

COMITÉ PERMANENT INTERÉTATS DE LUTTE CONTRE LA SÉCHERESSE DANS LE SAHEL

INSTITUT DU SAHEL - B.P. 1530 - BAMAKO

**PROGRAMME RÉGIONAL DE RENFORCEMENT INSTITUTIONNEL EN MATIÈRE DE
RECHERCHES SUR LA SÉCURITÉ ALIMENTAIRE AU SAHEL (PRISAS)**

**REGIONAL WORKSHOP ON FOOD SECURITY
IN THE SAHEL: REVIEW OF PAST STUDIES
AND PRIORITIES FOR FUTURE
POLICY RESEARCH AND DIALOGUE**

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SUMMARY OF THE PRISAS REGIONAL WORKSHOP
Bamako, Mali: May 6-9, 1991

From May 6-9, 1991, a regional workshop was held in Bamako: Food Security in the Sahel: Assessment of Studies and Priorities of Research on Policies, organized by PRISAS.

The opening ceremony was presided over by the Minister of Rural Development and Environment in the presence of the General Director of INSAH and the Director of the Cooperative Agreement MSU-USAID F.S.A., the Food Security in Africa in Africa Cooperative Agreement.

The session opened with preliminary remarks from the Coordinator of PRISAS, Dr. Josué Dioné, on PRISAS in general and the program of the workshop.

Concerning PRISAS, Dr. Dioné recalled that its goal is to "strengthen the capacity of Sahelian institutions in general, and of INSAH in particular, to lead to appropriate studies on the questions of regional food security and to stimulate sustained interactions between researchers and Sahelian decision makers on such questions."

Thus, the first workshop, in keeping with the stated objectives of PRISAS, aimed at identifying priority subjects of research for the Sahelian countries across the following three themes:

- **supply:** production, external trade and aid
- **distribution:** internal trade
- **demand:** consumption and nutrition

It is worth noting at this point that an outstanding synthesis of work in the area of food security in the Sahel, undertaken by Dr. Dioné, served as a base document for the workshop.

As outlined in the workshop agenda, the activities of the workshop, following the presentation of Dr. Dioné, proceeded as follows:

The workshop continued with an presentation by Dr. John Staatz on aspects relating to the definition and dimensions of food security as a general introduction and by a communication by Dr. Mike Weber on the experience of a program similar to PRISAS in Southern Africa.

Next, the themes cited above were elaborated on, one after the other, in plenary sessions with specific introductory presentations followed by discussion, before being discussed further in small working groups bringing together 2 to 3 countries; the objective of this was to allow each country to identify priority subjects of research.

Finally, the subjects listed by theme for each country were debated to determine a national agenda of research priorities and to identify priority subjects of research of transnational scope.

Presentation 1:

"Food Security: Definition, Dimensions and Implications for Policy Research"

Presented by John Staatz (MSU)

In his definition of food security, Dr Staatz stressed a food systems outlook. This definition highlights the aspects of accessibility and availability as well as the degree of aggregation and the temporal dimension (transitory or chronic); this last aspect requires a compatibility of short-, medium-, and long-term policies (measures) to curb food insecurity. In the same way, a good national food policy should ensure that the measures taken do not have contradictory effects at different levels of aggregation.

The discussions were essentially directed at the hierarchical organization of the concepts of food security and food self-sufficiency that are too often used as synonyms. However, it was apparent from the course of the debates that food self-sufficiency should be considered as one among many components of food security and that its role in a food security policy should consider the costs that it engenders. Thus, whatever the level of self-sufficiency (at the level of the individual or at that of the state), it is advisable to address adequate purchasing power to assure food security. This stresses the role of non-food sector in the search for food security.

It was also made evident that an integrated analysis implying an interdisciplinary collaboration was necessary. This would include in particular the cultural and nutritional dimension of food consumption.

Remarks on the Experience of the UZ/MSU/SADCC Program on the Subject of Research and Dialogue on the Food Security Policies in Southern Africa

Presented by Mike Weber (MSU)

Dr. Weber's presentation dealt with the joint experience of Michigan State University (MSU), the University of Zimbabwe and the Southern African countries (SADCC). From the outset, the objective was to create a network in which researchers exchanged their experiences. To achieve this, an annual conference on food security was organized. This forum thus became an occasion for researchers from the sub-region to present the results of their research. The works presented were collected, published and distributed at all levels. The desire to publish thus became a challenge for all the researchers.

The second objective was to promote communication between researchers, state employees and decision makers. All the parties were thus invited to the annual conference to be informed of results and recommendations and to be able to make known their concerns.

Another interesting aspect is that researchers were able from their interactions with policy makers to learn which research themes would help resolve strategic food-security problems, to hold discussions with decision makers and to disseminate research results rapidly.

The problem of financing remains an issue. For the experience of UZ/MSU/SADCC, it was not until after the first three years that the group became credible to the point that it could regularly attract financing for its activities.

When all is said and done, the effort constitutes a solid movement toward integrated policies as a response to the complexity of food security problems.

To conclude, Dr. Weber affirmed that some questions still remain as to the realization of a forum at the national level and its reinforcement at the regional level in Southern Africa. The national meetings should serve to sustain the debates at the regional level.

Theme 1: Supply, Production, Trade and Aid

Introduced by Ousmane Badiane (IFPRI) and Henri Josserand (Club du Sahel)

In a brief presentation, Dr. Badiane showed using various tables certain concerns of Sahelian economies, namely:

- stagnant agricultural production in the face of increasing food imports;
- the contrast between imports and the revenue from exports;
- very high indices of instability;

Faced with this challenge, he stressed the need to:

- a) revive the agricultural sector in general so as to increase local availability and import capacity;
- b) promote regional commerce to stabilize local agricultural markets.

A policy of accelerated agricultural development in return requires a good understanding and a constant monitoring of the dynamics of production and agricultural supply and improvement of commercial systems and of the distribution of agricultural and food products. Thus the need for national centers to increase their efforts at three levels:

- **factor markets:** the rural financial markets, the utilization of modern inputs, the determinants of investments at the household/operation level, labor markets in rural areas;
- if all of these elements contribute to a dynamic agricultural sector, **transaction costs** must still be controlled by actors at all levels. To that effect, emphasis should be placed on the analysis of the liberalization process of agricultural markets, the obstacles to domestic trade, the costs of intervention on the rural markets and the capacity of private operators in the distribution of inputs and of credit to producers;

- Finally, the speaker stressed the need to turn attention to the macro-economic environment in order to better understand the interactions between macro-economic policies and the performance of the agricultural sector.

Concerning the fundamental question of technological progress, Mr. Badiane noted that the comparative advantages are and continue to be technological battles.

This presentation was followed by that of Dr. Josserand, who emphasized food aid as an integral factor in the national political economy. In his view, food aid takes numerous forms (food, food for work, food-aid reflow funds). In the form of food, food aid should fit into a coherent national food policy and in the form of food-aid reflow funds, it should fit into the national economic policy. When all is said and done, it is necessary to remember that food aid should not be permanent: it is an instrument of development.

The principal lesson that emerged from the Food Aid Charter for the Sahel is that it demands consultation and dialogue, which translates in practice into three levels:

- local food availability based on production estimates;
- level of needs evaluated by monitoring populations;
- the management and the effects of food aid.

Aid cannot be well managed unless it integrates these levels; not doing so involves a risk. Consequently, it is necessary to acknowledge that food aid can have macro-economic consequences.

The second question raised dealt with the diversification of income, which, according to Dr. Josserand, has two components: minimization of risk and optimal utilization of resources. These two concepts undergird diversification, but may also conflict.

Finally concerning livestock, the historical reality of the Sahel has been affected by various phenomena: the two big droughts, demographic expansion, non-adapted policies and imports from European and South American markets. All of these factors had as a consequence a profound disturbance of livestock production systems and of ecological zones of production in the Sahelian countries.

The consequences for the Sahel have been a depression of the livestock sector, a decrease in export revenue, and the loss of interactions between livestock and agriculture (manure, fertility of soils, animal traction).

For coastal countries, which are the primary clients of the Sahel, certain advantages exist. For these countries, the problem is the policy choice of deciding in what proportion imports should come from the Sahel, what proportion from outside the sub-region, and in what proportion it is necessary to develop national production.

In these debates, the questions raised went from specific concerns of the countries to the comprehension of concepts. Other issues raised were the problems of migration, which requires medium and long term employment policies, the development of traditional credit, the reconversion

of the logic of food aid, the contribution of non-agricultural activities to food security, the need for interaction between sectors for an overall dynamic of growth, the non-reliability of official statistics, the dynamics of farmers organizations and the weak level of technology.

Presentation 2:

"Micro-Macro-Economic Simulation Model of ISRA"

Presented by Mamadou Sidibé (ISRA)

Following the introductory presentations under the first theme, the aforementioned model treating the effects of the policy environment on the production decisions at the household level, among others, was presented.

In his presentation, during which he briefly described the principal components of the model and enumerated the potential and actual uses of the model, Mr. Sidibé stressed the uncertainty-reducing nature of the model. Concerning the weakness of the data and the base hypothesis, he stressed to the importance of sensitivity analysis that allows one to determine confidence intervals for the results of the model.

It emerged from the discussion that the model takes account of the interactions between food-crop and cash-crop cultivation in that the model itself determines the rotation at the household level, based on the objective of covering food needs from home-consumption and purchases using cash-crop revenues.

It is equally worth noting that the model is the result of an interdisciplinary collaboration between researchers from ISRA and MSU.

Having already been used in the derivation of the optimal price to producers in Senegal, today the model has certain significance for other countries, notably for the Gambia which has already taken steps to use an adapted version of the model.

Theme 2: Distribution and Internal Trade

Introduced by Mbaye Yade (PAROC) and Josué Dioné (PRISAS)

The presentation by Dr. Yade, marketing expert from the Program of Regional Support to National Cereals Boards (PAROC), a CILSS project, turned first to the subject of this project. Dr. Yade then called for research to focus on current pressing issues facing the cereals boards, such as:

- the role that should be given to those boards in the current politico-economic environment,
- the effects of possible synergies between them and the private sector,
- the improvement of information systems on markets,

- the elaboration of objective criteria allowing the determination the level and allocation of national security stocks,
- the identification of zones at risk and of vulnerable populations.

Dr. Dioné, in his turn, concentrated his discussion on the impact that liberalization can have on production and global supply, and on aspects relating to access to food (free movement, transaction costs). In his view, this impact should constitute a subject of research, given that little objective information exists in this area.

Considering marketing as an economic activity, just like production, he stressed the need for better understanding of how traders' profits get reinvested in commercial activities and in other principal functions of subsectors in general.

Furthermore, he stressed the role of the state in the provision of services such as information, infrastructure and legal environment; the state should promote an acceptable level of competition, spatial and temporal integration of markets, and provide a solution to serious problems such as financing, oligopolistic practices, etc.

The discussions evoked reservations about liberalization and about the simplistic hopes based on it. Nevertheless, it was mentioned that partial or total withdrawal of the state from the marketing of food products, which could translate in certain cases into the replacement of a public monopoly or oligopoly by a private monopoly or oligopoly, does not signify liberalization. Liberalization requires accompanying measures, as indicated above, all the more so since it is fundamentally concerned with removing all the distortions of the target subsector.

Theme 3: Demand, Consumption and Nutrition

Introduced by Souleymane Soulama (CEDRES) and Thomas Reardon (IFPRI)

First Dr. Soulama stressed the need to take a "food systems" perspective. He distinguished 5 sub-systems of production, storage, marketing-distribution, transformation, and finally food consumption itself. Thus consumption seemed to be the final step along a long process; and food security depends on the effective efficiency of the system at all levels. He then indicated the 3-level system approach of CEDRES, macro, micro, and subsector levels. In his view, the relevant test in food consumption ought to be at the micro level, particularly at the household, indeed the individual level.

He then indicated some areas of research:

- the problem of evaluation of the nutritional quantity and quality, which makes reliable planning impossible;
- the problem of the determination of distribution parameters at the family level (intra-household food distribution);

- the optimal combination for the household to seek in the short- to medium-term between integration into the market versus self-sufficiency.

This introduction was followed by the presentation of Dr. Reardon who tried to respond to questions that, in his view, constituted problems in subject-matter research on consumption, notably:

- The question of why consumption studies. He underlined the necessity of analyzing first the effects, through the price and the availability of home-consumed products, of changes in policy (for example, tariffs on rice), of economic structure (for example, urbanization) and of circumstances (for example, drought) on the urban and rural consumers before identifying intervention needs (impacts on nutrition);
- The need to relate consumption behavior to various socio-economic phenomena. His overview of some research results of the survey in the Sahel gave the opportunity to reveal some behavior of the population linked to the socio-economic context (such as employment characteristics). He thus noted that the consumption of rice is important in the cities and that the consumption of this product is not very sensitive to price. One of the principal reasons for this is the importance of the consumption of rice from street vendors. In the rural areas, rice consumption is not important overall, but presents regional disparities. The consumption of wheat is only important to the wealthy. Maize is only consumed by 15-20% of the population, but is becoming more important because of the drought in the North (which imports substantial amounts of maize from the southern Sahel and the northern part of the coastal countries);
- He noted, as an example of the types of study needed, analyses of the impacts of a tariff increase on imported rice on the consumers or a large increase in the production of maize on demand;
- The need to identify deficiencies in current research. He saw these as being located at three levels:
 - * The relatively small number of studies and the short length of most of these studies (more studies are needed over space and time to be able to generalize);
 - * The need for more studies transformed/prepared and non-cereal products (from the point of view of supply and demand);
 - * The need to tie research on consumption with research on supply.

Following these debates, it was decided to try to carry out more research in this still relatively new area.

The workshop participants developed an agenda of research priorities, both at the national and the sub-regional levels, summarized in the annex that follows. It was decided that in the 3 months that follow, the coordinating team of PRISAS will help the national teams of researchers to elaborate more complete statements of research problems and methods in the priority areas identified during the workshop. These research proposals will lead to research projects that PRISAS will support during the first phase of its activities in 1991/92.

ANNEXES

I. NATIONAL THEMES OF PRIORITY

BURKINA FASO

1. Conditions necessary to improve of the effectiveness and efficiency of rural associations in the pursuit of food security: support to production, equipment, inputs, credit.
2. Improvement of the effectiveness and efficiency of markets: transport, administered prices.
3. Quantitative and qualitative study of food consumption in light of weak data.
4. Regional cereals markets: determinants and dynamics of trade with neighboring countries.
5. Diversification of production, revenue and consumption in a food systems perspective.

CAPE VERDE

1. Reconversion of the F.H.I.M. (fronts a haute intensity de main d'oeuvre)
2. Role of consumer cooperatives
3. Impact of the rural-urban migration on food security
4. Commercialization of agricultural production
5. Survival strategies of populations

THE GAMBIA

1. Choice of commodities (products) in a situation of risk: implications for food security (Connection: ISRA/DAR)
2. Estimation of aggregate cereal consumption in the Gambia (Connection: DOP)
3. Market integration in the border zones in the Gambia (Connection: OSA/DOP/DIAPER)
4. Evaluation of peanut marketing reforms in the Gambia (Connection: DOP)

MALI

1. **Farmers' organizations and the marketing of agricultural products**
2. **Study of constraints to the spatial and temporal accessibility of supply of cereals from different zones and cities**
3. **Study of the impact of the legal environment and the marketing of cereals**
4. **Study of food habits by region, by ethnic group, and by socio-demographic group**
5. **Adoption strategies in urban areas according to income level, ethnic origin, and length of time in the city**

MAURITANIA

1. **Optimal policies for developing regional irrigated agriculture and choice of cultivation in the Fleuve zone**
2. **Impact of agricultural policies on the farm enterprise, constraints to rice production and determinants of paddy supply**
3. **Socio-economic study of the cereals trade and evaluation of the available means of transport**
4. **Study of the privatization of cereals marketing activities (transportation and bringing to market)**
5. **Study of the budget and preferences of consumers in urban and rural centers for different food products**

NIGER

1. **Analysis of different marketing stages and determination of prices (internal and external aspects)**
2. **Interregional trade within Niger and food security**
3. **The range of methods used by households to attain food security**
4. **Effectiveness of farmer associations and food security**
5. **Analysis of the effects of structure and policies on food security**

SENEGAL

1. **Diversification of products: market gardening (problems of outlets), maize (transformation and diversification of outlets) and off-season peanuts (fertilization and product associations)**
2. **Intensification of animal production: analysis of village pharmaceutical programs, of composition of livestock feed, of the utilization of sub-products of agriculture, of development of workshops dealing with birthing and fattening, and study of alternative marketing circuits**
3. **Integration of livestock and agriculture: evaluation of technologies and analysis of decision making of producers facing improved technologies**
4. **Impact of structural adjustment on micro-economic enterprises**
5. **Study of the cereals subsector and cereals marketing: integration of markets between surplus and deficit zones by product and problem of the management of food aid**
6. **Study of food habits in urban and rural areas and by ecological zone and improvement of information through a shift from cereals balance sheets to food balance sheets**

II. TRANSNATIONAL PRIORITIES (of common interest)

1. **Micro-macro economic interactions:**
 - (a) Choice of economic activities and alternative enterprises
 - (b) Comparative advantages
2. **Studies centered on income:** research on diversification/specialization replacing self-sufficiency
 - (a) Competitiveness on the markets (regional and world) of cash-crop products/exports of vegetable or animal origin
 - (b) Interaction between:
 - food-crop and cash-crop cultivation
 - agricultural and non-agricultural activities
 - (c) Labor market (rural and urban)
3. **Maize (Particular case for potential intensification)**
 - (a) Problems (constraints) of technologies (particularly in the area of transformation)
 - (b) Problems of marketing (outlets)
 - (c) Relationships with other agricultural activities and inter-sectoral synergies
4. **Institutional and legal environment of markets**
5. **Markets for factors of production: structure, functioning, and performance**
6. **Consumption:**
 - (a) Evolution of consumption models
 - (b) Optimal levels of aggregation for investments for nutritional improvements
 - (c) targeting food aid