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APS Evaluation Abstract

The project aims to assist the Government of Senegal (GOS) to increase national cereal production mainly through the privatization of cereal seed multiplication and agricultural input distribution. The four project components include: support for quality improvement of seed production, as well as for the privatization of seed production, seed marketing, and the distribution of other inputs used in cereal production; \$9 million in credit for cereal seed production, input distribution, and crop storage, marketing, and processing; support to strengthen data collection concerning cereals; and funds for a media campaign. The project is managed by a host country project unit under the Ministry of Rural Development and Hydraulics (MDRH), aided by a technical assistance team from Chemonics International.

The primary purpose of this mid-term evaluation is to analyze the validity of the project's underlying concepts and project design and to assess the need for modification of any aspects of the project. The major findings include:

- o The project shows very little progress towards its original goals and objectives--for example, no credit has yet been extended by the project.
- o The design of the credit and seed components were based on numerous assumptions which have proved to be largely invalid.
- o The resources provided by the project design are insufficient to accomplish the project's multiple and vast objectives.
- o The design of the project's management and decision-making structure is exceedingly complex and cumbersome.

The principal conclusions are:

- o The project's goals are overly ambitious and unrealistic.
- o The design rationale of attempting to integrate the diverse objectives and its discrete components into a single project cannot be sufficiently justified conceptually and is a major cause of the project's management problems.
- o The credit delivery mechanism designated in the project design is an inappropriate vehicle for extending credit to most of the intended target beneficiaries.
- o The intensification of Senegal's cereal production depends on several essential factors which have been lacking in this project.
- o It is recommended that the project be suspended and redesigned.

The principal lessons learned include:

- o Pressures to accelerate the project design and approval processes without verifying critical underlying assumptions should be strongly resisted.
- o The formulation of effective privatization policy and projects depends on a thorough understanding of the operations, constraints, needs, and preferences of any private sector organizations and actors involved.
- o If private sector firms are to actively collaborate in AID projects, these firms must be provided attractive incentives, clear yet not overly restrictive guidelines, and timely feedback.
- o Privatization per se is not a panacea for public sector problems. Even when the private sector is able to perform particular functions more effectively than public sector institutions, other conditions and/or supporting factors will be necessary to assure the success of privatization efforts.

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EVALUATION OF THE
SENEGAL AGRICULTURAL PRODUCTION SUPPORT (APS)
PROJECT

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ACRONYMS

ADO	Agricultural Development Office
APS	Agricultural Production Support Project
BCEAO	Banque Centrale pour les Etats de l'Afrique de l'Ouest
BICIS	Banque Internationale pour le Commerce et l'Industrie Senegal
BNDS	Banque Nationale de Developpement du Senegal
CCCE	Caisse Centrale de Coopération Economique
CNCAS	Caisse Nationale de Credit Agricole du Senegal
COP	Chief of Party
CSS	Companie Sucriere du Senegal
DA	Direction de l'Agriculture
DPCS	Direction de la Production et du Controle de Semences
DSA	Division Statistiques Agricole
FAO	United Nations Food and Agriculture Organization
FED	Fonds Europeen de Developpement
FONGS	Federation des ONGS du Senegal
FCFA	CFA Franc, currency of the West African Monetary Union
GIE	Groupement d'Interet Economique
GOS	Government of Senegal
ICS	Industries Chimiques du Senegal
ISRA	Institut Sengalais de Recherche Agricole
ITA	Institut de Technologie Alimentaire
MDR	Ministere du Developpement Rural
MDRH	Ministere du Developpement Rural et de l'Hydraulique
MEF	Ministere de l'Economie et des Finances
NAP	New Agricultural Policy
ORTS	Office Nationale de Radio et Television du Senegal
PTS	Projet Triennal Semencier
PVO	Private Voluntary Organization
SAED	Societe d'Amenagement et d'Exploitation des Terres du Delta du Fleuve Senegal et des Vallees du Fleuve Senegal et de la Faleme
SENCHEM	Societe de Commercialisation de Production des Industries Chimiques du Senegal
SGBS	Societe Generale des Banques au Senegal
SISMAR	Societe Industrielle et Sabelienne de Materiels Agricoles et de Representation
SME	Small and Medium-Scale Enterprise
SODEFITEX	Societe de Developpement des Fibres Textiles
SODEVA	Societe de Developpement et de Vulgarisation Agricole
SONAGA	Societe Nationale de Garantie
SONABANQUE	Societe Nationale de Banque
SONAR	Societe National d'Approvisionnement du Monde Rural
SOW	Scope of Work
SRDR	Societe Regionale de Developpement Rural

SV
USB
USAID

Section Villagoise
Union Senegalaise de Banque
United States Agency for International Development

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EXECUTIVE SUMMARY

A. Evaluation Purpose, Scope, and Methodology

1. Purpose

The primary purpose of this mid-term evaluation is to assess the validity of the Agricultural Production Support (APS) Project's underlying concepts and project design. The Scope of Work (SOW) (Annex 1) indicates that emphasis was to be placed on an analysis of the project's accomplishments and problems to date in the context of the existing design with the objective of recommending measures to enable the project to meet its original goals or, alternatively, to assess the need for modification, extension, redesign, or elimination of any aspects of the project. The SOW specifies, however, that if the evaluation findings should indicate the need for project reorientation or redesign, the team would be encouraged to make suggestions concerning any recommended revisions, but that it would not be responsible for producing a new project design.

2. Scope

The scope of the evaluation highlights four principal areas of investigation:

- o Evaluation of project design, including the viability of the project scope and timetable, the efficacy of the project's administrative structures and systems, the validity of the assumptions underlying each of the project's four components, and the appropriateness of the mechanisms envisioned to accomplish the project's objectives;
- o Evaluation of the project goal and purpose; particularly the extent to which they are reasonable and realistic, their consistency with the existing project design, and their relevance with regard to the major constraints within the cereal sector;
- o Evaluation of project resources and whether they are sufficient in magnitude and structured appropriately to enable the project to accomplish its goal, purpose, and objectives; and
- o Evaluation of project implementation with particular emphasis on accomplishments realized and problems encountered.

In initial discussions with USAID/Dakar the team was advised that although each of these areas was to be analyzed, as well as a multiplicity of issues relevant to each area, the fundamental focus of the evaluation was on immediate actions to be taken to improve project performance and the utilization of project resources, as well as the justification for such

actions. Thus, it was agreed that the team should prioritize the issues to be pursued in-depth and should concentrate on those issues which the team judged to be most relevant to this primary focus of the evaluation.

3. Methodology

The team was composed of six experts who are specialized in the areas of agro-industry, privatization, seed systems, credit, statistics, and media. Each member spent approximately four weeks in Senegal examining the goal and purpose of the project in the context of current the Government of Senegal (GOS) and USAID/Dakar priorities; the design, structure, and functioning of the project as a whole; the objectives, activities, accomplishments, and problems of each of the project's individual components; and the current needs and priorities within each of project's activity areas.

The team initiated its research by performing a comprehensive review of all official pre-design, design, approval, contracting, and implementation documentation; internal project files made available by USAID/Dakar, the contractor, and several participating GOS agencies; primary source materials on the agricultural input distribution system prepared for the evaluation; and other recent primary and secondary source materials provided by GOS, USAID/Dakar, other donors, the project unit, and private sector companies.

The team conducted extensive interviews in the Dakar area with present and former project personnel, officials and technicians from the various participating GOS agencies, large- and small-scale companies involved in input distribution and seed production and marketing, public and private sector organizations involved in agriculturally-related media activities, USAID/Dakar personnel from the various offices concerned with the project, and GOS, private voluntary organization (PVO), and donor representatives involved in credit, statistics, agricultural policy, and seed-related projects. The team also made a four-day field trip to the northern Senegal River valley/delta area, where the project's seed quality control and demonstration activities have been concentrated. During this trip seed research facilities and demonstration sites were visited, as well as private sector seed multiplication operations, rice milling enterprises, and private farmers and farmer groups.

B. Project Purpose and Design

The Agricultural Production Support Project was designed to support the Government of Senegal in the implementation of the New Agricultural Policy, a comprehensive program initiated in 1984 which aims to reduce and restructure the Government's role in the agricultural sector and to stimulate private sector involvement in the distribution of agricultural inputs and in the storage, marketing, and processing of agricultural produce. The project's focus is exclusively on the cereal sector, which in Senegal includes mainly millet and sorghum, which at the time of project design accounted for 86 percent of lands cultivated in cereals, as well as rice (6 percent), maize (4 percent and cowpeas (4 percent). The fundamental goal of the project is to increase national cereal production through the privatization of cereal seed

multiplication activities and the marketing of cereal production inputs, as well as through support for private sector enterprises engaged in the marketing and processing of cereal products. Approved in early 1987, the five-year project is being implemented through a host country contract and has been financed through a \$20 million grant from USAID/Dakar and \$2.077 million in GOS funding.

The project design includes four distinct components:

- o Support for quality improvement of cereal seed production, as well as for the privatization of seed production, seed marketing, and the distribution of other inputs used in cereal production;
- o The provision of credit for cereal seed production, input distribution, and crop storage, marketing, and processing. Although the target beneficiaries of this credit were to be large-, medium-, and small-scale firms engaged in these activities, the ultimate beneficiaries were to be cereal producers, to whom, it was presumed, the input suppliers would on-lend credit;
- o Support to strengthen data collection on cereal production and input use; this data was considered essential to support input distribution privatization efforts; and
- o Funds for the development and presentation of a media campaign to disseminate information about cereal production techniques, GOS cereal policies, services available to farmers, and various other agriculturally-related topics.

The support which was envisioned included funding for five long-term technical assistance personnel, fifty-eight months of short-term technical assistance, long- and short-term training of host country personnel, equipment for the participating GOS agencies, contracts with several local firms to assist in administration and to implement the media campaign, and \$9 million in credit to be delivered through Senegal's banking system.

C. Principal Findings

- o The design of the project's credit component was based on numerous assumptions which have proven to be largely invalid. The most notable of these assumptions are as follows:
 - The commercial banks were interested in and willing to lend to the target beneficiaries of the credit component, particularly small- and medium-scale enterprises (SMEs) engaged in cereals-related activities. Instead, it was found that the banks consider SMEs to be highly risky operations, and that such firms generally lack the necessary collateral and formal business skills to qualify for commercial bank lending;

- The banks would be willing to extend significant amounts of further credit to the largest input distribution firms, most of which had already borrowed up to the limits acceptable to the banks;
- The commercial banks would be willing to assume 100 percent of the risk in lending to any agribusiness firms involved in cereals-related activities and that the interest spread offered by USAID/Dakar would be sufficient to cover that risk;
- Lack of liquidity for inventory would be a major constraint to the operations of intermediate input suppliers. Instead it was found that effective supplier credit systems exist between the largest input companies and their distributors and that although the distributors reportedly need credit for purposes other than inventory, these needs are not being met by the input companies; and
- Intermediate input distributors would be willing to provide credit to cereal farmers.

The design of the seed component was also based on several basic assumptions which were not entirely valid. Among the most significant of these assumptions are the following:

- Privatization and improved quality control in seed multiplication, as well as seed certification, would lead to significantly increased use of improved cereal seed and a concomitant increase in national cereal production. However, the vast majority of Senegal's cereal producers are largely subsistence farmers in rainfed areas--at the time of project design, 90 percent of the country's cereals were produced under rainfed conditions. According to available reports, as well as interviews with farmers and cereals experts, farmers producing under rainfed conditions prefer to avoid unnecessary risk and expenditures by saving seed from their own fields. These subsistence farmers often prefer the traditional varieties, frequently lack access to whatever improved seed may be available, and are often unable to obtain the funds necessary to purchase such seeds. Therefore, the demand for improved and certified seeds among the vast majority of Senegal's cereal producers is minimal;
- Privatization of input supply, particularly fertilizers, as well as improved data collection concerning input use, would lead to increased farmer access to these inputs and thus increased input utilization. However, even the pre-project design analyses confirmed that most cereal farmers in

rained areas have neither the financial resources to purchase these inputs nor an interest in using them, due to the climatic and financial risks involved. Further, due to the absence of strong extension support throughout the cereal producing areas, most farmers lack the technical knowledge to use these inputs properly; and

-- Cereal seed varieties having significantly improved quality and production potential without the use of other inputs, such as fertilizers, would be available for use in rainfed areas or would be developed. However, except in the case rain fed rice in the Casamance area, where small-scale experimentation is now being conducted, such varieties have not yet been available.

- o In the project design, the definition of the tasks to be undertaken by the statistical expert lack focus; the information objectives, priorities, and mechanisms for dissemination of statistical data to the private sector are vague. These issues were not clarified in the development of the workplan and they ultimately were the cause of a dispute within the project unit which led to the departure of the statistical expert two months after her arrival in country.
- o The project design objectives and targets for the media component are extremely vague and excessively broad.
- o The resources provided by the project design are insufficient to accomplish the project's multiple and vast objectives. This is particularly clear in the case of the seed activities, where two experts, working with their counterparts, were assigned to address seed production, quality control, and certification issues for five types of cereals nationwide. Since it was clearly impossible for them to accomplish these tasks, it was decided that their efforts should be targeted to one geographic region and to one primary crop, with subsequent expansion of regions and crops dependent on the pace of success of their initial efforts. Similarly, the project design assigned an unreasonable number of tasks to the contracting team's Chief of Party; not only was he to supervise the seed, statistics, and media activities, serve as chief administrator and as liaison officer with USAID/Dakar, and manage the training and short-term technical assistance activities, but he was also the sole team member responsible for the implementation of the credit and privatization strategy/policy activities.
- o The design of the project's management and decision-making structure is exceedingly complex and cumbersome, involving the active participation and approval of a multiplicity of autonomous Senegalese public and private sector organizations and committees, several different offices and layers of management within

USAID/Dakar, the five-person contracting team, and the Senegalese project unit. This diversity of decision-makers has been a major cause for the numerous serious delays experienced in key areas of project implementation.

- o The lines of authority between the principal organizations and individuals responsible for project implementation were not clearly delineated in the project design; further these lines have not been clarified and agreed on during the implementation process. This has resulted in continuous struggles and conflicts over both technical and financial decision-making within the project unit, between the project unit and the GOS implementing agencies, between the project unit and USAID/Dakar, and within the contracting team.
- o Marketing efforts to stimulate demand for the credit were concentrated largely on one segment of the intended target beneficiaries, the largest input suppliers and their distributors. Only limited efforts were directed at informing the other target beneficiary groups, including SMEs involved in seed multiplication and cereals marketing and processing, of the availability of and the requirements for this credit.
- o Credit application dossiers recently submitted to Dakar's commercial banks, field interviews, and recent research financed by USAID/Dakar indicate that there is a clear need and demand for credit, not only for certain cereals-related activities, but for various other types of agricultural and agribusiness operations, particularly including horticultural production, processing, and exporting. There also appears to be a considerable need and demand for medium-term financing for transport, storage, processing, and agricultural production equipment for use in other agriculturally-related activities.
- o Although the success of the project depends on effective coordination of and collaboration between the numerous offices, officials, and experts involved, there has been inadequate coordination and collaboration within the contracting team, between the team's experts and the project directors, between the Chief of Party and the second Project Director, and, most notably, between the project unit and the GOS implementing agencies.
- o USAID/Dakar personnel at various levels have been unusually involved in project implementation decisions, thereby causing frustration within the project unit, particularly on the part of the project directors, who interpreted this as an inappropriate loss of the authority theoretically granted them under the Host Country Contract. This situation was exacerbated by unclear decision centers in USAID/Dakar, which resulted in confusion concerning who was responsible for making decisions, sometimes conflicting guidance from various sources at USAID/Dakar, and

uncertainty about whose guidance to accept. These factors have contributed to the delays in project progress.

- o The project shows very little progress towards its original goals and objectives, as demonstrated by the following factors:
 - No credit has been extended through the program to date;
 - The seed certification, quality control, and promotion activities are concentrated in only one region (the northern Senegal river/delta region) and on one principal cereal product--irrigated rice--with a secondary focus on irrigated maize;
 - Two of the five long-term technical assistance positions (the statistics position and the crop variety selection position) remain unfilled due partly to disagreement about the appropriate definition of their roles and USAID/Dakar's subsequent decision to freeze the positions pending the outcome of this evaluation. Therefore, virtually no progress has been made in the statistics component or in the breeder seed selection activities;
 - Only five host country personnel have been sent for long-term training overseas versus the nine projected;
 - Although fifty-eight months of short-term specialists were to have assisted with the implementation of the different project components, only a few months of this assistance has actually been utilized to date. Most notably, there has been no short-term support provided in the areas of privatization strategy and policy formulation and implementation, which were to have been a principal focus of this assistance; and
 - At the present time, three and one-half years after the project's approval and one and one-half years before the anticipated completion date, \$17.7 million in USAID/Dakar funding obligated for the project remain unutilized.

D. Conclusions

- o The project's goals are overly ambitious and unrealistic, particularly concerning the nation-wide geographic focus of the project, the time frame envisioned, and the resources provided to implement the project's goals.
- o The invalid design assumptions resulted largely from insufficient pre-design analysis of the structure and functioning of the subsystems within the cereals sector, including: (1) the operations, constraints, needs, and preferences of Senegal's

cereal farmers; (2) the constraints, capabilities, and needs of the seed research and extension organizations; and (3) the operations, constraints, and needs of the various target beneficiaries of the credit component (seed producers, input suppliers, cereals storage and marketing agents, and cereals processors). In addition, during project design there was insufficient analysis of the viability of extending credit to the target beneficiaries through the commercial banking system and of the probability that this credit would be on-lent to the ultimate project beneficiaries, cereal farmers. According to USAID/Dakar personnel, the inadequacy of the pre-design analysis resulted largely from an effort to accelerate the design and approval process in order to assure that funding would be made available for the project.

- o Despite the inadequacy of the pre-design analysis, there were significant and relevant findings which were contradicted or ignored in the project paper and subsequent project documentation. This fact, as well as other contradictory materials within the project paper and other project documents, also suggests that the documents were prepared in a careless, overly hasty manner.
- o The design rationale of attempting to integrate the project's diverse and multiple objectives and its various discrete components into a single project cannot be sufficiently justified conceptually and has been a major cause of the subsequent management problems which have developed within the project unit, within the contracting team, between the project unit and the GOS implementing agencies, and within USAID/Dakar.
- o The linkages between the design and the specific objectives of the project's individual components and the attainment of the project's fundamental goal of increasing national cereal production were not sufficiently justified.
- o The design rationale of targeting the assistance to a single commodity group was inappropriate for several of the project's activities, especially including data collection and credit delivery. The commodity focus does not match the structure of GOS data collection activities, and it was illogical to assume and impossible to assure that support such as equipment and training would be utilized only for cereals data collection. Similarly, the cereals focus in credit delivery is unnecessarily cumbersome to administer, and it is impossible to assure that the intermediate and end-users of credit, such as intermediate distributors, marketing agents, and farmers, would restrict the use of any items financed to cereals only.
- o The project design and the project unit have focussed insufficient attention to supporting the GOS in the development and implementation of a coherent, concrete strategy for agricultural

and agroindustrial privatization. Although the project design was unrealistic in assigning responsibility for these tasks to the contractor's Chief of Party, who was also responsible for numerous other tasks, short-term technical specialists were also to have been used to support these activities, and they were not.

- o The credit delivery mechanism designated in the project design is an inappropriate vehicle for extending credit to most of the intended target beneficiaries, particularly small- and medium-scale agribusiness firms and seed multiplication operations. If indeed the project intends to lend to such enterprises, mechanisms other than the commercial banks must be investigated; such mechanisms must accept more flexible guarantee requirements than the commercial banks, be interested and experienced in servicing SMEs, and have outreach capability to identify clients and monitor their performance. It may also be necessary for the delivery institution to provide some dossier preparation assistance and management advisory services or to assure that clients have access to reasonably priced, capable organizations which can provide such services.
- o Because of the high risk involved in lending to agribusiness firms of all sizes, as well as the particular risks and high cost of lending to SMEs, any credit delivery mechanism designed to lend to agribusiness firms, especially SMEs, will require an interest spread which is considerably higher than the 5-7 percent envisioned in the project design.
- o The credit needs which exist in the cereals-related agricultural and agribusiness subsectors cannot be met through existing supplier credit systems between large-scale input supply companies and their distributors or through existing relationships between these distributors and their farmer clients.
- o The intensification of cereal production in Senegal's rainfed areas depends not on the privatization of seed multiplication and input supply, but on several other essential factors which have been lacking in this project. These include such factors as the availability of cereal seed varieties with significantly improved quality and production potential without the use of other costly inputs, delivery systems which can distribute these varieties to often isolated rainfed areas, and effective extension and demonstration support, as well as access to efficient processing technologies (particularly for millet and sorghum) and to the financing necessary to purchase such equipment.
- o If, as internal USAID/Dakar files and interviews by the evaluation team suggest, there were increasing misgivings within USAID/Dakar about the viability of the project design, as well as doubts concerning the effectiveness of the project management structure and certain personnel, USAID/Dakar should have called for an

evaluation at a much earlier date. Alternatively, the Mission should have insisted on the use of the project's considerable short-term technical services to advise on corrections at an earlier stage, thereby avoiding unnecessary expenditures of time and money by all concerned.

E. Principal Recommendations

- o The project should be suspended and redesigned. The project's goals and objectives should be narrowed and refocused, and the project should be restructured with a more limited range of activities directly aimed at achieving these goals and objectives.

The reformulated project should be carefully designed in order to assure that the underlying assumptions are indeed valid and that the resources provided are sufficient to enable the project to achieve its fundamental objectives. Any remaining project resources not utilized for the development and implementation of the redesigned project should be reprogrammed for other activities aimed at the development and privatization of Senegal's agricultural and agribusiness sectors.

- o The GOS and USAID/Dakar should consider redirecting a portion of the remaining project resources toward the development and implementation of a credit activity to deliver financing and other necessary support to agribusiness enterprises engaged not only in cereals-related activities but in other economically viable agriculturally-related activities.

The delivery of credit and other business support to private sector agribusiness firms represents an area of highest priority for the development and privatization of Senegal's agricultural and agribusiness sectors. The target enterprises should include not only the larger agribusiness firms; but also small- and medium-scale businesses, including commercial farming operations. The geographic scope of the credit delivery should encompass not only Dakar, but also secondary towns and selected rural areas.

- o Delivery mechanisms other than the commercial banking system should be considered.

Before the design of the proposed credit activity, a comprehensive analysis of the viability of various alternative delivery mechanisms should be performed. This study should include an assessment of the precise nature of the credit and other needs of agribusiness firms and commercial farming operations in order to assure that the delivery mechanism can successfully meet these needs.

- o The activities of the project's other three components should not be retained within a single project and alternative mechanisms should be identified for the financing of these activities.

The areas which we consider to be of highest priority are as follows:

- Support to the Institut Senegalais de Recherche Agronomique (ISRA) for quality improvement in breeder seed production. This support should be considered in the context of USAID/Dakar's existing project with ISRA;
- Support to existing seed-related extension and demonstration projects, such as the USAID/Winrock/Peace Corps program, which assists largely subsistence farmers in rainfed areas, as well as support to private sector programs such as the Senchim cereals demonstration activities, which might be financed through the credit activity described above;
- Support for the agricultural census, which is currently the highest priority of the Statistics Division.

- o Support for project activities related to rice seed quality control and certification should not be continued at the present time.

- Seed certification activities should not be restricted to a single crop or crop group. Any certification activities, as well as the legislation required to support these operations, should be part of a national seed certification program for all crops. The team believes that such a program is not currently the highest priority for Senegal's agricultural privatization efforts, partly because it would impose unnecessary restrictions on the private sector seed multiplication and distribution activities which are successfully being developed at the present time. In order to develop and maintain their markets, these seed companies will be obliged to offer genetically pure, vigorous, reliable seed, even in the absence of government certification.
- Despite the judgements outlined above, the team did consider recommending continued support for present rice seed quality control and certification activities in irrigated areas, where the private commercial farmers have shown considerable interest in undertaking seed multiplication activities and have benefited from project assistance. However, we concluded that continued support in this area is not justified at the present time for the following reasons: (1) such support could be accomplished by a relatively small project; however, small projects are not suitable to

USAID/Dakar's management capacity--because of limited manpower in the Dakar mission, USAID/Dakar is obliged to concentrate its resources in a few, relatively large projects; (2) in recent years commercial rice production has been highly protected by GOS pricing policies; however, discussions are currently underway which, according to high-level sources, will most likely result in an reduction of this protection, thereby reducing the profitability of commercial rice production and encouraging farmers to diversify their production in irrigated areas into other more profitable crops.

F. Lessons Learned

- o Pressures to accelerate the project design and approval processes without thoroughly researching and verifying the critical underlying assumptions of proposed projects should be strongly resisted. Proceeding with a project which is based on unverified assumptions can lead to a waste of project resources and of host country, contractor, and USAID staff time (as well as the time of any private sector institutions involved) as fruitless activities are pursued or as implementation time and funds are expended to validate assumptions and decide on alternative courses of action. Further, the resultant delays in project implementation and the failure to make clear progress towards the achievement of the project's goals can damage the credibility of the institutions and individuals involved, particularly USAID, and can act as a disincentive to subsequent collaboration between private sector organizations and public sector projects.
- o The linkages between project goals and objectives and the activities designed to achieve these goals and objectives need clear verification during the project design stage. Project designers should resist including activities which, however useful for other purposes, do not directly contribute to the achievement of the project's basic goals and objectives. Further, any mechanisms necessary to achieve these linkages need clear specification at the design stage.
- o During project design, clear lines of authority and responsibility must be established between any participating institutions and individuals. Effective project implementation should not be entirely dependent on the anticipated collaboration of numerous different autonomous organizations and individuals.
- o Projects with multiple and diverse goals and objectives, and which require the management participation of numerous different public and private sector institutions, are extremely difficult to manage and require excessive time and effort to achieve effective

coordination. Further, they are not appropriately suited to USAID/Dakar's management structure and operations.

- o The formulation of effective privatization policy and projects depends on a thorough understanding of the operations, constraints, preferences, and needs of the private sector organizations which are expected to assume the roles formerly performed by public sector organizations.
- o Privatization per se is not a panacea for public sector problems. Even when the private sector is able to perform particular functions more effectively than public sector institutions, other conditions and/or supporting factors will be necessary to assure the success of privatization efforts. In the case of the seed component, such factors include the availability of a quality product to deliver (improved varieties suited to farmer circumstances), an effective demand for these products and other inputs, infrastructure and delivery systems to permit the distribution of these products, effective public or private sector extension support, and access to the financial resources and technical support necessary for the start-up, expansion, and diversification of seed and input production and marketing activities.
- o As the experience of the credit component demonstrates, if private sector firms are to actively collaborate in USAID projects, these firms must be provided attractive incentives for their participation, clear yet not overly restrictive guidelines, and more timely feedback than is usually the case with public sector institutions; further, reporting requirements and obligations to attend meetings and be interviewed should be minimized.
- o Targeted assistance for a narrowly defined goal (such as aid directed at only one commodity) is likely to be an inefficient mechanism to achieve that goal if the assisted individuals or institutions, whether public or private sector, perform a variety of tasks not directly related to the specific goal. Such targeting may impose artificial and counterproductive constraints on the recipient's activities; alternatively the assistance may be used for unintended purposes. Further, the control and monitoring of the use of the assistance is exceedingly difficult and sometimes impossible.
- o The host country contracting mechanism, which, even under the best of circumstances, is more cumbersome to administer than alternative mechanisms, is particularly inappropriate for complex projects involving numerous host country government institutions.
- o If there are strong misgivings concerning the design or start-up performance of a project, a start-up evaluation should be conducted.

I. INTRODUCTION

A. Evaluation Purpose, Scope, and Methodology

1. Purpose

The primary purpose of this mid-term evaluation is to assess the validity of the Agricultural Production Support (APS) Project's underlying concepts and project design. The Scope of Work (SOW) (Annex 1) indicates that emphasis was to be placed on an analysis of the project's accomplishments and problems to date in the context of the existing design. The evaluation's objective is to recommend measures to enable the project to meet its original goals or, alternatively, to assess the need for modification, extension, redesign, or elimination of any aspects of the project. The SOW specifies, however, that if the evaluation findings indicate the need for project reorientation or redesign, the team is encouraged to make suggestions concerning any recommended revisions, but that it is not responsible for producing a new project design.

2. Scope

The scope of the evaluation highlights four principal areas of investigation:

- o Evaluation of project design, including the viability of the project scope and timetable, the efficacy of the project's administrative structures and systems, the validity of the assumptions underlying each of the project's four components, and the appropriateness of the mechanisms envisioned to accomplish the project's objectives;
- o Evaluation of the project goal and purpose, particularly the extent to which they are reasonable and realistic, their consistency with the existing project design, and their relevance with regard to the major constraints within the cereal sector;
- o Evaluation of project resources and whether they are sufficient in magnitude and structured appropriately to enable the project to accomplish its goal, purpose, and objectives; and
- o Evaluation of project implementation with particular emphasis on accomplishments realized and problems encountered.

In initial discussions with USAID the team was advised that although each of these areas was to be analyzed, as well as a multiplicity of issues relevant to each area, the fundamental focus of the evaluation was on immediate actions to be taken to improve project performance and the utilization of project resources, as well as the justification for

such actions. Thus it was agreed that the team should prioritize the issues to be pursued in-depth and should concentrate on those issues which the team judged to be most relevant to this primary focus of the evaluation.

3. Methodology

The team was composed of six experts who are specialized in the areas of agroindustry, privatization, seed systems, credit, statistics, and media. Each member spent approximately four weeks in Senegal examining the goal and purpose of the project in the context of current Government of Senegal (GOS) and USAID/Dakar priorities; the design, structure, and functioning of the project as a whole; the objectives, activities, accomplishments, and problems of each of the project's individual components; and the current needs and priorities within each of project's activity areas.

The team initiated its research by performing a comprehensive review of all official pre-design, design, approval, contracting, and implementation documentation; internal project files made available by USAID, the contractor, and several participating GOS agencies; primary source materials on the agricultural input distribution system prepared for the evaluation; and other recent primary and secondary source materials provided by GOS, USAID, other donors, the project unit, and private sector companies, as well as materials available at the time of project design.

The team conducted extensive interviews in the Dakar area with present and former project personnel, officials and technicians from the various participating GOS agencies, large and small scale companies involved in input distribution and seed production and marketing, public and private sector organizations involved in agriculturally-related media activities, USAID personnel from the various offices concerned with the project, and GOS, private voluntary organizations (PVO), and donor representatives involved in credit, statistics, agricultural policy, and seed-related projects. The team also made a four-day field trip to the northern Senegal river valley/delta area, where the project's seed quality control and demonstration activities have been concentrated; during this trip seed research facilities and demonstration sites were visited, as well as private sector seed multiplication operations, rice milling enterprises, and private farmers and farmer groups. A list of the individuals and institutions contacted, as well as the field sites visited, is presented in Annex 2.

B. The Project Context

The APS project was designed to support the Government of Senegal in the implementation of the Nouvelle Politique Agricole (New Agricultural Policy, or NAP) and the Cereals Plan, which were issued in 1984 and 1986. The fundamental objectives of these plans were to reduce and restructure the Government's role in the agricultural and agribusiness sectors, to stimulate the private sector to assume the agricultural

input supply functions formerly performed by government agencies, and to encourage increased private sector participation in the marketing, storage, importing, and processing of agricultural produce. Particular emphasis was placed on the cereals sector, where the policy of achieving greater food self-sufficiency through import substitution was stressed. This was to be achieved mainly through increased tariffs on imported rice and thus higher consumer prices to stimulate local rice production, floor pricing for local coarse grains (mainly millet and sorghum) to encourage the intensification of coarse grain production, and access to improved technologies for the processing of coarse grains in order to increase consumer acceptability and stimulate consumption of these cereals vi. -a-vis rice. The ultimate objective was to achieve national food self-reliance by the year 2000.

Although no precise data were available concerning the production increases which would be needed to reach the target for the year 2000, it had been estimated that in order to achieve self-sufficiency in cereals by the year 2010, national cereal production would have to increase by 100 percent by that time.

At the time of project design, rainfed crops accounted for 90 percent of total agricultural production and about 90 percent of domestic cereal production. Of the lands cultivated in cereals, millet and sorghum represented 86 percent, while rice accounted for 6 percent, and maize and cowpeas, 4 percent respectively. Although Senegal was thought to have considerable potential for the expansion of irrigated agriculture, irrigated perimeters accounted for only one per-cent of the country's arable land; one-quarter of this area was cultivated in sugar cane, and the remainder, in rice, bananas, vegetables, and other minor crops.

In the early 1980's, commercial bank credit in Senegal was concentrated largely on short-term financing; only 22 percent of total bank credit was extended in the form of medium- and long-term financing, as compared with 39 percent in Upper Volta and 36 percent in Cote d'Ivoire. Further, only 3 percent was directed at agricultural activities; these loans were mainly for short-term credit for the purchase of the peanut and cotton crops. Such credit was reportedly not available for the purchase of basic food crops such as cereals.

¹ USAID/Dakar. Senegal Project Paper, Agricultural Production Support. (685-0269). Dakar: 1987, p. ii.

² Magnuson, A. et al. Senegal Agricultural Policy Analysis. Cambridge: ABT Associates, 1985, p. 15.

II. THE DESIGN OF THE OVERALL PROJECT

A. Project Goal, Purpose, and Targets

The fundamental goal of the APS project is to contribute to GOS efforts to increase national cereal production. The specific target outlined in the project logframe (Annex 3) was to achieve a 3.5 percent average annual increase in cereal production by 1993.

The purpose of the project is to facilitate the privatization of agricultural input distribution and seed multiplication activities. The logframe targets for these activities were that by 1992 the private sector would multiply 60 percent of cereal seeds and distribute 75 percent of the fertilizers, crop protection inputs, and equipment used in the production of cereals.

The logic behind the project purpose is clearly stated in the project paper:

Agricultural production in Senegal is overwhelmingly dependent on dryland crop cultivation....The pressure on the land, already severe, is intensifying....With little additional land available for expansion, increased productivity can be achieved only through greater yield per hectare and per laborer.... Increasing cereals production through intensification of agriculture depends on quality seeds, fertilizer and other inputs being available on time and at an affordable price....Expanded use of improved seed is the most important factor in increasing cereals production in most of Senegal's farming regions.... The private sector is being counted on to succeed in the supply of inputs where government and the parastatals failed.

B. Output Objectives

The project logframe specified that there were seven anticipated project outputs:

- o Breeder seed selection and production by the Institut Senegalais de Recherche Agricole (ISRA) would meet the demand for cereal varieties selected for private sector multiplication;

³ USAID/Dakar. Senegal Project Paper, Agricultural Production Support. (685-0269). Dakar: 1987, p.ii, iv, v.

- o Foundation seed produced by private contract growers and certified by the Direction de la Production et du Controle de Semences (DPCS) would meet the commercial demand of cereal producers;
- o Private sector supply and marketing networks for seeds and inputs, particularly fertilizers, would be established;
- o A dialogue between the GOS and the private sector would be established;
- o Commercial banks would provide credit to agricultural input importers, manufacturers, and suppliers;
- o Information disseminated through media and field demonstrations would stimulate demand for input and marketing services; and
- o The Ministere du Developpement Rural (MDR) staff would be capable of timely, accurate estimates of cereal area planted, production, yields, and input use.

C. Project Components

The project paper text distilled these seven output objectives into what it termed the four project components, which include:

- o Privatization of input supply and seed production;
- o Expansion of input supplier credit;
- o Collection of agricultural statistics; and
- o Implementation of an educational media campaign.

In fact, during implementation, the input privatization activities were largely subsumed under the credit component, as the delivery of credit to input suppliers was the main mechanism at the project's disposal to promote the privatization of input distribution. The privatization policy dialogue activities were not defined as a separate component, but were to be supervised by the Project Director supported by the contractor's Chief of Party and implemented largely through the provision of short-term technical assistance.

D. Project Resources and Duration

The project has been financed through a \$20 million grant from USAID/Dakar and \$2.077 million in GOS funding. These funds are intended to support the following principal items: five long-term technical assistance personnel, fifty-eight months of short-term technical assistance, long- and short-term training of host country personnel, equipment for the participating GOS agencies, contracts with several

local firms to assist in administration and to implement the media campaign, and \$9 million in credit to be delivered through Senegal's banking system. Designed as a five-year activity, the project was approved in early 1987 and is scheduled to be completed by the end of 1991.

E. Project Structure and Management

The overall project is being implemented under a host country contract with the Government of Senegal. The project is managed by an autonomous project unit under the aegis of the Ministère du Développement Rural et de l'Hydraulique (MDRH, formerly MDR). Chief operating responsibility for the project and the project unit are assigned to the host country Project Director who is assisted by a Deputy Project Director.

The five-person contractor team is headed by a Chief of Party (COP) who works in the project unit "under the guidance" of the Project Director; although the Grant Agreement explicitly states that the COP was to serve as counterpart to the Deputy Project Director, other project documents suggest that the COP was to work directly with, although under the supervision of, the Project Director. The other four members of the long-term technical assistance team were to work directly in the three GOS agencies and offices responsible for implementing the seed and statistics activities; these include ISRA, DPCS, and the Division des Statistiques Agricoles (DSA), all of which are under the authority of MDRH.

The project's credit delivery activities were to be coordinated and monitored by the Ministère de l'Economie et des Finances (MEF), although the credit management training activities which were planned for the local banks were to be supervised by the Project Director supported by the contractor's Chief of Party. Additional support was to be provided in the administration of the credit activities by a private Dakar bank, which was contracted to serve as fiduciary agent for the disbursement of the credit funds, and by a local firm which was contracted to perform loan monitoring services.

Policy guidance for the credit activities was to be provided by an inter-ministerial committee headed by the Director of Debt and Investment of MEF; other members included the USAID Mission Director, the APS Project Director, the contractor's Chief of Party, and other officials from MEF, MDRH, and other associated GOS ministries.

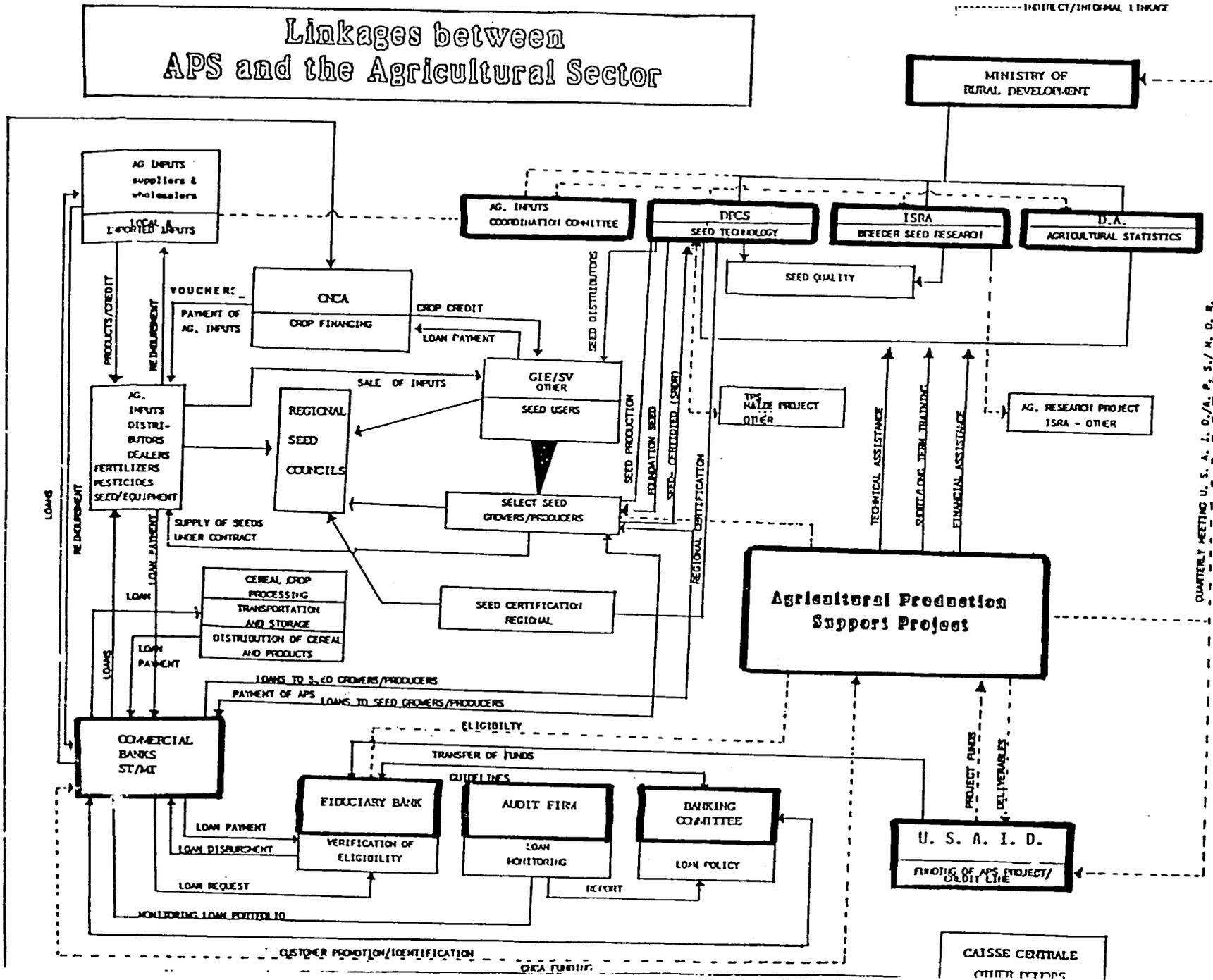
Although responsibility for administering and coordinating the media and privatization activities was assigned to the Project Director working in collaboration with the Chief of Party, policy guidance in these areas was to be provided by the Comité des Intrants (Input Committee), a group composed of public and private sector representatives involved in input-related activities.

Within USAID/Dakar, responsibility for project management was assigned to a project officer and assistant project officer within the Agricultural Development Office (ADO). They are guided in project decision-making by the APS Project Committee, which is composed of the Director and the Deputy Director of the ADO, as well as representatives of various other offices in USAID/Dakar, including the Mission Director's office, the program office, the legal office, the controller's office, and the project development/private sector office.

Figure 1 provides an outline of the principal organizations involved in project implementation and their linkages to other public and private sector institutions in the agricultural sector.

Linkages between APS and the Agricultural Sector

LEGEND : _____ DIRECT/FORMAL LINKAGE
 - - - - - INDIRECT/INFORMAL LINKAGE



NEW AGRICULTURAL POLICY
CEREALS PRIVATISATION
COORDINATION APS/DPCS ISRA D.A.
CURRENT-SEED PRODUCTION/DISTRIBUTION DPCS
FUTURE - SEED PRODUCTION AND DISTRIBUTION; PRIVATE SECTOR
REGIONAL SEED COUNCILS SEED CERTIFICATION
CURRENT - APS CREDIT DELIVERY
FUTURE - APS CREDIT DELIVERY
INT'L DONORS JCC 9/23/89

Figure 1: Linkages Between APS and the Agricultural Sector

F. Findings

- o Within the design documents, the grant agreement, and the contract between GOS and the contractor, there were numerous contradictions and inconsistencies particularly concerning the project's goal, purpose, and targets. Within the project paper alone, there were three different versions: in the logframe, the goal was to increase annual cereal production by 3.5 percent by 1993, with 60 percent and 75 percent targets for privatization of seeds and other inputs respectively; the introductory summary to the project paper referred to a 3.5 percent production increase during the life of the project (by the end of 1991); and the text stated that the goal was a 3.1 percent production increase during the life of the project, with an 80 percent target for the privatization of inputs. There were similar inconsistencies within the Request for Proposals (RFP), while the grant agreement between GOS and USAID/Dakar contained different production targets in the English and French versions of the text (3.5 percent in French and 3.1 percent in English).
- o There were similar inconsistencies and confusion in the various project documents concerning the target beneficiaries of the credit component. While the logframe noted only that credit would be made available to input manufacturers and distributors, elsewhere in the project paper and in the other design and contracting documents, equal emphasis was placed on the provision of credit to seed producers and to enterprises engaged in cereals storage, marketing, and processing.
- o The lines of authority between the principal organizations and individuals responsible for project implementation were not clearly delineated in the project design; these lines have yet to be clarified and agreed on during the implementation process. The result has been continuous struggles and conflicts over both technical and financial decision-making within the project unit, between the project unit and the GOS implementing agencies, between the project unit and USAID/Dakar, and within the contracting team.
- o The design of the project's management and decision-making structure is exceedingly complex and cumbersome, involving the active participation and approval of a multiplicity of autonomous host country public and private sector organizations

Republic of Senegal, Ministry of Rural Development. Request for Proposals Open to American Firms for the Provision of Technical Assistance for the Agricultural Production Support Project (685-0269). Dakar: 1987, pp.9, 10, 12. Also Grant Agreement between the Republic of Senegal and the United States of America for the Agricultural Production Support Project. Dakar: 1987, p.2.

and committees, several different offices and layers of management within USAID/Dakar, the five-person contracting team, and the host country project unit. This diversity of decision-makers has been a major cause for the numerous serious delays experienced in key areas of project implementation.

- o The project design assigned an unreasonable number of tasks to the contracting team's Chief of Party; not only was he to supervise the seed, statistics, and media activities, serve as chief administrator and as liaison officer with USAID, and manage the training and short-term technical assistance activities, but he was also the sole team member responsible for the implementation of the credit and privatization strategy and policy activities.
- o Although the success of the project depends on effective coordination and collaboration between the numerous offices, officials, and experts involved, there has been inadequate coordination and collaboration within the contracting team, between the team's experts and the project directors, between the Chief of Party and the second Project Director, and, most notably, between the project unit and the GOS implementing agencies.
- o Due to the struggles over authority, the lack of effective collaboration, the disagreements over the duties of the technical assistance experts, and personality conflicts, there is an atmosphere of tension and mistrust within the project unit and within the contracting team.
- o The rights and responsibilities provided under the host country contracting mechanism were not clearly understood by the two project directors; as a result, they both felt resentful of and even insulted by the restrictions on their autonomy imposed by the contractor and USAID.
- o USAID personnel at various levels have been unusually involved in project implementation decisions, causing frustration within the project unit, and often impeding the progress of the project. This was particularly true for the project directors, who interpreted this as an inappropriate loss of the authority theoretically granted them under the host country contract. This situation was exacerbated by the multiplicity of USAID officials involved in decision-making, as well as unclear decision centers within USAID. The result has been confusion concerning who is responsible for making decisions, sometimes conflicting guidance from various sources at USAID, and uncertainty about whose guidance to accept. These factors have contributed to the delays in project progress.
- o Internal USAID files and interviews with USAID personnel suggest that the unusual level of USAID involvement in project

operations was due partly to growing misgivings on the part of some USAID personnel concerning the validity of project assumptions, the viability of the project design, and the effectiveness of the project management structure and certain personnel.

G. Conclusions

- o The inconsistencies and contradictions in the project design and contracting documentation indicate that they were prepared in a careless, overly hasty manner. USAID personnel who observed the design process have concluded that this carelessness was partly due to an attempt to accelerate the design and approval process in order to assure the availability of the project funding.
- o The design rationale of attempting to integrate the project's diverse and multiple objectives and its various discrete components into a single project cannot be sufficiently justified conceptually and has been the major cause of the subsequent management problems which have developed within the project unit, within the contracting team, between the project unit and the GOS implementing agencies, and within USAID.
- o The tensions and disagreements within the project unit and within the contracting team were not handled in an effective manner by the Chief of Party or by the contractor's home office staff responsible for the project.
- o The normal difficulties associated with the host country contracting mechanism were exacerbated in the APS project by the need for the active involvement of the 'autonomous' project office and three separate GOS implementing agencies and offices in all major project decisions and actions.
- o USAID should have called for an evaluation at a much earlier date, if indeed there were increasing misgivings within USAID about the viability of project design, as well as doubts concerning the effectiveness of the project management structure and certain personnel. Alternatively, the Mission should have insisted on the use of the project's considerable short-term technical services to advise on corrections at an earlier stage, thereby avoiding unnecessary expenditures of time and money, as well as considerable frustration, on the part of all concerned.

III. CREDIT COMPONENT

A. Objectives and Targets

One of the main project objectives is to facilitate the privatization of input distribution and seed multiplication activities for cereal crops by establishing a \$9 million credit line to be extended through commercial banks for on-lending to private individuals or organizations engaged in the production or marketing of cereal inputs or in cereal marketing and processing. The original credit target was to recycle a total of \$ 51.103 million by 1997.

The main target beneficiaries were small and medium scale entrepreneurs and rural organizations such as cooperatives. Larger companies were not excluded as beneficiaries, but were not the major focus of the original project design.

B. Support Envisioned

The credit component was implemented by the Project Director supported by the Chief of Party of the technical assistance team. No other long-term technical assistance was envisaged. The training of bankers was included in the original project design but never took place.

C. APS Credit Delivery Mechanism

Through the APS project USAID/Dakar created a \$9 million line of credit to be lent through commercial banks. A Banking Committee was created consisting of the Director of Debt and Investment from the Ministry of Economy and Finance, the APS Project Director, and the USAID Mission Director. The main role of the committee is to establish criteria for the selection of eligible clients by the participating banks and to give final approval on individual protocols with participating banks.

The USAID internal management structure and approval mechanism for the APS credit component is extremely cumbersome. The approval system for a recently proposed protocol with the BICIS is illustrative. In addition to the Banking Committee, six USAID/Dakar officials were invited to give clearance on this new bank protocol. The fund transfer mechanism involves three steps. After a loan application has been reviewed by Citibank, the fiduciary bank, a request is made to USAID/Dakar. At this time the project officer requests a transfer from the United States Treasury. This is to be done on a loan by loan basis regardless of the loan size.

In its role as fiduciary bank, Citibank reviews loan requests presented by participant banks to ensure that the requests are in accord with the banking committee's criteria. Citibank was also to monitor loans and loan repayments by member banks. As loans were repaid the money was to be deposited in an account at Citibank.

The services of a private audit firm were also to be engaged to audit the participating banks' compliance with the terms of their protocols.

D. The Process of Implementation

Considerable effort was expended in trying to make the lending mechanism, as originally designed, operational. The main focus was on dealing with top banking officials in Dakar. Very little time was spent working with commercial banks' branch personnel.

The principal activities undertaken during the efforts to initiate the credit operations included:

- o A contract for fiduciary services was signed with Citibank;
- o The major banks and several financial institutions were contacted to explore their potential use of the APS credit line;
- o A protocol was signed with one commercial bank, Societe Generale des Banques au Senegal (SGBS), which is currently disgusted with the project. This was reportedly due to the bureaucratic delays concerning dossier approval and the prolonged discussions concerning the lending terms to participant banks;
- o Several field trips were undertaken by project staff and the technical assistance team to study alternate credit delivery systems in other countries;
- o Numerous memorandums were written to USAID and discussions were held on constraints, design flaws, and alternate mechanisms for credit delivery;
- o A document presenting alternatives to the original credit mechanism was presented to USAID. Several alternatives were proposed, the most important of which, for the project staff and technical assistance team, was the proposed creation of a lending facility within the project itself. This option was rejected by USAID as it did not conform to their policy of encouraging the Senegalese Government to disengage from the banking sector.

E. The Senegalese Credit Environment

1. The commercial banking sector

The banking sector in Senegal is characterized by a small group of commercial banks based in Dakar with almost no branch offices in rural areas. The major exception to this is the Caisse Nationale de Credit Agricole du Senegal (CNCAS), Senegal's agricultural credit bank. The CNCAS, which was established in 1986 with 28 percent ownership by the Government of Senegal, is currently in the process of being privatized. The dearth of commercial banks branch offices outside of the capital is an indication of their overall lack of interest in rural credit. It is also unfortunate to note that during the recent banking crisis number of banks such as the Union Senegalaise de Banque (USB) which were more involved in the rural areas went bankrupt.

Commercial bank lending to the agricultural sector is almost exclusively to large scale agro-industries and input supply companies, such as Compagnie Sucriere du Senegal (CSS), SENCHIM, SPIA, MATTFORCE, EQUIPEPLUS, and SOCAS. These companies have sufficient physical collateral for loans, as well as managers and accountants who can provide viable business plans and other necessary financial documents to bankers.

Due to large numbers of defaults on loans, the banking sector has been in a state of crisis and consolidation over the past few years. Banks such as the USB, Banque Nationale de Developpement du Senegal (BNDS), Societe Nationale de Garantie/Societe Nationale de Banque (Sonaga/Sonabanque) Sonar, Assurbank, and Societe Financiere Senegalaise pour le Developpement de l'Industrie et du Tourisme have closed. Other banks such as BIAO experienced major liquidity problems when they had to cover delinquent loans and defaults.

The major private banks such as SGBS and BICIS have taken the opportunity afforded by the closing of other banks to increase their market share of the more viable companies. Part of the consolidation measures for banks involve reducing the number of smaller loans and even increasing the minimum amount for savings accounts in an effort to reduce overhead costs.

As in many countries, the commercial banks in Senegal judge the agricultural production sector, particularly the rainfed section, as an extremely risky one. This view is based largely on the fact that, due to uncertain rainfall and marketing problems, it is impossible to predict results from one growing season to the next. Difficulties encountered by Senegalese banks in the financing of peanut marketing have only served to exacerbate their overall fear of the agricultural sector. This atmosphere is not one which is conducive to encouraging the banks to increase their level of risk by increasing their lending to the agricultural sector.

2. The private voluntary credit sector

Numerous PVO's, both international and Senegalese, are involved in local credit programs. Some credit programs like the FONG program give credit largely to rural groups such as Groupements d'Interet Economique (GIEs), Sections Villageoises (SVs) or cooperatives. GIEs and SVs have largely replaced cooperatives as a target group because of their size and due to their greater flexibility in terms of adherence to the association. Other organizations such as USAID's Community and Enterprise Development Program involve credit directed mainly to individual entrepreneurs in retail businesses.

Lack of viable physical collateral by prospective borrowers is the norm in rural areas. Therefore, rather than requiring collateral, rural-based credit programs are often weighted heavily upon evaluation of clients' character or the social cohesion of a group, in the case of group loans. Through these systems access to structured credit is provided to business people and groups in rural areas who would otherwise not have access to the formal banking sector.

A management/accounting training component is often included in rural credit programs to assist entrepreneurs in improving their business skills. Often this includes assistance in developing an initial feasibility study and loan request for the entrepreneurs or group.

F. Findings

- o No credit has been extended through the program to date.
- o A number of dossiers have been submitted to the project Banking Committee and USAID, none of which have anything to do with original project goals. For example, loan requests for vegetable production and tomato paste production were presented by the BIAO and SGBS. There were two major reasons for this. First, the definition of eligible activities was too narrow and did not correspond to the participant banks' regular requests. Second, no outreach program existed either at the bank or project level to inform potential clients about the program and to assist them in preparing a viable bank dossier. Project staff appeared to be under the impression that one could simply create a media campaign to inform potential clients of the existence of funds and everything else would follow. Experience has proven otherwise.
- o The decision process and information process concerning requests and interest rates were not well handled. Decisions took a long time to be reached. In several cases, banks are still not clear about what the final decision was. The decision process bypassed the dossier review system set up with the Citibank and involved USAID directly in project decisions. The process of treating each new case on an individual basis was inefficient. Decisions concerning the interest rates that

participant banks could receive and charge their own clients also took unconscionable amounts of time. This is vividly illustrated in a recent letter from the Commercial Director of the SGBS. In this letter, he stated that his bank had had to wait for six months to learn of the official decision of the Banking Committee concerning interest rates. Considerable amounts of time were wasted by all participants, including the banks, the project unit, and USAID.⁵

- o As a result of this cumbersome process both the project and USAID have lost credibility with the banks, including the fiduciary bank, which felt that the Banking Committee never developed clear criteria on which the fiduciary bank could act.

- o At the time of the project design, banks did have serious liquidity problems. However, there was a concerted effort on the part of international donors and the banking community to resolve this problem. The APS credit line with its conditions of access was in direct competition with other sources of credit at much softer terms. The CNCAS is a case in point. Between 1988 and 1989 the amount of exterior funds available more than tripled from FCFA 395 million to FCFA 1.210 billion. Had the project and USAID been more flexible in their discussions with the CNCAS and other banks a quick agreement would have been reached. The FED had a similar experience to the APS project. For two years they could not reach an agreement concerning the creation of a special fund with the CNCAS. When they accepted to share the risk, an agreement was reached in an hour.

- o A match did not exist between the original credit target beneficiaries and the lending mechanism. This was a more fundamental problem which existed in the original project, design and a serious oversight. Given the banking sector's traditional clientele it appears unlikely, at best, to assume that extending credit to small- and medium-scale businesses, many of which have no formal accounting systems, limited collateral, and limited previous contact with the formal banking sector, would be a commercial bank priority. A discussion with officers of BICIS is illustrative. Their ideal clients are business people, in the Western sense, entrepreneurs who can present a business plan, cash flow projections and with whom they (the bankers) can discuss in modern business terms and who can provide viable guarantees.

5 Letter from Maus de Rolley, Commercial Director of SGBS, to Mamadou Diouf, APS Project Director, June 7, 1990.

6 Exchange rate in 1989 averaged approximately \$US1 = FCFA300

- o Previous credit problems with entrepreneurs further exacerbated the mismatch. The Dakar bankers' past experiences with individual business people has not been good. As one banker explained, "there is one basic problem with credit here and that is that people don't reimburse."
- o Government intervention in forgiving agricultural loans on several occasions has not assisted in helping people to develop a good credit mentality. At the time of project design the banking system was facing massive loan defaults from bad loans, a proportion of which were to the agricultural sector for ground nut marketing.
- o The banking crisis caused the banking sector to shrink. Under such circumstances, banks attempt to consolidate, diminish risk, and reduce their administrative costs by dealing with larger secure loans as opposed to large numbers of small loans. This is the antithesis of what the original project design was asking banks to do.
- o As the project progressed, there was extensive debate about who the target beneficiaries were and how to extend credit to them. USAID increasingly advocated extending credit directly to the small- and medium-scale distributors, as well as to other cereals marketing and processing firms. The contractor felt that the principal project beneficiaries, distributors and farmers, could best be reached through the large companies involved in agricultural input production and distribution. This debate caused considerable division among all concerned.
- o Mechanisms already exist to provide credit to the larger companies involved in agricultural inputs and agro-industry. The majority of large suppliers or manufacturers are financed by parent companies through supplier credits and the commercial banking sector both internationally and locally. This is the case for SPIA and Mattforce, which have access to supplier credit for 90 to 180 days respectively.
- o The private distributors of companies like Senchim and SPIA are in turn financed through supplier credits and private funds. The terms of supplier credits vary from three to sixty days. Small private distributors of the aforementioned companies do not provide credit to their clients, thus contradicting another original project assumption.
- o In the case of the private distributors, the distribution system is analogous to a brokerage system. During the major agricultural campaigns there is a vigorous competition to collect CNCAS "input chits" from farmer groups. Participants includes numerous private individuals, farm group organizations, and newly established distributors of such companies as Senchim, SPIA and Mattforce. On the basis of

these chits and cash, clients' orders are placed for truck loads of fertilizer and other inputs from Dakar. When the trucks arrive in the area the inputs are delivered directly to the farmers. This has a number of advantages for everyone concerned. Distributors do not have to worry about the availability of large and costly storage areas. Their clients do not have to pay additional handling charges, as would be the case if the fertilizer was initially deposited at the distributors. Upon delivery of the fertilizer and other agricultural inputs the farmers sign over their chits which are then deposited in the distributor's account at CNCAS.

- o Competition is fierce among the different individuals and groups and the small and medium-sized distributors. It was very clear from discussions with these distributors that there was no need or desire to finance inventory through bank loans as supplier credits were much more advantageous. Small- and medium-sized companies were extremely aware of variable costs.

In rural areas CNCAS has helped to organize "forums" in an effort to obtain better farmer prices for agricultural inputs and machinery services such as land preparation. The forum re-groups different individuals and business wishing to furnish inputs and services to the agricultural sector. The participants are required to publish their prices, which are then posted at the CNCAS and at other organizations. This means that the more formal distributors, such as small companies representing Senchim, have to minimize their variable costs if they wish to remain competitive. Under these circumstances additional financial costs are anathema to them, as such costs would make the companies uncompetitive.

- o The system exists for financing distribution for the formal private sector and purchase on the farmers side. There are certainly constraints concerning the availability of production credit for farmers but these are not constraints which can be solved by distributor credits.

G. Conclusions

- o A niche does not appear to exist for the APS credit line within the input distribution system. Alternate more favorable credit terms exist. In the case of the larger firms the banks are already lending up to the limits which the banks consider prudent.
- o Further involvement by the banks with these large companies has little to do with liquidity and much to do with their internal risk evaluation vis-a-vis their clientele. In discussions with the bankers, it is clear that they were not interested in increasing their level of risk with certain of the main agricultural input suppliers. The banks are already lending

these firms as much as the banks consider financially prudent. This is confirmed in a September 19, 1989 memorandum that the COP wrote to the APS Project Director. In this memo, the COP described asking an SGBS official why SGBS had not made use of the APS credit line. The official replied that the agricultural sector is perceived by SGBS as a very risky one. He mentioned that only a limited number of larger clients, such as SPIA, could borrow funds under the APS credit line. However, he noted that since SPIA is already heavily indebted, SGBS might not deem prudent to loan additional funds to the company.⁷

- o The eminent danger under these circumstances is that instead of increasing value added in the private sector the banks will simply substitute project funds at a lower rate of interest for bank funds already available to the client at a higher rate of interest. This danger was illustrated in a discussion with one of the major banks in Dakar. In effect, some bankers saw the APS credit line as a opportunity to give their clients a lower interest rate. Many of their clients currently pay from 18 percent to 20 percent, as opposed to the 10 percent rate which is currently proposed by the APS project.

⁷ Memorandum from Chief of Party Jean Crouzet, to Amadou M. Sougoufara, APS Project Director, September 19, 1989.

IV. SEED COMPONENT

A. Objectives and Targets

The primary objective of the APS seed program has been to make a significant contribution to the goal of increasing Senegal's national cereal production by improving the quality and quantity of cereal seed multiplied. The project's role is to facilitate the transfer of cereal seed production, planning, distribution, and marketing from GOS to the private sector. By the end of the project, the seed program is to have strengthened seed production and multiplication to provide adequate amounts of high quality foundation and certified seed of millet, sorghum, maize, rice and cowpea to plant 1,350,000 hectares of cropland.

B. Support Envisioned

The project is to provide material support and technical assistance for improving the cereal seed research and production programs at the Institute Senegalais de Recherche Agricole (ISRA), the creation and implementation of a cereal seed certification program under the Direction de la Production du Controle de Semences (DPCS), and the strengthening of the private sector "seed system". Two long-term experts, a seed certification specialist and seed production agronomist, were assigned to work with DPCS, while a third expert, a crop variety selection agronomist, was to have been assigned to ISRA. Long- and short-term training is also to be provided for GOS personnel involved in seed activities.

C. The Process of Implementation

The technical assistance team's seed certification specialist and seed production agronomist arrived in Senegal in March and April 1989 respectively. The position for a crop variety selection agronomist to work with ISRA has yet to be filled. To date, seed activities have concentrated in the northern Fleuve region with emphasis on improving and promoting regional seed certification and private multiplication and production of rice and maize seed.

D. Findings

- o There is a clear need to target assistance geographically due to insufficient resources for a nationwide program. Insufficient project resources and Senegal's varied climatic conditions and cropping practices have limited the effectiveness of a highly diversified national cereals program. Therefore, it was clear that specific crops and areas had to be prioritized and targeted. The Fleuve region was chosen as an area of concentration due to its rapid annual agricultural growth rate and potential for growing crops under irrigation.

The crop chosen for primary focus was irrigated rice, with maize as the secondary focus.

In general, lack of cereal seed varieties having significantly better quality and production potential, without the use of other inputs and technologies, is a major constraint in convincing farmers to purchase improved seed. However, rain-fed rice grown in the Casamance region may be an exception to this, where it has been shown that improved seed varieties yield 40 to 60 percent over traditional varieties. Peace Corps Volunteers in collaboration with the USAID/Winrock project were able to achieve these results by working with farmers on planting 40 square meter plots. Larger fields are to be planted with these improved varieties in upcoming years to determine whether these increased yields can be obtained on a regular basis. Future plans are to expand the program to deal with other cereal crops. The area of concentration for the certification specialist is to be expanded to the Casamance area for the 1990 growing season to support the above USAID/Winrock program.

- o Faulty assumptions, particularly unrealistic projections of the market demand of improved cereal seed, have constrained the project. This is evident in that private seed producers have not been inspired to produce and market cereal seed except when supported by a government subsidy program, as is the case with irrigated rice production. The project assumption that cereal production would increase by 3.5 percent per annum during the life of the project has proved to be considerably off the mark. In fact, cereal production has not noticeably increased since the onset of the project and therefore market demand for improved cereal seed has not increased. The privatization intentions for cereal production of the project, in turn, could not be realized.
- o Management, administrative, and bureaucratic procedures have significantly limited the seed component's ability to conduct their day-to-day activities and therefore attain their intended objectives. From the onset, conflicts arose as to which organization the seed specialists were affiliated with, APS or DPCS. The technical assistants were eventually placed under the authority of the DPCS director, also the Director of Projet Triennal Semencier (PTS). DPCS is essentially financed by the PTS project (French funding) which brings about a direct conflict of interest for all APS activities since funds for APS seed activities are not controlled by DPCS. Thus, jobs and duties to be performed were hindered by refusals to sign needed documents and authorizations. These incidents would have been prevented if support by the contracting team's home office or the contracting team's Chief of Party had been forthcoming. This lack of support and inability to have a coherent "team"

has been very evident, and on numerous occasions, resulted in direct controversy and confrontation between the team members.

- o Inappropriate and technologically far too advanced laboratory equipment was ordered under the project and delivered before the arrival of the seed specialists. The equipment was ordered during the summer of 1988 by USAID under considerable pressure from APS and DPCS to respond to the seed analysis needs of Senegal. A national seed laboratory in Dakar, primarily funded by the PTS project, exists at DPCS and is operational. However, when there was a need to do seed germination testing for the seed survey, the seed specialists were obliged to recruit outside help and funding for the analysis. Presently, the majority of the equipment ordered under APS remains in the original factory packaging and is stored at DPCS's national laboratory.
- o Achievements have been made in increasing the participation of private seed producers in Senegal. These achievements have resulted from GOS's new privatization policy currently being put into effect and have been aided by the seed-related activities run by the APS project. Consequently, there are newly-established vegetable seed farms as well as individuals interested in launching rice seed production enterprises to service the irrigated rice fields in the Fleuve region. Other programs and projects unrelated to APS are impacting Senegal's agricultural sector using seed-related extension activities. For example, in the Winrock project, farmers benefit from selecting seed from their own fields, as well as from improved seed storage and conservation techniques.
- o Although seven long-term BS and MS degree training positions for seed-related activities were planned, only two seed specialists have been sent to pursue MS degrees. Other short-term programs which were to have been made available were not realized, in part due to contracting complications with the university involved.
- o There has been disagreement over the qualifications and duties of the crop variety selection agronomist. Of the three seed technical assistance positions, the position intended for improving varietal quality and purity in association with other seed-related problems at the breeder level has remained vacant. This has been due in part to ISRA's inability to properly define the duties and, therefore, qualifications for that position, and in part due to the difficult and confusing arrangements for the proposed tasks. The contracting team proposed several qualified candidates leading to the acceptance of one candidate. This candidate, an experienced plant pathologist, travelled to Senegal to meet with the officials involved. It was eventually realized that his qualifications were not necessarily those being sought and that there might be

difficulty in commuting from Bambey (a regional research station run by ISRA) to Theis. The candidate accordingly declined the position.

Confusion regarding the tasks and duties to be performed by the crop variety selection agronomist still exist between ISRA, USAID and the contracting firm. The belief at ISRA is that the position should help with specific seed problems arising from Senegal's varied climatic and agricultural situations by not only practicing proven techniques, but also by researching new methods of storage and multiplication of seed.

- o Efforts in seed certification activities have concentrated on improving the quality of the certified rice seed production while putting emphasis on promoting regional seed certification councils. It has been justifiably argued by the seed certification specialist that without a council comprised of private sector and public officials, a region's certification standards and effectiveness will be jeopardized. In essence, the private entrepreneurs involved in seed activities are essential to the council in promoting an established certification program destined for success in the absence of agricultural subsidy.

A survey to determine the quality of the seed used by the average farmer was done based on 613 interviews. Using the survey results, the certification program was able to select the most seed-conscious farmers for the 1989 rice multiplication program, while simultaneously conducting more rigorous field, sampling, laboratory inspections.

These more demanding standards led to the acceptance of only 64 ha. of rice grown under the farmer contract program from an initial 174 hectares selected. (In previous years norms for seed production of contract growers had not been adequately enforced due to a lack of proper direction and motivation of DPCS seed agents). In addition, strict supervision of the certified seed being produced was enforced before the seed was purchased and cleaned. For the 1990 growing season check-off sheets have been prepared as a means of follow-up and control of the multiplication farmers. This has resulted in the contractual farmers being faced for the first time with a rigorous quality control process and many were decidedly upset in 1989 when their crop was not accepted as seed.

Also for the first time, all bags packaged after conditioning by Societe National d'Aménagement et d'Exploitation des Terres du Delta du Fleuve Senegal et des Vallées du Fleuve Senegal et de la Faleme (SAED) under DPCS direction were tagged with a certification label for 1989 production year. These labels contain valuable information regarding the seed purity and

germination rates and can serve as an effective extension and publicity program for seeds.

- o A program which had been forecasted to train seed certification field agents never materialized although the training materials had been prepared and submitted for approval by the seed certification specialist. The reasons why are unclear. However, it is evident that administrative and managerial conflicts between DPCS and APS, as well as a lack of support from the APS staff, played a significant role in impeding the program's realization.
- o At present, the seed certification procedures are being conducted in spite of a lack of national seed legislation to enforce regulations that pertain to quality control. A draft of a pertinent legislative law has been prepared by the DPCS staff and submitted to MDRH for approval and registration. The submitted document is appropriate in that it has broad implications which tend to limit the over-restrictive role that legislation generally plays in a country that has a developing seed program such as Senegal. Seed certification is impossible to enforce without seed legislation.
- o Seed production and promotion activities of the APS seed component have primarily focused on seed production-related extension activities. Farmer training for seed multiplication through demonstration plots and improved use of agricultural inputs has been initiated, mainly in areas where maize is being promoted. Improved maize seed varieties have been planted in selected eastern regions of the Fleuve in plots of approximately one hectare. The seed production and promotion specialist is also known and thought of as a seed privatization and promotion specialist within the DPCS structure. Since privatization is clearly an activity needing a different methodology, this has led to confusion in the type of work to be performed and, among other factors, has led to activities distracting from the original objectives for that position, such as planting demonstrational fields that use improved agricultural techniques. As a result, the position deviates from essentially focusing on seed production activities to running an extension program.
- o Due to the seed production specialist's efforts, results have been positive for farmers who have been taught the proper cultural practices using their own labor. These farmers communicated to the seed production specialist their desire to abandon the traditional methods for the advanced techniques even though they have to purchase the needed inputs using borrowed funds.
- o Other public and private organizations are also conducting demonstrational activities. A more effective and efficient

program would be provided if these activities had been coordinated and conducted in collaboration with all the donors and institutions. For example, a very similar demonstration program is being conducted by Senchim, a company with great resources at its disposal, with maize production plots where all improved cultural practices are used.

E. Conclusions

- o The seed component of the APS project has been ineffective in meeting the project goals and objectives due to faulty design, unrealistic assumptions, lack of adequate resources provided, and poor administrative and management support.
- o The quality and orientation of a country's agricultural sector are closely related to the availability and use of sound seed. However, agricultural development is not based entirely on the availability of superior seed types, but is also dependent upon a program for the development and supply of other essential inputs; production, introduction and development of new researched varieties; and a fully functioning extension service.
- o The APS project was programed to support all but the extension elements needed for a successful seed program. Unfortunately, from the onset it has been considered by the principal staff as solely a credit program obligated to carry a seed component. A potentially viable seed component was compromised by excessive focus on the credit component of APS. (Ironically, during the course of the project, no credit has yet been issued.) While privatizing seed-related activities will benefit from availability of credit, insufficient focus on the seed-related activities themselves has hurt the entire APS project, including the credit program.
- o Seed certification is generally a necessary part of a national seed program which brings about assurance of seed quality to farmers/consumers which in turn increases seed demand and therefore seed multiplication and production (thus a market-oriented seed production program). In Senegal, procedures for certification have been implemented for some time and a certification structure is in place with the DPCS (which still exists but has been officially abolished since the restructuring of MDRH). Care must be taken to assure that this structure does not become dismantled causing the seed program to regress or require reassembly.
- o At present, certification can be more beneficial for Senegal's seed program if governmental policies continue to subsidize the production of rice and peanuts, two crops most likely to benefit from the program. However, if government subsidy and protectionism does not continue for irrigated rice, in

particular, certification advantages can be negated by possibly hindering the timely development of private vegetable seed production unnecessarily. Since private vegetable enterprises depend on ensuring the quality of seed sold for profit and their survival, they will continue to produce genetically pure, viable and vigorous seed with or without certification.

- o Senegal's seed-related privatization policy has required that the last step of the multiplication process (certified seed) be in the hands of private producers for the 1990 growing season with foundation seed production to be privatized the following year. Removing the production of foundation seed from the present institution (under the control of DPCS) is premature and could jeopardize Senegal's agricultural production and privatization strategy as they both depend on providing farmers with adequate amounts of top quality seed.

- o Since cereals are mostly a subsistence crop grown by farmers who traditionally select and save from their own production fields, the project assumption that the privatization of the production of all improved cereal seed would have a significant impact of national cereal production is questionable. Several factors influence the seed supply system and arrangements made by farmers: production objectives, whether subsistence or marketing; kinds of crops and area cultivated for each kind; availability of superior cultivars; availability of other inputs such as water, fertilizer, pesticides and farming implements; commodity prices; climatic conditions, both long-term trends and seasonal variations; and, the availability of cash or credit. The importance of these factors varies among farmers and the kinds of crops cultivated by individual farmers.

Subsistence farmers are usually interested not only in yield stability (risk aversion) but also in the consumption qualities of the produce (taste preference), the secondary uses of the crop (straw, stalks), and in obtaining potentially higher yields. They often feel that the desired crop qualities are more certain in traditional varieties and follow traditional seed saving practices. Market-oriented farmers, on the other hand, often feel that it is most cost effective to purchase seed every season from a reputable supplier than to take the time and effort to save seed.

Many farmers have several different ways of arranging for their seed supplies. Thus, a Senegalese farmer may save seed for his millet or sorghum crop, but buy or be supplied with peanut or cotton seed. For rain-fed rice, local tradition dictates that farmers select seed from their own field, which limits the potential market demand for rain-fed rice seed. Also, due to difficulty in accessing most rain-fed areas, only locally grown seed will be available to these regions. In general, market

demand and value of improved cereal seed in Senegal is minimal and leaves little incentive for private entrepreneurs to establish cereal seed production farms.

Presently, an exception to the incentive dilemma is irrigated rice which is a cash crop subsidized by GOS. Demand for certified rice seed has increased tremendously for the 1990 growing season and all indications are that it will continue to rise as long as the production of irrigated rice continues to be subsidized. Although 1990 is the first year that production of certified rice seed will be performed by private entrepreneurs, many individuals, both with and without prior farming experience, have approached the DPCS and the seed specialists to start producing rice seed. Furthermore, all of the 1989 production of certified rice seed has been sold by the SAED, not only to individuals interested in multiplication of rice seed but also to input distributors for resale to farmer producers. Clearly, this is due to the increase in market demand of rice seed and its sale price of FCFA 175 as compared to rice grain price of FCFA 80-110. Providing the producers with a thorough and effective certification procedure assures a continued increase in rice seed prices by insuring that the seed being sold is indeed of higher quality than non-certified seed. This in turn will encourage private farmers to produce more rice seed and private input distributors to buy more certified seed for resale.

- o Establishing a private seed production enterprise is costly due to the specialized equipment needed for seed production, conditioning, and storage. Thus, it is not within the ability (both financially and educationally) of every farming individual to launch a seed enterprise. Only medium to large farmers/companies will be able to invest the required amounts of capital and trained manpower for a cost-effective seed production farm. The availability of credit for these entrepreneurs would facilitate the establishment of seed farms and make the opportunity accessible to many more individuals.

- o A national seed program is needed in Senegal because of its long-term economic benefits which bring about development and improvement to the country's agricultural sector as a whole. And therefore such a program should not be based solely on its short- and medium-term financial feasibility. To fully examine the advantages and disadvantages associated with a partially-funded institutional seed program, a feasibility and financial analysis should be done. Appropriate questions at the present are: "What should be the scope, structure and means for implementing a suitable seed program for Senegal's changing agriculture?"; "What role and to what degree should the USAID play in the development of the program?"

V. STATISTICS COMPONENT

A. Specific Objectives and Targets

The statistics component was included in the APS project to provide the Senegalese with the capacity to improve the collection and publication of timely data concerning cereals. Data requirements were defined in general terms to include production levels, input utilization, and cropping areas. It was anticipated that this data would enable the government and the private sector to match better supply and demand. The data was also to be used to monitor and evaluate performance of the project and its impacts. The component also included a number of actions such as providing a resident statistics advisor, long- and short-term training and, equipment purchases designed to improve regional capacity and to strengthen analytical methods.

B. Support Envisioned

The plan was to post a statistical advisor in the MDR's Statistics Division (Division des Statistiques Agricoles, DSA) for two years. Activities of the statistician were to improve the statistical methods and sampling techniques used in the Division. The advisor was also responsible for providing short-term in-country training for Division staff. In addition, the advisor was expected to assist in the use and application of statistical software and data base management.

Equipment acquisition was planned to include calculators, motorbikes, and miscellaneous items for use by field enumerators. The purchase of personal computers and software was also planned for both the central offices in Dakar as well as for regional offices.

Training plans included the selection of a group of candidates for Master's level study in the U.S. In-country short-term training of staff was to be organized by the advisor.

C. Process of Implementation

The implementation of the statistics component has been beset with problems attributed to the overall delays in the initiation of the project. Further, the departure of the statistician only weeks after her arrival in the summer of 1989 contributed to more delay as time was spent to search for a replacement. No suitable substitute was found and funds for the statistical advisor have since been frozen.

Some equipment has been purchased. About fifty calculators are in use by the field enumerators to improve the quality of their yield measurements. An equal number of motorbikes are also in use. Personal computers and software are on order, but the request for their acquisition is delayed due to the need for export licenses for the software from the U.S.

Two individuals from the Statistics Division are now in the U.S. for Master's level training in agricultural economics. Other candidates are available for training but the Division can not spare them due to demands of the work program. In-country training for the staff in Dakar and the regional offices has not taken place due to the absence of the advisor.

D. Findings

1. Design and implementation issues

- o The statistics component was never properly integrated into the project, and linkages were not identified between the planned statistical activities and the project's fundamental goal and purpose;
- o The definition of the tasks of the statistical expert lacked focus and was ultimately the cause of dispute within the project unit;
- o Targets for technical assistance were set (e.g., equipment etc.), but the information objectives, priorities, and workplan were vague;
- o No substantial technical assistance was ever provided due to delays in personnel selection and the conflict within the project unit which led to the departure of the statistical expert;
- o Some equipment has been received and is evidently being put to good use; two individuals are in the U.S. for Master's level training, but their absence may strain the Division for current work;
- o Structure and methods for the use of the hardware and software were integrated in the workplan's objectives;
- o The component's activities were not clearly identified, and no mechanisms were defined for the dissemination of data to the private sector;
- o Mechanisms to monitor project impacts were not implemented.

2. Agricultural census and sampling methodology

- o Conducting an agricultural census now represents the highest priority to the Senegalese authorities. FAO has created a detailed three-year workplan for the census and is seeking the contributions of other donors, especially USAID. FAO expected APS to provide computers, sundry

equipment, operating funds for enumerators, and training at the regional and national levels.

- o The sampling methodology currently used for producing national agricultural data is inaccurate. Due to the lack of resources and absence of any national level statistics to guide survey design, the original sampling design technique used village population as a proxy for agricultural activity. Consequently the selection of villages for sampling in agricultural surveys is determined by population trends -- not agricultural lands or production levels. Estimates of national totals use these samples as their base. The national totals are derived from the villages sampled using the population shares of the sample villages. National statistics are consequently biased. These methods are still in use and probably contain sampling biases that affect national data results. These biases are due to the lack of an agricultural census to inventory lands and crop production.

3. Policy analysis and special studies

- o There is an increasing need for special studies of agricultural policy and privatization. Policy analysis for the government is needed to help identify and design the best policy instruments for the agricultural sector, particularly in such areas as consumer and producer price policy, export licensing, and input utilization. Secondly, analysis of privatization incentives to stimulate agricultural investment are also a high priority. Both areas will need timely and accurate agricultural statistics.
- o The original conditions that existed when the project was designed have changed. The priorities for the Statistics Division have more focus now and have evolved since the project was designed. For example, at the outset, price policy analysis was not seen as one of the objectives for the project. Now, the government's capability to design and monitor effective price policy to expand investment in agriculture is seen by both GOS and donors as a top priority. The World Bank is currently finalizing plans to provide support for agricultural policy analysis activities in MDRH. Although it is not anticipated that additional support for these activities will be necessary, it is unclear if the unit will address the precise data and analysis needs for privatization. For example, the structure, function and operations of the agribusiness systems, their operating constraints, and measures to stimulate the privatization process must be

understood by Senegalese authorities before implementing effective policy.

4. Regional data centers

- o The original regional level focus for statistics has not been implemented. Regional statistics offices manually conduct data compilations without the aide of computers. Production of reports containing timely production and input data are not available through APS. The Senegalese are producing a limited number of reports and conduct regular surveys of agricultural production and input use. They have limited resources. Field enumerators are part-time. Operating funds for items like gasoline for motorbikes are scarce. Staff in the regional offices have limited statistical knowledge and expertise, since although they are reasonably well-educated, most were trained as agronomists.

E. Conclusions

- o There was no "model" policy of privatization in agriculture used in the design of APS. The appropriate actions to be taken and the development of institutions to provide the mechanisms to support the free market were not clearly understood or predictable. Hence, it was difficult to select quantifiable milestones and objectives for the project.

The objectives of the APS project were known -- to develop free markets. What was unknown included the design of the system dynamics needed to develop a free market. Organization needed for public and private sector activity remains unclear. In order to know where one is going, it is essential to know where one is starting from. Basic demonstrations of expected market impacts using simple supply and demand concepts might have provided improved guidance.

- o Delays in the implementation of the statistics component are symptomatic of problems in the design of the project. Other delays are attributable to less complex causes. For example, acquisition of the personal computers and software has been delayed due to the need to obtain export licenses for the software from the U.S. The original request included a sophisticated software system named Paradox. Unfortunately, Paradox can be sold only in NATO countries. Consequently, it is essential to eliminate requests for such sensitive high-tech material from USAID projects; instead standard software such as Lotus and Dbase should be used.
- o The agricultural sampling bias issue strongly emphasizes the need for a national agricultural census to determine lands in production and cropping, not to mention other pertinent data.

The census is essential to improve the sampling design and weighting techniques used to extrapolate sample data to national estimates. It is the single most important statistics-related activity that is planned and ready for action.

- o The original objective to provide technical assistance for improving statistical data on the agricultural sector remains important. Regional statistics capacity is an essential component of the system. Organizing the resources to upgrade this capacity is a very important aspect of planning for both price policy analysis as well as the census. The ability of the Statistics Division and its regional offices to collect data and conduct special studies for privatization and price policy is currently very limited, almost non-existent. It is highly probable that the need for such information will increase in the coming years. This is especially true for private sector information requirements. Marketing studies in cereals and input supply are of timely interest and the expert knowledge needed to design and implement them is not available within the Division. Local private firms may provide a source of expertise for special studies that can limit the resources needed by DA to perform policy analysis.

- o The use of statistical data to document the impact of privatization provides a means to measure policy effectiveness. Accurate statistics can demonstrate the merits of good policy and are unambiguous indicators of policy impacts. Statistical data provides the basis for a feedback mechanism to guide policy implementation. If the policy works, the data will tell the story. If there are problems with the policy, the statistical evidence can be used to adjust the policy instruments. The quantity of data needed for this purpose is a function of the risk which political leaders are willing to take regarding policy changes. Consequently, agricultural policy objectives must be used to define the focus for agricultural data requirements.

Deciding on the quantity and quality of agricultural data needed for privatization is a balance of politics, economics and science. While larger sample sizes reduce the risk associated with the measurements, the cost of more data must be balanced against the risk of making the wrong decision due to imprecise analysis. In the Senegalese case, their current agricultural data has many limitations. In order to effectively guide privatization policy, the GOS will need to prepare for sustained activity to monitor agriculture.

VI. MEDIA COMPONENT

A. Specific Objectives

The APS media component was designed as an educational multi-media program which would use a variety of modes to disseminate information concerning the increased yields and financial returns obtainable through the use of improved seeds, fertilizers, appropriate agricultural equipment, and effective crop protection products. The specific objectives were:

- o To publicize GOS New Agricultural Policy objectives, activities, and accomplishments;
- o To disseminate information on market prices for agricultural inputs and outputs on a regular timetable;
- o To provide information on agricultural inputs, insects, disease apparition and treatment, and weather and planting dates;
- o To produce instructional materials and information on the use of inputs;
- o To clarify credit, cooperative and extension services available for obtaining and using inputs;
- o To encourage and advise on grass roots formation of cooperatives;
- o To reinforce the relationships between cereal production programs and seed banks, reforestation, vegetable gardening, local savings, cereals storage, and other farm level agricultural programs;
- o To organize special contests and awards for farmers; and
- o To organize exhibitions of new seed varieties, chemicals and mechanization practices.

The primary audience was to be the farmer, both male and female. The secondary audience was designed to be private sector business men and women and key public officials.

B. Support Envisioned

The project budgeted \$ 500,000 over the length of the project for technical assistance, training, and the production of local media materials to include television, radio, films, newspapers articles, posters, and instructional materials such as brochures and fliers.

Radio was signaled out in the Project Paper as the most effective means to communicate to the primary audience. Baseline audience research data was first to be gathered through consumer and market research. Small pilot media trial themes were to be created, designed, and pretested before production. Evaluation and feedback studies were to follow all the campaign and determine audience impact.

The media campaign was to be managed by the APS Project Director, the contractor, and the MDR. It was to be implemented by local private sector firms which were to conduct market research and produce advertising media. Short-term media consultants were to advise on an effective publicity campaign and to contract with local private sector market research firms to research, design, test and produce mass media broadcasts, press and print publications, and field level audio visual materials which were to be "ethnic specific and contained in the value system of the target group."

MDR personnel, including research and extension staff, were to participate in the development of the primary messages. A coordinating unit was to be formed of organizations such as ICS/SENCHIM, SISMAR, DPCS, DA, CNCA, ISRA, and the GOS state operated television services, Office Nationale de Radio et Television du Senegal (ORTS).

Training for media program staff was to have been in the form of travel in order to observe media programs in other countries with experience relevant to Senegal.

C. The Process of Implementation

The 1989 agricultural season MDR/APS input promotion campaign contract (\$92,235) with Amadou Sene of Sene Communications, a Dakar media consulting firm, was negotiated and signed by USAID on behalf of the APS project using project funds. The purpose of the contract was to implement an agricultural production input promotional campaign "to enhance private distribution, marketing and consumption of agricultural inputs" which would:

- o Assure farmers of positive results of improved technological package;
- o Clarify agricultural credit systems using APS or PTS project lines of credit;
- o Show appropriate utilization of input technical packages on select field trials; and
- o Disseminate MDRH policy statements and information about operational programs.

The campaign was to consist of 93 radio broadcasts, which were to include: 45 national broadcasts from Dakar, 20 regional broadcasts in

Kaolack, Zuiginchor, and St. Louis; and 28 thirty second spot announcements (no geographic focus defined). A film/video was planned to publicize field trials on improved seed and input use. Five thousand five hundred technical manuals ("guides") were to be produced for farmers, as well as 60,500 technical brochures ("fiche techniques") on such topics as fertilizer doses and improved seed varieties. Twenty village meetings with APS and coordinating organizations were scheduled, fifteen at "communaute rurale" (farmer) level and five at Chamber of Commerce locations with trader and public official groups. These meetings were also to include audio-visual materials such as posters, color slides and film presentations, and color photo exhibitions. Translations of existing Senchim and Sismar promotional French films into local languages in addition to edited audio recording mixes of the village meetings were also part of the campaign package.

D. Accomplishments

The 1989 APS media campaign accomplished the following:

- o 52 radio broadcasts of 30 minutes duration in six national languages, one radio program with "Eaux et Forêts," and 18 public announcements for village and Chamber of Commerce meetings;
- o 36 village and Chamber of Commerce meetings which were attended by 1214 farmers and 350 traders;
- o 500 copies of each of two different posters were produced;
- o 500 technical manuals and 1500 brochures were printed; and
- o One 20 minute 16 mm film production was developed and was copied in VHS and beta video.

E. Findings

1. Media Promotion Contract

- o The USAID contract with Sene Communications utilized APS project funds in a way which suggests an effort to bypass full and open competition. The reasoning USAID gave was "it was necessary in order to save time." Moreover, Sene Communications is an independent, sole proprietorship which has neither the staff, the professional marketing background, agricultural expertise/field experience, nor the resources to perform the contracted tasks. Sene Communications' qualifications have also been seriously questioned in official documents and his performance in

past USAID projects has never been evaluated. The Sene contracting process has caused contention and suspicion on the part of APS and MDR directors. In interviews, these directors indicated that they consider USAID as having acted in a heavy-handed and paternalistic manner in the Sene contracting process and in the handling of the media promotional campaign.

2. Technical assistance for media

- o The technical assistance funds allocated to complete baseline communications strategy and design surveys were never utilized.

3. The 1989 APS media campaign

- o It is virtually impossible to verify the exact number of audio recordings presented due to the lack of coherent identifiable project design targets as specified in the USAID/Sene contract and the confusion concerning the materials actually produced as outlined in the Final Report. The only contract mechanism was through the Comite des Intrants and these reports have little detail of these numbers. No verification system such as transcriptions in French was established for the radio messages in the various local languages. It can only be said that of the 93 programmed radio broadcasts, 52 were produced, which represents 56% of the targeted contract. The 18 public announcements for town meetings were not considered as contract target goals;
- o One hundred percent of targeted goal of the film/video production was realized;
- o Nine percent of the manuals were produced (500 of 5500);
- o One hundred eighty percent of the targeted meetings were accomplished;
- o 1000 posters and 1500 brochures were also produced.
- o The USAID contract with Sene communications established no production quality control systems. The Comite des Intrants had established a technical committee, but they only exercised agricultural technical input approval rather than any decision making or qualitative oversight or evaluation.

Ousseynou Diop and Aly NDao Rapport de Mission. Campagne de Promotion des Intrants Agricoles. (Dakar), July 1989, p.7.

4. The 1989 media campaign for agricultural inputs

- o Town meetings were called where farmers were asked to express their concerns and the six to seven member agricultural inputs team (which included representatives from APS, Projet Triennial de Semences, credit agencies, Senchim, Sismar, Direction de l'Agriculture, DCPS, Projet Maize, and Projet Nematode) would respond. All the meetings were recorded by a national radio team. This procedure was a logical national time-honored generic procedure which has some inherent messages to the farmer. However, such meetings are familiar and repetitious to farmers trying to voice their opinions to officials and are rarely seen as a dialogue or open two-way communication. The presence of the radio team even further inhibited open and free discussion. Also, no films, slides, or prints were shown and little instruction was given; it was neither promotional nor educational but simply another one-way communication from the government to the farmers;

- o There were a number of problems with the media campaign. First, there was no feed-back system established other than anecdotal comments given by various members of the group to the Comite des Intrants; second, the timing of the campaign (June-July 1989) was inappropriate as farmers were busy with their preparations for the agricultural season. It would have been better to organize these sooner, in December-March when farmer are occupied less by their farming concerns and would have more time to reflect;

Third, this was an overly cumbersome and expensive procedure which is not cost-effective due to the logistics and transportation concerns of a 5 - 10 member team in 36 locations around the country. It is also questionable why the concentration of 180 percent of the targeted goal was so highlighted in the campaign without any measurable impact on dissemination of information to farmers. It was an inept approach to information collection and dissemination;

- o No materials from the media campaign were available. No transcripts of radio transmissions were available, nor was there a chronological timetable or information about where they were transmitted on the national radio system. A video which was produced was screened for the evaluation team, but no copies were subsequently available. The screening was in Wolof, and no French text

transcription was available at the time of this evaluation;

The video is a duplication of a similar Senchim video effort on field trials. It is even more convoluted than the Senchim film because of the number of commercial companies which required for equal time in the presentation (two minutes each) and because of the number of products of these commercial firms being promoted. The utility of the message of the video is questionable because of this factor;

- o The technical manuals were not useful to the farmers. The manuals were intended to be detailed technical guides that farmers could refer to for technical advice in the absence of an agricultural extension support. They were apparently intended for illiterate Sengalese farmers. However, it is doubtful that the visual messages could be understood by the intended audience due to the modern generic graphic symbols that were utilized. This manual should be tested and revisions made before any more copies are produced. The idea of a compact plasticized guide/booklet is good as a format although unfortunately the content is not self-explanatory and could be counterproductive; and
- o The posters that were produced had discordant graphics and text. Colors and graphic appeal are inappropriate for the agricultural sector audiences. The concepts and symbols are not clear, informative, or interesting, and the information is too general and vague. Further, the USAID logo is too obvious.

F. Conclusions

- o The targets and objectives of the media component were but a shopping list of possibilities without direction or strategy. The lack of coordination of the APS media campaign without quantitative or qualitative guidelines has resulted in the loss of a coherent message of the government NAP's privatization program and of the APS project. A media program which has a social marketing component must recognize that communications and the production of the supports (radio, television, film, printed and audio visual materials) is only one part of a total marketing program. Research should be done through marketing data collection and the messages should be targeted to different audiences which are preselected and tested for their appropriateness. Clear definition of what is transmitted and subsequent evaluation are some of the steps that are necessary to create a coherent marketing communications program that

would ensure proper use of funds spent and effective delivery of messages;

- o The APS Project Paper targets for the media component were extremely vague: "To hasten and assist the process of farmer acceptance of improved agricultural technical packages and communicate NAP objectives" and gives the underlying assumption that mass media campaigns are considered to be a panacea for the lack of an integrated approach to the use of media in the development extension process. Although the Project Paper clearly lists the available media options currently existing in Senegal, such as radio, television, audio visual, and print services, it does not begin to develop a systematic alternative approach on direction to the use of media to extend agricultural extension information or give any indication that these modes should be learner-biased. It only concentrates on the production and transmission bias. Moreover, communication strategies which are applicable in modern technological societies have often proved to be ineffective and counterproductive in the developing world. The Project Paper underlying assumptions suffer from this basic flaw and the production preoccupation of the implementation was a direct result;
- o High quantity technical services do indeed exist in Senegal but the question remains as to how best to integrate and influence the cost-efficient use of educational extension media into the national broadcast and extension systems and how to use them effectively;
- o Although an independent Senegalese media specialist was contracted by USAID using funds from APS project, USAID unilaterally signed this contract and sought approval through the joint MDRH/APS Comite des Intrants. This unconventional management procedure has caused heated contention from the MDRH and the APS director and has surely detracted from the original intent of the project paper to produce a coherent media campaign in support of the APS objectives.

VII. RECOMMENDATIONS

A. Principal Recommendation

- o The project should be suspended and redesigned. The project's goals and objectives should be narrowed and refocussed, and the project should be restructured with a more limited range of activities directly aimed at achieving these goals and objectives.

The reformulated project should be carefully designed in order to assure that the underlying assumptions are indeed valid and that the resources provided are sufficient to enable the project to achieve its fundamental objectives.

- o Any remaining project resources not utilized for the development and implementation of the redesigned project be reprogrammed for other activities aimed at the development and privatization of Senegal's agricultural and agribusiness sectors.

B. Credit Activities

- o The GOS and USAID should consider redirecting a portion of the remaining project resources for the development and implementation of a credit activity to deliver financing and other necessary support to agribusiness enterprises engaged not only in cereal-related activities but also in other economically viable agriculturally-related activities. The delivery of credit and other business support to private sector agribusiness firms represents an area of highest priority for the development and privatization of Senegal's agricultural and agribusiness sectors. The target enterprises should include not only the larger agribusiness firms, but also small- and medium-scale businesses, including commercial farming operations. Further, the geographic scope of the credit delivery should encompass not only Dakar, but also secondary towns and selected rural areas.
- o Delivery mechanisms other than the commercial banking system should be considered. Before the design of the proposed credit activity a comprehensive analysis of the viability of various alternative delivery mechanisms should be performed. This study should include an assessment of the precise nature of the credit and other needs of agribusiness firms and commercial farming operations in order to assure that the delivery mechanism can successfully meet these needs. Finally, we recommend that the study include an assessment of successful

USAID credit programs worldwide, particularly those which have incorporated more flexible and innovative credit delivery conditions than those included in the APS project design.

The activities of the project's other three components should not be retained within a single project and alternative mechanisms should be identified for the financing of these activities.

C. Seed Activities

- o Support for project activities related to rice seed quality control and certification should not be continued at the present time. The principal reasons for this are as follows:
 - Seed certification activities should not be restricted to a single crop or crop group, but any certification activities, as well as the legislation required to support these operations, should be part of a national seed certification program for all crops. The team believes that such a program is not currently the highest priority for Senegal's agricultural privatization efforts, partly because it would impose unnecessary restrictions on the private sector seed multiplication and distribution activities which are successfully being developed at the present time. In order to develop and maintain their markets, these seed companies will be obliged to offer genetically pure, vigorous, reliable seed even in the absence of government certification.
 - Despite the judgement outlined above, the team did consider recommending continued support for present rice seed quality control and certification activities in irrigated areas, where the private commercial farmers have shown considerable interest in undertaking seed multiplication activities and have benefited from project assistance. However we concluded that continued support in this area was not justified at the present time for the following reasons: (1) such support could be accomplished by a relatively small project; however small projects are not suitable to USAID's management capacity, where, because of limited manpower in the Dakar mission, USAID is obliged to concentrate its resources in a few, relatively large projects; (2) in recent years commercial rice production has been highly protected by GOS pricing policies; however discussions are currently underway which, according to high level sources, will most likely result in an reduction of this protection, thereby reducing the profitability of commercial rice production and encouraging farmers to diversify their production in irrigated areas into other more profitable crops.

- o Support should be considered to provide guidance in order to improve the quality of breeder seed produced. Breeder as well as foundation seed should continue to be produced under GOS's production system. Foundation seed production should not be turned over to private producers at the present but should be produced by the seed production unit of ISRA. However, care must be taken to produce only the amount demanded by private enterprises producing certified seed. GOS should refrain from reinvolving itself in the production of certified seed.
- o To increase agricultural output, seed-related extension activities should not be overlooked. These include, but should not be limited to, additional support for seed programs and projects already in progress. One such program involves Peace Corp Volunteers and the USAID-Winrock project. Volunteers are a very effective mechanism for dissemination of agriculturally-related information and should be included more extensively in seed extension activities. These types of programs have both short- and long-term economic and socio-economic impact on farmers and the farming community. Extension activities in familiarizing the farmers with the advantages of using quality seed leads them to appreciate the importance of planting quality seed and therefore increasing seed demand and private seed production. This also facilitates the task of making farmers aware of and accepting new varieties released by research organizations and, therefore, eventually changing the total seed gene pool, leading to the increase of agricultural production.
- o GOS seed policies should be supported to continue encouraging the involvement and expansion of private seed enterprises evolving in Senegal. Senegal could profit considerably from the marketing experiences, managerial skills, and financial resources of established domestic and international seed enterprises.
- o Governmental agencies involved in seed production and distribution should not be under the same office (as is presently the case in MDRH), certification and quality control unit since the two tasks require different organizational structures and personnel. There is a direct conflict of interest involved in structures such as the one presently existing, since it is virtually impossible to demand and enforce the production of quality seed when production is being done by the same certification agency.

D. Statistics-Related Activities

- o Resources for the agricultural census should be made available in the near future to enable DSA to start data collection next year. A long term technical advisor is needed in the DSA to help with the census, especially for training in the regional centers. Statistical data reporting and analysis for use by the private sector should be defined and some trials selected - perhaps encouraging development of local firms for this purpose. Equipment is also needed for the census and regional data centers. This includes a personal computer in each regional office and several in the Statistics Division and Policy Unit. The census plan also anticipated APS provision of other equipment such as motorbikes and sundry technical instruments. The structure of this support should be directed within the Statistics Division where feasible. A liaison with the Policy Unit to encourage effective data utilization should be designed.

- o Tuning and calibration of remote sensing data should be initiated to supplement normal agricultural data sampling precision. Short-term technical assistance support would be useful to assist with the tuning and calibration of satellite imagery in order to assess prospects for automating collection of agricultural production data. The Division barely has the capacity to send enumerators in the field part-time to conduct crop and areal measurements for national data reporting purposes. Without additional resources, it will be difficult to sustain the remote sensing project with practical applications in the agricultural sector beyond its current life. Remote sensing is a promising technology and offers the prospects of greatly improved production estimates for crops. The verification of the validity and accuracy of the remote sensing data through tuning and calibration would provide a convenient linkage with the Division. If this trial phase works well, statistical automation of the satellite data interpretation and compilation can subsequently proceed. Future USAID participation should be planned year to year, contingent on the merits of performance of the project. Further details on the assistance needed in the remote sensing area are provided in Annex 4.

E. Media Activities

- o USAID should reconsider its "add-on" communications policies to projects and seriously consider the fact that it is only through a systematic marketing approach that real communications can happen.
- o USAID should carefully review its procedures regarding its unilateral contracting actions which had a serious implication for coordination and management of the media component. USAID should determine if an audit control is necessary.
- o A feasibility study should be made of the necessity and viability of a pilot media coordination unit to analyze appropriate marketing media and communications strategies that would be used by GOS international, and regional organizations. This pilot project would initially assess the following activities:
 - GOS/ORTS radio and television activities;
 - Private sector marketing and advertising activities;
 - Media and equipment facilities;
 - Creative media planning and productions;
 - GOS media programming statistical research;
 - GOS extension and media usage;
 - GOS media training.

This pilot project could be located at CETAD/POUT training center (USAID-financed agricultural training and audio visual production center). This center could be rehabilitated and used as part of media coordination unit complete with production studios. The proposed project could be eventually integrated into GOS Programme National de Vulgarization Agricole (PNVA), the national agricultural extension service.

VIII. LESSONS LEARNED

- o Pressures to accelerate the project design and approval processes without thoroughly researching and verifying the critical underlying assumptions of proposed projects should be strongly resisted. Proceeding with a project which is based on unverified assumptions can lead to a waste of project resources and of host country, contractor, and USAID staff time (as well as the time of any private sector institutions involved) as fruitless activities are pursued or as implementation time and funds are expended to validate assumptions and decide on alternative courses of action. Further, the resultant delays in project implementation and the failure to make clear progress towards the achievement of the project's goals can damage the credibility of the institutions and individuals involved, particularly USAID, and can act as a disincentive to subsequent collaboration between private sector organizations and public sector projects.
- o The linkages between project goals and objectives and the activities designed to achieve these goals and objectives need clear verification during the project design stage. Project designers should resist including activities which, however useful for other purposes, do not directly contribute to the achievement of the project's basic goals and objectives. Further, any mechanisms necessary to achieve these linkages need clear specification at the design stage.
- o During project design, clear lines of authority and responsibility must be established between any participating institutions and individuals. Effective project implementation should not be entirely dependent on the anticipated collaboration of numerous different autonomous organizations.
- o Projects with multiple and diverse goals and objectives and which require the management participation of numerous different public and private sector institutions are extremely difficult to manage as projects and require excessive time and effort to achieve effective coordination. Further, they are not appropriately suited to USAID's management structure and operations.
- o The formulation of effective privatization policy and projects depends on a thorough understanding of the operations, constraints, preferences, and needs of private sector organizations which are expected to assume the roles formerly performed by public sector organizations.
- o Privatization per se is not a panacea for public sector problems. Even when the private sector is able to perform

particular functions more effectively than public sector institutions, other conditions and/or supporting factors will be necessary to assure the success of privatization efforts. In the case of the seed component, such factors include the availability of a quality product to deliver (improved varieties suited to farmer circumstances), an effective demand for these products and other inputs, infrastructure and delivery systems to permit the distribution of these products, effective public or private sector extension support, and access to the financial resources and technical support necessary for the start-up, expansion, and diversification of seed and input production and marketing activities.

- o As the experience of the credit component demonstrates, if private sector firms are to actively collaborate in USAID projects, these firms must be provided attractive incentives for their participation, clear yet not overly restrictive guidelines, and more timely feedback than is usually the case with public sector institutions; further, reporting requirements and obligations to attend meetings and be interviewed should be minimized.
- o Targeted assistance for a narrowly defined goal (such as aid directed at only one commodity) is likely to be an inefficient mechanism to achieve that goal if the assisted individuals or institutions, whether public or private sector, perform a variety of tasks not directly related to the specific goal. Such targeting may impose artificial and counterproductive constraints on the recipient's activities; alternatively the assistance may be used for unintended purposes. Further, the control and monitoring of the use of the assistance is exceedingly difficult and sometimes impossible.
- o The host country contracting mechanism, which, even under the best of circumstances, is more cumbersome to administer than alternative mechanisms, is particularly inappropriate for complex projects involving numerous host country government institutions.
- o If there are strong misgivings concerning the design or start-up performance of a project, a start-up evaluation should be conducted.

ANNEX 1

Scope of Work

BACKGROUND

Project Problem:

The performance of Senegal's agricultural sector has been declining on a per capita basis over the last decade. Continuation of this trend will mean that the agricultural sector's capacity to produce enough food to feed Senegal's people will grow into a more serious food deficit crisis as time passes. Senegal's economic performance depends on a dynamic contribution by agriculture to the overall gross domestic product via viable employment of close to 70% of the labor force and the generation of hard currency via agricultural exportation. Unfortunately, as Senegal's population grows from its current 7.2 million people, pressure on tillable land may continue to increase at alarming rates. Thus, Senegal's agricultural development options need to be assessed and acted upon now to reverse the downward performance trend.

Basic Project Hypotheses:

1. Farmers are sensitive to private signals and would intensify crop production rather than continue with low input, extensive production.
2. Intensive crop production, higher yields, and increased income would expand demand for high quality seed, fertilizer, equipment, and pesticide.
3. Increased market demand for certified seeds, fertilizer, crop protection products, and farm equipment would lead to an increased need for credit for private sector input marketing firms.
4. A private sector network of Senegalese business entrepreneurs could distribute and market production inputs.
5. Private sector seed production would expand to meet increased demand for certified seed.
6. Commercial banks, if given access to additional loan funds, would provide credit to input traders and assume 100% of the credit risk.
7. Project investments and interventions would generate an internal rate of return equal to 16%.

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Summary of Four Project Components:

The Project has four components: Privatization Credit, Privatization of Input Supply and Seed Marketing, Agricultural Statistics, and Media.

1. Privatization Credit Component:

A shortage of credit available to private sector firms engaged in input production and distribution was limiting this sector's ability to expand productive capacity and to assume a greater role in inputs distribution. Likewise, cereal production marketing, transformation, and distribution was limited due to a lack of credit. Capital appeared not to be available within the banking system, thus the credit program would provide additional capital for the agricultural sector above the credit ceilings imposed on the banks by the BCEAO.

2. Privatization of Input Supply and Seed Marketing Component:

As the GOS limits its role in distribution, production, transformation and marketing of crop production inputs, the project looks toward expansion by the private sector to meet the demand for increased production, distribution and marketing of certified seeds, fertilizer, crop protection products, agricultural equipment, and manual hand tools. To achieve this objective, the privatization component would bring together Ministry of Rural Development (MDR) agents, credit institution personnel, private sector input producers (SENGHIM, SISMAR, SPIA, etc.), wholesale/retail traders, transformation agents, credit agents and farmers. The development of a private sector seed industry and strengthening seed research under ISRA (Senegal's Agricultural Research Institute) and the seed quality program under the Direction de la Production et du Controle des Semences (DPCS Seed Service) is a high priority under this component.

3. Agricultural Statistics Component:

This component would upgrade the MDR's capability to estimate area planted, inputs used, and agricultural production. This component would involve farmers, Direction de l' Agriculture agents and their statistics network, and end-users of agricultural statistical services.

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4. Media Components:

This component would increase access to information by the project's beneficiaries, in order to promote and educate wholesale and retail traders and farmers to the benefits of privatization of input marketing and expansion of farm demand. The media component would involve farmers, MDR agents, credit institution personnel, private sector entrepreneurs (i.e. SENCHIM, SISMAR, and SPIA) media consultants and their media networks, and wholesale/retail traders.

Project Implementation Experience:

Since the Project Grant Agreement was approved on February 23, 1987, implementation efforts have uncovered basic flaws in the original project design. During the past two and a half years, the project has encountered delays in the approval of contracts, the delivery of technical assistance and the implementation of participant training and fallen well behind the original timetable. In light of the delays in project implementation, the project's objectives, as currently stated in project documents, needs to be assessed to verify if they are too ambitious for the remaining time, resources, and funds allocated under the project. Thus, a complete evaluation with emphasis on project design, underlying assumptions and constraints is needed.

The Joint Project Evaluation Objective:

Working in collaboration with representatives of the GOS and USAID, the evaluation is to assess the validity of the APS project's concepts and design. The evaluation will assess the project's achievements and short-comings within the context of the existing design. USAID wishes to clarify that in the event that the evaluation findings recommend a project extension, reorientation or redesign, the evaluation team is not expected to produce a new project design. However, the evaluation will set forth options for meeting the project's current objectives or proposed revised objectives, including a discussion of the pro's and con's of each option.

Applying tests of economic feasibility, enterprise profitability, compatibility with GOS development policy and potential development impact, the evaluation may make recommendations on the need for new or revised project focus. The evaluation will also identify alternative approaches for achieving the desired objectives while respecting the interdependencies between the various components. The evaluation recommendations will be specific for each of the four project components and should include detailed recommendations relative to retention, expansion or elimination of any intervention proposed.

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ARTICLE I - TITLE

Agricultural Production Support

(PROJECT NUMBER: 685-0269)

ARTICLE II - OBJECTIVE

The project purpose is to facilitate privatization of agricultural input distribution and seed multiplication activities in Senegal. By 1992, the private sector should produce 60 percent of the cereal seed requirement and distribute 75 percent of all fertilizer, chemicals and equipment.

ARTICLE III - STATEMENT OF WORK

Evaluation of Project Design:

The joint GOS-AID evaluation will begin with a review of the general problem to be addressed by the project and overall project concept, as identified by the Project Paper and Project Grant Agreement. The evaluation will consider both the situation at the time of project design in 1986 and the lessons learned from project implementation to date for each of the project's four components. The following questions will serve as examples of the fundamental issues to be questioned by the evaluation team:

- Is the problem, as defined in the Project Paper and Project Grant Agreement, still valid and does it represent a high priority now for the GOS?
- Is the Project, as designed in the Project Paper and described in the Project Grant Agreement, an appropriate vehicle for resolving the problem, as identified in 1986 and/or as it now exists? If not, how should the project be modified to fit current realities?
- Are administrative linkages too complex for effective Project Implementation?
- Is the Project Implementation timetable too short to permit achievement of the desired project objectives?
- Should the scope of the project be reduced or changed to narrow the focus of the project?

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Privatization Credit Component Evaluation:

The Project Paper identifies limited access to farm credit as a major constraint to expanded demand for inputs via farmer adoption of improved technology and increased intensified cereal production. Likewise, access to credit by private sector traders, transforming agents and marketing agents also is limiting the rate of expansion by the private sector to fill the gap created as the GOS disengages. The Project Paper further assumes that commercial banks will support the development of private sector marketing systems by making credit available to input producers, traders and distribution agents. Subsequently, these marketing entities would extend credit on to crop producers and farmers.

The evaluation team will assess the lending policies and programs of commercial banks and other financial institutions, with emphasis on their role in financing production input marketing, importation, manufacturing and/or distribution as well as the processing, storing and marketing of agricultural products. The review will also assess relevant USAID and GOS credit policy and programs. The evaluation will examine the question of why the credit component of this project has not disbursed any credit to date. The analysis should include an assessment of institutional capacity (organizational structures, personnel procedures, policies and financial resources) to perform the credit functions envisioned in the Project Paper and the Project Grant Agreement. The evaluation team will also review the analysis and assumptions underlying identification of this "credit problem" for consistency, relevancy and accuracy. Likewise, the evaluation team will address the following questions:

1. Is the credit problem properly identified and defined?
2. Is the resolution of the credit problem a GOS priority now, with respect to the project's purpose, and if so, what is a reasonable time frame for its resolution?
3. Are major constraints to the utilization of credit properly identified and defined?
4. Is the project's credit delivery system appropriate for known credit demand?
5. Is the current credit system receptive to change or expansion into high risk agricultural credit and at the same time, benefiting the intended project beneficiary group?

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6. Are the credit terms currently offered in the Project Agreement and subsequent amendments appropriate or should they be changed?
7. Should the credit program remain focused on cereals or should it be opened up to other agricultural products and agro-business? If so, what kind?
8. Is it feasible and appropriate for the project to consider the option of direct delivery of credit to agricultural producers?

Treatment of these questions will require a special effort to review and compare the constraints, priorities and assumptions stated in the Project Paper and Project Grant Agreement with the project's present situation. The evaluation team should consider presenting the results of their analysis by sub-activities of the credit component. It may also be necessary to consider firm size and the type of organization used by each firm, i.e. individual entrepreneur, private corporation, mixed private-state, individuals formed into private economic interest groups (GIE), etc.

If credit is found to be a key constraint to achieving project objectives, and if commercial banks are not viable instruments with which to deliver credit to the desired beneficiaries, then alternative options including methods of making credit available through the private sector should be identified and their respective advantages and disadvantages cited.

B. Privatization of Input Supply and Seed Multiplication Evaluation:

1. Seeds:

a. The project paper and project grant agreement identify a supply shortage of improved cereal seeds as a major constraint to the expansion of intensive agriculture production. The project was to provide technical assistance and material support for:

- improving the seed research program at ISRA,
- creation of a seed certification program at DPCS Seed service and
- creation of a private sector "seed system"

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In collaboration with the APS Project Staff, the evaluation team will review the assumptions and analyses underlying these three programs. The evaluation will assess and address questions, such as the following, about project interventions:

b. Are the assumptions and analysis underlying the identification of the "seed constraint" as defined in the project paper and project grant agreement still a high priority with the GOS? The review will address farm level profitability, farmer attitudes, and market potential, including consideration of commodity focus, for example, cereals vs vegetables. The review will also assess the limitations for private sector seed multiplication growth potential, and the tendency for the GOS disengagement from seed production to be moving very slowly.

c. Review of the "improved seed" production, marketing, quality control and certification system as it now exists, including relevant and related experiences from other projects. The linkages between ISRA, DPCS, and seed marketing agents will be reviewed. The review will explore and describe other donor seed programs and whether the current seed component of this project is duplicating or complementary to other donor seed programs. The review will focus specifically on project design issues, and subsequently an assessment of project implementation issues. The inputs marketing survey conducted jointly with ADO, MDR and APS staff prior to the arrival in-country of the evaluation team will provide additional information needed to complete the evaluation.

d. Design Alternatives: If seeds are judged to be a constraint in increasing cereals production within the project's purpose and the present design is judged to be inappropriate and not feasible, the review will identify alternative approaches and specify respective advantages and disadvantages linked to each approach. The review will include any additional analysis of resources planned and/or required to carry out a viable seed privatization program under this project. The review should also consider whether it is appropriate to continue with a seed component under the project.

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2. Fertilizer, Chemicals and Agricultural Equipment:

Project design was less specific on matters related to fertilizer, agricultural chemicals and agricultural equipment than it was on seeds. However, the evaluation team will review the related assumptions and analysis in the project paper and the project grant agreement to verify that they continue to be appropriate. Like the evaluation of the seed program, the analysis of these inputs should include an assessment of the marketing agent's profitability, the farm level profitability, the farmer's attitudes and their market growth potential. A part of the information needed to conduct this review will be available in the inputs marketing survey report to be completed by an in-country contractor prior to the arrival in-country of the evaluation team.

C. Statistics:

The project is designed to provide limited support to the Agricultural Statistics Division (Direction Statistique Agricole) of the Direction of Agriculture/MDR. The relevance and relative priority of this component will be evaluated with respect to its contribution to achievement of the overall project objectives. The evaluation team will assess planned resource allocation and potential impact by addressing questions such as the following:

1. Are objectives of the statistics component feasible with the level of inputs and time provided in the project design? Is the statistical methodology being used the most appropriate needed to assure achievement of the project's objectives?
2. What is the importance of the statistics program to the support of the other project components and to the decision makers within the GOS and donor community? Do the reports generated have an impact?
3. What are the options concerning the possible relationship to a four year multi-donor agricultural statistics project not being planned by FAO and MDR? What revisions in the project would be needed, in light of current or planned donor assisted statistics programs?
4. Is the statistics component of the project still appropriate or should it be phased out in view of the other current or proposed donor programs in this area?

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D. Media:

The evaluation team will review the media component to assess its link with the other components, extension programs and agriculture's private sector. Is the use of media, as set forth in the project paper, the media specialist contracts between USAID and Sene Communications, and the 1989 MDR-Chemonics Annual Work Plan an appropriate means to achieve the project's purpose? What are the options to improve the impact of the media program and to assure achievement of the project's overall objectives? What relationship should the project's media interventions have to Senegalese extension services? Is the media component still appropriate or should it be eliminated from the project? What is the best strategy for communication, education and motivation to:

1. Increase demand for inputs, especially inputs for cereals production.
2. Increase private sector market intermediaries' demand for inputs; and
3. Increase the knowledge base relevant to expansion of commercial sales and farmer's use of crop production inputs under more intensified crop production.

II. Evaluation of the Project Goal and Purpose:

The project's goal and purpose were derived in part from the GOS New Agricultural Policy of 1984 and the GOS Cereals Plan of 1986. Today, the realism of the objectives of the New Agricultural Policy of 1984 and the Cereals Plan of 1986 has been questioned. Subsequently, it suggests a serious review of the project's goal and purpose is needed. In broad terms, is the project's goal consistent with the problem, the major constraints, and the existing project design? Are the assumptions underlying the project's goal reasonable? If yes, how may they be strengthened? If not, in what way do they impact negatively on the project?

III. Evaluation of Project Resources:

Are project resources identified in the project paper and the project grant agreement adequate? The evaluation team will assess the project's resource needs and will recommend the most appropriate resource mix for each of the four components. For each project component, the evaluation team will consider the following issues:

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A. Technical Assistance:

1. relevance of qualifications of the technical assistance staff (numbers, phasing, duration);
2. review of position descriptions relative to project priorities and to the existing situation;
3. in light of (1) and (2) and the review of the project design, a review of technical assistance performance.

B. Commodity Procurement: Appropriateness and relevance of the commodities programmed under the project.

C. Participant Training: The relationships of training needs (types, duration, numbers) to project priorities, including institutionalization of project activities. Is the proposed training adequate? Does the training program adequately support the manpower development plans of each technical implementation agency?

D. Implementation Timetable: Is the time remaining in the project before the December 31, 1991, Project Assistance Completion Date, sufficient to realize the project's objectives? If not, what is a reasonable amount of time that would be required and explain why?

The evaluation will identify and discuss any changes (institutional, policy, etc.) which have occurred since the project was designed in 1986 and which may influence the adequacy of the project design. It will also include a review of complementary projects supported either by USAID or other donors and the impact that these projects might be having on the APS project and the need to revise the current APS project design.

IV. Evaluation of Project Implementation:

The evaluation of project implementation will assess implementation of specific interventions with particular emphasis on both degree of achievement and the problems encountered. The evaluation will also consider the linkages between project design and any limitations thus far to successful project implementation.

A. Implementation Mechanism:

A majority of the project's resources were to be available for project implemented through a host country contract. As planned in the project paper and the project grant agreement,

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USAID entered into direct contracts for fiduciary bank services and credit program inspection, monitoring and tracking services. While waiting for the completion of the contracting process, USAID entered into a direct contract with Multi-Services International for the provision of administrative support services. USAID also entered into a direct contract with a media firm to provide coordination services during the 1988 and 1989 media campaigns. The advantages and disadvantages of this implementation strategy will be reviewed.

B. Project Administration:

The evaluation will assess the project's administrative and logistical elements, including the resources supplied by the GOS and USAID compared to the resources required. The linkages between the project office and the three GOS technical offices will be reviewed. The banking committee's role in the administration of the credit program will also be assessed.

C. Management, Staffing and Support:

The evaluation team will review the effectiveness of the management and coordination systems established between and within MDR, USAID, and Chemonics. Has USAID management and oversight been adequate? What additional management interventions might USAID do to improve overall project management?

The review will also look at the overall contractor performance of Multi-Services International and Chemonics and describe their strengths and weaknesses. The review will make recommendations on how to improve project implementation performance. The evaluation will address the following issues and topics in terms of how well or how poorly they have functioned or operated under the current project design:

1. Multi-Services International:

- staffing patterns, recruitment, staff qualifications, backup capability, administrative capability, etc.
- participant training program management;

2. Chemonics:

- Home Office Support: staffing qualifications, recruitment, backup capability administrative capability and participant training management;

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- Technical Assistance:
 - relevance of scopes of work, staff qualifications, etc.
 - quality of reporting (work plans, progress reports, etc.)
 - in-country administration
 - participant training program management
 - field staff recruitment.
3. GOS:
- Resource Planning, financial management and staff contributions by MDR, MEF and the three technical offices of ISRA, DPCS and DA.
 - Implementation management structure and decentralized delegation of authority between project headquarters and MDR technical offices.
 - Issues of authority, responsibility, operational efficiency and sustainability of functions beyond the life-of-project should be examined.
 - Participant training program management.
4. USAID:
- Policy Dialogue Management.
 - Project supervision
 - Provision and support of project inputs (technical assistance, commodity procurement and participant training).
 - Financial management and voucher processing.
5. Contract and Management Mode:
- Is joint management of project local currency and project resources appropriate?
 - Is the host country contracting mode appropriate and responsive to the needs of the project?

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6. Monitoring and Evaluation:

In view of AID/Washington's guidance cable approving the project paper, AID norms, the evaluation team will assess the adequacy of the project to monitor and evaluate project implementation, with focus on the objective of estimating project impact, as defined in a mandate set forth in the Africa Bureau's "Action Plan for the Development Fund for Africa". The credit program received 1988 and 1989 funds drawn from the Development Fund for Africa.

7. Project Activities:

While this portion of the evaluation will review project activities, it will extend beyond just measuring project achievement against project objectives. The report will also address constraints encountered and how they have impacted on project activities and the attainment of objectives. The report will contain an evaluation of the activities (outputs and accomplishments) of each of the four project components. A clear distinction will be made between constraints emanating from project design weaknesses and other factors.

8. Relationships with GOS and USAID and other institutions:

The evaluation team will assess the project's institutional aspects. The report will describe the project's communication links, information exchange, and formal relationships between the project decision makers and other institutions. The evaluation will include an assessment of the status and prospects for greater institutionalization of relevant project activities. The evaluation will also assess the effectiveness of the liaison systems of the various components and implementation agents involved in the project.

9. Commodity Procurement:

The evaluation team will assess commodity procurement management and procurement planning capability. The evaluation will measure the appropriateness of project commodities procured, the procurement methods used and review and procurement problems encountered.

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D. Participant Training Evaluation:

The project is designed to provide short and long-term training under the manpower training plans of DA, ISRA, and DPCS in several key skill areas. The evaluation will summarize training progress to date with the short and long-term training programs, as well as in-country and third-country training programs. The evaluation will discuss the impact of actual and potential training as part of the effort to achieve the project's goal and purpose. The evaluation will also assess the appropriateness of the individual participant and the training site selection process.

V. Evaluation Resource Documents:

The following resource documents will be available for use by the evaluation team:

- APS Project Paper
- Fiduciary Bank Contract
- Cabinet Camara Contract
- 1989 MDR-Chemonics Annual Work Plan
- RIG Audit Report, dated April 27, 1989
- APS Project Grant Agreement and Amendments Numbers 1-6
- APS Project Implementation Letters Numbers 1-15
- APS Request for Proposals and its Amendments No. 1 and 2
- Multi-Services International Quarterly Project Reports
- 1987-1989 MDR-MSR-USAID Interim Annual Work Plan
- Multi-Services International Contract
- MDR-Chemonics Contracts No. 1 and 2
- MDR-Chemonics Quarterly Project Reports

VI. Inputs Marketing Study:

The MDR, Chemonics and USAID staff will conduct an input marketing study to generate information on Senegal's input production and distribution system and the related marketing credit system and related institutions. The input marketing study will provide much of the material needed by the evaluation team members to complete their assessment of the project.

Evaluation Team Composition:

I. Evaluation Level of Effort:

A. Evaluation Personnel:

The evaluation will require the services of six experts. A work week is defined as 6 working days per week.

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II. Evaluation Team Member Scopes-of-Work:

A. General:

1. Work Experience:

It is highly desirable that the personnel have relevant professional third world experience, preferable in Sahelian West Africa.

2. Communication Skills:

It is highly desirable that the personnel have strong written and verbal communication skills and can present analysis results in a clear and concise manner.

B. Qualifications of the Evaluation Team Members:

1. Team Leader/Private Sector Analysis:

Broad experience is needed in private sector development and its evaluation with emphasis on private sector business management and marketing of agricultural inputs and outputs. This individual should have project implementation experience which is specific to private sector development in the third world. Experience with leadership and management of evaluation teams is also highly desirable.

2. Mgmt/Inst'l/OP Analysis:

Expertise and extensive experience is required in matters of agricultural credit and finance relevant to the third world. Familiarity with institutional development problems of credit entitles serving the agricultural sector is important. The credit specialist must have a demonstrated ability to evaluate credit institutions and policies. More than ten years of proven experience in agricultural credit operations is highly desirable. Appropriate training is business administration, agricultural banking or agricultural economics is also desirable.

3. Private Sector Analysis:

Expertise and experience in private sector finance and agri-business development, with emphasis on agricultural input and agricultural products marketing, is needed. The agri-business specialist should have strong analytical skills and extensive relevant experience in African and/or third world countries.

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4. Private Sector Analysis:

Experience in seed quality research and private sector seed variety selection, production, storage, distribution, and marketing is necessary. Experience in third world countries with the development of seed variety selection, seed quality control and seed certification systems is also highly desirable.

5. Program/Policy Analysis:

It is highly desirable to have experience in media program assessment in third world countries, with emphasis on communication aimed at farmers, as part of a regional and/or national extension strategy. Experience in the use of media in combination with extension outreach programs is highly desirable.

6. Statistical Analysis:

Expertise and experience in crop estimation systems in Sahelian or third world countries is necessary. The agricultural statistics specialist must have demonstrated competence in matters of statistical analysis, methodology, and institutional requirements for national crop statistics programs. Familiarity with the application of remote sensing technology and area frame sampling methodology is highly desirable.

ARTICLE IV - REPORTS

I. Contractor Responsibilities:

A. Inputs:

The contractor will provide (a) qualified personnel, as specified by this scope-of-work, (b) appropriate logistical support and (c) quality translation services.

B. Reporting Requirements:

- The contractor will conduct weekly progress briefings and produce a draft report before the team leader departs Senegal. Summary memos on the discussions by evaluation team members and project staff will also be prepared by the evaluation team members.

- Although the team members are responsible for the analysis and reporting on their individual area of expertise, the evaluation team leader will be responsible for preparation of the final report containing all the

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required components noted in the report format. The contractor will provide USAID with 10 copies of a draft report in English and MDR with 10 copies of a draft summary of the evaluation report in French. The Contractor will also conduct a MDR-USAID departure briefing before the team leader departs Senegal.

- The evaluation report will address the following design and project implementation issues:

- Institutional aspects:
- Market Structure and market potential issues:
- Policy issues:
- Management issues:
- Impact and beneficiaries: near-term and long-term:
- Recommendations that address the issues, the questions and the concerns identified during the evaluation team's assessment of each of the four project components.

- Within no more than 30 days following receipt of MDR, Chemonics and USAID comments, the contractor will deliver 30 copies of a final report in French and 30 copies in English in form and substance satisfactory to USAID/Senegal.

C. Evaluation Report Format:

The final report will contain the following:

1. Executive Summary with Conclusions and recommendations summarized:
2. Project Identification Data Sheet:
3. Table of Contents:
4. Definitions:
5. Body of the Report:
6. Annexes:
7. An A.I.D. Evaluation Abstract:
8. Project Evaluation Summary:
9. An Annotated Bibliographic Notation

ARTICLE V - TECHNICAL DIRECTIONS

Technical directions during the performance of this delivery order will be provided by pursuant to Section F. 3 of the IQC contract.

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ANNEX 2

List of Institutions and Individuals Contacted

Institutions and Individuals Contacted

DAKAR

MINISTERE DU DEVELOPPEMENT RURAL ET DE L'HYDRAULIQUE

Cheickh Abdoul Khadre Cissokho, Ministre
Assane Fall, Directeur du Cabinet
Baba Dioum, Conseiller Technique
Mbaye Sarr, Conseiller Technique

Direction de l'Agriculture

Amadou Moustapha Camara, Directeur
Cheikh Ibrahima NDiaye, Chef de la Division Statistique

Institut Senegalais de Recherche Agronomique

Abdoulaye Seck, Chef de Service Semencier du Centre de Developpement
Horticole

Direction de la Production et du Controle des Semences

Amadou Keita, Chef de Division de Controle et Certification
Claudio Bragantini, Expert en Certification (APS)
Jacques Denis, Expert en Production et Promotion (APS)

Projet Triennal Semencier

Ousmane Seck, Directeur
Francois Burgaud, Expert

Projet Mais

Mody Ba, Directeur

Projet Semencier Legumineuse

Malick Gueye, Directeur Adjoint

Projet APS

Mamadou Diouf, Directeur
Sidi Gueye, Sous Directeur
Jean Crouzet, Chemonics, Chief of Party
Claudio Bragantini, Chemonics, Expert en Certification des Semences
Jacques Denis, Expert en Production et Promotion des Semences
Ababacar Kane, Futur Directeur

Projet de Reboisement

James Fickes, Chief of Party
Mame Samb Ba, Project Officer

Winrock

Alphonse Faye, Formateur

Programme de Securite Alimentaire

M. Gromothka

SAED

Mamadou Faye, Directeur de la Cellule d'Evaluation

SODEVA

Daour Wade, Coordinateur de Production, Centre des Etudes Techniques
Agricoles et du Developpement

CNCAS

Claude Fauque, Conseiller Technique

MINISTERE DU DEVELOPPEMENT INDUSTRIEL ET DE L'ARTISANAT

Djibril N'Diaye, Conseiller Technique

MINISTERE DE L'INTERIEUR

Amadou Moustapha Sougoufara, Conseiller Technique, Ex Directeur du
Projet APS

MINISTERE DE LA COMMUNICATION

M. Dionge, ORTS, Directeur de la Television

MINISTERE DE LA PROTECTION DE LA NATURE

M. Sorgho, Centre de Suivi Ecologique

MINISTERE DE L'ECONOMIE ET DES FINANCES

M. Mbengue, Direction de la Statistique

USAID/Dakar

Julius Coles, Mission Director
Gary Nelson, Deputy Mission Director
James Bonner, Deputy Director, Agriculture Development Office
Doral Watts, APS Project Manager, Agriculture Development Office
David Diop, APS Project Officer, Agriculture Development Office
Rodney Kite, Head, Agricultural Economics, Agriculture Development Office
Mamadou Lamine Thiam, Program Economist, Agriculture Development Office
Amadou Ly, Project Officer, Community and Enterprise Development Project
Seydou Cisse, Evaluation Officer
Denis Baker, Deputy Director, Health/Population/Nutrition Office

US Peace Corps

Alan Johnson, Associate Director, Agriculture

FAO

M.T. Mukendi, Resident Representative

IBRD - WORLD BANK

David Jones, Task Leader; Senegal Agricultural Sector,
Structural Adjustment Loan

PRIVATE SECTOR

Sheena Stewart, Vice President, CITIBANK
Henri Maus de Rolley, Directeur Commerical/Credit, SGBS
Christian Rousseau, Sous Directeur, SGBS
Jean Paul Picot, Directeur Clientele/Entreprise, BICIS
Yves Van Ghele, Directeur General, Senchim
Joseph Kantousant, Responsable, Production des Semences, Senchim
Alioune Kane, Responsable, Programme de Demonstration, Senchim
M. Paret, Senemeca
Mme. Seck, Publicom
Gary Engelberg, Africa Consultants Inc/Baobab Training Center
Ousmane Sene, Expert en Communication/Media
Cheikh Demba KAMARA, General Manager, S.P.I.A.
Jacques CONTI, General Manager, MATFORCE
Birame Ngoye FALL, Sales Manager, SISMAR.
Alain Caro, Sales Manager, TROPICASEM (Vilmorin)

ST. LOUIS

Aly Ndiaye, Chef de Centre de Recherche Agricole, ISRA
Mamadou Ndiaye, Coord'nateur du Systeme de Production, ISRA
J.O. Olufowote, Selectionneur du Riz, WARDA
Ousmane Sy, Chef d'Agence, CNCAS
A. Moktar Sall, Chef, Service de Communication, SAED
Ibrahim Ly, Proprietaire/Gerant, Distribuvite
Makhtar Kounta, Proprietaire/Gerant, Distribuvite
M. M'Baye, Cultivateur, President du GIE Dakar Bango
Membres du GIE Dakar Bango
Projet Buffle

LAMPSAR

Malick Samb, Directeur Regional, SAED

ROSS BETHIO

Babacar MBodj, Directeur, Entreprise Commerciale Agricole, Representant
SENCHEM
Visit to a small rice mill

RICHARD TOLL

Paul Diouf, Chef Regional. DPCS
Reunion avec un GIE de producteurs de semences
Visit to a large scale rice mill, SAED
M. Lo, Representative of SPIA
Christopher Hudson, M. Lethieuf, Comanie Sucriere Senegalese
Visit to a small rice decorticator

PODOR

Moulaye Kande, Gerant, SEDAB
Oumar Balde, Coordinateur du Zone Nord, SEDAB
Meeting with the representatives a "villageoise" section and a GIE,
Ndiaouara Torobe
Visit to Delta 2000, rice mill

BAMBEY

Giles Trouche, Selectionneur Sorgho, IRAT
Amadou Fofana, Selectionneur Mil, ISRA
Arthur Basilha, Agronome, ISRA
Emmanuel Sene, Chercheur, ISRA

ANNEX 3

Logframe

E. LOGICAL FRAMEWORK APL PROJECT 682-0219

Figure 1: Logical Framework

SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS																											
<p>A.1. Goal</p> <p>1. Increase cereals production.</p>	<p>A.2. Measurement of Goal Achievement</p> <p>1. Average increase of 3 1/2% per annum in cereals production by 1993.</p>	<p>A.3.</p> <p>1. National cereal production surveys by Ag. Statistics Division.</p>	<p>A.4.</p> <p>1. COS stays the course with respect to market price incentives and floor price mechanism.</p> <p>2. Rainfall will vary, but no continuing massive drought.</p>																											
<p>B.1 Purpose</p> <p>Facilitate privatization of agricultural input distribution and seed multiplication activities.</p>	<p>B.2 End of Project Status</p> <p>1. By 1992 private sector will: a) multiply cereal seeds: 60% b) distribute fertilizer: 75% c) distribute equipment: 75% d) distribute crop protection inputs: 75%</p>	<p>B.3</p> <p>1. Seed service reports and audits. 2. Record of fertilizer sales. 3. Market surveys. 4. Ministry of Commerce records.</p>	<p>B.4</p> <p>1. COS continues disengagement from seed multiplication, input distribution and cereals marketing activities.</p> <p>2. Demand for improved seed, fertilizer, crop protection products and other equipment will grow steadily.</p> <p>3. Inputs available from private sector on timely basis and at economic prices</p> <p>4. Banks lend to agricultural sector enterprises according to banking standard practice.</p> <p>5. Private sector undertakes ag. input and marketing business in sufficient numbers to reach most markets under competitive conditions.</p>																											
<p>C.1 Outputs</p> <p>1. <u>Input Supply and Marketing</u></p> <p>1.1 Breeder seed selection and production by ISRA meets demand for cereals varieties selected for commercial multiplication</p> <p>1.2 Foundation seed production by private contract growers & certified by DPC-MRD to meet commercial demand</p> <p>1.3 Private sector supply and marketing networks established</p> <p>1.4 COS/Private sector dialogue</p> <p>2. Revolving credit fund functioning.</p> <p>3. Dissemination of information via mass media and field demonstrations to stimulate demand for input and marketing services</p> <p>4. MDR staff capable of timely, accurate estimates of agricultural cropped area, yield, production and input use for cereals</p>	<p>C.2 Output Indicators</p> <p>1.1.1 Required amount of breeder seed per year available at appropriate time for each crop</p> <p>1.1.2 5 new/improved varieties released by ISRA</p> <p>1.2.1 Sufficient contracts signed with enough leadtime to meet contract objectives</p> <p>1.2.2 Certified seed produced by private growers to meet planting needs of 250,000 ha of cereals</p> <p>1.2.3 Appropriate quantities produced, certified and marketed on a timely basis.</p> <p>1.3.1 80% of producers have access to networks</p> <p>1.3.2 Sufficient number of outlets to induce competition.</p> <p>1.4 Positive working relationship between COS and private sector established.</p> <p>2. Commercial banks providing credit to qualifying importers, manufacturers and suppliers of ag. inputs</p> <p>3. ___TV films, ___ radio programs, ___ other media activities developed ___ seminars, ___ demonstrations</p> <p>4.1. Statistics do not differ significantly from small, independent survey results for comparable areas.</p> <p>4.2 Statistics available on timely basis</p>	<p>C.3</p> <p>1.1 ISRA records.</p> <p>1.2.2 DPCS-MRD records.</p> <p>1.3 MDR and Commerce records.</p> <p>2. Bank records.</p> <p>3. Project records.</p> <p>4. Report of DSA, ISRA, Univ. of Dakar and other sources, project evaluations.</p>	<p>C.4</p> <p>1. Farmgate prices of improved seed are adequate to provide incentive for private sector multiplication</p> <p>2. Farmers receive needed information on benefits of improved seed and fertilizer prior to planting season</p> <p>3. Farmer profit margins from input use sufficient to justify purchase.</p> <p>4. Farmers will market grain surpluses.</p> <p>5. Borrowers will repay loans at minimum 90% level.</p> <p>6. COS undertakes practical field demonstrations and research on seed and fertilizer and extends results.</p> <p>7. Availability of required levels of financial and manpower resources with COS and private sector.</p> <p>8. Decision makers will demand and use statistically valid data as basis for implementation and policy information.</p>																											
<p>D. 1 Inputs</p> <p>1. Technical Assistance</p> <p>2. Training</p> <p>3. Commodities</p> <p>4. Project Administration</p> <p>5. Credit fund/management</p> <p>6. Media campaign</p> <p>7. Evaluations/audits</p> <p>8. Contingency/inflation</p>	<p>Inputs</p> <table border="1"> <thead> <tr> <th></th> <th>AID</th> <th>ESCAP</th> </tr> </thead> <tbody> <tr> <td>1. Technical Assistance</td> <td>\$ 4 570 million</td> <td>In-kind and cash contributions</td> </tr> <tr> <td>2. Training</td> <td>970</td> <td>equalling approx. 17 077 million</td> </tr> <tr> <td>3. Commodities</td> <td>1 887</td> <td></td> </tr> <tr> <td>4. Project Administration</td> <td>865</td> <td></td> </tr> <tr> <td>5. Credit fund/management</td> <td>9 650</td> <td></td> </tr> <tr> <td>6. Media campaign</td> <td>500</td> <td></td> </tr> <tr> <td>7. Evaluations/audits</td> <td>510</td> <td></td> </tr> <tr> <td>8. Contingency/inflation</td> <td>1 000</td> <td></td> </tr> </tbody> </table>		AID	ESCAP	1. Technical Assistance	\$ 4 570 million	In-kind and cash contributions	2. Training	970	equalling approx. 17 077 million	3. Commodities	1 887		4. Project Administration	865		5. Credit fund/management	9 650		6. Media campaign	500		7. Evaluations/audits	510		8. Contingency/inflation	1 000		<p>1. Project Records</p>	<p>Resources available as planned</p>
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ANNEX 4
Remote Sensing

Remote Sensing Information and Recommendations

The use of remote sensing imagery to collect special agricultural data for analyzing privatization policy is a promising technology. A.I.D./APS participation in the FAO remote sensing project with the Dutch Government is advisable to build on the expertise being made available to Senegal. The purpose of A.I.D. participation is to engender a methodology to provide the Agriculture Statistics Division with the means to rapidly compile special agricultural statistics using remote sensing data. The objective of such data collection techniques is to provide timely, accurate, statistical data bases to estimate cropping patterns, areas and likely yields for key crops in selected areas. Data that otherwise could not be collected without significant use of the Agriculture Divisions field resources. Computer software written to automate the agricultural data collection process could then be furnished to the Agriculture Division for their continued use.

Customizing the available statistical methodology is necessary to convert the satellite energy detection levels into useful agricultural statistics. Developing the customized statistical methodology should take place simultaneously with the first phases of the agricultural census, using their pilot census project. Working with the agriculture census pilot project's field enumerators provides a means to tune and calibrate the imagery with ground verification. Co-ordination and collaboration with the Dutch/FAO project is essential.

The best course of action is to consolidate selected data from three satellite sources. Three sources are suggested to take advantage of each system's best features. Limited data acquisition is recommended to limit cost and to avoid complexity. The most comprehensive imagery data in seven detection bands with medium resolution (30 m²) is from the U.S. Landsat Satellite, distributed by EOSAT in Lanham, MD. Vegetation indices and meteorological data in three energy bands with low resolution (5 km²) is available from the U.S. N.O.A.A. Satellite Services Division in Camp Springs, MD. The French Spot Image Satellite offers three bands with very high resolution (10 m²). The imagery includes both visual map-type pictures and the raw data returns from the detectors.

Prices average less than \$5000 per satellite pass, covering an area of about 185 km². A geographic information system (GIS) is recommended to consolidate these data sources and provide the framework for the statistical methodology. Short term TA contracts will be needed to set up the first satellite data/imagery software systems for agricultural data that can be tested against ground observation. Depending on map availability (from the French Cartographic Institute) in the pilot project region, a set of high resolution aerial photographs may be needed to geocode the satellite images.

ANNEX 5

Bibliography

Bibliography

Reports and Published Materials Other than Project Documents

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ANNEX 6

Evaluation Abstract

APS Evaluation Abstract

The APS project aims to assist the Government of Senegal (GOS) to increase national cereal production mainly through the privatization of cereal seed multiplication and agricultural input distribution. The four project components include support for quality improvement of seed production, as well as for the privatization of seed production, seed marketing, and the distribution of other inputs used in cereal production; \$9 million in credit for cereal seed production, input distribution, and crop storage, marketing, and processing; support to strengthen data collection concerning cereals; and funds for a media campaign. The project is managed by a host country project unit under the Ministry of Rural Development and Hydraulics (MDRH), aided by a technical assistance team from Chemonics International.

The primary purpose of this mid-term evaluation is to analyze the validity of the project's underlying concepts and project design and to assess the need for modification of any aspects of the project. The major findings are that:

- o The project shows very little progress towards its original goals and objectives--for example, no credit has yet been extended by the project.
- o The design of the credit and seed components were based on numerous assumptions which have proved to be largely invalid.
- o The resources provided by the project design are insufficient to accomplish the project's multiple and vast objectives.
- o The design of the project's management and decision-making structure is exceedingly complex and cumbersome.

The principal conclusions are that:

- o The project's goals are overly ambitious and unrealistic.
 - o The design rationale of attempting to integrate the diverse objectives and its discrete components into a single project cannot be sufficiently justified conceptually and is a major cause of the project's management problems.
 - o The credit delivery mechanism designated in the project design is an inappropriate vehicle for extending credit to most of the intended target beneficiaries.
 - o The intensification of Senegal's cereal production depends on several essential factors which have been lacking in this project.
 - o It is recommended that the project be suspended and redesigned.
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The principal lessons learned include:

- o Pressures to accelerate the project design and approval processes without verifying critical underlying assumptions should be strongly resisted.
- o The formulation of effective privatization policy and projects depends on a thorough understanding of the operations, constraints, needs, and preferences of any private sector organizations and actors involved.
- o If private sector firms are to actively collaborate in AID projects, these firms must be provided attractive incentives, clear yet not overly restrictive guidelines, and timely feedback.
- o Privatization per se is not a panacea for public sector problems. Even when the private sector is able to perform particular functions more effectively than public sector institutions, other conditions and/or supporting factors will be necessary to assure the success of privatization efforts.

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ANNEX 7

Project Evaluation Summary

APS Evaluation Summary

Evaluation Purpose and Methodology

The primary purpose of this mid-term evaluation is to analyze the validity of the underlying concepts and design of the Agricultural Production Support (APS) project and to assess the need for modification of any aspects of the project. The team was composed of six experts who spent approximately four weeks each in Senegal examining the goal and purpose of the project in the context of current Government of Senegal (GOS) and USAID/Dakar priorities; the design, structure, and functioning of the project as a whole; the objectives, activities, accomplishments, and problems of each of the project's components; and the current needs and priorities within each of the project's activity areas.

Project Goal, Purpose, and Design

The goal and purpose of the project are to assist GOS to increase national cereal production through the privatization of cereal seed multiplication activities and the marketing of cereal production inputs, as well as through support for private sector enterprises engaged in the marketing and processing of cereal products. The project includes four components:

- o support for quality improvement of seed production, as well as for the privatization of seed production, seed marketing, and the distribution of other inputs used in cereal production;
- o the provision of credit for cereal seed production, input distribution, and crop storage, marketing, and processing;
- o support to strengthen GOS data collection concerning cereals; and
- o funds for the implementation of a media campaign to disseminate information about cereal production techniques and other agriculturally-related topics.

The support which was to be provided included funding for five long-term technical assistance personnel, fifty-eight months of short-term technical assistance, long- and short-term training of host country personnel, equipment for the several participating GOS agencies, contracts with several local firms to assist in administration and to implement the media campaign, and \$9 million in credit to be delivered through the Senegalese banking system.

Major Findings

- o The design of the credit component was based on numerous assumptions which have proved to be largely invalid. The most notable of these were : (1) that the commercial banks would be interested in and willing to lend to the target beneficiaries of the credit component, particularly small- and medium-scale enterprises engaged in cereals-related activities; (2) that the commercial banks would be willing to assume 100 per cent of the

risk in lending to agribusiness firms; and (3) that intermediate input distributors would be willing to provide credit to cereal farmers.

- o The design of the seed component was also based on several assumptions which were not entirely valid. These include: (1) that privatization of seed multiplication and seed certification would lead to significantly increased use of improved cereal seed and therefore a concomitant increase in national cereal production; instead the demand for improved and certified seeds among the vast majority of Senegal's cereal producers was found to be minimal; (2) that privatization of input supply would lead to increased farmer access to inputs and thus increased input utilization; instead it was found that most cereal farmers have neither the financial resources to purchase these inputs nor an interest in using them, due to the climatic and financial risks involved, as well as to their lack of knowledge concerning proper input use.
- o The resources provided by the project design are insufficient to accomplish the project's multiple and vast objectives.
- o The design of the project's management and decision-making structure is exceedingly complex and cumbersome, which has been a major cause for the many serious delays in key areas of project implementation.
- o The project shows very little progress towards its original goals and objectives; for example, no credit has yet been extended by the project, the seed activities are concentrated in only one region and on one principal cereal product, only a few of the fifty-eight months of short-term technical assistance have been used, and \$17 million in USAID funding obligated for the project remain unutilized.

Principal Conclusions

- o The project's goals are overly ambitious and unrealistic, particularly concerning the nation-wide geographic focus of the project, the time frame envisioned, and the resources provided.
- o The design rationale of attempting to integrate the project's diverse and multiple objectives and its various discrete components into a single project cannot be sufficiently justified conceptually and has been a major cause of the subsequent management problems which have developed.
- o The linkages between the design and objectives of the project's individual components and the attainment of the fundamental goal of increasing national cereal production were not sufficiently justified.
- o The credit delivery mechanism designated in the project design is an inappropriate vehicle for extending credit to most of the



intended target beneficiaries, particularly small- and medium-scale agribusiness firms and seed multiplication operations.

- o The credit needs which exist in the cereals-related agricultural and agribusiness subsectors cannot be met through existing supplier credit systems.
- o The intensification of cereal production in Senegal's rainfed areas, which constitute the vast majority of the country's cereal producing areas, depends not on the privatization of seed multiplication and input supply, but on several other essential factors which have been lacking in this project. These include such factors as the availability of appropriate cereal varieties, effective delivery systems, extension and demonstration support, and efficient processing technologies.

Recommendations

The project should be suspended and redesigned. The project's goals and objectives should be narrowed and refocussed, and the project should be restructured with a more limited range of activities directly aimed at achieving these goals and objectives. Further, the reformulated project should be carefully designed in order to assure that the underlying assumptions are indeed valid and that the resources provided are sufficient to enable the project to achieve its fundamental objectives.

Any remaining project resources not utilized for the development and implementation of the redesigned project should be reprogrammed for other activities aimed at the development and privatization of Senegal's agricultural and agribusiness sectors.

The delivery of credit and other business support to private sector agribusiness firms represents an area of highest priority. GJS and USAID/Dakar should consider redirecting a portion of the remaining project resources for the development and implementation of a credit activity to deliver financing and other necessary support to agribusiness enterprises engaged not only in cereals-related activities but also in other economically viable agriculturally-related activities. The target enterprises should include not only the larger agribusiness firms, but also small- and medium-scale businesses, including commercial farming operations. Before the design of such a credit activity, a comprehensive analysis should be performed of the viability of various alternative delivery mechanisms and of the precise nature of the credit and other needs of agribusiness enterprises.

The project's other three components should not be retained within a single project and alternative mechanisms should be identified for the financing of activities related to these areas.

Principal Lessons Learned

Pressures to accelerate the project design and approval processes without thoroughly researching and verifying critical underlying assumptions should be strongly resisted.

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Projects with multiple and diverse goals and objectives and which require the management participation of numerous different public and private sector institutions are extremely difficult to manage and require excessive time and effort to achieve effective coordination. Further, they are not appropriately suited to USAID/Dakar's management structure and operations.

The formulation of effective privatization policy and projects depends on a thorough understanding of the operations, constraints, needs, and preferences of any private sectors organizations or actors involved.

If private sector firms are to actively collaborate in AID projects, these firms must be provided attractive incentives, clear yet not overly restrictive guidelines, and timely feedback.

Privatization per se is not a panacea for public sector problems. Even when the private sector is able to perform particular functions more effectively than public sector institutions, other conditions and/or supporting factors will be necessary to assure the success of privatization efforts.