

AGRICULTURAL POLICY ANALYSIS PROJECT, PHASE III

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International Food Policy Research Institute
University of Arizona

Project Office: 4800 Montgomery Lane, Suite 600, Bethesda, MD 20814 · Telephone: (301) 913-0500
Fax: (301) 652-3839 · Internet: apap3@abtassoc.com · USAID Contract No. LAG-4201-C-00-3052-00

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SENEGAL RICE POLICY REFORM SITUATION REPORT

MAY 1995

**APAP III
Research Report
No. 1007**

Prepared for

Agricultural Policy Analysis Project, Phase III (APAP III)

USAID Contract No. LAG-4201-Q-00-3061-00

Authors: David Wilcock, Team Leader, Development Alternatives, Inc.
Steven Block, Abt Associates Inc.
David Tardif-Douglin, Development Alternatives, Inc.

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LIST OF ACRONYMS

AFAC	Association des Femmes d’Affaires Commerçantes
APAP	Agricultural Policy Analysis Project
ARRF	Association des Résortissants de la Région de Fleuve
ASAL	Agriculture Sector Adjustment Loan
BCEAO	Banque Central des Etats del’Afrique Occidentale
CFA	Communaute Financiere Africaine (CFA francs)
CNCA	Caisse Nationale de Crédit Agricole
CNES	Confédération Nationale des Employeurs du Sénégal
CNPS	Conseil National du Patronat du Sénégal
CPSP	Caisse de Péréquation et Stabilisation des Prix
CSA/SIM	Commission de Sécurité Alimentaire/Système d’Information sur les Marchés
DRC	Domestic Resource Cost
DSA	Direction de la Statistique Agricole
DS/MEFP	Direction Statistique du Ministère de l’Economie, du Finance et du Plan
ESAM	Enquête Sénégalais auprès des Ménages
FOB	Free On Board
GATT	General Agreement on Tariffs and Trade
GSM	The U.S. Government’s Commodity Credit Corporation (CCC) Export Credit Guarantee Program
ICEA	Ingénieurs Conseillers Economistes Associés, Paris
IMF	International Monetary Fund
ISRA/BAME	Institut Sénégalais de Recherche Agricole/Bureau d’Analyse Macro-Economique
LSMS	Living Standards Measurement Survey



MOA	Ministry of Agriculture
NAP	Nouvelle Politique Agricole
PAAD	Program Assistance Approval Document
PAM	Policy Analysis Matrix
PASA	Programme d'Ajustement de Secteur Agricole
PASR	Programme d'Ajustement du Secteur Riz
RSAP	Rice Structural Adjustment Program
SAED	Regional development organization of the Senegal River Valley
SAL	Structural Adjustment Loan
SECAL	Sector Adjustment Loan
SODAGRI	Société de Développement Agricole
SPSS	Statistical Package for the Social Sciences
UMOA	Union Monétaire Ouest Africaine
UNACOIS	Union Nationale des Commerçants et de l'Industrie du Sénégal
UPA	Policy Analysis Unit (Unité de Politique Agricole)
USAID	U.S. Agency for International Development
WARDA	West African Rice Development Association (ADRAO in French)

EXECUTIVE SUMMARY

In February 1994, the U.S. Agency for International Development (USAID) signed an agreement with the Government of Senegal to liberalize national rice importing and domestic marketing policies. The Rice Structural Adjustment Program, or RSAP, embodies these agreed-to policy changes, provides for general support to the Government budget to cushion against the potential financial impacts of the changes, and provides for institutional development assistance to the Ministry of Agriculture (MOA) Policy Analysis Unit (Unité de Politique Agricole or UPA) through the technical assistance component of the program.

This report describes the RSAP and its socioeconomic and developmental significance for Senegal by:

- Summarizing the main features of the RSAP in the context of a broader 10-year effort at agricultural sector reform;
- Describing the status of the reform program as of December 1994, and presenting a first analysis of what's at stake for key groups concerned with the future evolution of the rice subsector; and
- Outlining the activities planned in the context of the RSAP technical assistance project to verify that the reform measures have been implemented correctly (required for disbursement of program funds in three tranches), to monitor and evaluate the impacts of RSAP reforms over a five-year period, and to strengthen the capacity of UPA to undertake these and related policy analyses in the future.

APAP III objectives in producing a situation report at an early stage in the evolution of the RSAP were to: (a) promote maximum communication among parties interested in the reform program; (b) develop, to the extent possible, an early common vision of where the reform program is headed, its consequences for different groups in Senegal, and key emerging policy issues; and (c) provide APAP collaborators and colleagues in the Government, the donor community, the private sector, and the academic world with a quick introduction to the key issues and past analytical work done on the rice subsector of Senegal.

1. INTRODUCTION TO THE REPORT AND TO THE RSAP

1.1 Objectives of This Report

In February 1994, the U.S. Agency for International Development (USAID) signed an agreement with the Government of Senegal to liberalize national rice importing and domestic marketing policies. The agreement has three components: a schedule of policy changes; general support to the Government budget to cushion against the potential financial impacts of agreed-to policy changes (the Rice Structural Adjustment Program, or RSAP)¹; and institutional development assistance to the Ministry of Agriculture (MOA) Policy Analysis Unit (Unité de Politique Agricole or UPA) through the technical assistance component of the program.

The purpose of this report is to describe the RSAP and its socioeconomic and developmental significance for Senegal. In the report we:

- Summarize the main features of the RSAP in the context of a broader 10-year effort at agricultural sector reform;
- Describe the status of the reform program as of December 1994, and present a first analysis of what's at stake for key groups concerned with the future evolution of the rice subsector; and
- Outline the activities planned in the context of the RSAP technical assistance project to verify that the reform measures have been implemented correctly (required for disbursement of program funds in three tranches), to monitor and evaluate the impacts of RSAP reforms over a five-year period, and to strengthen the capacity of UPA to undertake these and related policy analyses in the future.

Our objectives in producing a situation report at this early stage of the evolution of the RSAP are to:

- Promote maximum communication among parties interested in the reform program, such as different parts of the Government; the Dakar donor community; Senegalese private sector groups — farmers, marketers, importers, and consumers; and policy analysts;
- Develop, to the extent possible, an early common vision of where the reform program is headed, its consequences for different groups in Senegal, and key emerging policy issues. This may also lead to the development of consensus concerning the need to design secondary investment or compensatory measures to help achieve the efficiency

¹ In French, RSAP is referred to as le Programme d'Ajustement du Secteur Riz or PASR.

or other gains possible as the Senegalese rice economy seeks new equilibrium relationships (at the level of domestic production, processing, and consumer food habits); and

- Provide colleagues (in the Agricultural Policy Analysis Project [APAP], the Government, the donor community, the private sector, or the academic world) with a quick introduction to the key issues and past analytical work done on the rice subsector. For the latter reason, we have provided short annotations to some of the items in the attached bibliography.²

1.2 Senegal's Rice Policy Dilemma

Senegal is facing a classic food policy dilemma: a confrontation between the interests of producers and consumers brought about by the imminent dismantling of a series of economically inefficient Government subsidies.³ This dilemma is defined by four main factors:

- The characteristics of Senegalese consumer demand for rice;
- The current economic cost of domestic rice production and the importance of investments that have been made to increase domestic supply;
- Characteristics of world trade in rice, particularly that in broken rice; and
- The functioning of the price, marketing, and import control system (centered around the Caisse de Péréquation et Stabilisation des Prix, CPSP), which is at the center of the reform program.

Assisting UPA in dealing with this confrontation between producers and consumers will be the principle focus of the technical assistance and training components of the RSAP over the next three to four years. The topics discussed here briefly will be the subject of more detailed special studies and specific monitoring and evaluation exercises as the reform program unfolds. The following paragraphs are just a preliminary "taste" of the complexity of these issues in the Senegalese food policy context.

² It should be noted that this report was produced after a three-week assignment in Senegal and after having digested most of the readily available recent literature on the subject of rice policy reform in Senegal. It was, however, produced by three analysts who are relatively new to this subject in Senegal. It is our hope that, if errors remain in our understanding of key issues or facts involving rice in Senegal, the report will serve as the basis of fruitful dialogue and debate with our readers.

³ This classic dilemma is clearly spelled out in Timmer, Falcon, and Pearson, 1983. This book is to be used as part of the training program in policy analysis to be offered to staff members of MOA/UPA under funding from the RSAP.

1.2.1 Consumer Demand

Over the past 30 years the population of the Dakar peninsula (and increasingly that of other regions of the country) has grown accustomed to a controlled rice price and to rice becoming the most important of politically sensitive "wage goods."⁴ Rice is a traditional crop in the Casamance region but has been an urban staple as well for many years, as Senegal's rice import statistics attest. The relative weight of rice in the average diet is illustrated with consumption estimates from 1988. Based on an average estimated urban per capita consumption of 161 kilograms of total grains, and an average of 171 kilograms in rural areas, the consumption percentages by weight are presented below in Table 1.1.

**Table 1.1 Percentage of Per Capita Grain Consumption
in Urban and Rural Senegal
(1988)**

Type of Grain	Urban	Rural
Millet, Maize, Cowpeas	24%	75%
Rice	56%	23%
Wheat	20%	2%

Source: USAID (1991), pp. 117-118.

Thus 76 percent of urban grain consumption was based on grains that were largely imported (rice and wheat), with the same percentage in rural areas coming from Senegalese production (millet, maize, and cowpeas). Data from a more recent study (République du Sénégal, Ministère de l'Economie, des Finances, et du Plan, Direction de la Prévision et de la Statistique, 1993), seem to indicate a narrowing of the gap between urban and rural patterns of rice consumption. This will be explored in more detail in the analysis of the baseline consumption data from the new ESAM (Enquête Sénégalais auprès des Ménages — an LSMS-type survey with data collection from 3,300 households ending in early 1995) proposed as a major component of the RSAP monitoring and evaluation program.⁵

⁴ Wage goods are those goods most important in defining an urban worker's standard of living. The political sensitivity of the urban rice price is well illustrated by two recent decisions on rice pricing: when President Diouf was reelected in 1993, he reduced the rice price from 200 to 130 CFA/kg as a "bonus" to the urban electorate; and, when the CFA franc devaluation raised the prices of other imported goods by 100 percent in February 1994, the retail price of rice was raised to only 180 CFA francs (a 34 percent increase). These decisions came directly from the office of the President.

⁵ LSMS is a living standards measurement survey.

Some urban Senegalese with whom one speaks in Dakar deny even the possibility of consumers substituting other cereals for rice. However, with a bit more probing it becomes clear that claims of a perfectly inelastic demand for rice are exaggerated. Although it may be possible theoretically to estimate elasticities of demand using the ESAM data, we will also propose a more direct exploration of the substitution relationships through the use of qualitative consumer panel research (see section 4. RSAP Activities to Strengthen MOA/UPA for more detail). The biggest problem with consumer substitutions among grains is the degree to which urban consumers will accept higher (or higher and fluctuating) prices for rice.

1.2.2 Domestic Rice Production

In the past 20 years, there has been substantial Government and donor investment in infrastructure for domestic irrigated rice production (particularly in the valley and delta portions of the Senegal River Valley or Fleuve region). However, although domestic rice lands have increased substantially in area, the cost to the economy of Senegal-produced rice has remained high compared with world prices. The relative uncompetitiveness of domestic Senegalese rice has been borne out repeatedly in domestic resource cost (DRC) studies financed by different donors. This is also consistent with views of Senegal rice production going back to the 1970s. In Pearson et al., 1981, for example, some Fleuve and Casamance rice production systems are described as being competitive with world rice, but only in relatively local marketing areas, not in Dakar.

The relative role of rice in Senegalese cereal production is illustrated by the few figures below. We see that Senegal has averaged just over a million tons of cereals produced over the past 30 years. Of that total, millet sorghum has contributed 73 percent, maize 13 percent, and rice 14 percent. Further, average rice production — from the 1960s through the 1990s — increased less (21 percent) than sorghum/millet (32 percent) and far less than maize (228 percent). (Because rice area and production have been growing rapidly in recent years, if the 1960s average is compared with the 1988-1992 average, we see a more respectable 55 percent increase in average annual production of paddy.) Still, average increases in total rice and sorghum/millet production have been substantially less than the rate of population increase. See Table 1.2 below.

1.2.3 The World Rice Market

This market is relatively thin (when compared with wheat, for example), and highly segmented into submarkets (whole-grain long rice, whole-grain short rice, high-priced fragrant rices, and broken rice). Senegal's main rice imports (100 percent broken rice) are the very volatile tail of this thin market. Senegal competes with just a few other countries that import large amounts of broken rice for human consumption. Otherwise broken rice (if its price is low enough) is used as an ingredient in beer and animal-feed production in more developed countries. These substitution relations with other feed and beer ingredients contribute to the instability of the world broken rice price. Such a concentrated market also presents opportunities for oligopolistic market control, potentially further contributing to price instability.

**Table 1.2 Trends in Cereals Production
Senegal, 1960-1993
(‘000 MT)**

Crop	Production Range		Average		Average Production		% Change Production Averages
	Low (Year)	High (Year)	1988-1992	(%)	1960s	1980s	1960s-1980s
Millet/Sorghum	322 (1972)	949 (1985)	698	71%	487	644	+ 32%
Maize	21 (1961)	133 (1991)	121	13%	32	104	+228%
Paddy	39 (1972)	181 (1991)	160	16%	105	128	+21%

Source: USAID (1991), Annex II, pp. 19-21, and UPA (1993).

1.2.4 The CPSP Subsidy and Control System

Over the past 25 years the Government has elaborated a rather complex system of import taxation and producer/consumer subsidies in an attempt to avoid the classic food policy dilemma of balancing the diametrically opposed interests of rice producers and consumers. These policies have been implemented by a state corporation, CPSP. Due to the overvalued CFA franc, the world rice price, landed Dakar, was low in CFA terms. This CFA price was then heavily taxed, with the resulting funds being used to cover CPSP's high operating costs, to pay a variety of subsidies, and to contribute to Government resources, both on and off budget.

Subsidies have been directed to producers (through a fixed purchase price for a portion of the domestic rice crop, particularly in the Fleuve region). The Government also fixed milling and marketing margins for broken rice, and paid subsidies for transport and storage so that urban rice prices were equal and constant throughout the year (pan-territorial and pan-seasonal pricing). The problem with this system, in common with many state food marketing schemes in Africa, was one of high cost or inefficiency. This translates into the fact that "gross marketing margin" (total cost of marketing) of both imported and domestically produced rice is substantially greater than it would be in free markets. This is the basic rationale for the reform program.

Once the subsidy program is removed, producer interests will (as noted) be in direct conflict with consumer interests. The Government's task will be to decide what tariff level to aim at for the Dakar wholesale price of broken rice and how much variability in that price the Senegalese market (used to stable wholesale and retail prices) will be asked to tolerate. The Dakar wholesale price for imported broken rice will, in interaction with fluctuating domestic supply (and to a much lesser extent demand), will determine other rice prices in an interconnected market system. In the reformed system, the main instrument of Government policy will be the border price protection (tariff) policies.

This is where Senegal's agricultural reform program meets the main thrusts of world trade reform, as articulated in the GATT Uruguay Round Agreement. The basic thrust in GATT is that nontariff barriers (including quotas and variable levies), which serve to isolate national markets from the discipline of being connected to world prices, are not consistent with the Uruguay round agreement. Because the Government is thus being encouraged not to use variable levy protection, it is more limited in its ability to stabilize the level of the Dakar wholesale rice price. Although the details of the protection system to be used in the case of rice are still being developed, the degree to which the system will transmit world price variability into the domestic marketing system, and uncertainty about how much variability there will be in the narrow market for "100 percent broken," will be the two key variables that UPA and other Government policy analysts will have to address.

1.3 Background and Overview of RSAP Reforms

1.3.1 Slow Progress on Agricultural Sector Reforms

Beginning in the late 1970s, it had become clear to some observers of rural development in Senegal that the operation of the country's inherited set of rural development institutions and associated national pricing and marketing policies for agriculture, characterized by heavy direct state intervention, were not accomplishing stated agricultural development goals and were not economically sustainable. Elliot Berg (1990) provided an excellent review of the sectoral reform problem as it was understood in the 1980s and what was accomplished over the decade. He contended that a broad consensus emerged in the late 1970s and early 1980s about what was wrong about Senegalese agricultural institutions and policies and what should be done to fix things. According to Berg, the needed prescriptions included:

- Producer prices should be raised, for both export and local food crops, to stimulate production, slow rural exodus, and reduce urban bias in income distribution. Above-market and stable floor prices might be necessary to achieve these objectives.
- Protection should be given to local cereals production. In practice this means restricting rice imports and keeping the consumer rice price at a level high enough, absolutely and relative to local coarse grain prices, to encourage substitution on the demand side and higher production on the supply side.
- The role of the state should be reduced, that of the private sector should be encouraged, and public sector resources should be used better — by improving the efficiency of the RDAs and other institutions active in agriculture, such as, CPSP, SAED, and SODAGRI.
- Agricultural markets should be made to function better, by increased availability of price and other information, and, more importantly by

removing regulatory obstacles and distortions such as subsidies on fertilizers, irrigation water, and tractor services (p. 66).

These prescriptions were embodied in three World Bank Structural Adjustment Loans (SALs) in the 1980s, a number of other more specific reform programs, and several major Government agricultural policy declarations such as the Nouvelle Politique Agricole (NAP, 1984) and Le Plan Céréaliier (1986). Overall, however, the sectoral reform record during this period was poor; this was especially true in the rice subsector where no progress was made on market and import liberalization.⁶ For rice, the two most critical primary issues were (and still are today): the liberalization of rice imports and determining how much border protection to give locally produced rice. Next in order of importance were the liberalization of domestic rice trade and the abandonment of pan-territorial and pan-seasonal subsidized retail pricing (largely seen as an equity or social contract issue for urban consumers, particularly Government employees).

As part of SAL II and the USAID Policy Grant system, in late 1985 the Government announced plans to liberalize rice imports beginning in 1986. The experiments in private importing eventually began in 1987, but were so constrained and problematic that they were judged a failure and CPSP resumed its monopoly importer role by 1988.⁷

Although consensus was general in the 1980s on the need for protection of domestic rice production, there was substantial disagreement within the Government and the donor community on how high to make the protection wall and on the speed of phasing out of producer subsidies, particularly in the Fleuve region, where heavy subsidies had been rationalized as part of justifying the enormous infrastructural investments made in conjunction with building the Manantali and Diama dams on the Senegal River. Urban rice prices were never raised as high as the reform levels but high enough to encourage a private land boom in the delta portion of the Fleuve once local communities were given authority to allocate irrigable lands suitable for rice production.

The question of how much protection to be given to local cereals production was continually "fogged" by the overvaluation of the CFA franc which meant that "world rice" would arrive in Dakar at extremely low CFA prices. The Government had to apply substantial quantitative and tariff protection to these imports or else local rice as a percentage of total domestic supply would have declined dramatically. The size of the Government protection "take" at the border was also seductive in two ways: it allowed a bloated and inefficient CPSP to continue

⁶ In contrast with rice, perhaps the greatest progress in agricultural sector reform took place in coarse grains (sorghum, millet, and maize), where state marketing and pricing were entirely eliminated, market information systems substantially improved, and so on.

⁷ This sounds similar to the late 1994 "experiment" in private sector rice importing that has been totally managed by CPSP, and is largely predestined to be another failure in operational terms, "demonstrating" either the inability of private sector operators to import rice or their lack of interest. See more on this point in section 2. The Current Situation.

to subsidize both consumers and producers, and it produced a large pool of money, contributing to both the Government budget and allegedly to nonbudgetary *caisse noire* activities.

By the late 1980s discussions had begun on a multi-donor, World Bank-coordinated agricultural sector adjustment loan (SECAL), which incorporated the same set of policy issues.⁸ For rice the policy reform package stayed the same: some protection for local production, reduction of subsidies, and reduction of the state's role in production and marketing.

1.3.2 RSAP Reforms

The formal objectives for RSAP are contained in the Program's Logical Framework, which lists the program or sector goal as "increasing private incomes through the liberalization of agricultural markets" (USAID 1994, Annex 2). Although the program is likely to meet this goal, it may not be in the way program designers anticipated. This is indicated under "measures of goal achievement," where harvesting and marketing of farm products would be increased by 3 percent over the life of the program, and income from the marketing of farm products by 6 percent. In nominal terms these gains would likely come about simply through population growth and inflation. In real terms, they might come about through increased rice production (or higher prices, although there is no guarantee that new paddy prices will be higher on average than the old official prices), or through greater production and higher prices for substitute crops. The most likely is that the goal would be met largely through greater efficiency (or lower marketing margins) in the marketing of domestic or imported rice.

The RSAP Program Purpose is closely related to the goal: "To increase incomes of farmers who currently produce paddy for the internal Senegalese market through the liberalization of rice marketing and processing." The "end of program status" or conditions that will indicate whether this purpose has been achieved are:

- "Incomes of farmers marketing paddy at start of the program increased by 10 percent": Again this will be the hardest condition to guarantee; further it might occur due to a more favorable marketing environment for rice or for substitute crops. The other "conditions of success" will be easier to achieve;

⁸ USAID (1994) contains a good description of the SECAL discussions — known as PASA (or Programme d'Ajustement de Secteur Agricole) — which have become almost a permanent institution since they are now in their sixth year, largely because of the continuing inability of the Government to live up to the reform agreements it makes; of donor fatigue (there is currently an extremely high degree of skepticism in the donor community about the Government ability to respect its reform commitments and, recently, a World Bank official referred to the SAL experience in Senegal since 1980 as "14 years of deception"); and of the increasing burden of the CFA overvaluation, which was only solved in January 1994. Each of the three key commodity groups in the PASA — rice, cotton, and groundnuts — has a technical subcommittee that worked out specific sets of revised reform proposals. For the rice subcommittee, these proposals were completed in March 1992 and became in large part the RSAP signed in 1994.

- "Greater degree of efficiency in rice marketing and processing": this benefit would accrue to both producers and consumers — and may very well be quantitatively the most significant;
- "State monopolies on rice marketing and processing eliminated"; and
- "Rice pricing policy liberalized."

The reforms themselves agreed to by the Government and USAID can be grouped into three categories:

- Those dealing with the progressive elimination of all Government-controlled rice prices;
- Those dealing with SAED total withdrawal from farm-level rice purchasing and processing,⁹ and
- Those dealing with downsizing and drastically reducing CPSP's role in rice importing and domestic marketing.¹⁰

Under the three categories there are 14 specific reforms (in relation to three tranches or payments of budget support to the Government) that are detailed in Table 1.3. The RSAP agreement anticipated that the first tranche conditions would be completed by February 1995. As we will see below, many of these first tranche conditions have been achieved (marked XX in the table) or work toward accomplishment is well advanced (marked X).

⁹ SAED is the regional development organization of the Senegal River Valley.

¹⁰ The reform conditionality and how the Government can demonstrate convincingly that conditions have been met are analyzed in detail in the companion document to this report, "PASR, Plan de Travail," Section Two.

Table 1.3 RSAP Policy Conditions by Tranche

1st Tranche Conditions	2nd Tranche Conditions	3rd Tranche Conditions
A. Price Controls		
1. Free paddy price and inform public (XX)		
2. Eliminate broken rice transport subsidies (except to Kolda and Ziguinchor) and inform transporters	Eliminate all rice transport subsidies	
3. Eliminate all other specific rice price controls (except for Kolda and Ziguinchor and Dakar wholesale price for 100% broken -see note ^a)	Eliminate all other specific rice price controls (except Dakar wholesale)	Eliminate Dakar wholesale price for 100% brokens
4. Margins		Eliminate all controlled wholesale/retail profit margins
B. SAED Rice Buying/Milling		
1. Close, sell or give to private sector the two SAED/URIC rice mills (XX)		
2. Eliminate all subsidies to private rice mills (XX — see note ^b)		
C. Restructuring CPSP		
1. Produce an acceptable reorganization plan (X)		
2. End all buying and distribution of local rice (X)		
3. Extend market monitoring actions to all regions of country (X?)		
4. CPSP rice sales	Stop all CPSP rice sales (except in Kolda and Ziguinchor)	Stop all CPSP rice sales
5. CPSP warehouses	Close all CPSP warehouses (except Kolda, Ziguinchor and Dakar)	Close all CPSP warehouses
6. Broken rice importing	Allow private sector to import brokens as subcontractor to CPSP; private sector freely competing (see note ^c)	Private sector freely imports all brokens

1st Tranche Conditions	2nd Tranche Conditions	3rd Tranche Conditions
7. Whole rice importing	Cease CPSP importing of whole rice; clear definition of CPSP role (monitoring, etc.) vis-a-vis private sector	
8. Residual CPSP Activities		Limit CPSP to: (a) subsector monitoring; (b) contracts for broken rice importing under emergency situations only; (c) contracts for private storage of security rice stocks as needed (d) clearly define relationship to private rice importers

Notes to Table 1:

- ^a This condition seems to be a bit redundant with the other price decontrol conditions but, from the point of view of making sure the agreement has no loopholes, it may ultimately be useful. In addition it is difficult to see how fixed margins can be maintained if the wholesale and retail prices that make up those margins are no longer fixed. This may simply allow local authorities some residual control power against potential "price gouging" by maintaining a ceiling restriction on a fixed margin that would "float on top" of a variable wholesale price.
- ^b In the initial reform package, USAID funds were to be used to pay a milling subsidy to "qualifying" private sector mills of not more than 25 CFA/kg. By the second tranche this milling subsidy was to be reduced to 15 CFA/kg and totally eliminated by the third tranche. The qualifying mills were the larger private mills that had been set up in the last several years with special credit funds. The rationale for this potential deviation from the "true path" of liberalization seems to have been the fear that this category of new mills would have difficulty competing with either the newly privatized SAED/URIC mills or with the local dehullers. Soon after signature of the loan agreement it was realized apparently that this provision was no longer needed and it was eliminated from the RSAP by Amendment No. 1.
- ^c This includes the 1994 "experiment" in "private sector" importing of broken rice (see the next section for more detail).

Source: Amendment No. 1 to the RSAP agreement.

2. THE CURRENT SITUATION

The year 1994 was tumultuous for the reform of the Senegalese economy and its key sectors; events moved rapidly. During the months to come, UPA clearly needs the helping hand on policy analysis that can be provided under the RSAP technical assistance component.

The dominant event for the evolution of the economy as a whole was the 100 percent CFA devaluation (as of January 12, 1994 the CFA rate of exchange was changed from 50 CFA to the french franc to 100 CFA). For the CFA zone as a whole, this was felt to have corrected the increasingly debilitating overvaluation, although it was felt that the devaluation may have been excessive for some of the Sahelian countries in the monetary union. For Senegalese consumers, this meant that the prices of most freely imported goods doubled overnight with no increase in wages. The Government was under heavy pressure from the International Monetary Fund (IMF) to show maximum restraint on wage increases so that the economic stimulation effects of the devaluation would not be eroded by an inflationary jump in all prices and wages. A month after the devaluation, severe rioting erupted in Dakar killing several police and demonstrators.

2.1 Devaluation and Budget Deficits: New Motor for Rice Policy Reform

The devaluation, coupled with related Government decisions on the consumer rice price, has completely changed the political-economic dynamics of movement toward market liberalization. Although rice prices doubled overnight, the Government raised the retail rice price by only 38.5 percent (130 CFA to 180 CFA/kg). The CPSP subsidy system suddenly moved from substantial surplus to significant deficit. In the 10 months since these price changes (to December 1994), CPSP — continuing unchanged its distribution and subsidization of imported rice to urban areas — generated an 11 billion CFA (or \$21 million) deficit. Given CPSP's high cost structure, this represented a level of subsidization of Senegalese consumers that was probably not sustainable for long. In fact, in December 1994, the Senegalese National Assembly authorized the Government to proceed to total rice subsector liberalization by as early as July 1995 (more than a year earlier than the previous most optimistic timetable for state withdrawal from the subsector).

On an annualized basis, this level of total CPSP losses, applied to 350,000 metric tons of broken rice imports, would translate into a loss of approximately 38 CFA/kg. What this portends for an average "breakeven" Dakar consumer price is not clear since data were not available on CPSP's Asian FOB prices, which are thought to be high.¹¹ In addition, the CPSP deficit also includes other debts not related to rice imports, inefficiencies in importing and handling, bloated

¹¹ Particularly prior to devaluation when levels of protection were very high, there would have been clear rent-seeking opportunities to over-invoice FOB prices for rice being purchased by the state. The margins were so large that rents, inefficiency losses, and stabilization could all be accommodated simultaneously. Alas, this is no longer the case.

personnel costs, and internal transport and storage subsidies and costs that would no longer be borne by the state (in the future interior urban prices for imported rice will be the Dakar price plus the cost of transport, extra handling, and storage). Thus a substantial portion of the 38 CFA/kg CPSP loss would not have to be added to an "average Dakar CIF price." This may be offset to some degree by losses in economies of scale as rice imports are privatized. It does give some credence however to the views of some MOA staff that the post-devaluation urban rice price may have been set 20 or 25 CFA/kg too low.

2.2 Progress on RSAP Conditionality

A review of the RSAP reform program in Table 1.3 indicates that substantial progress has been made in meeting the conditions agreed to for the release of the first tranche of RSAP budget support. As of mid-December 1994, four of the eight first tranche conditions apparently had been met and two others were well on the way:

- **Price Controls (1 of 3).** Met: Freeing the farm-level paddy price;
- **SAED Rice Buying and Milling (2 of 2).** Met: SAED/URIC mills privatized and subsidies to private mills eliminated (before they started); and
- **Restructuring CPSP (3 of 3).** CPSP is apparently no longer buying and selling local rice,¹² a draft restructuring plan has been completed by a local consultant (ACG, December 1994), and proposals on how CPSP can expand its market monitoring functions (while drastically downsizing total employment) have been completed.

The main barriers to meeting the first tranche conditions revolve largely around elimination of the broken rice transport subsidy and fixed wholesale and retail prices in the non-Dakar urban centers (except for Kolda and Ziguinchor in the Casamance).¹³ Although these were supposed to have been completed by February 1995, a slight delay was likely because the month of Ramadan in 1995 (when there is increased rice consumption) was to occur between February 1 and early March. The Ministries of Agriculture and Finance will also have to produce substantial additional documentation on the achievement of these conditions in forms satisfactory to USAID

¹² Although the disposal of past stocks of CPSP local rice (still in warehouses, particularly in the Fleuve region) is still an unresolved issue. CPSP reported that it has approximately 9,000 tons of paddy in stock (3,000 in St. Louis and 6,000 at the rice mills, presumably URIC) and that it intended to sell these stocks at the official price, which seems to be a reasonable and commercially responsible position.

¹³ There are two reasons for the special treatment of the Casamance. One, ending the broken rice transport subsidy will produce a greater negative price impact. Two, smoldering regional and ethnic divisions (which stopped just short of full civil war in recent years) have caused the Government to accord the region special treatment on political grounds.

but it should be possible (although certainly not guaranteed) that these requirements will be met fairly directly because of Government eagerness to receive the first \$8 million budget transfer.

2.3 Farmgate Marketing and Rice Milling Industry Begin to Restructure

The period of November through January is the heart of the main rice harvest in Senegal for rainy season production; the second harvest for dry season rice is much smaller. The 1994-1995 harvest is the first under the new RSAP rules for state involvement. Field observations by the APAP/UPA team and a USAID group agree that major changes in farm-level marketing and milling are beginning. The first change is the end of the official paddy buying price. Not surprisingly, a substantial amount of uncertainty exists among farmers on selling this year's paddy. Some farm groups have attempted to hold their paddy off the market in the hopes of trying to negotiate a higher general price in dealing with the larger private millers. Some farmers have begun to sell their paddy at prices ranging from 80 to 110 CFA/kg (anecdotal reports).

Another factor that has slowed the progress of this year's marketing is the lack of formal marketing credit, particularly from the Caisse Nationale de Crédit Agricole (CNCA). As of mid-December only one private miller (the largest, Delta 2000) had received formal bank *crédit de campagne*. As a consequence, the two URIC mills were not yet in operation, and volume was small at those private mills that were working. Business was reported more normal at the small village-level dehullers. Interviewed millers put substantial emphasis on their perception of a credit constraint. If what is meant is working capital with some interest rate subsidy and easier guarantee requirements than normal bank credit, then there is undoubtedly a credit constraint. However, it was also clear that capital for rice marketing is often available if millers are willing to pay higher interest rates under conditions of increased market uncertainty. There may be a shortage of working capital at "reasonable" interest rates and guarantee terms, because credit is rationed by the BCEAO and member central banks (for inflation-control purposes). There are, then, circumstances in which one can talk of real credit constraints, but the APAP team was not convinced that this was one of those times.

Clearly the current year is going to see substantial change in the structure and functioning of farm-gate marketing and milling, particularly in the Fleuve. It is important that marketing channel monitoring and selective data collection should begin as soon as feasible. It will also be important to increase data collection in the Casamance.

2.4 Initial Private Sector Importation of Broken Rice

As mentioned above, the initial 1994 experience with private sector importing of broken rice is not encouraging, as much because of CPSP manipulation of the situation as because of any weakness in private capacity to import, which really will not have been fairly tested.

In the 1994 experiment at subcontracting with private sector firms, 60,000 metric tons of Asian broken rice were imported and the first loads arrived in Dakar in December 1994 during

the team visit. This quantity was divided into six lots of 10,000 metric tons each, which were granted to six business associations, only some of which could be called normal private sector traders. The groups are:

- Conseil National du Patronat du Sénégal (CNPS), a group of 14 modern sector employer associations;
- Confédération Nationale des Employeurs du Sénégal (CNES), a grouping of Senegalese businessmen;
- Union Nationale des Commerçants et de l'Industrie du Sénégal (UNACOIS), representing informal sector traders;
- Association des Femmes d'Affaires Commerçantes (AFAC), a businesswomen's group;
- Groupement Sénégalais de Commerçants; and
- Association des Résortissants de la Région de Fleuve (ARRF), an association for persons originating in the Fleuve region.

The tenders for these transactions were organized by CPSP and bids were accepted from Continental Grain (for 20,000 metric tons) and Glencorp (for 40,000 metric tons). From all appearances, few real rice traders had any knowledge of how these transactions were being organized. They simply provided their share of the capital. Given this type of experience the APAP/UPA team felt that it would be important to rapidly launch the more detailed assessment of commercial importing capacity. Another possible transitional measure that needs to be investigated is for the international grain trading companies to establish bonded warehouses in Senegal from which they would sell broken rice to local traders. This apparently is in operation in Ghana, which has imported about one-third the quantity that Senegal has imported in recent years. The foreign companies would be absorbing most of the world market risk and arranging sea transport and financing. The Senegalese economy would have to pay a premium for these extra services during a period when its own rice importers gain market experience. However, the economy would save even more than the added cost since the heavy CPSP structure would no longer have to be supported.

2.5 Accelerating Pace of Reform

The pace of rice market reform is accelerating in Senegal due primarily to Government financial necessity. This type of policy reform acceleration can, at times, be unnerving to some participants and observers of the economy. National economic managers must be careful to make sure that these apprehensions are not allowed to derail the process of reform that has been so long in coming. Observers of agricultural policy reform in other countries have noted that, once state

administration of a subsector begins to be dismantled, there is a tendency for the old system to unravel much faster than had been planned. This is partly because of the revealed incoherence or unworkability of the remaining controlled portions of a system that is headed for privatization.

3. STAKEHOLDERS IN THE PROCESS OF RICE POLICY REFORM IN SENEGAL

Past APAP food policy analysis work has demonstrated that clear stakeholder analysis can often help focus policy debate and contribute to an improved design for applied economic research. Although it is premature, the APAP team felt that the developing debate on Senegal rice policy might benefit from our initial thinking about who is likely to win and lose and under what conditions.

In addition to the current administration of the Government, there are four primary groups of stakeholders in the reform of Senegal's rice subsector: producers, consumers, marketing agents, and public and semipublic agencies. The RSAP reform program will affect each of these groups directly, and in some cases will affect some segments of these groups differently than others. Ultimately, the Government's ability to implement and to sustain the reform program will depend on how each of these groups is affected and how successful they are in influencing policy makers to promote their group's interests. A stakeholder analysis of the RSAP should serve as the basis for a political strategy to mobilize support for the program. The present analysis, however, is intended only to briefly review our initial understanding of the interests of major sector participants, and stops short of proposing political strategies.

As we have seen, the interests of producers and consumers of rice in Senegal conflict. Both sides will benefit from efficiency gains in rice marketing (which reduce the marketing margins that separates farmgate from retail prices). Yet, outside of such efficiency gains, the conflict between producer and consumer interests in the RSAP will be mediated solely by Government border policy toward rice imports. The proposed 30 percent tariff protection against imported rice will continue the historical pattern of Government-imposed transfers from consumers to producers and others with access to the tariff receipts.

This pattern of taxing consumers and protecting producers is unusual in Africa and other developing regions (though it is commonplace in the developed countries). A typical political economy analysis would portray public policies as the outcome of a struggle among competing interest groups, this struggle being mediated by a Government motivated by self-preservation. Thus, a common explanation for the taxation of producers and protection of consumers in many developing countries is that urban consumers tend to be geographically concentrated and relatively easily organized while producers are scattered and lack organization. Urban consumers are often a core constituency of many African regimes; their interests have thus prevailed in the political marketplace. How, then, explain Senegal's atypical rice policy?

A serious answer to this question would require substantially greater research than is possible for this situation report.¹⁴ Yet, one might speculate that the explanation lies at least in

¹⁴ One investigation of this question for Senegalese agriculture in the 1980s is Jammeh (1987).

part in the unique situation in the Fleuve. The large investments in irrigation and an emerging pattern of relatively large-scale private land holdings in what is essentially a monoculture rice production system (particularly in the delta region) have created an organized and politically vocal rice lobby. In contrast, the urban zone around Dakar is unusually large (in percentage of total population) and geographically spread out. Consumer interests in that setting may be more difficult to organize or, as in the case of the multiparty environment of Senegal, many Cape Vert residents are allied with opposition parties. Although a sufficiently large increase in rice prices might motivate consumer groups to act, the maintenance of artificially high retail rice prices has been less politically provocative. Organized producer interests seem to prevail in such a context. Part of the explanation might also lie in the interests of those involved in rice marketing, particularly providers of milling services.

3.1 Producer Interests in RSAP

An initial analysis of rice producer interests in the RSAP must distinguish between at least three groups of producers: farmers in the large irrigated perimeters in the delta region of the Senegal River Valley, those in the smaller irrigated perimeters in the Middle and Upper Valley region, and producers in the Casamance. The principal distinction between these groups is in their ability to substitute their production of one crop for another in response to changing relative output prices. The distinction we have adopted here is that delta farmers have few if any good possibilities for substitution, the Middle and Upper Valley producers have somewhat more flexibility, and producers in the Casamance have substantial flexibility among crops.

Large differences exist among farmers in each of these three geographical groupings. Some have excellent land, will be knowledgeable and efficient in the use of expensive purchased inputs, and will have relatively high yields; others will not. Those with the highest returns per unit of cost will be able to make profits at much lower paddy prices than their neighbors. This kind of breakdown of rice production profitability demands detailed microeconomic knowledge that can come only through extensive farm surveys — surveys which are conducted only occasionally in Sahelian countries.

As we have stressed, the impact on producers of the proposed reforms depends largely on the extent to which the Government chooses to tax rice imports. This tax serves to protect domestic rice producers from international competition. As Table 3.1 illustrates (with somewhat hypothetical data), the proposed 30 percent ad valorem tariff on rice imports may leave farmgate rice prices at roughly their present levels (or approximately CFA 100/kg), in which case the effects on producer welfare could be minimal. However, the form of domestic protection can affect the variability of farmgate prices as well. If the Government imposed a variable levy (neither "GATT-legal" nor favored by the World Bank) maintaining a relatively constant Dakar wholesale price for imported rice, then the Government budget rather than farm incomes will absorb the variability of world rice prices. However, a fixed or ad valorem tariff on imported rice will tend to transmit international price variability to domestic markets. Local producers have previously been protected from such price variability and they are likely to view it negatively.

**Table 3.1 Estimated Producer Paddy Prices Given Different Border Prices
Senegal, December 1994
(In CFA/MT) (1)**

Exchange Rate (FCFA/\$)	535		
Tariff Rate (%)	30		
CIF Price (\$/MT):	185	200	225
CIF Price (CFA/MT):	98,975	107,000	120,375
Insurance: (2)	1,458	1,458	1,458
Border Taxes/Tariff:	29,693	32,100	36,113
Handling: (3)	5,240	5,240	5,240
Port Tax:	372	372	372
Price at Port Gate:	135,738	146,170	163,558
Wholesale Margin	5,000	5,000	5,000
Wholesale Price Dakar(CFA/Kg)	141	151	169
Retail Price Dakar:	150	160	178
Transport to St. Louis:	5000	5000	5000
[1] Total Price St. Louis:	145,738	156,170	173,558
[2] Marketing Costs			
Farm to Mill to St. Louis:	6,000	6,000	6,000
[3] Milling Costs	16,000	16,000	16,000
[4] Sale of By-Products	5,239	5,239	5,239
[5] Milling Rate (4)	0.6435	0.6435	0.6435
[6] Paddy Price (CFA/MT)	80,857	87,571	98,760
Paddy Price (CFA/KG)	81	88	99
Formula for Paddy Price [6] =	[5]*([1]-([3]-[4]))-[2]		

Source: Most items from MA/UPA, supplemented with interviews.

Notes:

- (1) This spreadsheet table was developed in collaboration with UPA personnel and used in discussions with rice subsector informants. As better information is obtained over time, these estimates can be improved.
- (2) In Dakar the maritime insurance is paid after the arrival of the merchandise, in order to guarantee business for local insurance companies.
- (3) This is assumed to cover handling and temporary port storage.
- (4) The milling rate is the weight of hulled and polished rice as a percentage of the original weight of the paddy.

Substantially increased farmgate price variability could also negatively affect rice production in the Fleuve. This effect would probably be less pronounced in the Casamance, where a much smaller portion of rice production is marketed.

President Diouf was reelected in 1993 in large measure due to popularity in rural areas. As the President is undoubtedly interested in maintaining his rural power base, it is reasonable to expect the Government to continue to protect domestic producers to the greatest extent consistent with the RSAP and with politically viable consumer prices in urban markets. Because the Government is unlikely to be able to sustain consumer subsidies on rice, this latter constraint on farmgate prices is a serious consideration.

3.2 Consumer Interests in RSAP

In the sense that they have paid substantially more for imported rice than they might have, urban rice consumers have tended to be the losers in Senegal's rice policy. Previous rice price policies designed to protect local producers have resulted in large financial transfers from rice consumers to rice producers.

In anticipating impacts on consumers, one must distinguish between at least two groups of urban consumers — those in the Dakar area and those in interior cities — and between rural consumers in different regions (at least the rice-producing north, the Casamance, the peanut basin, and the eastern portion of the country) whose crop production possibilities and traditional consumption habits vary widely. A first distinction between these urban and rural consumers pertains to transportation costs, both from local farms to interior urban markets, and from the port to interior urban markets. Current policy imposes pan-territorial pricing on broken rice in urban markets by subsidizing the transportation of imported rice toward the interior. This subsidy on imported rice mitigates the taxes that the border price policy imposes on rice consumption in St. Louis and other interior cities relative to Dakar. Interior urban consumers are still taxed to protect producers, but that consumption tax is balanced somewhat by the transportation subsidy. The RSAP calls for the elimination of this subsidy, first in northern and central Senegal, and later in the Casamance. Once the true costs of transportation are included, retail prices in interior cities are likely to increase to the detriment of consumers but to the benefit of local rice producers.

The second major factor influencing the extent to which rice price policy affects consumer welfare is the ability and willingness of different consumer groups to substitute among cereals. This substitution is usually a function of income levels, in addition to tastes and other factors. Food price changes generally have a greater impact on relatively poor consumers who often devote larger budget shares to food. One implication of this tendency is that, in the face of retail rice price increases, relatively wealthy consumers may continue to consume rice as before while relatively poor consumers are more likely to consume more millet and less rice. This possibility does not necessarily imply reduced caloric intake among the poor; yet, price increases for a staple grain can contribute to political instability. The fact that retail rice prices are set directly by the Presidency is evidence of their political sensitivity.

3.3 Rice Millers' Interests in RSAP

Rice milling in Senegal is problematic. There is substantial overcapacity in the Fleuve. The situation is further complicated by the diverse scale of production among rice mills, the largest having capacities in excess of six tons per hour and the smallest being closer to 800 kilograms per hour. Given current levels of capacity utilization, the smaller operations tend to operate at substantially lower units costs. Rice millers in general share an interest in wider marketing margins. Yet, smaller mills could conceivably benefit from smaller margins if the large mills were unable to compete under those conditions. If the RSAP succeeds in improving the efficiency of marketing services, squeezing margins by introducing competition in place of guaranteed returns, owners of large mills may be put at a further disadvantage.

Politically, the large millers tend to have a much louder voice than the small millers. Subsidized credit for the purchase and construction of many large mills was allocated directly by upper levels of the Government. Indeed, several owners of large rice mills are themselves politicians. Thus, continued import protection benefits rice millers (large-scale millers in particular) as well as rice producers. Their considerable political influence could contribute to the continued taxation of Senegal's rice consumers.

3.4 Other Marketers' Interests in RSAP

Other direct participants in rice marketing include transporters, importers, wholesalers, and retailers. Under the previous system, marketing margins for a large portion of the rice consumed in the country were fixed by Government policy, guaranteeing stable returns to providers of these marketing services. Reforms under the RSAP will eliminate fixed marketing margins and thus affect the interests of these market participants. One consequence is likely to be increased variability in the returns to all marketing activities and thus increased risk that marketers will have to assume. Also, to the extent that the RSAP succeeds in reducing marketing margins, those reductions will be spread (probably unevenly) across all marketing activities.

The Government currently subsidizes transportation of imported rice toward interior markets — a policy slated to end under the RSAP. A priori, it is not clear to what extent the transporters themselves benefit from the subsidy, which is shared with rice consumers in interior markets. Regardless of RSAP reforms and the continuing degree of import protection, the most likely scenario is that Senegal will continue to import a large portion of its total rice consumption, that much of that rice will move to interior markets, and that some rice produced in the Senegal River Valley will continue to move to interior cities further south. In other words, the RSAP is unlikely to have a large impact on the demand for transport services, and transporters will not be affected greatly (unless they had privileged access to contracts for transporting CPSP rice) beyond the loss of some portion of the current transportation subsidy.

Current and potential new private importers of rice are clear winners under the RSAP reforms. Previous policies prohibited private importation of broken rice, with CPSP holding the

public monopoly. The RSAP eliminates this public import monopoly and requires that CPSP gradually stop importing rice entirely. CPSP is the biggest single loser in the reform process. The dramatic reduction of its staff (from more than 600 to approximately 30 is the current proposal on the Government table) will be matched only by the reduction in rents for some of those involved in the current system of rice importing or those in the larger political process who were able to benefit from the use of a portion of the tariff receipts from the pre-devaluation protection measures. Among the other state marketing agencies the losses by SAED and other regional development agencies are much smaller.

As in the case of transporters, the effects of the RSAP on retailers and wholesalers is primarily to introduce greater risk into their operations. The previous system guaranteed fixed margins to wholesalers and retailers (who are sometimes the same people). Wholesalers, for example, could previously purchase broken imported rice from CPSP at CFA 169/kg and local rice arrived in Dakar at CFA 175/kg; they were then required to sell both at CFA 180/kg (with the obvious incentive to handle as much imported rice as they could). The elimination of fixed marketing margins means that marketers will begin to face random and seasonal price fluctuations, resulting in increased variability in their revenues. The implications for total returns to wholesalers and retailers is unclear, though they would probably prefer the certainty of fixed margins. It is also worth noting that the team's preliminary interviews with rice wholesalers and retailers in St. Louis suggested that knowledge of the upcoming reforms is limited.

4. RSAP ACTIVITIES TO STRENGTHEN MOA/UPA

The rice adjustment program was designed to incorporate project technical assistance and limited commodity purchases targeted at the institutional development of MOA's policy analysis unit (UPA), and to insure that the monitoring and evaluation of reform impacts was handled adequately. UPA, established as part of the sectoral policy reform measures begun in the 1980s (described above in the first section of this report), has also received assistance from other bilateral donor agencies and substantial technical and material assistance from the World Bank since 1991.

An initial APAP team spent three weeks in Dakar in December 1994 working with UPA personnel to further develop plans for technical assistance under RSAP.¹⁵ Here we summarize this two-year work plan composed of the following six areas:

- Verification of RSAP policy reform measures;
- Content and methodological overview of the activities making up the RSAP monitoring and evaluation plan;
- Special studies of key issues involved in the liberalization of the rice subsector;
- Observations concerning the institutionalization of agricultural policy analysis capacity in UPA;
- A set of integrated training exercises to organize RSAP's contribution to the policy analysis skills of UPA staff; and
- Assistance to UPA in the conception and production of informational products in support of the reform program.

4.1 Verification and Reporting on Accomplishment of RSAP Policy Reforms

As structural and sectoral adjustment programs have become a dominant mode of both bilateral and multilateral assistance to developing countries since the beginning of the 1980s, different approaches have been used in verifying that policy "conditions precedent" (usually, precedent to the release of some or all of program funds to the host country government, or conditionality) have been met. When a donor requires high levels of objective verification that reforms are being carried out, or that they are achieving their stated objectives, the verification process (particularly if reforms are only partial in nature) can become quite involved. In addition,

¹⁵ These are reported in more detail in Ministère de l'Agriculture/UPA, 1995.

there is sometimes an overlap between the verification that the actual reforms have occurred (change in a law or cessation of specific operations by a government company, for example), and the monitoring/evaluation activities documenting the impacts over time of those policy changes.

Given that the Government is accelerating the pace of putting the rice reform program into operation, as described above in the first two sections of this report, the RSAP technical assistance will probably have a smaller role to play in this area than had been anticipated originally. In the work plan the APAP team analyzed the different conditions as spelled out in the program agreement and made suggestions on how UPA should document official policy changes, assemble other corroborating field evidence, and present this information to USAID in written reports that will not require substantial additional modification and time delay. This was facilitated by at least two rounds of meetings with personnel from both USAID and UPA to discuss and debate what would constitute "reasonable proof" that the Government was meeting its side of the agreement.

4.2 Monitoring and Evaluation of the Impacts of Rice Subsector Reforms

This is the heart of the RSAP technical assistance program. The objectives of the monitoring and evaluation activities are to:

- Document impacts on the major groups involved with the subsector: consumers, producers, and domestic marketing agents (including milling and transport). As discussed in section 3. above, it is assumed that these impacts will not be uniform within groups. For example, some producers will gain and others will lose, as will be true for consumers and marketing agents;
- Evaluate the success of the reforms in meeting the projected marketing system efficiency and other gains over time; and
- Identify secondary problems and issues that may require additional investigation on some type of investment or regulatory response from the Government. This is vital to the correct management of the reform process.

There are many ways in which such a monitoring/evaluation program could be organized. Given RSAP budget limitations, however, our strategy has been to take maximum advantage of existing sources of information in structuring a set of activities that can be conducted by several part-time outside and national consultants. Periodically, experienced policy analysts will then paint an overall "program assessment picture," using evidence from the individual quantitative studies, complemented by more qualitative information gathered through a variety of rapid reconnaissance investigatory techniques.

Most experienced economic analysts will readily admit the difficulty of attributing causality when complex economic systems change over time after change occurs in a set of government policies. A key problem is segregating the impacts caused solely by changed policies from those

that may be attributable to many other socioeconomic changes occurring during the same time period. The RSAP will not escape this classic methodological problem. At best we will be able to follow certain key indicators of change, particularly price changes, changes in consumption and production patterns, and evolutionary changes in the structure of marketing mechanisms that link domestic and imported supply with national consumption. Depending on the degree of the observed change in our key indicators, we will be able to make statements with differing degrees of certainty on how much of the observed change is attributable to the reform program. It will also be important that the RSAP have accurate expectations of what the rice reforms are likely to accomplish. There is language in the USAID PADD stating that higher farmer paddy prices will be the principal accomplishment of the reform program! Not only is this not necessarily true, but price changes will probably not be uniform between one group of farmers and the next, and across different regions of Senegal.

Some idea of the complexity of the causal chains involved in the process of impact evaluation is conveyed in Figure 4.1 below. That figure also emphasizes the centrality of good data on market prices for rice and paddy in the monitoring and evaluation of the RSAP reforms. Figure 4.1 also helps to understand how the following activities will assist in telling the RSAP "impact story":

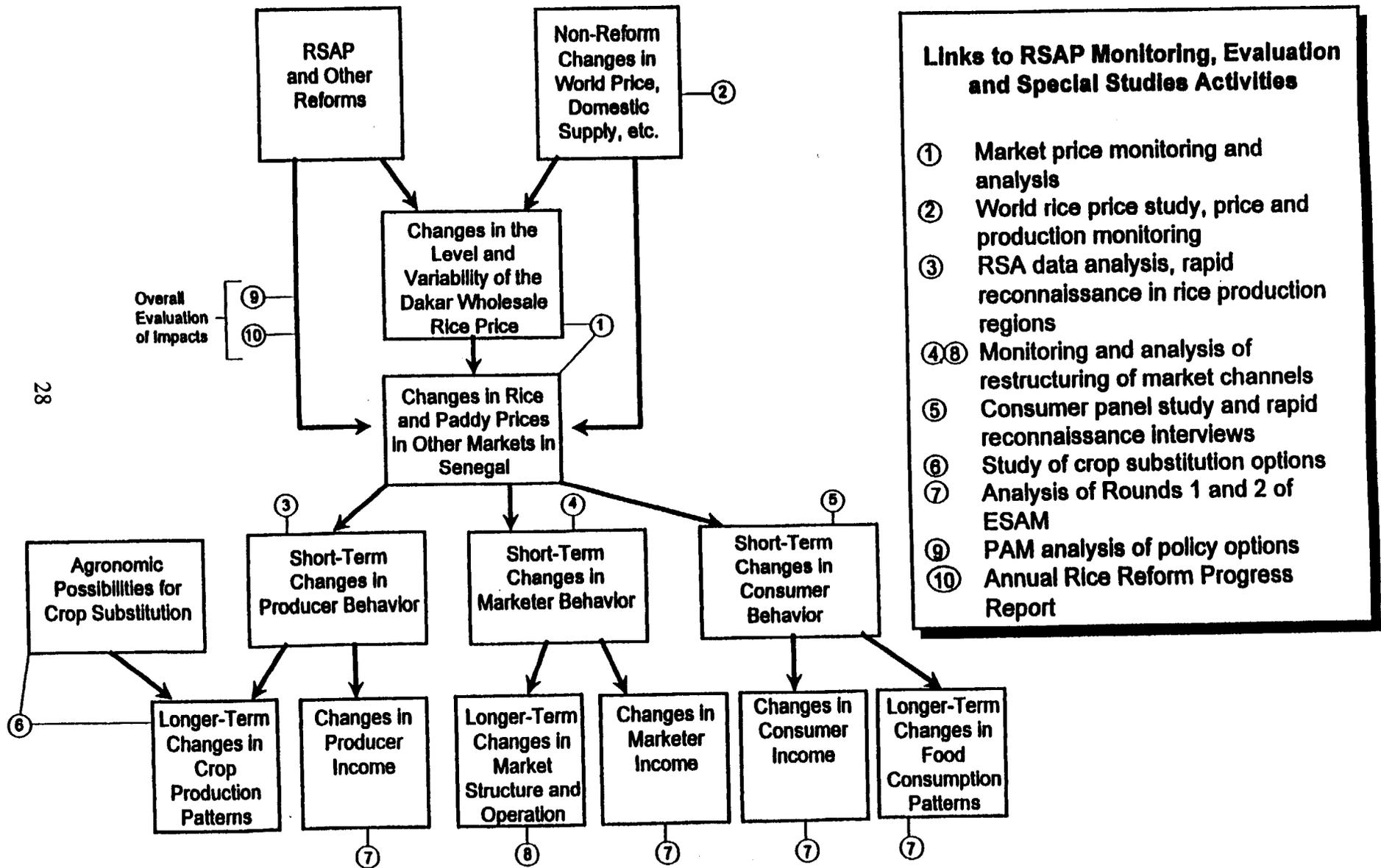
- **Monitoring and Analysis of Market Prices**

This activity will be conducted in collaboration with the CSA/SIM and CPSP. The CSA/SIM is the principal agricultural market price system that has been operating in Senegal for several years. CPSP (under its redefinition under RSAP reform) will also maintain some capacity to collect data for market monitoring, partly in conjunction with its additional charge of maintaining sufficient rice "security stocks" (primarily commercial pipeline stocks, potentially supplemented with extra stocks held under private contract exclusively for security purposes). It would be fitting if CPSP concentrated its data collection efforts on rice imports and main wholesale stocks and prices, areas where the CSA/SIM system is most deficient. One objective under RSAP is to have complete and consistent price series available for all RSAP analysts to use.

- **Analysis of Consumer Budget and Consumption Patterns**

The RSAP is fortunate that the Statistical Service of the Ministry of Finance and Planning (Direction Statistique du Ministère de l'Economie, du Finance et du Plan – DS/MEFP) will complete in April 1995 the data collection phase of its ESAM (*Enquête Sénégalais auprès des Ménages*) study. This survey, using a modified LSMS methodology, will enable a fairly detailed picture to be painted of consumer revenues and the role of rice in food and overall consumption on the eve of the reform program. The survey collected detailed consumption information from more

Figure 4.1 Simplified Diagram of RSAP Reform Impacts and Links to Monitoring and Special Studies



than 3,000 households sampled from the Dakar peninsula, and from urban and rural households in other portions of the country.

It should be possible for RSAP analysts (U.S. and Senegalese) to begin to work with this data set in 1995. To assess the impacts of rice market liberalization on consumption patterns, a second round of the ESAM (using the full sample or a sufficient subsample) will have to be undertaken after the most important market reforms have been under way for several years. This may require collaboration among a number of donor groups interested in this analytical opportunity. This more scientific assessment of changes in consumer behavior in rice consumption can and will be supplemented by other sources of information such as the consumer panel study (see below).

- **Reform Impacts on Senegalese Rice Production**

The UPA/APAP team assumes that farmers, in the short run, may increase or decrease their production of rice depending on changes in relative output prices and on their ability to actually grow and market other crops with their land/water endowment. Thus the first part of this monitoring activity will be to analyze changes in paddy prices faced by farmers in the different parts of the country. Next, RSAP analysts will attempt to work with data from the MOA/DSA (Direction de la Statistique Agricole) to detect changes in planting patterns in response to changes in the relative price of paddy. To the extent that DSA data are not sufficiently detailed to capture this type of supply response, this effort will be supplemented with field-level case studies looking more closely at specific groups of farmers, such as those in areas supervised by SAED or SOAGRI. In addition we propose a complementary study that would synthesize other available information on the technical and economic possibilities of substituting other crops for rice (see below).

- **Restructuring of Senegalese Rice Marketing**

In the short run the biggest changes in the subsector caused explicitly by the reform program will occur in the structure and functioning of rice importing and domestic marketing. The objective of this part of the monitoring program is to describe private marketing of rice prior to reforms and then to follow the evolution of structure and operating procedures as the new importing and market liberalization policies take effect. It is anticipated that this part of the program will be done in collaboration with personnel from ISRA/BAME, which has substantial experience and interest in the topic. One of the objectives of the monitoring of rice markets should be the estimation of total marketing margins (between farmgate and consumer purchase), which is the single best measure of whether the RSAP will accomplish its objective of gains in marketing efficiency.

- **PAM Analysis of Trade and Marketing Reforms**

The basic economic analysis of rice trade reform and the related comparative advantage analyses of the competitiveness of Senegalese rice production both turn on the relationship between the domestic costs and returns to rice production when compared with the price of a comparable "world rice" landed in Dakar. Various methodologies can be used to make these comparisons. USAID and World Bank have sponsored numerous DRC analyses of Senegalese rice production and marketing systems. The UPA team proposes to make use of a related approach called the Policy Analysis Matrix (PAM) methodology, which has been extensively developed over the past five or six years under the sponsorship of the APAP project. The PAM analyses will depend on accurate information on representative production and marketing systems (information obtained from the activities outlined above). This work will be coordinated with similar work being undertaken by the West African Rice Development Association (WARDA, ADRAO in French) to examine the interaction of changes in policy reform and the economic competitiveness of different rice production/marketing systems in seven West African countries (including Senegal). The PAM method will also be featured prominently in the RSAP training activities (described below).

- **Annual Report on Progress in Subsector Reform**

The final component of our approach to the monitoring and evaluation of RSAP impacts will be the production each year of an annual progress report on subsector reform. This report will be an opportunity to review the key events in the evolution of the reform program over the year and to summarize analytical elements from the other monitoring activities and special studies described below. This will assist UPA in its reporting requirements to USAID.

4.3 Special Studies of Key Subsector Policy Issues

In addition to the continuing assessment of reform impacts described above, it was felt important for the PASR technical assistance component to have the capability to assist UPA in addressing a wide range of specific key rice subsector policy and development topics. These can be topics that are known in advance to be important for the smooth privatization of the subsector, or unexpected ones that emerge from the dynamics of the reform process. The APAP/UPA team stressed the importance of maintaining enough flexibility (or uncommitted resources) to be able to address high-priority but unforeseen topics, a key factor in successful policy reform efforts in other countries.

A brief sketch of each study topic is given in the paragraphs that follow. The topics are listed approximately in order of the relative priority ranking that was assigned to them by the

APAP/UPA team. More detailed terms of reference would be specified for each study by USAID and UPA PASR management.

4.3.1 Rapid Assessment of Rice Importing Capacity and Problems

During the course of the interviews conducted in Dakar and elsewhere by the APAP/UPA team, some informants stated that the current group of private sector grain importers (operating in the shadow of CPSP rice and wheat imports, and periodic large-scale food aid shipments) would likely have difficulties in rapidly and fully assuming the entire burden of rice importing with CPSP's imminent withdrawal. Private traders would have difficulties specifically in gaining access to:

- Information on the narrow and volatile world market in fully broken rice;
- Adequate bank credit to be able to purchase rice in ship-load quantities or qualify for subsidized lines of credit (such as U.S. GSM credits); and
- Sufficient storage facilities to be able to handle bulk rice imports (and replace CPSP's rice storage function).

Although most observers felt that, over time, the above problems were solvable and that other Senegalese business persons would be drawn into the relatively large rice import trade, some felt that these problems in the short run might undermine the reform program. Several Government officials indicated that these allegations needed to be carefully investigated and addressed well before private importing begins. This four-week study would be done by an outside consultant, knowledgeable about the organization and procedures used in world rice trade, and by a Senegalese consultant with experience in working with the current rice importer community. Given the urgency of addressing these issues and identifying any real problems that might require some short-run Government intervention, it was felt that this study should be carried out in February 1995 or as soon as possible thereafter.

4.3.2 Policy Options for Border Protection for Rice

As has been seen above, once the elaborate CPSP system of cross-subsidies is eliminated, the central policy question for the subsector becomes what system of border protection will be applied to imported rice. The degree of congruence with GATT tariff principles and UMOA treaty requirements on tariff standardization also become important. The most significant question is what will happen under the new protection system to the Dakar wholesale price for 100 percent broken rice? Will it, on average, be higher or lower than the current controlled price? What degree of world price variability will be transmitted by the new system into Senegal rice markets? The new system will involve some combination of ad valorem and fixed tariffs. How frequently will these be adjusted to compensate for major movements in world price and provide some degree of price stabilization?

In the context of this study it will be useful for the consultants to review the full range of tariff and nontariff protection options (including use of price band protection systems as used in many Latin American countries) and link this material to the RSAP training program. In addition, it would be useful to develop a stochastic model that would give UPA a tool with which to do sensitivity analyses for a variety of best case and worst case scenarios. The model would look at the interaction of variable world price for broken, price and income-elastic demand for rice, and variable domestic production levels (reflecting weather influences) on supply and demand in different Senegalese markets, including the shifting geographic boundary of price-competitiveness between domestic and imported rice of equivalent quality.

4.3.3 Information Systems on World Rice Markets

As part of the liberalization process, some attention must be given to the adequacy of residual government functions in promoting the optional functioning of the subsector. Central to these government functions is information. Although domestic rice information systems, both public (CSA/SIM and so on) and private, seem largely adequate for the current market, the distribution of information on international market conditions and price forecasting may need some improvement. This is because of characteristics of the international rice market itself, and the fact that both public and private actors need better-quality price information concerning potential rice imports. Concerning world rice market information, the only solution for the Government is to adopt a policy of "intelligent borrowing" from specialized information sources. However, what information to borrow, how to do it, and how to diffuse it would be the central themes of this activity. This study will require an experienced international rice market analyst to collaborate with Senegalese commodity information specialists.

4.3.4 Economic Analysis of Technology Choices in the Milling and Marketing of Senegalese Paddy

Rice mills in Senegal are conducting business in the midst of rapid changes in industry structure and operating environment. In the past several years, in anticipation of industry deregulation, the Government and donors have made funds available for the installation of new private milling capacity, particularly in the Fleuve region. Many of these newer mills are more sophisticated and have a higher per hour capacity than the traditional village diesel-powered dehullers. Into this mixture has also been injected recently the two newly privatized SAED/URIC rice mills (now owned by their employees) to compete with the other private mills of different scale. In December 1994 this fluid situation was complicated even further by differential access to subsidized CNCA "marketing campaign credit" (*crédit de campagne*). The basic question to be resolved is: What scale of technology will be appropriate and dominant once the market stabilizes and inappropriate credit subsidies are withdrawn? The answer to this question is conditioned by the technical performance of the different technologies, by relative factor costs, and by the nature of market demand (now dominated by consumer preference for fully broken rice). Our working hypothesis is that, in this set of circumstances, small motor-driven dehullers will be difficult to beat on economic grounds alone.

This study will involve an outside consultant working with a local milling specialist. Some additional data collect in the Fleuve region, complemented with rapid reconnaissance interviews, will be needed. This study will replicate a classic study by Peter Timmer (1973) of technology choice in rice milling in Indonesia.

4.3.5 Panel Study of Consumer Rice Preferences

To complement the picture of current rice consumption that will come from the analysis of the ESAM data, and to gain additional insights on the nature of substitution relationships among rice, other grains (particularly sorghum/millet), and other food stuffs, we are proposing that the RSAP conduct a series of guided interviews with consumer groups stratified by income levels and location of residence (Dakar, other urban, and rural) across the major regions of the country by population. A great deal of useful information that can help in anticipating consumer responses to different relative price conditions can be obtained in this manner. It is anticipated that the RSAP might use an experienced outside group (such as ICEA in Paris) along with food technology assistance from the Institut de Technologie Alimentaire in Dakar.

4.3.6 Potential Impacts on the Environment of Rice Subsector Policy Reforms

Although the environmental impacts of the RSAP policy reforms themselves are expected to be relatively small and benign, the impacts of secondary changes, particularly changes in cropping patterns in different parts of the country, could be much more significant. The first step is to explore and define the range of potential direct and indirect environmental impacts that could be associated with all dimensions of the reform program and other dimensions of foreseeable change in Senegalese rice production, processing, marketing, and consumption. The key is get agreement first on what impacts may be worth following over a medium-term time horizon. It was felt that this assignment could be completed by a well-qualified local environmental consultant, with review of results by one or more outside specialists.

4.3.7 Technical and Economic Possibilities for Substitutes to Senegalese Rice Production

One of the main determinants of impacts of subsector reforms on the incomes of Senegal's rice farmers is their ability to diversify their production away from rice should the relative profitability of rice production decline. As we have noted, this ability to substitute is dependent on the agronomic feasibility of different crops in different parts of the country and the financial costs and returns to the farmer.

ISRA/BAME already has this topic on its research program for the current year. The technical possibilities for substitution have been investigated by other researchers in the past 10 years. We propose that a two-person team (an agricultural economist and a agricultural production specialist) review the evidence available in past and ongoing agronomic research, discuss the topic with knowledgeable local scientists and engage in some complementary rapid reconnaissance interviewing to put together the best picture possible of alternative cropping patterns in response

to hypothetical relative price shifts. The implications of these shifts for food security and farm family income should be spelled out in detail.

4.3.8 Success of Farmer Management in Irrigated Perimeters in Senegal

Reform and privatization in Senegalese agriculture has resulted in substantial Government withdrawal from the direct provision of services to farmers such as input supply, direct management of parts of the water delivery infrastructure in irrigated perimeters, and other direct support. Officials at SAED in St. Louis contend that, although there have been some problems, the overall record of farmer management has been better than anticipated. The purpose of this two-person-month study is review this experience in the Fleuve region and assess whether there might not be other areas of adjustment in the public/private "partnership" serving the rice subsector.

4.3.9 Improving the Utilization of Rice By-products

Rice by-products include straw, hulls, and bran. Although there is some market demand for them, their marketability might be substantially improved with possible changes to processing technologies. For example, hulls are being pressed into bricks and used as boiler fuel in sugar cane processing at Richard Toll. Can this use be expanded? The bran received from village rice hullers is not as marketable as an animal feed as it could be since it is mixed with powdered hulls in the dehulling process. Can this process be improved? Is bailed straw economically viable? Are there any incentive-oriented policies that can encourage higher returns from by-product utilization? These questions are not central to the RSAP or even to the economics of local rice production, but improvements would contribute to the improved profitability of the subsector. This study would be done by an experienced outside specialist.

4.4 Strengthening UPA's Policy Analysis Capacity

The RSAP work plan contains a summary discussion of the institutional development objectives that have been delineated for UPA. These are somewhat broader than the responsibilities of other policy analysis units because UPA also has responsibilities for the design, implementation, and evaluation of development projects for the ministry. In addition, its personnel are not as specialized in policy analysis via their training and past ministry experience as those sometimes encountered in more mature analysis units. A rapid review of personnel qualifications revealed a highly variable situation in relevant training of UPA staff for policy analysis work. There was general agreement that both the general level of "economic literacy" of the UPA staff and the number of highly trained economists (at the master's and Ph.D. levels) needed to be significantly increased.

Thus it was felt that the RSAP could contribute to strengthening UPA's policy analysis capacity in three ways:

- Through short-term training of personnel overseas in specialized seminars and policy training courses;
- By conducting in-service training seminars for UPA staff in Senegal; and
- Most important, by striving to make the technical assistance provided by RSAP part of an extended on-the-job training exercise for most UPA staff.

Accomplishing these RSAP objectives of contributing to the institutional strengthening of UPA, given relatively modest levels of RSAP funding, will require that most technical assistance personnel engaged in monitoring and evaluation and special studies activities also play a regular role in ongoing UPA staff training, mostly through one- to five-day seminar programs as described below.

4.5 RSAP's Integrated Contribution to UPA's Staff Training Program

As planned, the training component of the RSAP technical assistance to UPA will be made up of five or more week-long seminars, a series of shorter seminar presentations of results from other monitoring activities and special studies, and some third country training of UPA personnel. The APAP plan was to structure the core seminars around the use of the French language version of *Food Policy Analysis* by Timmer, Falcon, and Pearson (1983), which lends itself well to economic analyses of the rice subsector. This would be supplemented by a variety of other training materials. We describe the following five seminars in more detail in the RSAP work plan:

- Seminar 1: Analysis of Agricultural Production Systems (and an introduction to the PAM methodology);
- Seminar 2: Analysis of Food Consumption (and an introduction to data analysis using SPSS);
- Seminar 3: Marketing Functions, Markets, and the Formation of Food Prices;
- Seminar 4: Macro-economic and Trade Policies, and the Analysis of Comparative Advantage (further use of PAM); and
- Seminar 5: Advanced Topic is SPSS Data Analysis and Presentation of Results for Decision-Makers.

Selected APAP personnel traveling to Senegal to work on monitoring/evaluation or special studies assignments will conduct these seminars with possible assistance from local personnel when they are available. In addition, all APAP consultants will be expected to present at least a brief seminar on their work to UPA staff as part of the integrated approach of making the RSAP technical assistance an important part of UPA staff development.

4.6 Information Products in Support of the Reform Program

Given the seemingly firm decision of the Government to engage in the rice subsector reform process and the speed with which the reforms are approaching, it becomes ever more important for the MOA to develop a well-prepared and coordinated approach to information dissemination on the reforms. Although this was not part of the original terms of reference for the APAP team, it became clear after several weeks in Senegal that information dissemination could be an important contribution of the technical assistance component.¹⁶

The RSAP work plan calls for project resources, to the extent possible, to be used to support the following three types of activities:

- **Public meetings:** While the team was in Senegal it had the opportunity to meet with perhaps 80 members of the Ross Béthio farmers' association. This was a chance to explain and debate the provisions of the coming rice liberalization program. It revealed the need to have well-prepared and coherent messages for public dissemination and the opportunities for these messages to be enhanced with appropriate audio-visual aids;
- **Use of Mass Media:** One of the most effective means of reaching wide audiences in target groups (producers, consumers, and so forth) is to make extensive use of public radio and television. The UPA Director has developed some excellent ideas for the promotion of national debate on these policy issues that should be supported as far as possible by USAID; and
- **Preparation of Other Information Products:** UPA will have numerous opportunities to prepare high-visibility information packages in the context of the RSAP and other parts of the larger ASAL (Agriculture Sector Adjustment Loan) program. As one example, it would be highly useful to UPA staff to assemble all the information pertinent to rice importing into Senegal (tariff system, other taxes, port charges, information on dealing with shippers, letters of credit, grain inspections, and so on) that could be published as a "Businessman's Guide to Importing Rice to Senegal."

¹⁶ This corresponds with lessons from past APAP work on agricultural policy reform, which have also noted the very positive contribution that can come from well-planned information campaigns. This position is also supported by the composition of the APAP core team in Washington, which has an information specialist as one of its four members.

5. CONCLUSIONS

In this report, the authors have provided an overview of the current situation in the evolution of rice policy reform in Senegal. We have done this to help rekindle interest in a long-discussed set of reforms that finally seem to be moving at a rapidly accelerating pace. We wanted to establish a common starting point for a wide range of readers. The issues we highlight here are not new; many have been studied in great detail over the past decade. In the next three or four years, this wealth of previous studies will be called on in more detail in subsequent RSAP work focusing on smaller segments of this subsector reform program.

As in the stock market, spotting the "turning points" is the key to success in capturing the essence of the economic history of a country. It is also critical for those assigned to advise Government decision makers on policy reform. We sense that this may be one of those key turning points in the history of economic policy in Senegal. The RSAP reforms, the 1994 CFA devaluation, and a new realization in the Senegalese Government of the need to seriously revitalize its economy or sink further into permanent underdevelopment, all seem to be pointing to what those in agricultural extension have traditionally called "the educable moment" — that time when helpful and sympathetic economic advice and training can have maximum impact. We hope that the technical assistance to be provided to the Government and to the private sector firms in the rice subsector under the RSAP can make this type of contribution.

We have stressed that the Senegal rice policy situation represents a classic food policy dilemma in which the interests of consumers and producers clash in a fundamental way. The main policy issue will be the type and level of border protection to accord domestic rice production. Compromise is needed to ensure that the overall impacts on the Senegalese economy are in the "optimal range." One clear part of the optimal solution is that the new system needs to make domestic marketing margins (the cost of transport, processing, handling, storage, and distribution) as small as possible. This is the main thrust of the RSAP reforms and, in economic jargon, it is as close to a "pareto-optimal solution" (in other words, everyone benefits from these cost reductions) as is possible to find in the real world. These gains justify the RSAP program but this still leaves unanswered the main policy question: How much protection to give domestic rice production?

Some minimal degree of border protection in Senegal is clearly justified given the investment that has been made in turning the land and water resources of the Senegal River Valley and the Casamance into permanently productive agro-economic resources. DRC estimates have tended to give the impression that all Senegalese rice production will be permanently uncompetitive in world price terms. It is clear that much can easily be done to improve the competitiveness of Fleuve production of 100 percent broken rice over time. The delta area of the Fleuve is currently a stark, "wild west" area with little infrastructure and many highly motivated farmers and entrepreneurs trying to make quick profits. It will probably take 20 or 30 years for sustainable production patterns to emerge (the right production technologies used by the right

farmer/managers on the right pieces of irrigated land). Some types of currently subsidized, inappropriate technology (larger capital-intensive rice mills and lumbering John Deere combine rice harvesters, for example) may largely disappear from the scene as subsidies are withdrawn.

However, it is clear that there are also very real political and economic limits to the size of the average "premium" over world price that Senegalese consumers can or should be asked to pay. This is true for two basic reasons. First, consumer purchasing power is low (for rice or for substitutes such as millet, sorghum, and maize) and will remain low until greater sustainable economic growth is generated from the country's agricultural and nonagricultural sectors. Second, at the risk of betraying sacred principles of agricultural fundamentalism, having relatively cheaper food over time is going to be one of the keys to Senegal's longer-term development as it begins to take logical advantage of the demographic and locational comparative advantage of the Cape Verde Peninsula.¹⁷ Cheaper food is needed so that Senegalese wage levels will remain competitive in world markets while also allowing Senegalese workers to invest more of their earnings in critical human capital development.

¹⁷ A very optimistic but potentially attainable vision of Senegal's economic future is contained in a 1994 World Bank memorandum. It argues that in the longer run Senegal's main asset

is not groundnuts, or fish, or phosphates, or the irrigation potential of the Senegal River. All of these ultimately have limited potential in the light of environmental trends, population growth, and likely terms of trade developments. Its main asset must become the country's location in combination with its people and particularly the two million people in the Cape Verde Peninsula. Dakar is the best deep water port in West Africa and Sub-Saharan Africa's closest port to Europe and the Maghreb. It is a natural entry point for transit trade to other inland countries in the region. It is the region's natural air transport hub. Its basic infrastructure (roads, electricity, water, and telecommunications) is complete and in reasonable condition. Senegal also has human capital that can be expanded and be built upon. Despite the recent deterioration of the local educational system, Senegal has a large educated elite including both professional and managerial skills. The large overseas Senegalese community could also be tapped to provide new entrants to the labor market with world-quality training. And at the level of entrepreneurial skills, the Senegalese trading community has created an international network, with a pool of potential entrepreneurs and capital. Despite poor natural resource endowments, Senegal could well become a manufacturing growth pole, a service center, a tourist destination, and a significant producer of high-value agricultural produce. However, making this a reality will require that a number of critical constraints be decisively, consistently, and rapidly addressed, lest the window of opportunity close.

A PARTIALLY ANNOTATED BIBLIOGRAPHY

ACG Afrique. 1994. "Rapport Intérimaire No. 1: Restructuration de la Caisse de Péréquation et de Stabilisation des Prix." Dakar, August.

This is first of three linked reports dealing with CPSP and its future. This is the initial diagnostic study which examines CPSP's legal status, how it is supervised, its current financial situation, its relations with other state institutions, and (perhaps most importantly) an analysis of its current buying and selling functions and its internal information services. This is a blunt, hard-hitting report.

ACG Afrique et PANAUDIT. 1994. "Rapport Intérimaire No. 2: Restructuration de la Caisse de Péréquation et de Stabilisation des Prix." Dakar, September.

This report covers issues related to rice "security stocks," management of stabilization funds, personnel requirements for functions defined in a new CPSP "organigram," a transition strategy (including how to manage the "social side of personnel deflation" as numbers drop from 830 to 6!) one of the consequences of the drastic reduction in CPSP's mandate. The following topics are addressed in a preliminary way: helping to make sure that the private sector can adequately supply rice to the Senegalese market, impacts on the domestic rice market, and cost of restructuring (employee severance arrangements, etc.)

ACG Afrique et PANAUDIT. 1994. "Etude sur la restructuration de la CPSP/Rapport Final," Dakar, December.

This volume presents in detail the final proposed plan for downsizing and restructuring CPSP and incorporates a few elements of additional compromise on its future role.

AGRER. 1990. "Problematique des Politiques Rizicoles en Pays Sahelien: Volume 3: Le Sénégal." Belgium, April.

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Bélières, Jean-François et Jean Moreira. 1994. "Inventaire des unités de transformation du paddy, rapport no 1: Situation des rizeries dans la région du fleuve au 30 septembre 1994." République du Sénégal, SAED, Saint-Louis, Octobre.

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A good starting place for more detailed studies of gender-disaggregated analysis of Senegalese rice farming and potential impacts of the reform measures.

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Kite, Rod, 1992a. "A Review of Food Marketing Costs, Price and Income Demand Elasticities, and Food Consumption Estimates for Senegal." USAID/Senegal, October.

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Kite, Rod, M. Keita, and L. Thiam. 1993. "The USAID/ANRO Knowledge, Attitudes and Practices Survey (1992)." Economics Division, Agriculture and Natural Resources Office, USAID/Senegal, February.

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Marine Overseas Services, Inc. 1993. "Final Report: An Assignment to Monitor the Implementation of the Sale by the Private Sector of PL 480 Title III Rice in the Republic of Senegal." Washington, D.C., March.

More information on PL 480 than on the Senegalese private sector marketers. A disappointment.

Morris, Michael. 1985. "The Parallel Market for Cereals in the Senegal River Valley." Dakar, ISRA/BAME, Working Paper BAME 85-8, July.

Good information of rice hulling and milling and the structure and functioning of milling and marketing in the early 1980s before the boom in new subsidized mill construction.

Pearson, Scot et al. 1981. *Rice in West Africa: Policy and Economics*. Stanford University Press, Stanford, California.

This is the classic first study of rice economics in West Africa which gathered important field evidence concerning the competitiveness of different rice production and marketing systems. Part Four on Senegal is still quite useful: Chapter 7 on "Rice Policy in Senegal" by Kathryn Craven and Hasan Tuluy, and Chapter 8, "Costs and Incentives in Rice Production in Senegal" by Hasan Tuluy (currently the World Bank country officer for Senegal).

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Republic of Senegal, Ministère de l'Agriculture, SAED. 1994. "Les Exploitations Agricoles du Delta et leurs Résultats Technico-Economiques pour la Production Rizicole en 1993." St. Louis, October.

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Republic of Senegal, Ministère de l'Agriculture. 1994. "Rapport Présenté à la Commission des Finances de l'Assemblée Nationale à l'Occasion de l'Examen du Budget 1995." Dakar, November.

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This is where USAID/Dakar has been spending much of its time in recent months. Contains information on Strategic Objective Team Four (SOT4) dealing with economic policy reform, the new programmatic home for RSAP.

USAID/Senegal. 1993. "Senegal: Rice Structural Adjustment (RSA) Program, Program Assistance Approval Document (PAAD), Project Pater (PP)." Dakar, Senegal, December 6.

The basic USAID document on RSAP. Good sections on the history of the reform process.

USAID/Senegal. 1991. "Senegal Agricultural Sector Analysis." Agricultural Development Office, Dakar, January.

This is a detailed and useful overview of Senegalese agriculture with strong coverage of the use of natural resources and the productivity of different production technologies. Excellent starting point for more detailed studies.

USDA/ERS. 1994a. "The US Rice Industry." Agricultural Economic Report No. AER-700, Washington, D.C., September.

This is a comprehensive look at economics, policy base, and technologies used in U.S. rice production. Has a very useful overview section on world rice trade and a large statistical annex (including international rice trade data through 1994) which is also available in computer spreadsheet format.

USDA/ERS. 1994b. "Rice: Situation and Outlook Report." Document Number RCS-71, Washington, DC, October.

Good data on trends in production in world trade. Some of the aggregate tables need complementary data to be useful at the country level.

USDA/ERS. 1994c. "Effects of the Uruguay Round Agreement on US Agricultural Commodities." Washington, D.C., March.

World Bank. 1994. "Senegal: An Assessment of Living Conditions: Annexes." Report No. 12517 SE, February.

Contains a balanced view of the importance of rice in the diets of poorer Senegalese consumers.