the quantities of cereals sold through them have the effect of lowering market prices.

2.6 Additional to the regulating stocks, the Cereals Boards manage public security (or reserve) stocks to cope with critical shortages when harvests are greatly in deficit.

C. REALITY

3. REGULATION OF PRODUCER PRICES

3.1 SETTING A MINIMUM GUARANTEED PRICE OR OFFICIAL PURCHASE PRICE

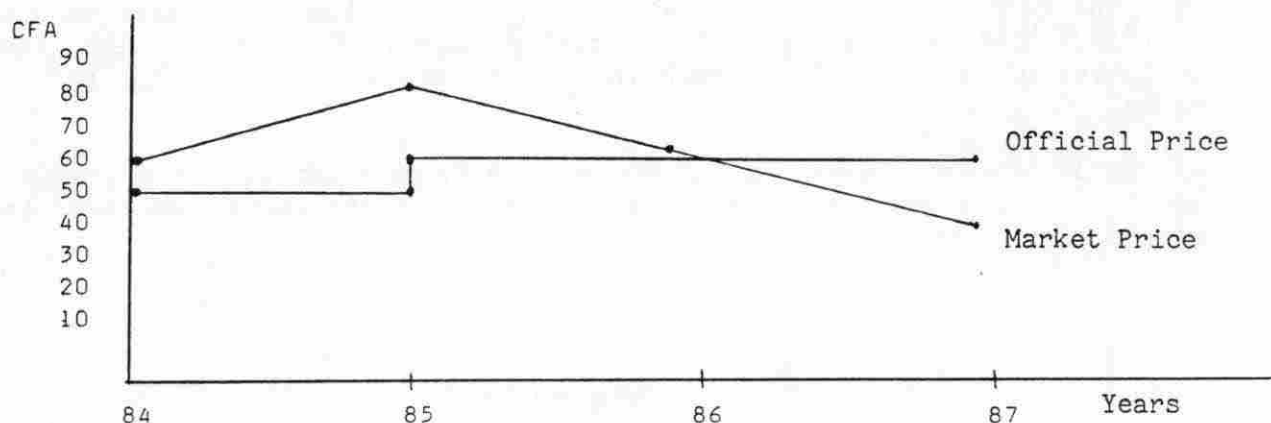
An official purchase price is set every year, generally before sowing and applies to both private traders and public agencies. It would be an illegal act not to respect the official prices.

Yet, in a region such as the Sahel where cereal harvests may fluctuate by 100% from one year to another (such as 1985 in comparison with 1986) the official price has very little chance of being correctly targeted.

This is clearly shown by the experience of the last 10 years. When the official price is too low, even if only by 5 FCFA, the Boards cannot buy because the farmers prefer to sell to the traders and they therefore cannot set up stabilizing stocks and, with no stocks, they cannot play their role of exercising a stabilizing influence; moreover, because the Boards in some countries supply public services such as the army and hospitals, those with no regulating stocks tend to demand food aid although stocks held by traders and farmers could probably satisfy their needs if a more flexible price policy were practiced. When food aid is granted under these conditions, it prevents increases of cereal prices and deprives farmers of an added income which might have encouraged them to move their stocks to satisfy the needs of the public services.

Further, when a crisis results from a major cereal deficit, the official purchase price prevents the Board buying the farmers' reserve stocks that they would only sell at "crisis prices" considerably higher than the official price (1). The rigidity of the official price therefore prevents the Board buying the farmers' reserve stocks and obliges it to maintain and to support the cost of a large security stock.

Figure 1 Comparison between official producer prices and prices paid to farmers on the market for millet and sorghum at Fana in Mali, 1984-1987.



Source : PRMC, CIDA

Note : Market prices are listed in January of every year.

When, on the other hand, the official price is too high, if only by 5 FCFA, in comparison with the market price, the Board overruns its buying targets and accumulates excessive stocks, tying up more capital than it possesses and costs of storage and interest reduce its ability to take action over the medium term. An official price higher than the market price is a sign of an abundant supply that increases stocks in private hands.

-
- (1) Farmers with surplus stocks hold them at two levels, the first for sale during the year as and when they need money, and the second forming a reserve which they only sell at a "crisis price" because it represents an assurance of psychological value and the moral cost of selling it would be high.

During April 1985, at the Diallassagou market, south of Bankass in Mali, we witnessed a transaction between a farmer and a Tamachek from Gourma Rharous, for millet of the previous harvest at 130 F/kg while the official price was 50 F/kg.

The holders of these abundant stocks try to sell part during the hungry season thus keeping prices stable throughout the year. This may be good for the consumers but does not make the Board happy because of the risk of not selling its regulating stock inflated by purchases after the harvest, and the situation worsens the next year if rainfall is good. A system that regularizes prices one year and lets them plunge the next does not fulfill its purpose of stabilization. 1987 is an example we all remember.

3.2 INADEQUATE ORGANIZATION

The Cereals Boards buy through their regional branches and their buying staff who are small in number, and buy on the markets during the official buying season from farmers as far as possible. This target is only partly attained in practice because the Boards are not sufficiently de-centralized and are not able to cope with the supply of cereals widely dispersed in time and in space. It may happen that the traders supply as much to the Boards as the farmers, if not more. The percentage supplied by traders in 1985/1986 amounted to 42% for Burkina, 65% for Mali and 45% for Niger.

The quantities sold to the Board by traders were originally bought from farmers at prices that were necessarily lower. The minimum price theoretically guaranteed to farmers then represents an income for the traders (1). The costs to the Boards, under these conditions, are uselessly high because they are buying at official prices, higher than market prices, while the farmers for whom the system was set up, do not make the profits expected.

3.3. PAN-NATIONAL PRICES

A single official producer prices in one country handicaps those farmers working marginal land because the cost-profit ratio per hectare is higher than in the more favored regions. An official price unsuited to marginal regions actually discourages the development of local agriculture which is generally irrigated, whereas the government's purpose is to make the populations remain on their land. The farmers in the marginal regions then sell their rare surpluses on the markets at prices that are artificially low because the Boards' official selling prices intended for towns are too low for the peripheral markets. The official ceiling price moreover sets a limit for the prices of cereals from regions with surpluses, contributing to the damage done to the private traders who are unable to compete with the official prices subsidized by the Cereals Boards.

- (1) However, when the quantities bought by the Boards are considerable in comparison to the supply, the official price finally has a partial impact because demand from traders (to supply the Boards) causes prices to rise on the primary markets.

This situation means that the Boards have to supply these regions, which they cannot do totally and the NGO's make up the difference, distributing free food aid but the quantities are very approximate which again depresses market prices. This is why these regions tend gradually to become marginalized when compared with the rest of the country and appear to be condemned to be eternally assisted whether the harvest is in deficit or in surplus.

3.4 PAN-SEASONAL PRICES

An official price to the farmer set for the whole year, incites cereals holders to get rid of their stocks immediately after the harvest thus transferring to the Boards the cost of storage which they would normally have borne. An official price for the whole year dissuades villagers and traders from carrying stocks and does not incite the farmers to themselves stabilize market prices, which would be possible if supply was more evenly distributed in time.

With regard to the official retail price set for the whole season, it makes no allowance for storage costs and increases the deficit of the Boards that apply it. It also creates an imbalance with market prices which tend to increase during the hungry season creating, as we shall see below, an embarrassing situation between those who are able to buy the cereals on sale at the official price and those who cannot.

4 REGULATION OF RETAIL PRICES

The difficulties of setting the official producer price also occur with the official retail price which is, in practice, inadequate 9 times out of 10.

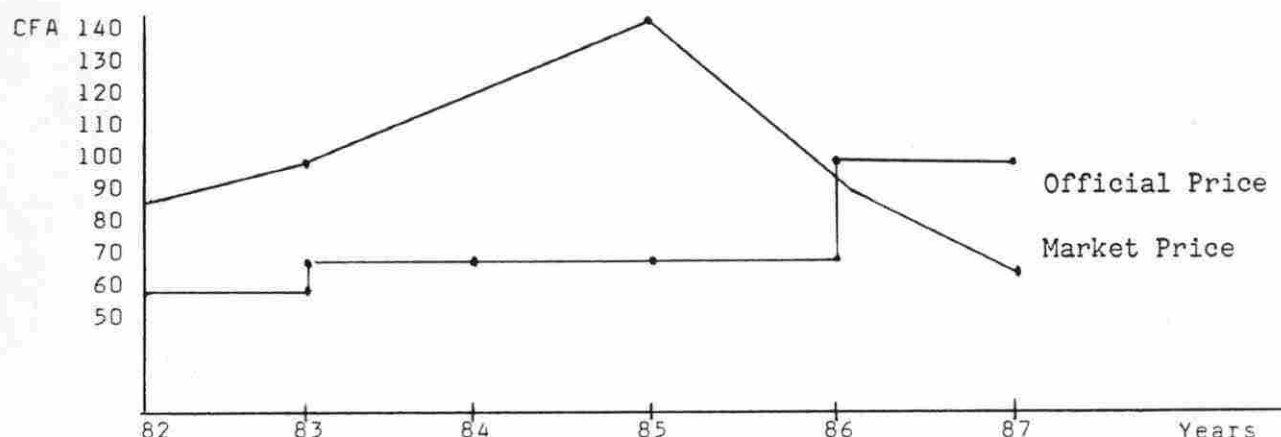
When it is too low, it provides an assured income to those who are able to buy the cereals sold at the official price (1), generally those who are privileged. We remember the year 1984-85 when the price of millet on the Bamako market was 135 FCFA/kg while the official OPAM price was 62.5 FCFA/kg.

Such a situation encourages those who are privileged by the system to buy extra quantities at the official price for resale at the market price. The cereals sold by the Cereals Boards certainly contribute to reducing the market prices because they increase the supply but at a uselessly high cost, and the same result could have been achieved by selling the cereals at the market price, leading to a uniform reduction of prices instead of the double price which is not justifiable either economically or socially. One might even think that the combined demand which was divided until then over a protected market and a free market, would lower the prices of all cereals to a level between that of the official price and that of the free market now subject to wider competition.

(1) For a good explanation of the consequences of an official retail price that is too low, readers are invited to refer to "Assessment of the Program for restructuration of the cereals market in Mali", by Amselle, Thénevin and Yung, April 1986, (P23).

Further, an official retail price would tend to be set more in relation to the purchasing power of those who are able to buy on a protected market than to economic factors, resulting in deficits that the government is not generally able to cover.

Figure 2 : Comparison between official retail price and price paid by consumers on the Bamako market, millet and sorgho 1981-85.



Source : Technical assistance to PRMC, MTSEE

Note : Market prices were listed in July of every year, except 1987 when the figure was noted in June.

When the official price is too high (in comparison to the market price), as was the case in 1986 and 1987, cereal sales slump and nobody is willing to sell on the "protected" market. The scenario is generally as follows: several months elapse before the Boards react because they hope that the market prices will increase. They then face a dilemma - either to keep their stocks and risk them deteriorating, and losing money, leaving aside the capital tied up when it could be used for other purposes, or to decide to unload their stocks on markets that are already nervous and the result might be de-stabilization.

The effect is emphasized by the fact that it is harder for buyers to buy from the Boards through the labyrinth of official cooperatives and sales points than buying on the market. To compete on the market, the Boards will have to sell their cereals at prices lower than market values, increasing the trend towards falling prices (1).

(1) Experience in Mali shows that the official price should be about 5-10 FCFA less than the market price to place consumers on an equal footing

Further, in fear that the Boards will sell off their stocks, the traders will try to accelerate their stock rotation because their weak cash situation prevents them taking the risk of keeping stocks of uncertain value, all factors that will have a cumulative effect on falling prices.

Though a regulating stock may have a psychological effect that is propitious to a deficit market, it in practice becomes a sword of Damocles when there is a surplus. To take the example of Mali, under the PRMC, experiments have been made of allowing storage loans to groups of farmers and traders with the object of taking quantities of cereals off the market when supply is higher than demand. One can imagine the effect of a sudden reduction of stocks by the OPAM on the value of the stocks held by the farmers and traders, and also on the credibility of these programs.

Besides which, the organization of sales points by the Boards is generally unsuited to demand, just as the buying point organization was unsuited to supply. The system of "officially approved" cooperatives and of official "sales points" limits buying by consumers and is propitious to "clientélisme", when the cooperatives only sell to their members. The distribution channels are slow and narrow when compared with the market, turning the cereals trade into a bureaucracy, increasing costs and introducing criteria into the distribution process that sometimes overrun the purely commercial background.

Finally, the fact that a cooperative or a sales point can buy cereals at the official price when less than the market price (in the case of a deficit), is a factor which encourages the managers of the cooperatives to resell to the traders at a price at which both can make profits (1).

5. TWO MISTAKES

5.1 ANNOUNCING PRICES BEFORE SOWING

A received idea, taken from the developed countries, is that it is better to announce an official price to the farmers before sowing, that is, about April-May in the case of the Sahel, and that the farmers will adapt their crop program to the prices declared. The only effect of this declaration in practice is to tie the hands of the Cereals Boards before they have any idea of the size of the harvest. If this declaration is in practice to have any influence on the farmers, they must be allowed the necessary flexibility to be able to select the most profitable crop at least a month before the first sowing. Though this may be possible in developed countries, there is little probability that the farmers in the Sahel can do so for their food crops; they have little margin for manoeuvre and a very limited choice of substitution crops. In the absence of convincing studies on the subject (which will have to be carried out), the most likely premise is that the farmer is more sensitive to price trends during the previous years than to the announcement of a price a few weeks before sowing and his decisions are taken well in advance with much less flexibility than might be expected. Because the official prices have little effect on the

(1) See "Assessment of the Program for restructuration of the cereals market in Mali" (P.35)

intentions of the farmer, they should be announced in November when the harvest can be estimated, reducing the chances of inadequately set prices and the resulting consequences.

5.2 GUARANTEED MINIMUM PRICE

The idea of a "guaranteed minimum price", often considered as a prerequisite for food self-sufficiency of the Sahel, is actually its worst enemy. Although a minimum guaranteed price is a powerful factor in increasing cereal production eventually, it would if really applied (which it is not) freeze the farmer in his habits and would hold up the gradual diversification of crops. What would be the point of diversifying crops when he is assured of an outlet at a profitable price? A guaranteed minimum price (GMP) if it could be applied, would increasingly direct the food production policy of the Sahelian countries towards cereals, which are basically rainfed crops in a region of the world where there are considerable risks of insufficient rainfall. In other words, the effective application of a GMP if feasible and financially possible, would involve investing a considerable part of the cash resources of agriculture in the Sahel in a high-risk crop. Even if effectively applied, a GMP would not prevent a repetition of the deficits recorded in 1983-84 and 1984-85. During a normal year however, a GMP would eventually cause cereals surpluses that the Boards will have to buy and store to a cost exceeding their countries' capabilities.

The official retail price which is generally subsidized, is intended to be a GMP to the consumer but it also reduces food security because it helps in freezing the present consumption pattern, that is, a pattern based on cereals. It is nonsense to center the food security of a population on a single crop that is 85% rainfed in a region such as the Sahel, whether the price is guaranteed or not. Food security, or food self-sufficiency in the Sahel is not the result of application of a minimum guaranteed price for the purpose of increasing cereal crops but a diversification of the production/consumption pattern. The purpose in the Sahel should therefore not be to increase production of cereals but to create the conditions needed to reduce the role of cereals in the region.

D. A REALISTIC PROJECT FOR SUPPORT AND STABILIZATION OF FARMERS' INCOMES

6. REQUIRED CONDITIONS

6.1 The target is no longer to guarantee a minimum price to farmers, nor to stabilize the market, but to support and to prevent excessive fluctuations of their incomes within the limits of the resources of the Sahelian countries.

6.2 The task of stabilizing farmers' incomes and of holding security stocks is no longer only the duty of the Government and is henceforth divided between the Government, the farmers and the cereal traders, depending on their respective capabilities. Those who are the most interested, the farmers, are accepting to gradually play the most important role.

6.3 The role played by the farmers and traders in stabilizing markets is no longer perceived as "a duty to the country" but a means of maximal realization of their own interests.

6.4 Cereals storage by traders is no longer considered a speculation that has to be fought but as a means of stabilizing prices which should be encouraged.

6.5 There is general agreement that the farmers have the right to demand that consumers of imported cereals should pay a tax because these cereals are bought with foreign currency generally generated by the farming population in the Sahel.

6.6 Exporting and importing of cereals has been freed (1) but the Government accepts to control the price of imported cereals by efficient means and hence promote local cereals.

6.7 The farmers are aware that they are the principal beneficiaries of a system of support and stabilization of their incomes, and accept to share its costs, particularly storage costs.

6.8 The Government accepts to limit its role to a macro-economic level, leaving the whole micro-economic level to private enterprise and the farmers.

6.9 The donors accept to make their concept of food aid more flexible accepting that it should become more of a market management tool, and to vary the nature of their aid in relation to market needs. The idea of "food insurance" (2) is being brought into practice gradually.

(1) In certain Sahelian countries, rice importing is a state monopoly that presents many advantages (for rice and wheat only). It is very easy to control the quantities and to collect customs duties, and the price of imported rice can therefore be managed directly by the Government. In times of cereal deficits, there is nothing to prevent traders importing maize from Ghana or the Ivory Coast, or sorghum from Thailand, America or the Argentine. This limits the effects of substituting millet, sorghum and maize by rice. Because traders tend to particularly import rice, the quantities of rice imported are considerable and its price remains stable in times of overall cereals deficit, while the traditional cereals prices increase dramatically.

(2) A country commits itself to supplying up to a certain quantity of food aid, when needed and only when needed.

7. PRINCIPAL OPERATING MECHANISMS

7.1 PUBLIC SECURITY STOCK AND REGULATING STOCK

Certain Sahelian countries maintain two different stocks - a public security stock and a regulating stock requiring separate management systems and storage facilities, stemming from the idea that stocks should fulfill two different functions firstly to palliate major deficits (as in 1983-84 and 1984-85) and secondly to regulate the market between seasons. In practice however the basic object of the two stocks is to stabilize prices and the only difference is in the time bases, one of which is inter-annual and the other intra-annual. The difference is not fundamental and does not need two separate stocks for a single one could fulfill the two functions at lower cost provided that the Board managing the stock is allowed a margin for manoeuvre at least in relation to three factors:

- a) The Public Stabilizing Stock (PSS) that must be allowed to fluctuate within a bracket depending on the economic situation.
- b) The farmers that must be encouraged to keep stocks in reserve, which many are already doing with no particular incentive. A study in Niger (1) for the years 1961-1979 revealed that the cereal stocks essentially held by farmers were significant, reaching 938,000 tons in 1968, i.e. 80% of the average cereal harvest between 1960 and 1970. They then fell to nil in 1976 after the drought of 1970-75 but gradually grew again to 310,000 tons in 1979.

One simply has to visit the villages in the Sahel cereal-growing regions to appreciate the stocks kept in the traditional granaries. Not all villages hold major stocks and several even have none but certain of them possess reserves amounting to more than two years' harvests. The figure of 300,000 tons for Mali is conservative and this is one-quarter of a year's normal crop.

- c) The Cereals Boards that import commercially to stabilize the market when supply is too low. To give an example, in Mali in 1986, the national security stock (NSS) was restored partly by imports and partly by buying locally. 6,000 tons of sorghum were imported from Thailand at 97 FCFA/kg delivered warehouse in Mopti; a call for tender was issued for local sorghum and was awarded at 90 FCFA, i.e. + 100 FCFA/kg delivered to Mopti. But there was no need to restore the NSS stock in 1986, nor in 1987 and there will probably be no need in 1988 because present regulating stocks are sufficient to stabilize supply even in the case of a deficit and we now see that the cost of these security stocks amounts to about 150 FCFA/kg over the 3 years (1).

(1) BORSODORF R., "Marketing Profile Cereals and Cash Crops , Niger agricultural sector assessment", vol. II compart. F, USAID/Niger, November 1979.

For this cost to be economically justified, the price of Thailand sorghum delivered to Mopti or any other point, would have to be higher than 150 FCFA/kg in 1988, an increase of 58% over the 1986 price. No analyst working on the international cereals market could agree with any such assumption. On the contrary, everything indicates that international cereal prices and particularly sorghum will at least remain stable during the next 10 years (2).

The economic viewpoint is not of course the only one involved because this is a security stock and the question of ability to supply rapidly is capital. Imports through international brokers require about two months, from the time when the call for tender is sent out to final delivery. Yet, the facilities presently available for estimating future cereal deficits can be applied in the months of October and November, if only by listing prices on the rural markets. The Cereals Boards can thus start importing in time to increase supplies on the domestic markets in January and February, well before the hungry season, and this would have an immediate psychological impact on the market.

The proposal can be summarized as follows:

- a) The security (or reserve) stock and the regulating stock, when separate, are combined into a single public stabilizing stock (SPS) totaling a significantly lower figure. There is no need for the public stock to overrun a bracket of 30-50,000 tons in countries such as Mali, Niger, Burkina Faso and Senegal. A study made by the CIDA in 1983 in Niger estimated that a ceiling of 30,000 tons should not be exceeded.
- b) Cereal security stocks should no longer be based only on the public security stocks but on four facilities :
 - the public stabilizing stock (immediately available)
 - the farmers' reserve stocks (immediately available when prices are high)
 - commercial imports by the Boards (requiring two months)
 - food aid (requiring six months which can be reduced significantly by food insurance contracts).

(1) Cost of managing security stocks in the Sahel fluctuate between 15 and 30 FCFA/kg. In Mali, the NSS authorities estimate this cost as 20-22 FCFA/kg. In Niger, a study made by the CIDA in 1983 assessed the cost of managing the OPVN stocks at 25 FCFA/kg. Taking 20 FCFA, we arrive at $90 + (20 \times 3 \text{ years}) = 150 \text{ FCFA}$.

(2) See "The World Grain Situation : Implications for Food Policy in the Sahel", by Charles Hanrahan, OECD, 1986.

7.2 CALLS FOR TENDER

As we have seen, the policy of official prices proved to be utopic because no Sahelian country has been able to ensure they are respected and one cannot see how they could do so. A sound cereal policy can not be based on utopianism, however benevolent it may be to the farmers, and the constant imbalance between government policy and market realities reduces its credibility.

A system of calling for tenders helps to stabilize the market more efficiently and costs much less than the system of official prices, while providing the flexibility lacked by the latter. Buying 20,000 tons of cereals by call for tenders has in practice the same stabilizing effect as buying 20,000 tons at a fixed price, because both methods reduce supply by 20,000 tons while hardening market prices to the same degree. In other words, if the market price is 35 FCFA/kg, government buying of 20,000 tons would increase it to, say, 40 FCFA, whether the purchase is made by tender or at an official price and even if the latter is much higher than the market price. The impact may be the same but the call for tender will lead to a lower cost by eliminating the privileged position held by traders and farmers near to the buying points (1).

Calling for tenders suppresses the need for buying teams and considerably reduces the staff managing the Boards' warehouses throughout the country and, additionally, allows variations of prices in terms of time and space. A call for tender for cereals delivered to Gao will therefore lead to a higher price than when delivered to Bamako, which is fully justified. Similarly, a call for tender in April results in a higher price than another in January when the warehouses are overflowing. The Boards can better divide their supplies over time and space, with less warehouse capacity and less vehicles. Finally, calls for tender introduce flexibility in a state system and a Board that supplies public services is able to find the necessary quantities on the market, which it might not be able to do with a system of official prices, as was proved by the OPAM experience in 1983 to 1985 (2).

-
- (1) On condition of course of not allowing the co-existence of a system of official prices and of a system of calls for tender as in Niger in 1986. When asked to tender by the OPVN, the traders quoted a price of about 90 FCFA, much higher than the market price. When asked for an explanation they replied that the official producer price was 70 FCFA/kg...
 - (2) In years of grave deficits, there is greater justification for Boards importing rather than buying on the local market which would tend to raise prices.

The advantages of the system of calling for tender when buying cereals apply also to selling and the Board is relieved from the situation where it has to sell cereals at 62.5 FCFA/kg while the market price is 135 FCFA/kg (as in Mali before November 1986) and is no longer obliged to hold cereals in stock when the official sales price is 95 FCFA/kg and the market price is 62 FCFA/kg (May 1987).

Selling cereals by calls for tender prevents those who were able to buy from profiting by subsidized prices, particularly civil servants stationed in marginal regions. The government could reduce costs if it paid its civil servants adequate bonus rather than subsidizing cereal prices.

The stockbreeders who possess the necessary cash and want to consume rice, will continue to buy on the market as they do now. Those who lost their money in 1984-85 will still need assistance whether cereal prices are 70 FCFA or 100 FCFA. It is not possible to refuse aid to those who have lost everything but that is a matter for national solidarity and not for a cereals policy.

A system of calling for tender has little chance of operating properly as long as the following three conditions are not satisfied :

- a) official prices are abolished,
- b) traders are able to call on bank loans,
- c) traders compete efficiently with each other.

These three conditions are not yet satisfied in all the Sahel countries but some of them are not far off, such as Mali, particularly since the implementation of bank loans to traders guaranteed by the PRMC and certain donors. The wholesalers compete efficiently and only the first condition is not yet satisfied. *

7.3 SUPPORT AND STABILIZATION OF FARMERS' INCOMES

7.3.1 What the State can do

Protection of the domestic market

To ensure a guaranteed minimum price is certainly the best way of supporting farmers' incomes, but there is another that is less direct but valid if applied efficiently:

Protection of the domestic market by a tax (and quota?) on imported cereals. Controlling the prices of imported cereals has an effect on those of local cereals; for example, a rise in price of imported rice from 165 to 225 FCFA has an effect on the price of local paddy, and a lesser effect on the prices of dry cereals.

Some assert that there is a limit to market protection in countries where the customs authorities lack control facilities and are not reliable. The reply is that it is easier for a Sahel country to make its customs administration more "vigilant" than to produce the 3-4 billion CFA that would be needed every year to establish an efficient system of guaranteed prices (1) involving the purchase during surplus years of 100,000 tons of cereals at the official price, with teams and buying points multiplied by 5 or 10 to ensure that all the farmers have access to the system.

The question of exchange rates will have to be approached sooner or later. There is general acceptance that the CFA Franc is overvalued and only the difficulty of finding a means and a level of adjustment satisfactory to all the CEAO countries is holding up devaluation. But the decision will have to be taken (2). The best grade of beef is still being eaten at Abidjan while 20 million head of cattle are wandering in the Sahel and are damaging the topsoil. The same applies to high-grade Moroccan oranges on sale in Bamako at practically the same price in FCFA as local oranges, without speaking of the European potatoes on sale in the Dakar market.

Understanding the problem is no reason for setting it aside when the passage of time is making it more grave. An adjusted exchange rate would be much more effective in protecting cereals markets in the Sahel than a system of taxes or quotas.

Purchasing cereals on the market

The Cereals Boards manage the public stabilizing stocks (PSS) of which the quantities vary within set limits. When prices paid to the producers tend to fall, cereals can be bought after the harvest between December and April for purposes of stock rotation and for sale during the hungry season (3).

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- (1) Unless the frontiers are left open and donors are asked to provide the necessary money to support cereal prices to counter massive imports. But this is far from the concept of "self-centred development" of which developers speak assiduously.
 - (2) See "World Market and Sahelian Market" by Jacques Giri, Club du Sahel/CILSS, September 1986.
 - (3) Management of a security stock implies replacement of one-third of the stock every year to make sure that none of it is more than three years old.

These purchases are of course made after calls for tender and the quantity bought depends on the gravity of the situation but should never overrun the ceiling set for the PSS. When the bracket set for the PSS lies between 30 and 50,000 tons and its stock at the beginning of the selling season is 30,000 tons, purchases can be made up to 20,000 tons but, if prices show signs of hardening, buying should stop even when the stock has not reached the ceiling of 50,000 tons.

Exports

It would be optimistic for a Cereals Board to count only on exporting cereals to reduce surpluses and support prices, but it would be excessively pessimistic not to consider exports as a means of stabilizing prices. The Boards would then be freed of their tasks of buying and selling cereals in their particular countries and could devote more energy to finding overseas markets. The government could start by abolishing the laws that prevent exportation of cereals (1).

Some say that government intervention, buying at most 20,000 tons and trying to export, is not enough to stabilize prices and this is true in a system where the government is the only party playing a stabilizing role as is the case now, but it is not necessarily true in a system where the government shares this role with the farmers and the traders, like the system that we are proposing.

7.3.2 What the producer can do

In the Sahel, millet, maize and sorghum are harvested between October and December, and December is the month when the farmers have to pay their taxes in several of these countries and marks the start of the period during which the markets are well stocked, continuing until the end of March. Supply is strongest during the two months of January and February and this is also when prices are lowest on both rural and urban markets (2).

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- (1) The Niger River Board (Mali) in January 1987 was able to export 20,000 tons of paddy to the Ivory Coast, a transaction delayed by a Mali law preventing exports of cereals and because the price offered by the Ivory Coast was 5 FCFA beneath the official price (65 instead of 70 FCFA/kg). The buyers in the Ivory Coast were no longer interested when the export permit was finally granted on 10 March 1987 for "part of the paddy of the Niger Board".
 - (2) It sometimes happens during surplus years that prices are lower in October-November but the quantities are small, generally stocks from the previous years that are being sold to create storage capacity for the new harvest when it is expected to be good.

The farmers who are able to do so keep their surpluses for sale after the month of April to benefit by the higher prices, but most of them cannot wait so long because of cash shortages due to taxes, loans, etc. (1) and therefore sell at prices 30-50% lower than may be expected in April to October. The resulting spread of supply would not only increase or support the farmers' income but would be the cheapest and most efficient means of stabilizing market prices and reducing risks of price surges during the hungry season.

There is nevertheless a major obstacle to the stretching of supply over time - the farmer's cash needs, a problem that can be solved by allowing loans to farmers who store their cereals, loans based on market values, generally in December and therefore lowest, and granted for a time of 12 months that could be renewable. Farmers would normally receive the loans through village associations or cooperatives, set up by the farmers and intended to reassure the lending agencies. The farmer can then choose between selling his surpluses immediately, or taking a loan and waiting for the hungry season to sell at a price that will probably be higher, then refunding the loan with the interest payable and keeping the balance. The farmer's cash needs are thus satisfied and he has taken full advantage of the market increase.

This experiment was tried for the first time in Mali in 1987. The PRMC backed the Banque Nationale de Crédit Agricole (BNCA) to a total of 500 million CFA. A "loan program for village stocks" was developed through the "Village Associations" (V.A.) in the south of Mali (CMDT). Lists of candidates for loans were transmitted to the BNCA branches through the V.A.'s, with the names of the farmers and the quantities of cereals involved. The loans were granted directly to the Village Associations who passed them onto the farmers as a pro rata of the share of each (quantity x 35 FCFA/kg). The cereals were stored in improved village granaries built specially for the purpose.

When the time comes for selling the cereals, the farmers are able to choose between encashing the profit, if any, as a pro rata of their share, or leaving it in the communal fund for purposes of community investments.

In May 1987, 225 Village Associations had called on these loans for a total of 1,600 tons of cereals. Considering that this was a test and that the loans were only available in the middle of March, after the authorizations were granted and agreements were signed (2), the experiment was encouraging and will doubtless be extended during the next season.

(1) Postponement of tax payments to a later date (March ?) might reduce the obligation on the farmers to sell their crops immediately after the harvest and thus help in spreading supply over time.

(2) The number of farmers who expressed interest in December when the idea was first spoken of, withdrew on account of the delay in implementation.

The procedure could therefore start in November and should allow, when operating, a better spread of a quantity of cereals amounting to between 20 and 25,000 tons, increasing the incomes of the farmers taking part (1) and reducing the risks of price increases and speculation during the hungry season.

The following conditions however must be satisfied if the procedure is to be long-lasting:

a) Realistic Prices

Loans must be based on realistic prices quoted on rural markets after the harvest. It is important to avoid the mistakes made by the cereal banks in 1986-87 who bought at the official price which was higher than the market price, and could not sell their stocks.

b) Personal Profits

The net profits resulting from storage of cereals must be divided among the farmers as a pro rata of their respective shares in order to maintain their interest. This necessity is not as plain as one might think because the Village Associations are based on the idea of "collective interest" and their income generally results from the efforts made by the community, such as threshing and winnowing grain, and individuals have no personal interest in sums that are fairly small, which one can understand. But when a farmer decides to take part in a storage program, he must be able to make a personal profit. Why should he store a ton if his neighbour only stores 300 kg? (2)

c) Dynamisation of V.A. Marketing

The Village Associations that take part in the system of loans for cereal storage would have to sell the stocks accumulated sooner or later. This is again not so plain as one might suppose because the farmers are accustomed either to selling small quantities on the weekly market or to a government agency when possible.

(1) Assuming a difference of 20 CFA/kg between the price after the harvest and that during the hungry season, the profit to the farmers resulting from such loans may be said to be 500 million CFA (25,000 t x 20,000 CFA/t).

(2) When visiting the south of Mali to assess the loan program, we noted that the farmers generally replied that they preferred the profits to be paid into a common fund, but this might have been a conditioned reflex and their opinion will probably change when a profit actually appears.

When the farmer can sell to an agency, he completely forgets the question of marketing and remains a farmer, no more. This is notably the case of the farmers in the CMDT zone (south Mali) whose crops are primarily cotton and who are accustomed to the CMDT taking charge automatically of selling the cotton.

The marketing function, forgotten during recent years, would have to be dynamized, and will be in the system proposed by the very force of things because the Boards will no longer buy from individual farmers but will issue calls for tender essentially to traders (1).

All must be done to encourage direct transactions between traders because the quantities involved would be greater (between 5 and 50 tons for each V.A.) and would help to reduce costs of collection while enhancing the ability to negotiate of the farmers when grouped. The two parties will in fact share the commission taken by the local merchants.

Traders who reply to call for tenders will find an advantage in "sub-contracting" with the V.A.'s in order to reduce times and costs of collection. This close relationship between traders and Village Associations could be enhanced by regular distribution of lists of associations taking part in the loan program, with the stocks that each has for sale. The loan agency could easily distribute this information, which it is obliged to update in any case, through the Chamber of Commerce or any party interested. The traders could thus contact the V.A.'s possessing the stocks they need. Vice versa, a list of traders in cereals with their addresses could be sent to the V.A.'s taking part in the program. The question remains whether a farmer taking part in the program may sell the quantities he has stored for the purpose (if he finds a buyer) or if, once stored, he can only sell to the V.A. One thing is certain -the net profits must be divided pro rata of the share of each.

d) Cash advances and not minimum guaranteed prices

A program of loans on cereals stored by farmers is subject to a danger - the advance to the farmer through the V.A. or V.A. cooperative is gradually perceived as a minimum guaranteed price and the system would then become a cereal bank that would not achieve its target. The aim is to enable farmers to maximize their income by postponing the sale of part of their surpluses to a time when prices reach a peak. The farmer however runs the risk of finding that the final price is not sufficient to cover his storage costs, a very limited risk that he should understand and accept. The V.A.'s must not become miniature Cereals Boards repeating the errors of the present system.

(1) There is nothing to prevent the V.A.'s replying directly to calls for tender, which should therefore be made for appropriate quantities.

7.4 STABILIZATION OF RETAIL PRICES

7.4.1 What the State can do

Sell cereals on the market

It is much easier to stabilize retail prices than producer prices because demand is stable over the short term (1.5 million tons in Mali), whereas supply varies considerably from one year to the next.

When prices are under pressure, the Boards can sell by call for tenders particularly for the purpose of rotating stocks, offering quantities that do not depress the PSS below its ceiling. The ceiling should moreover only be overrun when all other methods have been exhausted, as a last recourse. The Boards should only sell cereals during the hungry season (May to November) and never before prices are sufficiently high to allow the farmers and villagers to first sell their stocks. In other words, it is a mistake to sell as soon as prices start to rise, firstly because this might be to waste ammunition before the battle and secondly because the government stock should only come on the market after the farmers', the villagers' and the private stocks whose holders are waiting for their expected bonus to cover their additional cost of storage.

Import

A Cereals Board in the Sahel may have difficulties in exporting but it can easily import with no risk of financial loss. We have spoken of the sorghum imported from Thailand in 1984 at 90 CFA/kg, and there is also maize from Ghana and the Ivory Coast. When prices are under high pressure, a Cereals Board can increase supply in its country by 10-20,000 tons within two months, and only needs to keep track of market prices to start importing before any crisis occurs.

7.4.2 What the traders can do

The spreading of supply over time by farmers and utilization of the facilities possessed by the Cereals Boards (such as imports, sales of cereals at the right time, etc.) can help considerably in reducing seasonal differences within years, and there is another method - that of encouraging private traders to store cereals between the harvest and the hungry season.

We have all heard the story that traders buy cereals at the time of the harvest and store until the hungry season in order to sell at a higher price. This is unfortunately only a myth because, if it were true, they would help in stabilizing prices on open markets but the fact of buying and storing after the harvest removes considerable quantities from the market and hardens prices on the rural and urban markets. When the traders sell their stocks during the hungry season, the pressure on prices is released. If they all did this, prices would be higher after the harvest and lower during the hungry season, which certainly does not happen in practice. The traders who buy after the harvest in fact have to sell within about three weeks or a month, not because they are unaware of the possible profits but because their cash situation obliges them to sell their stocks rapidly, and be satisfied with a small profit (between 5 and 10% in Mali), in order to again buy cereals or other products (1).

A system of loans on stocks should allow traders to play a stabilizing role to the advantage of all parties - the traders because they profit by the higher prices during the hungry season and the consumers because prices would otherwise be still higher during the gap.

In Mali, a system of loans to traders on stocks has existed since March 1987 and, like the system designed for farmers, is centred around a guarantee fund provided by the PRMC totalling 500 million CFA. It operates as follows:

The common counterpart fund has deposited a guarantee with two commercial banks (250 million CFA each) to set up a credit line of one billion CFA (2). An agreement has been signed by the Chamber of Commerce and by the two banks. The traders of which the loan application has been accepted by one of the two banks are credited with loans to a certain total (in tranches of 10 million CFA) and then buy on the market cereals that they store in a common warehouse, first identified and then approved by the Chamber of Commerce. The traders are then given "third party holder" cards and may decide to pledge the stocks to the bank up to 60% of market values, obtaining a second credit tranche (against pledges) and so on for successive tranches. Traders undertake in writing not to sell their stocks before 30 April, at the start of the hungry season. Stocks are insured against all risks in order to reassure the banks.

(1) See "Private trade in cereals in Mali", by Gérard Gagnon, Bamako, July 1986

(2) Planned for one billion CFA, the credit line is blocked provisionally at 500 million CFA because the Chamber of Commerce has not yet been given the status of para-public agency allowing it to receive government credits. The status is expected to be granted very shortly.

The loan program effectively started early in March 1987, has aroused great interest among traders and practically all the funds available have been allotted, representing a little less than 8,000 tons of cereals. This is an encouraging first test and will doubtless be extended in 1988 when it will be possible to start in November and when the Chamber of Commerce will hold the status it needs to receive government credits. When operating normally the program should allow the storage of between 25 and 30,000 tons of cereals. Adding to this the 20-25,000 tons that the farmers may stock under their specific loan program, we arrive at a total of 50,000 tons taken from the supplies offered at a time when the prices are lowest and then put back again on the market when prices tend to rise.

The quantities of cereals sold in Mali may be estimated as between 250,000 and 350,000 tons which shows the stabilizing effect of these two programs on prices, with no cost to the government.

8. BRIEF SCENARIOS

8.1 BASIC ASSUMPTIONS

The scenarios are based on the assumption that:

- . official prices are abolished
- . the sale, export and import of cereals are totally freed (excepting perhaps imports of rice and wheat?)
- . a Public Stabilizing Stock (PSS) exists and fluctuates between 30 and 50,000 tons around a target of 40,000 tons
- . purchases for and sales from the PSS are based on calls for tender

8.2 1 NOVEMBER 1990: A YEAR OF SURPLUS CROPS

The 1989/90 harvest was greatly in deficit with a total not exceeding 1.2 million tons against estimated demand of 1.5 million tons. The public stabilizing stock (PSS) fell to 25,000 tons, below the ceiling. The village reserve stocks were partially reduced by a market ready to pay a high price during the hungry season and private stocks were exhausted.

Fortunately, the 1990/91 harvest is expected to be very good (1.7 million tons) and maize starts to appear on the markets, together with a little millet and sorghum left over from the previous year because farmers can now hope for a good harvest and do not hesitate to take advantage of prices that are still profitable, but which are starting to fall.

Supplies increase on the rural markets during December and prices fall to 40 CFA/kg for millet and sorghum and to 35 CFA for maize. The Board sends out two calls for tenders for 5,000 tons each for cereals to be delivered to Bamako and to Mopti, with resulting prices of 62 CFA/kg delivered to warehouse in Bamako and 68 CFA/kg delivered to warehouse in Mopti.

The farmers are not satisfied with the prices on the market and call on the FSLP (Farmers' Stock Loan Program) that has been operating since 1987.

The traders take advantage of low prices and store cereals under the TSLP (Traders' Stock Loan Program) that has also been operating since 1987.

Prices of millet and sorghum rise to 45 CFA and maize to 40 CFA.

The OPAM issues two calls for tender on 15 January, each for 5,000 tons of cereals for delivery to Bamako and to Ségou. The best quotations lead to prices of 67 CFA/kg at Bamako and 68 CFA/kg at Ségou.

At 15 February, the traders are holding 20,000 tons in stock under the TSLP, and the farmers 10,000 tons under the FSLP. Producer prices fluctuate between 45 and 50 CFA for millet and 40 to 45 CFA for maize. The OPAM decides to issue two last calls for tender for 3,000 and 2,000 tons of cereals for delivery to Mopti and to Gao. Resulting prices are 75 CFA/kg at Mopti and 83 CFA/kg at Gao. Some believe that these last two calls for tender were superfluous because the impact on prices would be minimum when compared with the additional cost to the Board. The PSS reaches its ceiling of 50,000 tons.

At 15 March, traders are holding 25,000 tons in stock (TSLP) and farmers 13,000 tons (FSLP). Producer prices for millet and sorghum remain between 45 and 50 CFA and maize between 40 and 45 CFA. Quantities offered on the rural markets tend to diminish and quantities sold on the Fana market, amounting to 110-115 tons of cereals in January and February every day, is now no more than 90 tons and will be less in April. The danger of a price collapse has passed.

In May, retail prices increase normally from 75 CFA for millet and sorghum in January at Bamako to the present figure of 85 CFA. The OPAM is still waiting before replacing part of the PSS for reasons of stock rotation.

Prices increase to 95 CFA on 15 July and it is now the time to issue a call for tender in order to move stocks. Only 10,000 tons are sold to cushion the impact on the market instead of the 15,000 tons normally planned.

A first call for tender for 5,000 tons is sent out on 15 July and a second for a similar quantity on 15 September. The first is to be delivered to warehouse in Bamako and the second to warehouse in Mopti because retail prices were firmer in those towns than in the south of the country.

8.3 1 NOVEMBER 1991 : A SECOND SURPLUS YEAR

The PSS amounts to 40,000 tons and the season is expected to be good with a forecast of 1.7 million tons, 200,000 tons more than is needed.

Prices paid to farmers on the rural market were not more than 50 CFA during the hungry season and have started to collapse. Maize is selling at Yanfolila at 15 CFA and farmers are selling off their millet and sorghum of the previous season to leave space for the new harvest. They have only been able to sell at 20 to 25 CFA/kg but quantities are limited.

The farmers taking part in the storage program in increasing numbers cannot accept to sell their surpluses at 20 CFA and the advances made to them are based on 20 CFA/kg to reduce losses.

The stock loan program for traders (TSLP) raises its loan ceiling to 1.5 billion CFA and the four Mali banks are now involved in it.

Thanks to the TSLP, traders are preparing to stock cereals because prices have never been lower since the 1986-87 season.

The Board now only possesses a margin of 10,000 tons because the PSS has reached 40,000 tons, very little though the maximum that its funds permit.

On December 15, 10,000 tons had already been stored under the FSLP and 8,000 tons under the FSLP. The true and psychological impact of these two programs causes a rise of the price to farmers for millet and sorghum to 30 CFA about 1 December and then to 35 CFA on 15 December, though the price of maize is not more than 30 CFA.

The Board sends out two calls for tender for 5,000 tons of cereals each, to be delivered to Bamako and Koutiala.

These calls for tender, together with the quantities bought by traders and farmers help to maintain prices to farmers and, on 30 January, the price of millet and sorgho to farmers increases to 40 CFA while maize is fluctuating between 35 and 40 CFA. Quantities offered are small.

The OPAM has been exploring the possibilities of exporting since the start of the season; its costs are greatly reduced since it has been buying and selling through calls for tender. Since 1988, a "Directorate of Regional Exchanges" has taken over the importation of cereals during deficit years and has been seeking for export markets during surplus years. This directorate is working closely with the Chamber of Commerce and the two organizations send out joint teams to make inventories on the markets.

Discussions have been held since October 1991 on triangular operations involving France, Mauritania and Mali. An agreement has been signed on food aid of 10,000 tons of Mali sorghum for Mauritania, made possible by taking 10,000 tons from the PSS.

The OPAM issues two fresh calls for tender - for 5,000 tons at Mopti and the same quantity at Ségou.

On 15 March, farmers are holding 25,000 tons in stock under the FSLP, representing advances of 500 million CFA while traders are holding more than 30,000 tons under the TSLP. The two systems allow a total of 55,000 tons of cereals to be provisionally taken off the market while producer prices are now fluctuating between 40 and 45 CFA. Prices are becoming stable with a significant reduction of the quantities offered on the rural markets. Risks of market collapse are diminishing every day.

In March 1992, the OPAM decides to suspend sales of cereals for purposes of stock rotation as retail prices are scarcely 70 CFA on the Bamako market and the agency fears the psychological impact of stock reduction, even if only 10,000 tons. The information that the OPAM has stopped selling cereals is widely broadcast and the traders and farmers who took part in the storage program are reassured.

8.4 1 NOVEMBER 1992 : A DEFICIT YEAR

A bad harvest is expected for 1992-93 with first estimates amounting to a deficit of 150,000 tons. Prices on the markets have increased considerably since August due to pessimism. The traders and farmers who took part in the storage programs are happy because they are realizing considerable profits with sorghum selling at 55 CFA at Fana and at 95 CFA at Bamako. Prices would have been higher without these private stocks that are being sold and are stabilizing the market.

The OPAM decides not to buy cereals this season because the prices are so firm on the market and because the PSS has already filled its reserve warehouse capacity. The OPAM is closely following market price trends.

On 15 December, the price of millet to the farmer has increased to 70 CFA and that of maize to 65 CFA.

The farmers are happy with the market prices and are less numerous in taking part in the FSLP although many are aware that prices are still increasing and are joining for the expected profits. The traders are not hesitating to buy for storage through the TSLP loans because they are expecting a crisis during the 1993 hungry season. Prices increase under the combined effects of the shortage and of the farmers and traders buying for stock.

Since 5th November, the OPAM has taken measures to reduce imports of rice and the price of broken rice increases from 145 to 170 CFA/kg. These measures that may appear paradoxical, were taken to maintain the price differential between rice and millet-maize-sorghum and thus prevent substitution of the latter by the former as occurred during the years of shortage of 1983-84 and 1984-85.

On 1 January, millet and sorgho are selling retail at 105 CFA at Bamako and at 110 CFA at Mopti.

The OPAM decides to sell 5,000 tons of cereals which it offers at the Mopti warehouse because this is the region, together with the 6th and 7th, where prices are most evidently subject to pressure.

The OPAM starts the procedure for importing 5,000 tons of maize from the Ivory Coast and 10,000 tons of sorghum from Thailand, in spite of the PSS stock and the farmers' reserves for which a recent study made by the FAC shows convincingly that they may amount to more than 600,000 tons following the previous surplus harvest. The first importation by the OPAM is expected at Bamako on 15 February and the second on 15 March.

Prices continue to increase reaching 110 CFA retail on the Bamako market on 15 February. The Ivory Coast maize now arrives. The OPAM issues a call for tender for maize for direct delivery to the highest bidder without passing through its own warehouses. The best offer amounts to 85 CFA/kg. The OPAM bought its stock at 83 CFA/kg, and can cover its costs.

Additional to this call for tender, the OPAM decides to sell another batch of 5,000 tons. The PSS now falls to 40,000 tons and, for the time being, prices are stable on the urban markets but pressure continues to rise on the rural markets, particularly in the Séno (Bankass, Koro) and in the 5th region which supplies the 6th and 7th regions.

Sorghum is about to arrive from Thailand and the OPAM issues a call for tender for direct delivery to the highest bidder, like the Ivory Coast maize.

The traders and farmers have not yet started to sell their stocks bought under the loan program and are waiting for the hungry season to clear at highest prices.

On 1 April, few cereals are offered on the rural markets and prices to farmers reach 75 CFA/kg while retail prices are approaching 113 CFA/kg. Traders and farmers then start to sell their stocks bought under the loan program and this helps to reduce slightly the pressure on prices.

On 15 May, the OPAM sells 5,000 tons and another 5,000 tons on 15 June. The PSS falls to 30,000 tons and prices remain stable until 15 July.

No rain falls during the last two weeks of July creating fear of a bad harvest. Prices surge upwards reaching 75-85 CFA within two weeks at Bankass. Farmers start selling their reserves at these prices. Prices remain fluid on the urban markets.

The OPAM decides to import 8,000 tons of maize from Ghana and 10,000 tons of sorgho from the U.S. at subsidized prices. These cereals arrive late in August and early in October respectively.

On 15 October, when the price of millet is reaching 125 CFA on the Bamako market, the first assessment of the 1993-94 harvest indicate deficits of up to 200,000 tons and the government then decides to take the following measures:

- to send an appeal to donors for food aid of 75,000 tons
- to suspend import duties on cereals excepting for rice and wheat, with the intention of encouraging the importation of millet, maize and sorghum and to thus maintain the price difference between rice and the traditional cereals
- to ask the OPAM to import 30,000 tons of cereals, spread out until 15 March of the next year.

The FAC which has developed methods suitable for assessing farmers' reserves annually, estimates on 1 October 1993 that these reserves lie between 450 and 500,000 tons, less than the 600,000 tons estimated at 1 October 1992 but sufficient to reassure the market.

Further, the food insurance agreements signed by the government with the EEC, France, Canada, West Germany and the U.S.A. allow arrivals of cereals to be spread out between January and July of next year.

An important factor is that the percentage of cereals in the people's daily diet is no more than 50-70% depending on the region, compared to 70-90% in 1986 (replaced by root vegetables and pulses of which consumption is increasing).

A second deficit year can now be envisaged with equanimity because of this reduced dependence on cereals, the food insurance contracts, the experience acquired by the OPAM when importing cereals, the reserve stocks held by farmers and the abolition of official prices in 1988.

With regard to the program for restructuring the production-consumption pattern (PRMPC) which succeeded the famous PRMC in November 1990, it has just been declared ready to fund the importation of 3,000 tons of root-vegetables from the Ivory Coast which will be offered to buyers by call for tender at a time when cereal prices are highest, with the two aims of :

- increasing the supply of foodstuffs and reducing pressure on cereal prices;
- encouraging partial substitution of cereals by root vegetables.

The PRMPC is intended basically to ensure food security by diversification of production and consumption.

E. CONCLUSION

The proposed mechanism for supporting and stabilizing farmers' income described above will not give farmers the assurance of a guaranteed income in bad years as well as good ones but will :

- (a) significantly reduce the intra- and inter-annual differences of market prices
- (b) ensure to the farmer a higher income than that which would result from a system of *laissez-faire*, or the present system of official prices which are based on generosity and have never been applied efficiently. A system of guaranteed prices that cannot be applied because it is utopic and impracticable generates results that are practically the same as those of a *laissez-faire* system though it is ruinous for the government and does not achieve its targets. In the eyes of the farmer, is an improved system of which the cost can be borne by his community not preferable to an unceasing search for utopia that can only end in disillusion for all parties?

It may be that a new approach will encourage marginal farmers who might benefit by a system of guaranteed prices, to no longer produce surplus cereals because the prices at which they can sell are not profitable even if supported. There are two results :

- a) Quantities of cereals offered diminish, in any case over the short term, and market prices increase, improving farmers' incomes;
- b) The retail prices of local and imported cereals increase and the trend to substitution by non-cereal foods is enhanced, starting a process of diversification of consumption in the Sahel with root vegetables, pulses, vegetables, and fish and meat of which there is no shortage in the Sahel, finally having their chance of competing and perhaps adding to the diet of a great number of people in the Sahel. The Sahel countries will be then much closer to food security because they will finally not have all their eggs in the same basket. Those who smile at this apparently believe that the Sahel is the only region in the world where behaviour patterns never change. But changes always occur in situations under constraint and food habits in the Sahel cannot escape this principle, unless the donors who are sometimes traumatized by short term prospects agree to subsidize the status quo but this would render no service to the Sahel.

Finally, a system of minimum guaranteed prices naturally fits into a maximalist cereal policy intended for food security, essentially by increasing cereal production. The system of support and stabilization proposed in this paper fits the general pattern of an agricultural policy of which the cereals policy forms part. The aim, other than that of supporting and stabilizing farmers' incomes, is to create an environment which is sufficiently flexible to allow wider diversification of production and consumption, alone able to ensure increased food security to the inhabitants of the Sahel.

The present production and consumption pattern 85% based on cereals was suited to the Sahel 50 years ago when the rural population produced 95% of the food it needed and the threat of ecological imbalance was much farther off. The pattern at that time was excessively dependent on one crop only, is not suited to the conditions of today and will become less so as and when people migrate to the towns. To balance present production and consumption during a normal year, countries such as Niger, Mali, Burkina Faso and Senegal should produce surpluses amounting to 150,000 to 300,000 tons three years out of every ten and accept similar shortages on three to four years every ten. It is only those who have had experience of the difficulty and the cost of dealing with such situations who can understand that it is not desirable to continue this pattern into the future.

SUMMARY

1. This paper aims to demonstrate that the current system of price regulation of cereals markets, originally based on generosity to farmers, is utopic and impractical for which reason it has never operated satisfactorily.
2. Among the many factors that gave rise to the present system, three stand out in particular: the traumatic effects of the 1971-73 drought, the example of the cash crops and the model of agriculture in rich countries.
3. The current price regulation system is based on the somewhat confused notion of a "minimum guaranteed price" to farmers and, more generally, on official purchasing and selling prices set by Government. Further, there is characteristically a single official price for an entire country and for one full year period.
4. In several Sahelian countries, the Cereals Boards manage two types of cereal stocks. The first is a regulating stock used to even out price fluctuations within a given year; the second is a security (or reserve) stock to alleviate critical shortages during deficit years.
5. In reality, cereal harvests in the Sahel vary so widely from one year to the next that buying and selling prices have never been adequately estimated and set.
6. When the official buying price is slightly below the market price, Cereals Boards are unable to buy cereals and thus cannot constitute regulating stocks. One of the roles of the Boards is to supply public services such as the army, hospitals, etc., and they are then obliged to demand food aid to replace the farmers' stocks that they would have been able to buy if the official price had been at least the same as the market price.
7. When the official price is higher than the market price, Cereals Boards are obliged to accumulate stocks, immobilizing capital resources and compromising their ability to intervene at a later date. Sooner or later, every Board is confronted with the dilemma: either maintain stocks that are generally larger than the financial resources of Sahelian countries, or succumb to the temptation of releasing those stocks onto the market thereby destabilizing prices and making matters worse than if they had taken no action at all.
8. The intentions of Cereals Boards to buy directly from producers have only been realized partially for the Board's buying procedures do not allow for the disparate nature of cereal supplies in terms of space and time. In 1985/86, the proportion of cereals supplied to Cereals Boards by traders was 42% in Burkina Faso, 65% in Mali and 45% in Niger. The price theoretically guaranteed to farmers thus becomes additional income for traders.

9. Official prices when fixed throughout one country handicap farmers in marginal areas in two ways, because the cost/profit ratio per hectare is higher in those areas, and because the official retail price set for urban areas forms an artificially low ceiling. These drawbacks discourage the development of local agriculture and dissuade private traders from supplying marginal areas because they cannot compete with the subsidized official prices quoted by the Cereals Boards.
10. The official price is set for a whole year and incites cereal holders, particularly the farmers, to move stocks as soon as the harvest is over thus passing on to the Boards the cost of storage that they would otherwise have paid themselves, and making it more difficult for the farmers to themselves take action to stabilize prices, which they could do if supply was more evenly distributed in terms of space and time.
11. Contrary to popular opinion, it is highly unlikely that farmers are influenced by announcement of the official price before sowing, they take a long time to adapt and are doubtless more sensitive to the price tendencies of recent years. Further, announcing prices before sowing restricts the Boards' freedom of decision before the harvest can be assessed and considerably increases the risk of setting inadequate prices.
12. The "guaranteed minimum price" (GMP), considered as a prerequisite for food security is in fact its worst enemy, because if the minimum price were actually applied (which it is not) it would ultimately stop producers changing their attitude to cereal crops and would create an obstacle to gradual diversification to other crops.

The official retail price, essentially a "maximum guaranteed price" to consumers, further perpetuates current consumer behaviour patterns based on cereals alone. Yet, attempting to guarantee food security for a population that essentially relies on single-crop farming that is 85% rainfed is utterly impractical, whether prices are guaranteed or not.

13. The objective of a system intended to stabilize farmers' income should no longer be to guarantee minimum prices but to stabilize prices within the limits of the resources of the Sahelian countries.
14. Governments should no longer be alone in shouldering responsibility for stabilizing markets, as they are at present, but should share the responsibility with farmers and traders.
15. Farmers are within their rights in expecting consumers of imported cereals to pay a tax, because the cereals are purchased with foreign currency that is usually generated by rural areas in the Sahel.
16. The regulating stocks and the security (reserve) stocks, when they exist, should be amalgamated into public stabilizing stocks considerably reduced in size. Stocks should be allowed to fluctuate within fixed limits depending on economic conditions.
17. Security of cereal supply should not depend solely on government stocks but also on the farmers' reserve stocks, imports by Cereals Boards and food insurance agreements with donors.

18. Cereals Boards should buy and sell by issuing calls for tender, and no longer on the basis of official ceiling prices.
19. To support and stabilize farmers' incomes, governments should take the measures needed to protect the domestic market, should buy cereals within the limits of the ceilings set for the official stabilizing stocks, and should actively seek export markets.
20. To support and stabilize their own incomes, farmers should be able with help by government and the financing agencies, to store part of their saleable surpluses until the beginning of the hungry season and therefore take advantage of higher prices. Advance payments would be made to the farmers, based on market prices and depending on the quantities stored in their villages. In Mali, a loan program for farmers' stocks has been organized through village associations since 1987 and results are encouraging.
21. If such a program is to be successful, the loans to farmers should be based on the lowest market price (after the harvest) and not on an official price. Further, any net profit generated by selling cereals during the hungry season should be paid to farmers in pro rata to their stocks. The loans should be considered as cash advances and not as a guaranteed minimum.
22. To stabilize retail prices, governments can sell cereals by calls for tender as part of their price stabilization program, or import cereals to increase the total supply in the country.
23. While seeking to maximize profits, traders can help stabilize retail prices by buying cereals after the harvest to store them for sale during the hungry season, but they face the obstacle of their lack of capital. Stock loan programs should be financed by the state and financing agencies to encourage traders to store cereals. Programs of this type have been implemented in Mali since March 1987.

The two loan programs for farmers and traders when combined could remove some 50,000 tons of cereals from the quantity offered after harvest, when prices are at their lowest, for later release during the hungry season when prices are at their highest. Costs to the governments of this form of stabilizing mechanism would be significant since it would be almost entirely controlled by private enterprise.

24. The current pattern of production and consumption, 85% cereal-based, was appropriate to the Sahel of 50 years ago, when the population was almost entirely rural and produced 95% of its own food. That pattern is no longer suited to current conditions since it is excessively dependent on a single crop of problematical yield. To achieve a balance between production and consumption in a normal year, the present production-consumption pattern should provide surpluses of 150-300,000 tons, three years out of ten, and should be able to cope with deficits of the same order three years out of ten. Only those who have experience of the difficulties and the cost of dealing with such deviations can understand why the current pattern should not be continued into the future.

RESUME

1. Ce travail vise à démontrer que le système actuel de régulation des prix sur les marchés céréaliers, fondé au départ sur une idée généreuse à l'égard des producteurs, est inapplicable dans la réalité. C'est pourquoi il n'a jamais fonctionné.
2. Parmi les facteurs qui sont à l'origine du système actuel, trois ressortent davantage : le traumatisme résultant de la sécheresse de 1971-73, l'exemple des cultures de rente et l'influence du modèle agricole des pays riches.
3. Le système actuel de régulation des prix est basé sur la notion confuse de "prix minimum garanti au producteur" et, d'une façon plus générale, sur la fixation par l'Etat de prix officiels d'achat et de vente. Il se caractérise, en outre, par un seul prix officiel pour tout le territoire et toute l'année.
4. Dans plusieurs pays sahéliens, l'Office céréalier gère deux stocks de céréales : un stock régulateur pour stabiliser les variations de prix intra-annuelles et un stock de sécurité (ou de réserve) pour faire face à des insuffisances critiques lors d'années déficitaires.
5. Dans la réalité, les prix officiels, aussi bien à l'achat qu'à la vente, ne sont pour ainsi dire jamais ciblés de façon adéquate tellement la production céréalière fluctue, d'une année sur l'autre, au Sahel.
6. Lorsque le prix officiel d'achat est légèrement sous le prix du marché, l'Office céréalier ne peut acheter de céréales, donc ne peut disposer d'un stock stabilisateur. Les Offices dont le rôle est d'approvisionner les services d'utilité publique (armée, hôpitaux, etc.) seront alors contraints de faire appel à l'aide alimentaire qui viendra se substituer aux stocks paysans, auxquels l'Office aurait pu avoir accès si le prix officiel avait été au moins égal à celui du marché.
7. Lorsque le prix officiel est plus élevé que celui du marché, l'Office doit accumuler des stocks qui immobilisent des ressources et hypothèquent sa capacité à intervenir ultérieurement. Tôt ou tard, l'Office fait face au dilemme suivant : soit conserver ces stocks dont le coût de gestion n'est généralement pas cohérent avec la capacité financière d'un Etat sahélien, soit céder à la tentation de lâcher les stocks sur le marché, entraînant alors une déstabilisation des prix, pire que si l'Office n'était pas intervenu.
8. La volonté des Offices d'acheter directement au producteur n'est que partiellement respectée parce que leur structure d'achat n'est pas adaptée à la structure dispersée de l'offre de céréales dans l'espace et dans le temps. En 1985-86, la proportion des approvisionnements des Offices réalisés par les commerçants était respectivement de 42 % au Burkina, 65 % au Mali et 45 % au Niger. Le prix théoriquement garanti au paysan devient, dans ce cas, une rente de situation pour les commerçants.
9. Des prix officiels, fixés pour tout le territoire national, handicapent doublement les producteurs des zones marginales puisque le rapport coût/bénéfice à l'hectare y est plus élevé d'une part et que, d'autre part, le prix officiel à la consommation, établi en fonction des zones urbanisées,

constitue un plafond artificiellement bas. Cela n'incite pas au renforcement de l'agriculture locale, ni à l'approvisionnement de ces zones par le commerce privé, incapable de concurrencer les prix officiels subventionnés des Offices céréaliers.

10. Quant au prix officiel fixé pour toute l'année, il incite les détenteurs de céréales, notamment les paysans, à se départir de leurs stocks dès la récolte, passant ainsi à l'Office les coûts qu'ils devraient supporter autrement, et rendant plus difficiles les conditions d'une stabilisation des prix par les producteurs eux-mêmes, qui résulterait d'un meilleur étalement de l'offre.

11. Contrairement à l'opinion répandue, il est peu probable que l'annonce des prix avant les semis influence le producteur dont le comportement est plus long à s'ajuster et, sans doute, plus sensible à une tendance des prix des dernières années. Par contre, l'annonce des prix avant les semis lie les mains de l'Office avant même que le niveau de la récolte soit connu et augmente considérablement les chances d'un mauvais ciblage.

12. Le "prix minimum garanti" (PMG), considéré comme une condition nécessaire pour atteindre la sécurité alimentaire, est en réalité son pire ennemi. Car, s'il était effectivement appliqué, ce qui n'est pas le cas, le PMG figerait, à terme, le comportement du producteur dans la céréaliculture et constituerait un frein à la diversification progressive de la production agricole.

Le prix officiel à la consommation, sorte de "prix maximum garanti" au consommateur, contribue lui aussi à figer le modèle de consommation actuel autour des seules céréales. Or, vouloir assurer la sécurité alimentaire d'une population, en s'appuyant essentiellement sur une monoculture à 85 % pluviale, dans une région comme le Sahel, est un non-sens, prix garanti ou pas.

13. L'objectif d'un système de stabilisation des revenus des producteurs ne devrait plus être de garantir un prix minimum mais de stabiliser les prix dans le cadre des ressources dont disposent les sociétés sahéliennes.

14. La tâche de stabiliser le marché ne devrait plus incomber seulement à l'Etat, comme dans le système actuel, mais elle devrait être partagée avec les producteurs et les commerçants.

15. Il est justifié que les producteurs fassent payer une taxe aux consommateurs de céréales importées car les céréales ont été achetées avec des devises qui, au Sahel, ont été gagnées généralement par le monde rural.

16. Là où ils existent, le stock régulateur et le stock de sécurité (ou de réserve) devraient être fusionnés en un seul stock public de stabilisation dont le volume serait sensiblement réduit. Ce stock devrait pouvoir fluctuer dans une fourchette, en fonction de la conjoncture.

17. La sécurité de l'approvisionnement céréalier ne devrait plus reposer seulement sur le stockage public mais aussi sur les stocks paysans de réserve, sur les importations commerciales (par l'Office céréalier) et sur des contrats d'assurance alimentaire avec les Donateurs.

18. Les Offices céréaliers interviendraient, à l'achat et à la vente, par un système d'appel d'offre et non plus au moyen de prix officiels d'intervention.

19. Pour soutenir et stabiliser les revenus des paysans, l'Etat devrait prendre les mesures nécessaires pour protéger le marché intérieur, acheter des céréales dans le cadre du plafond fixé pour le stock public de stabilisation et chercher des marchés d'exportation.

20. Pour soutenir et stabiliser ses propres revenus, le producteur céréaliier pourrait, avec l'aide de l'Etat et des bailleurs de fonds, stocker une partie de ses surplus commercialisables jusqu'à la soudure afin de bénéficier de prix plus élevés. Une avance de fonds, sur la base des prix du marché, lui serait consentie, au prorata des quantités stockées dans des greniers villageois. Au Mali, un programme de crédit au stockage paysan, via les Associations Villageoises, existe depuis 1987. Les résultats sont encourageants.

21. Pour qu'un tel programme réussisse, le crédit pour le stockage fait au producteur doit être basé sur le prix du marché à son plus bas niveau (après la récolte) et non sur un prix officiel. De plus, le bénéfice net qui résulte éventuellement de la commercialisation des céréales pendant la soudure doit revenir aux producteurs, au prorata de leurs quantités stockées.

Ce crédit au stockage paysan doit être considéré comme une avance de trésorerie et non comme un prix minimum garanti.

22. Pour stabiliser les prix à la consommation, l'Etat peut vendre des céréales par appel d'offre dans le cadre du stock public de stabilisation ou en importer pour augmenter l'offre nationale.

23. Les commerçants peuvent, en même temps qu'ils cherchent à maximiser leurs bénéfices, contribuer à stabiliser les prix à la consommation en achetant des céréales après la récolte pour les stocker et les revendre pendant la soudure. L'obstacle au stockage des commerçants est leur trésorerie trop étroite.

Des programmes de crédit au stockage devraient être financés par l'Etat et les bailleurs de fonds, en vue d'encourager les commerçants à stocker. Au Mali, de tels programmes existent depuis mars 1987.

Les deux programmes conjugués de crédit aux stockages paysan et commerçant pourraient permettre de retrancher de l'offre environ 50 000 T de céréales après la récolte, alors que les prix sont au plus bas, pour les y réinjecter pendant la soudure, alors que les prix sont au plus haut. Le coût de ce mécanisme stabilisateur, essentiellement géré par le secteur non étatique, serait pratiquement nul pour l'Etat.

24. Le modèle actuel de production-consommation, basé à 85 % sur les céréales, pouvait convenir au Sahel d'il y a 50 ans, alors que la population était rurale et auto-productrice à 95 %. Ce modèle n'est plus adapté aux conditions d'aujourd'hui parce qu'il dépend trop d'une seule culture aux rendements aléatoires. Pour atteindre l'équilibre, en année normale, le modèle actuel de production-consommation devrait produire des excédents de 150 à 300 000 tonnes, trois années sur dix, et accepter des déficits équivalents, trois années sur dix. Il faut avoir connu les difficultés et le coût de la gestion de tels écarts pour comprendre que la perpétuation de ce modèle n'est pas souhaitable.