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**Niger Agricultural Sector
Development Grant Project (683-0246)**

Technical Assistance Component

FINAL REPORT



CENTER FOR RESEARCH ON ECONOMIC DEVELOPMENT
The University of Michigan
Ann Arbor, Michigan 48109

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by

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INTRODUCTION

In 1985, the United States Agency for International Development (AID) awarded to the University of Michigan and its subcontractors -- Tufts University and Abt Associates, Inc. -- a contract to provide technical assistance and training to support the first Niger Agricultural Sector Development Grant (ASDG I). Activity under the technical assistance component of the project began on October 15, 1985 and ended on March 31, 1992.

During this period, the University's Center for Research on Economic Development (CRED) and Tufts University sent nine individuals on long-term assignment to help the Government of Niger (GON) implement the policy reforms cited in the Grant Agreement. A list of names of the individuals on the team, their positions, and dates of service in Niger is included as Appendix A.

In general terms, the reforms aimed to reduce input subsidies, promote competition in grain marketing, liberalize cross-border trade, modify seed policy and improve natural resource management (NRM) policies.

The original contract did not mention either seed policy or NRM policy. These were added later by amendment. At the outset, there were five areas of policy reform, which were, in the words of the Request for Proposals (RFP), "considered essential for more efficient resource allocation, increased agriculture and livestock production, and increased income of the rural population."

Agricultural Policy Reform

The goals of the reform effort were thus clearly established. In other words, the Grant would be used to greatly reduce, if not eliminate, certain distortions which hindered efficient resource allocation. As resources came to be used more efficiently, it was thought, agricultural production would increase and rural incomes would rise.

The implicit assumption was that once sectoral policies were changed, positive results would follow. The reasoning behind this assumption was that controlled internal markets, price fixing, export taxes, other export barriers and input subsidies all served to constrain productive activity by failing to reward it sufficiently. The first ASDG project was in fact one of the early AID attempts to induce policy change in a desirable direction by incremental resource transfers to a host government as change occurred.

The five policy reform areas were:

- **input supply:** subsidies were to be reduced and the official input supply agency was to be restructured "in order to make *more* inputs available to farmers at prices which *reflect real economic benefits* to the agriculture sector" (emphasis added);
- **grain marketing:** liberalization of marketing and price policies were to reduce the losses of OPVN, the grain marketing board, and to increase the private sector's role in markets;

- **agricultural credit:** a study of the credit system, financed separately, was to indicate appropriate policies;
- **border trade:** reduction of export taxes and other impediments to the free flow of livestock, cowpeas and other export products would promote border trade; and
- **private sector participation:** a greater role for the private sector was desired in all of the areas listed above. (The private sector was to include cooperatives, although in reality they had been created and were managed by the government.)

The Role of Technical Assistance

The University of Michigan's technical assistance (TA) team was expected to help the GON implement policy change measures by:

- (1) conducting studies to analyze policy changes, examine alternatives and estimate impacts;
- (2) aiding in the establishment of an economic policy analysis unit in the Ministry of Rural Development;¹ and
- (3) helping the GON prepare annual action plans and semi-annual progress reports on reform implementation.²

The team was also required to conduct seminars, workshops and on-the-job training sessions for counterparts in the Ministry of Agriculture's *Direction des Etudes et de la Programmation* (DEP). No participant degree training was envisaged.

Composition of the TA Team

The team initially consisted of four members, three of whom were assigned to the Ministry of Agriculture:

- a Senior Agricultural Policy Advisor and Chief of Party;
- an Agricultural Policy Analyst; and
- a Microcomputer Resource Specialist.

The first two were expected to remain three years, the last-named only one year, subject to extension for a second year. All three were installed in a cluster of three offices in the Ministry in October 1985.

¹During the life of the contract, the Ministry of Rural Development was restructured several times. In December 1987, it became the Ministry of Agriculture and Environment, losing Animal Resources to a new Ministry of its own. Then in December 1989, Animal Resources was merged with Agriculture once again to create the present Ministry of Agriculture and Livestock (MAG/EL), while Environment was reassigned to the Ministry of Water Resources. In this report we use the term 'Ministry of Agriculture' to cover all its incarnations.

²Contract AFR-0246-C-00-5052-00, Program Description, p. 8.

In January 1986, a fourth member of the team, provided by Tufts University, joined the Ministry of Planning as a Development Economist in what was then the *Direction de l'Evaluation et de la Programmation des Projets (DEPP)*. His assignment was for two years, subject to extension for a third year.

Amendments to the contract extended the stay of the team and of individual team members; amendments also added two new positions:

- a Seed Policy Advisor, and
- a Natural Resource Management Advisor.

Dr. Henri P. Jossierand served four years as Senior Policy Advisor and Chief of Party. He was succeeded by Georges Condé, who was replaced as Chief of Party after one year by Dr. Dale Rachmeler, the Seed Policy Advisor from 1988 to 1992. Franklin Casey was Agricultural Policy Analyst for four years. On his departure his position was eliminated.

Dr. Jeffrey Metzel served two and one-half years as Development Economist and was succeeded by Dr. Gonzalo Romero, who remained for three years, until September 1991. Dr. Frederick W. Sowers was Natural Resource Management Advisor from October 1989 to September 1991.

Michael Wybo was the Microcomputer Resource Specialist for the first two years. James K. Gray succeeded him for another two years, during which time the position title was changed by contract modification no. 4 to Information Management Specialist. Philippe Singellos, a Nigerien who trained under Wybo at the outset and then studied in Canada, became the manager of the microcomputer unit and a member of the team for the fifth and sixth years of the contract. Dr. Rachmeler remained for the last six months – October 1991 through March 1992 – as the only expatriate. The microcomputer unit was for that period under the supervision of a Nigerien employee, Ahmed Wacho.

TASK IMPLEMENTATION

Analytical Reports, Workshops and Conferences

The members of the team in the Ministry of Agriculture had relatively little difficulty carrying out the first of the tasks listed above, producing analytical reports. Appendix B provides a selected list of reports, beginning with the most recent. Participation in the studies by Nigerien staff was limited at best; lack of counterparts was a continuing problem and is discussed below. Most of the studies in the first four years fell within the scope of ASDG I conditionality concerns. In the last two and one-half years they focused more on ASDG I impact assessment and on natural resource management issues.

It is one thing to perform analysis and write reports. It is another, as economic development practitioners well know, to influence policy making by such means alone. In fact, even if it produced reports of the most insightful and cogent kind, the team was poorly located to have much impact on agricultural policy formulation in Niger. The team members in the Ministry of Agriculture found that by participating in workshops, conferences and yearly *tranche* evaluations they had their best opportunity to be heard.

The workshops and conferences included the following.

- Fertilizer policy workshop following publication of the 1986 "Retrospective Study" on fertilizer;
- National seed policy workshop, 1987;
- Annual conference of the Ministry of Agriculture staff in Agadez, 1987;
- National workshop on cereal marketing, 1988;
- Rural development roundtable with donors, 1988; and
- National geographic information systems seminar, 1990.

The rural development roundtable provided an excellent opportunity to contribute to the policy dialogue. Dr. Jossierand, as Senior Agricultural Policy Advisor, co-authored two papers with Nigerien colleagues -- a policy paper on marketing and a policy paper on cooperatives. He also contributed to the national policy paper on a famine early warning system.

Yet the designers of the technical assistance component of ASDG I seemed to have more in mind. Under the contract the specific duties of the Senior Policy Advisor included the following: "coordinate with other relevant Ministries (i.e. Plan, Finance, Commerce, etc.) as necessary to *ensure the adoption and implementation of required policy reforms.*"³ (Emphasis added.)

This might have been seen from the outset as expecting too much influence from a multi-million-dollar resource transfer. Even if there had been no Nigerien resistance to such influence, it was virtually a hopeless task for an expatriate advisor buried within the depths of the Ministry of Agriculture. Had the team been placed in the Prime Minister's office, for example, to work alongside Nigerien economists who did have influence over policy, and endowed with a status that had some leverage over ministries, these expatriates would probably have had more impact.

As it was, the first Senior Agricultural Policy Advisor noted in his final report, "specific demand for policy analysis from the higher echelons of the GON administration remains scant, and such requests are usually directed to nationals known for their 'orthodox' views of policy orientations."⁴

Policy Analysis Unit

It was not until May 1988, more than two and one-half years after the arrival of the team, that a policy analysis unit was officially created. While the responsibilities of the unit, or *cellule*, were much as had been anticipated -- monitoring and analysis of agricultural policies, impact analysis, policy change recommendations -- the actual structure was not. The unit was placed within the office (*cabinet*) of the Minister and it was set up like a committee, with a president (the Minister's policy advisor) and with members

³Contract, p. 16.

⁴Henri P. Jossierand, "End of Tour Report," July 10, 1989, p. 4.

not only from other ministries but from the private sector as well.⁵ The unit was non-functional as constituted, a paper creation that may have appeared to meet ASDG conditions.

The members of the Michigan team within the ministry were ready to form a policy analysis unit with Nigerien counterparts. The team's intention was to work side-by-side with the counterparts, train them on the job and leave a well functioning unit at the end of the contract. The counterparts, however, never really materialized. It is true that a *Cellule d'Analyse des Politiques Agricoles* was eventually included on the DEP's organizational chart, but its physical appearance on the chart and its composition were revealing. The unit was outlined in dashed rather than solid lines like the other divisions, and it bore a distinct "USAID-CRED" label. This was a giveaway. The cell's staff consisted of the Michigan team plus a counterpart "to be determined."

This lack of counterparts in the DEP had been the problem from the beginning. Despite frequent assurances from the DEP Director and higher authority -- the Minister in a meeting on May 12, 1989, for example -- and despite urgent recommendations in the two ASDG evaluations,⁶ no seasoned counterparts were ever assigned to work with members of the Michigan team in the DEP. For a period in 1988-89, a junior counterpart did work productively with the Policy Analyst, but he was not then senior and experienced enough to fulfill the original expectations of the unit. From Michigan's vantage point, only strong pressure from the USAID mission, which was not forthcoming, would have had enough leverage to resolve the impasse.

Compliance with ASDG I Conditionality

The third task of the Michigan team was to help the GON prepare annual action plans and semi-annual progress reports on reform implementation. In fact, the action plans which the team prepared were for its own members, in a effort to comply with AID's increasing demand for ever-more detailed action plans from its contractors. The GON did not feel obliged to march to this particular drummer and submitted no such documents. The GON was obliged, however, to report on its progress in reducing input subsidies and liberalizing trade in order to qualify for successive tranches of ASDG I resource transfers. The Michigan team did assist the Ministry of Agriculture to demonstrate that it was in compliance with the conditionality of various tranches.

The process would have been more straightforward and less prejudicial if the USAID mission had not relied on the Michigan team to report directly to it on compliance questions. Asking the technical

⁵Arrêté N° 31/MAG/E du 31 Mai 1988 portant création d'une Cellule de Politique Agricole.

⁶Development Assistance Corporation, "Mid-Term Evaluation of the USAID/Niger Agriculture Sector Development Grant: Final Report, December 15, 1986." See page 94 for a brief discussion of "the TA Team's lack of integration into the Government of Niger's organizational structure...." See also Development Economics Group of Louis Berger International, Inc., "Final Evaluation Agriculture Sector Development Grant (USAID Proj. No. 683-0246/47) March 1989," page 93: "There is insufficient participation by Nigerien staff in the technical studies, and a general lack of contact between the experts and the staff of the Ministries."

assistance staff to determine whether or not input subsidies, for example, had been reduced to 25 percent put the individuals in a difficult dilemma. They were physically located in the Ministry of Agriculture as advisors to the GON but were summoned to the USAID mission to report more often than their advice was sought by Nigerien officials. On at least one occasion the DEP Director did not mince his words to a visitor when he characterized this kind of activity.

In any case, during the period the technical assistance contract was in vigor, the GON was found to be in compliance for each *tranche* until the sixth, whose complex history is another story. In reality, the initial conditionality issues became moot. The policy problems which had prompted ASDG I in the first place were either resolved or were overtaken by events. By the end of the contract, concerns about the state's role in foodgrain markets, about input subsidies and about cross-border trade liberalization had faded. In their place, natural resources management issues, unmentioned at the start, had come to the fore and were dominant.

POLICY REFORM ISSUES

Grain Marketing

Prominent in ASDG I conditionality was the matter of the national grain marketing board's (OPVN) role in grain markets. One reform to be implemented was the use of a tender-and-bid system for OPVN's purchases. This was in fact carried out with relative ease. OPVN reduced the volumes that it purchased, stored and sold, acting perhaps as much from budgetary constraint as from conviction about reform.

Border Trade Liberalization

Cross-border trade liberalization was also achieved. The targeted commodities included livestock and cowpeas in particular. There was some initial difficulty over livestock, because in 1985 when ASDG I took effect, Niger was just recovering from the early 1980s drought and had banned livestock exports in an effort to reconstitute the herd. By the end of the decade, however, livestock exports had risen sharply, in part because livestock on the hoof was one commodity for which Niger and other Sahelian countries retained some comparative advantage. Exports rose in part as well because reform had effectively eliminated paperwork and other administrative delays. When the removal of these constraints was added to an improvement in political relations with Libya, sheep exporters were by 1990 shipping double-deck truckloads of live sheep to Libyan markets with relative ease.

There was also a hitch in relaxation of hindrances to cowpea exports. The problem was not so much the inefficient and overblown role of a parastatal (SONARA) in export markets. It was instead the existence of an export tax on cowpeas and the ability of powerful merchants in Maradi or Zinder to garner

market share by circumventing the tax. Removal of the 20 CFAF/kilo tax effectively lifted a major constraint to wider private activity in the cowpea export trade.

Agricultural Input Policies

Agricultural input subsidies seemed to be a serious problem at the outset. If they were, it was a problem whose effect was soon submerged by macroeconomic developments. The Nigerian naira was already being progressively devalued as ASDG I came into being; the devaluations with respect to the CFA franc then accelerated. As a consequence, from 1986 on, the increasing overvaluation of the CFA franc with respect to the naira created and strengthened flows of agricultural inputs as well as of foodgrains themselves from northern Nigeria into southern Niger.

As the cost of one naira in Zinder fell from 106 CFAF in January 1986 to less than 20 CFAF in 1992, the question of input subsidies in Niger became increasingly moot. By 1990, private merchants could sell Nigerian fertilizer so cheaply in border zones of southern Niger that the GON had to cut the prices at which it distributed gift fertilizer delivered free of charge to its central depot by donors such as Canada and Japan. As the policy reform had intended, the state was withdrawing progressively from input supply in border areas where rainfed production is concentrated. But it was not retreating because it was reducing a subsidy, as ASDG I had intended. It was retreating because it could not match the prices of private imports from Nigeria, cover distribution costs and have a modest sum left over to deposit into a counterpart fund as donors required.

Most of the buyers of government fertilizer in 1991 were in fact members of cooperatives on the irrigated perimeters along the Niger River who, though not officially given credit, were failing to pay for fertilizer on the grounds that they in turn were not being paid for their paddy rice by RINI, the state rice board. RINI, for its part, was having great difficulty selling local rice because imported Asian rice was much cheaper, even with extra import duties.

The Impact of CFAF Overvaluation

The overvaluation of the CFA franc thus took the GON out of the border market for fertilizer. At the same time, through a series of steps, it provided clients to the government's input supply agency, the *Centrale d'Approvisionnement*, clients on the irrigated perimeters who took fertilizer but could not or would not pay for it.

The designers of ASDG I had been concerned (i) that fertilizer and other agricultural inputs were not being allocated to their most efficient uses because they were being subsidized and (ii) that the subsidies were an inappropriate and costly use of government revenues. Once the subsidy effect had been swamped

by CFA franc overvaluation and the subsidy eliminated, it could be argued that inputs, imported from Nigeria at a small fraction of world prices,⁷ were still being allocated inefficiently.

One of the responsibilities of the technical assistance team was to track the evolution of the input subsidy saga. As shown by the content of its three main reports on the subject,⁸ the team concentrated increasingly on fertilizer rather than on agricultural implements or chemicals. This occurred for two reasons. First, the GON and the *Centrale d'Approvisionnement* drastically reduced the state's role in marketing farm equipment. The demise of the national agricultural credit agency (CNCA), which had loaned funds for implement purchase, hastened the process. The *Centrale* divested itself of its four farm equipment workshops and reduced its inventory. Equipment sales were minuscule by 1991.

Second, with regard to agricultural chemicals, the Crop Protection Service is the primary user for general spraying operations against locusts and other predators. More than half of the Service's chemicals have been purchased by Japan. The *Centrale* does distribute some fungicide for seed treatment but without subsidy.

ASDG TEAM ADDITIONS, MODIFICATIONS AND ACCOMPLISHMENTS

Development Economist

As the Development Economist position in the Ministry of Planning was originally designed, the incumbent was to spend four-fifths of his or her time helping the Ministry (i) "to identify and select agricultural projects judged to be economically profitable" and (ii) to contribute to the formulation of a new agricultural sector plan. There is a clear emphasis on the agricultural sector to the exclusion of others. As later became apparent, the Ministry of Plan's needs for development economists covered all sectors.

The remaining one-fifth of the incumbent's time was to be spent "working in the USAID mission with the program economist for the purpose of monitoring and analyzing progress of the ASDG agreement in achieving the goal of economic and financial stabilization."⁹

The first part of the job description can properly be construed as placing the Development Economist squarely within the purview of the Planning Ministry to work as an expatriate official of the Ministry. This, at any rate, was the way it appears to have been seen by the GON. In reality, the second

⁷In 1990 the full cost of urea fertilizer imported from Japan was 180-190 CFAF/kg at a Niamey warehouse. At the same time, Nigerian urea was selling for about 40 CFAF/kg in Niger.

⁸"Retrospective Study of Input Supply and Demand in Niger" (1986), "Agricultural Inputs, Version 2.0" (1989) and "The Impact of Policy Reforms on Agricultural Input Marketing and Use in Niger" (1991).

⁹Contract, p. 20.

part of the assignment was not compatible with the first, was soon determined to be not viable and was later eliminated.

Prior to 1986, the Government's investment budget, or National Investment Program (NIP), was neither computerized nor assembled in a systematic fashion. Dr. Metzger contributed some improvements. He helped define procedures for obtaining precise information on projects that were to be included in the investment program, for computerizing the data and for codifying the projects. These procedures were designed for a centralized exercise in programming for the rolling three-year investment budget. However, the 1988-1990 NIP was the last centralized programming effort in Niger. Beginning with the formulation of the 1989-1991 program in 1988, the subsequent programs were assembled on a decentralized, Department-by-Department basis.

The decision to decentralize affected what was required and expected of the technical assistance personnel in the Direction des Programmes et du Plan (DPP), a Canadian as well as a member of the Michigan team. The TAs were requested to modify the old investment programming procedures to accommodate a regionalized NIP. As it happened, neither the terms of reference of the Development Economist, although modified in 1988, nor those of his Canadian colleague took the regionalization movement into account.

Modification no. 4 to the contract, dated April 1988, added to the duties of the Development Economist some responsibilities at the ASDG Counterpart Fund Secretariat. These included (i) developing procedures for reviewing and ranking financial requests for counterpart funds, (ii) preparing position papers on policy issues for the Secretariat's oversight committee, and (iii) preparing an evaluation of the performance of the Counterpart Fund in promoting (sic) ASDG objectives.¹⁰

The Development Economist was thus given a substantial extra workload while his basic terms of reference for work in the Ministry failed to reflect changed circumstances. His Ministry of Planning TOR assumed that the proper procedures for formulating the NIP were already well in place and that his main responsibility would be their implementation and institutionalization.

Once again the technical assistance team, in particular one of its members, found itself caught between the differing demands and expectations of a GON Ministry on the one hand and of USAID on the other. The conflict was highlighted when Dr. Romero was appointed by the Minister to a two-man secretariat for a committee to evaluate project impact. One might have expected the USAID mission to negotiate with the Ministry on ways to reconcile this additional task with the existing job description. Instead of direct discussions between USAID and the Ministry, which were rare in the life of the contract, USAID instructed Dr. Romero that any work on the secretariat would have to be on his own time or in addition to the tasks previously assigned. Although Dr. Romero attempted to fulfill his commitments to both the Minister and to USAID, the incident left a slight residue of ill feeling on all sides.

¹⁰Modification no. 4, p. 5.

The main output of Dr. Romero's and his Canadian colleague's efforts to regionalize the NIP was the *Document de la Programmation*, which is basically a procedures manual. Dr. Romero's other contributions included:

- a draft of procedures for the annual reformulation of the master plan for investment, after consultation with donors, the *Schéma Directeur de la Programmation*,
- an analysis of five NIPs, 1985-1989, and their impact, at the request of the Minister of Planning;
- a guide for the estimate of recurrent project costs, developed with a Nigerian colleague;
- draft procedures for project monitoring;
- re-establishment of a socio-economic database in the Ministry of Planning with the aid of project-installed hardware and software (dBase III);
- an ex-ante development project evaluation guide (May 1991); and
- an ex-post project evaluation guide (July 1991).

Seed Policy Advisor

Seed policy, a mid-course addition to ASDG I, came to the fore and then disappeared when the counterpart funds in the fifth *tranche* were no longer available. The creation of six state-run seed multiplication centers in the late 1970s had been at the time a prudent response to the first major drought. It was soon evident, however, that the centers were incapable of recovering their costs and would have to rely indefinitely on government and donor subsidies. By 1987, there was clearly a need to withdraw the state from seed multiplication activity, to decentralize decision making, to improve quality control and to create a national seed security stock. The desire to reconsider seed policy led to the establishment of a Seed Policy Advisor position on the Michigan team.¹¹

As discussed in the advisor's final report, "Seed Multiplication in Niger" (1992), he and a well qualified counterpart in the Ministry of Agriculture's Seed Service designed a three-year project to attain these objectives with the aid of ASDG counterpart funds. The project was approved by both USAID and the GON in 1990. It was not implemented, however, because the funds set aside in the fifth *tranche* of ASDG were not made available. The end result was that in 1992 most of the seed multiplication activity had been halted for lack of subsidy and no decentralized, privatized, quality control system was yet in existence.¹²

¹¹Dale Rachmeler, "Seed Multiplication in Niger", April 1992, p. 9.

¹²*Ibid.*

Natural Resources Management Advisor

The Natural Resources Management (NRM) Advisor position was added to the technical assistance team in 1989. In effect, it replaced the position of Agricultural Policy Analyst. The advisor was asked to:

- (1) serve as a NRM policy advisor to the *Direction de l'Environnement* (which was located in the Ministry of Agriculture in 1989 but was later transferred to the Ministry of Water Resources) and to relevant units in other ministries, helping to strengthen GON capacity for NRM policy appraisal;
- (2) assist GON departments, NGOs and PVOs in developing NRM project proposals for the Counterpart Fund;
- (3) help conduct *ex-ante* and *ex-post* evaluations of NRM projects proposed for or funded by the CF;
- (4) identify and collect relevant NRM data;
- (5) identify and, where appropriate, conduct NRM policy studies; and
- (6) assist USAID Niger in designing studies or prioritizing measures for inclusion in ASDG II.¹³

Three programmatic initiatives by the GON and donors proved to be key to the NRM Advisor's role within the government:

- The **Sous-comité de Développement Rural (SCDR)**. Given the mandate to lay out national rural development policy, the SCDR determined natural resources management to be first priority.
- The **Programme Intégré de Gestion des Ressources Naturelles (PIGRN)**. The unit was created in response to the World Bank's recognition that sectoral projects in rural development were inadequate to address the integrated nature of problems facing the rural populations. PIGRN was charged with detailing and overseeing the execution of policies defined by the SCDR.
- The UNSO-backed **Plan National de Lutte Contre la Désertification (PNLCD)** was originally an effort to combat the negative consequences of environmental deterioration. By mid-1991, when the NRM Advisor departed, it had changed in the direction of a multi-sectoral blueprint for the country's resource management projects and programs. As such, PNLCD had moved increasingly into the subject matter of the PIGRN.

There were other actors as well. The FAO supported the Tropical Forestry Action Plan process. The World Conservation Union (IUCN) has situated its conservation and development concerns within the national dialogue. The Rural Code Committee analyzed the fundamental requisites to improved and equitable use and management of natural resources. Its proposed *Schémas d'Aménagement Foncier* (SAF) will be particularly relevant, if and when the Code becomes operational.

¹³Contract Modification no. 8, pp. 5-6.

As these various organizations staked out their domains of interest, the NRM Advisor played an important role in the strategic framework planning process and was involved with each of the key groups. The situation was constantly evolving. Participation in, monitoring of, and influencing the process turned out to be both time consuming and central to the NRM Advisor's role over the two-year period.

Unless these diverse initiatives are harmonized, the GON and many donor programs will remain thwarted in their intention to contribute to an environment wherein local resource users can take responsibility for managing their resources and reap the benefits of improved management. Decentralization will be crucial in making a national strategy operational, yet mechanisms of decentralization that would correspond to the current realities in Niger remain unclear.

Natural Forest Management

Initially, Natural Forest Management (NFM) based on the Guesselbodl model had top priority on the ASDG NRM policy agenda. AID/Washington appeared interested in seeing the local mission maintain leadership in furthering NFM in Niger. There was also pressure from the government side in favor of retaining a project structure like that of the former Forestry and Land Use Planning (FLUP) Project. In short, the institutional setting was highly charged when the NRM Advisor arrived in October 1989. However, with the ministerial reorganization of 1990 and the cessation of direct USAID funding for NFM, this theme gradually moved to the background.

The NRM Advisor did undertake specific activities reflecting on the future of NFM in Niger. He participated in technical and socio-economic reviews of NFM and played an active role in the National Seminar on Natural Forest Management (and a subsequent related seminar on the *approche terroir*). In particular, his involvement in these meetings facilitated formal adoption of the participatory management model.

The ASDG PAAD Amendment assumes that security of tenure and control over management and disposal of the fruits of investment in NRM will lead to increased investment. On his departure, the NRM Advisor believed that the evidence did not yet seem clear. In rainfed agricultural areas, for example, the relationship between most investment decisions and tenure security is probably not significant. Fulbright researcher Sarah Gavian, now at Stanford, studied this issue. Her tentative conclusions supported the need for caution against indiscriminately accepting the argument that a rural code will lead to better land management. Her finished work and the findings of the International Food Policy Research Institute (IFPRI) studies directed by Dr. Jane Hopkins should shed further light on this subject.

The Rural Code

It was unavoidable that the NRM Advisor dealt with the same issues as those under the purview of the Rural Code Committee. At the ADO's request, he took a secondary role in monitoring the rural code process.

As stated in his Final Report, the NRM Advisor concluded that, if adopted, the rural code will not directly change anything. There is no guarantee that it will be applied and enforced. It is undeniable that land management practices in Niger are changing. In addition to the natural forest management model, investment in soil water conservation technologies, the development of local landuse plans (the so-called *approche terroir* with its *schémas d'aménagement villageois*), and private attribution of water points and irrigated parcels serve to demonstrate that innovation and innovative projects are more important to positive change than the law itself.

However, The NRM Advisor also concluded that the draft code, in its own style has responded reasonably well to the need for new forms of management and ownership. It created a permissive foundation that will allow for many eventualities. Critical to its success will be its flexibility in dealing with variety in geography, society, culture and local jurisdiction.

Geographic Information Systems

Geographic Information Systems or GIS are data base management systems that combine and attribute spatial data in a framework allowing a combination of analysis and mapping. The importance of GIS as a tool in monitoring both natural resources and development programs that affect them should not be underestimated.

The NRM Advisor advocated a GIS system as the core of a national monitoring system in Niger. However, only \$7,000 was initially allocated for the entire GIS effort including hardware/software and training. With the current interest and enthusiasm for GIS, the initial effort required to secure financial and institutional support for the GIS initiative may be forgotten. The advisor's role in catalyzing interest and organizing a National GIS Seminar in late 1990 marked a turning point.

The Counterpart Fund

It is noteworthy that the enumeration of tasks for the technical assistance team included no reference to the Counterpart Fund (CF) established by the first Agricultural Sector Development Grant. The CF was set up to receive GON deposits of the local currency (CFA franc) equivalent of the U.S. dollar resource transfer from the U.S. Government to the Nigerian Government. However, a certain percentage of the local currency was reserved for a trust fund used by the USAID mission in Niger.¹⁴

The Counterpart Fund was to be used for the local currency costs of development projects or components thereof as approved by a committee under the chairmanship of the Ministry of Planning. A Project Implementation Letter set forth the procedure for allocations from the fund and established first priority as the financing of activities which contributed to the implementation of policy reforms. The second

¹⁴Initially 5 percent; changed to 8 percent for FY 1987 and after. The principal use of the funds was to assure expeditious implementation of the ASDG. PIL #10, 13 December 1985.

priority was recurrent costs of on-going AID-financed activities, primarily in the agricultural sector, which contributed to achievement of the production and income goals of ASDG.¹⁶

Early in program implementation it became apparent that there were difficulties in managing the CF. Funding had been provided to more than 20 projects but there was no standard method for approving the expenditures made from the CF, for keeping track of them or for evaluating their impact. Apparently, the USAID mission had never intended to devote its own resources to monitoring what was being done with counterpart funds. It therefore turned to the Michigan technical assistance team and applied pressure on the team to become involved in CF project preparation, monitoring and evaluation, if not actually in project management.

The Michigan team could only have become involved in CF project detail at the expense of its other responsibilities. The team was not constituted to manage projects; nor was it placed where it could do so.

TRAINING

Policy Analysis Training

The TA team's greatest impact has been in the area of training, especially with respect to methods of policy analysis, computer analysis and report preparation.

The team found that half-day policy analysis workshops with DEP staff were quite productive. Attendance and interest on the part of DEP personnel were very high.

These workshops covered topics such as:

- methodological approach to policy analysis,
- methods and tools for market structure analysis,
- analysis of price and marketing policies,
- analysis of trade policies and effective protection,
- analysis of subsidy policies, and
- a case study of rice policy in Niger.

There were other types of training programs as well. Longer and more formal workshops, which were not limited to DEP staff, covered subjects such as agricultural policy analysis with the aid of microcomputers (April 1991) and geographic information systems (December 1991). Informally, the team responded to individual requests such as one from the UNDP asking for assistance in training to manage the mission's socio-economic database. All of the team's training programs covered PC system management.

¹⁶PIL #8, 3 July 1985.

Computer Training

Training ministry staff in the use of microcomputers was a success from the start. The team's efforts in computer use training were probably those of greatest significance to Ministry of Agriculture personnel and to staff from other organizations as well. Personnel from the Ministry of Planning's *Direction des Programmes et du Plan (DPP/MP)* and of the DIAPER/CILSS project were among the beneficiaries of computer use training.

The team continuously examined new spreadsheet and database software for possible introduction. Lotus 123 for DOS was still, at the end of the contract, the spreadsheet known by most. New ones being used included Quattro Pro for DOS. As MS Windows-based software became available, the team introduced MS Excel, Wingz and Lotus 123 for Windows. The use of Windows instead of DOS was slowly becoming more common, despite the reluctance to move on to something new. WordPerfect was the word processing program of choice. For pure database management, dBase III and IV were also used but by fewer individuals because of the emergence of spreadsheets with power database capability.

The computerization of the Ministry began modestly but quickly. The Michigan team had specified, ordered, received, and installed computers in their Ministry offices by January 1986. One office was set aside as a computer center for the DEP, equipped with three desktop personal computers and three dot matrix printers.

The unit drew early attention to itself in March 1986 when it published the Ministry's 1985 annual statistical report three months after the end of the year, considered at the time a remarkable achievement for a francophone African country. The following year the annual report was bigger and better, replete with bar graphs and pie charts. The Director of DEP soon took visible pride in the unit's capabilities, but the implicit expansion of his domain was undercut when responsibility for the annual statistical report was removed from DEP and physically moved across town.

The computer training component became an expanding and continuous process, a success to the end, by which time it had found larger quarters on the floor above, was equipped with a new generation of computers and printers, and was serving the whole Ministry of Agriculture rather than just the DEP.

GIS Training

For geographic information systems (GIS), the Natural Resource Management Advisor and a short-term consultant, Bradley Reed, developed a training manual in French to be used to teach Atlas*GIS software to potential GIS users. In December 1991, the team used the manual in a three-day workshop to train 13 officials from the DEP, from the livestock directorate and from the INRAN soil fertility laboratory. At the AGRYMET GIS seminar in March 1992, it was evident that lack of training is still a major constraint to the widespread use of GIS technology. There was strong demand for the Atlas*GIS training manual, which was distributed freely.

In the last three months of the contract, the technical assistance team promoted the use of Atlas MapMaker for Windows as an alternative to the more complicated Atlas*GIS software. The team gave

several demonstrations and provided short-term training sessions. Because of its ease of use, Atlas MapMaker seems to be the GIS software that is most appropriate for the level of government staff who have shown interest.

Statistics Capability

It is the donors' need for information that drives most data gathering activities in Niger, but in the long run only sustained demand for data by Nigerien officials and politicians will insure that reliable data are consistently available. Senior Nigerien administrators are often disillusioned with statistical services and thus rely on external donors to initiate new data collection activities. The technical assistance team therefore focused on getting information flowing up to Nigerien decision makers in the hope that they would rely more on statistics generated from within.

To be noted is the fact that the technical assistance component of ASDG I did not envisage any data collection capability or activity by the TA team. Its members were expected to rely on existing sources of data and to work instead on assessing, compiling, storing, analyzing and distributing data available from whatever source. Thus the agricultural database known as BASDONAG was created.

Under the leadership of Dr. Rachmeler, Chief of Party for the last two years of the project, BASDONAG was re-organized, reduced in size, improved considerably in the process, and distributed widely to GON offices and to donors. Dr. Rachmeler also computerized many of the time series of data stretching back to the 1950s that were published in 1991 by the Planning Ministry as the *Annuaire Statistique "Séries Longues," édition 1991*. He produced a striking set of graphs from these data and made a series of presentations on them to government and donor audiences. Examples of the graphs are found in Figures 1-4 (Appendix C).

The team was directly involved with the agricultural statistics service in Niger in its various forms (DEP/SA, DSAE, SA/DA, SA/DE) over the six and one-half years of the contract. During that time the Ministry's capacity to obtain and provide agricultural information to other government offices and to donors evolved considerably. The team provided on-the-job training in all aspects of data management -- design, collection, analysis, and publication.

In 1985, the few statisticians in the Ministry of Agriculture were attached to the DEP. Today there are three distinct services within the Ministry of Agriculture responsible, respectively, for agricultural statistics, livestock statistics and statistical coordination.

Statistical coordination and policy analysis were merged into one service within the DEP in 1990. This service is also the principal source of aggregate data on the sector -- the annual CILSS-funded crop production survey. The two units responsible for agricultural statistics and for livestock statistics are located in the directorates charged with policy for their respective sub-sectors. All three units should be further strengthened materially and technically.

APPENDIX A

NIGER ASDG PROJECT: PERSONNEL

NIGER ASDG PROJECT PERSONNEL

Chief of Party:

Henri Josserand, 1985-1989

Georges Condé, 1989-1990

Dale Rachmeler, 1990-1992

Long-term Personnel:

Franklin Casey, Agricultural Policy Analyst, Economist, 1985-1989

Henri Josserand, Senior Policy Advisor, Economist, 1985-1989

Michael Wybo, Microcomputer Resource Specialist, 1985-1987

Jeffrey Metzler, Development Economist, 1986-1988

James Gray, Information Management Specialist, 1988-1989

Dale Rachmeler, Seed Policy Advisor, Agronomist, 1988-1992

Gonzalo Romero, Development Economist, 1988-1991

Georges Condé, Senior Policy Advisor, Economist, 1989-1990

Frederick Sowers, Natural Resources Management Advisor, 1989-1991

Short-term Personnel:

Pascale Alloke

Robin Barlow

Francisca Beer

Andrew Cook

Warren Couvillon

William Foerderer

Larry Herman

Chris Hopkins (Peace Corps Volunteer)

Axel Magnusen (Abt Associates)

Aoutchiki Mohamed

Dale Rachmeler

Bradley Reed

Allen Reich

Charles Steedman

Dirck Stryker (Tufts University)

Nigerien Technical Staff:

Philippe Singellos, Computer Specialist

Ahmed Wacho, Computer Technician

Issoufou Stephanis, Computer Specialist

APPENDIX B

NIGER ASDG PROJECT: SELECTED DOCUMENTS

NIGER ASDG - SELECTED DOCUMENTS

- "Seed Multiplication in Niger 1975-1992." Dale Rachmeler. End of tour report. April 1992.
- "The Impact of Agricultural Policy Reforms on the Output of Selected Crops in Niger." Larry Herman and Robin Barlow. Policy analysis paper. January 1992.
- "Wet Season Grazing Trials for Cattle and Goats at the Forest of Boyauga". Christopher Hopkins. 1991.
- "The Impact of Policy Reforms on Agricultural Input Marketing and Use in Niger." Larry Herman and Charles Steedman. Policy analysis paper. December 1991.
- "End of Tour Report." Gonzalo Romero. October 1991.
- "A Thematic Review of Natural Resources Management Issues in Niger." Final Report of the NRM Advisor Frederick Sowers. September 1991.
- "Guide de l'évaluation ex-post des projets." Gonzalo Romero. July 1991.
- "Agroforesterie précoloniale et ses implications pour le présent: Le cas du Sultanat du Damagram." Document provisoire. Policy research paper. Frederick Sowers et Manzo Issoufou. (Not dated.)
- "L'analyse ex-ante des projets de développement." Gonzalo Romero. May 1991.
- "Le rapport entre la tenure foncière et la tenure de l'arbre." Pascale Alloke et Manzo Issoufou. Préparé pour le MAG/EL, Secrétariat Permanent du Code Rural, Direction des Etudes et de la Programmation. May 1991.
- "Annexes de l'étude sur: 'Le rapport entre la tenure foncière et la tenure de l'arbre.'" Alloke Pascale, Manzo Issoufou. May 1991.
- "Documentation de la Cellule d'Analyse des Politiques Agricoles." MAG/EL, Direction des Etudes et de la Programmation, et CRED. May 1991.
- "Atelier sur l'analyse des politiques agricoles." Workshop designed to improve the capacity of MAG/E personnel for analyzing and evaluating agricultural data. April 18-26, 1991.
- "Note sur l'atelier des études CRED/LTC/Code Rural." Workshop to review preliminary version of report, "Le rapport entre la tenure foncière et la tenure de l'arbre." Michel Keita and Fred Sowers. March 12-13, 1991.
- "Assessment of Agricultural Input Policy Reform. Preliminary Draft of Consultant's Report." Larry Herman. March 1991.
- "Communiqué final du 'Séminaire-atelier sur les Systèmes d'Information Géographique (SIG).'" Seminar's objective was to pool the experiences of the various SIG users. October 31 to November 2, 1990.
- "Resource Valuation and Incentives to Invest in the Land." Policy research paper. William S. Foerderer. 1990.
- "Rapport écologique: Zones pastorales d'Agadez et de Zinder (Niger C.E)." Aoutchiki Mohamed. Contribution à l'étude des micro-sites de hautes potentialités dans la zone pastorale du Niger. September 8, 1990.

- "Micro-sites of High Potential in the Pastoral Zone of Niger: Reconnaissance, Determination, Classification, and Evaluation." Prepared by CRED in Collaboration with the Inter-ministerial Committee for Natural Resource Programming in Niger (PIGRN). Allen Reich, Acutchiki Mohamed, Seyni Seydou, contributors. September 1990.
- "Micro-sites de haute potentialité dans la zone pastorale du Niger: Reconnaissance, détermination, classification, et évaluation." September 1990. (French version of preceding document.)
- "The Impact of Agricultural Policy Reforms on the Output of Selected Crops in Niger." Larry Herman and Robin Barlow. Version 1.0. August 1990.
- "Cereal Banks in Niger." Francisca Beer. July 1990.
- "Les banques céréalières au Niger." Francisca Beer. July 1990. (French version of preceding document.)
- "Analyse des prix agricoles - Marchés Niger." April 1990.
- "Study on the Cost and Advantages of Agricultural and Livestock Prices Broadcasting." Georges Condé. March 1990.
- "Consultant's Report on Assessing the Impact of ASDG-I Policy Reforms." Robin Barlow. February 1990.
- "End of Tour Report." Henri P. Josserand. July 10, 1989.
- "Programmation, réalisation et impact des investissements au Niger 1985-1989," Version révisée. Gonzalo Romero, Frank Casey, Carolle Lepine. Ministère du Plan, Direction des Programmes et du Plan. July 1989.
- "Economic Benefits of Improved Market Information Flows for Agricultural and Livestock Products." Policy analysis paper. June 1989. (French translation of this document is also available.)
- "Illustrated Methodology for the Impact Assessment of Policy Reforms." U-M Technical Assistance Team. May 1989.
- "Document de discussion sur la politique de sécurité alimentaire." MAG/E discussion paper. April 1989.
- "Analyse de l'origine du mil vendu sur les marchés de Niamey, mi-Avril 1988 à fin Janvier 1989." Policy research paper. Examines the origin of millet (Niger vs. Nigeria) sold by a sample of Niamey wholesalers. March 1989.
- "ASDG Impact Assessment - The Role of Cooperatives in Factor and Product Markets." February 1989.
- "Investment Programming and Expenditures in Niger's Rural Sector." Frank Casey and Gonzalo Romero. Policy analysis paper. Analyzes the structure, evolution and orientation of the Investment Budget over the last four fiscal years. January 1989.
- "Liste alphabétique des documents disponibles." Listing of the MAG/E Policy Analysis Unit collection of 660 papers, reports and studies on Niger's primary sector. January 1989.
- "ASDG Impact Assessment - Local Currency Account and Macroeconomic Impact." Version 2.0. January 1989.
- "ASDG Impact Assessment - Agricultural Inputs." Version 2.0. January 1989.

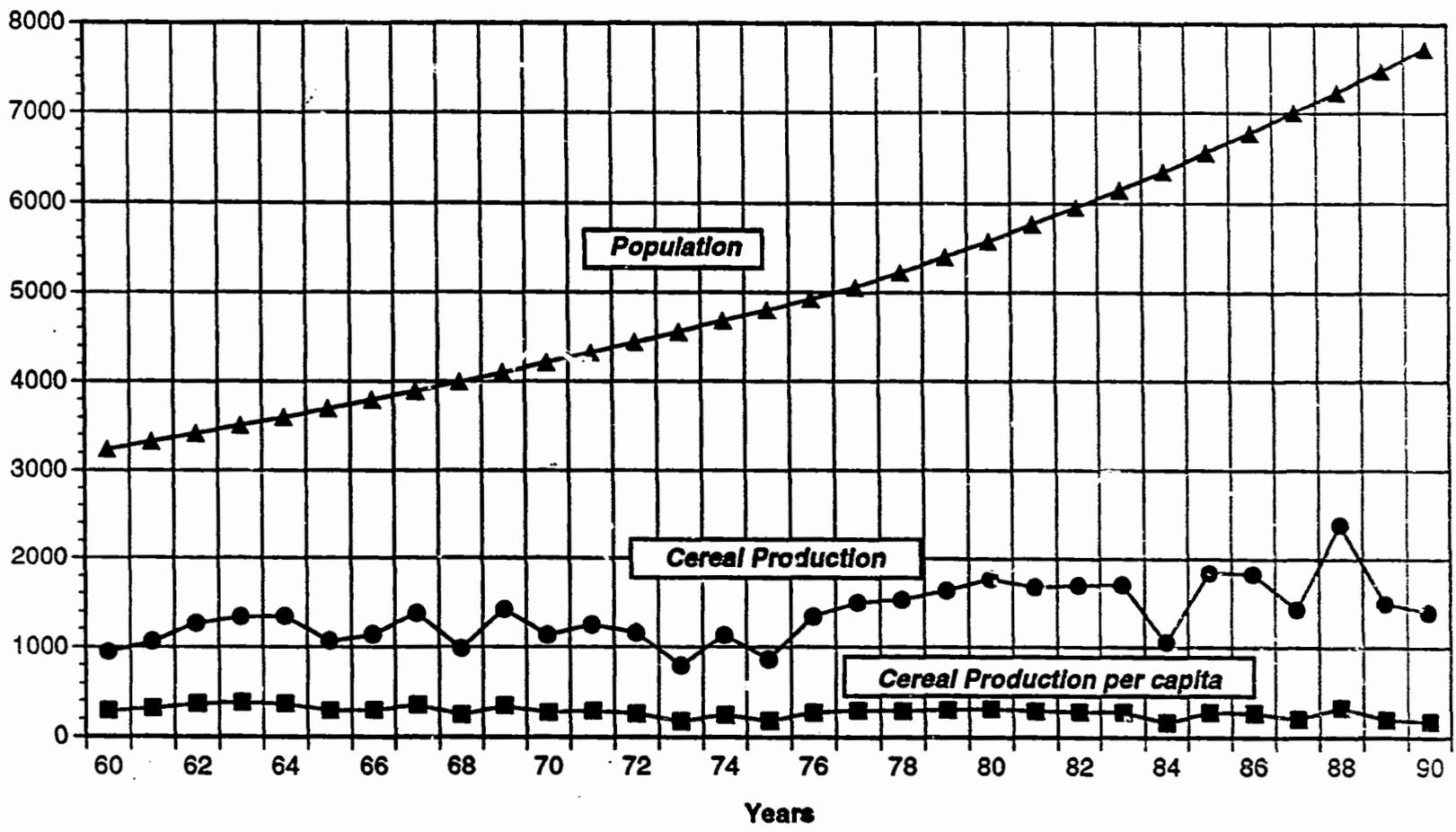
- "ASDG Impact Assessment - Les Intrants Agricoles." Version 2.0. January 1989. (French version of preceding document.)
- "ASDG Impact Assessment - Cereal Price and Marketing Policies." Version 2.0. December 1988.
- "ASDG Impact Assessment - Politiques de prix et de commercialisation des céréales." Version 2.0. January 1989. (French version of preceding document.)
- "La réforme des politiques céréalières au Niger." Discussion paper prepared for the national cereal marketing workshop. Provides an overview of cereal policy reform over the 1985-88 period. November 1988.
- "Compte-rendu du séminaire sur la politique de sécurité alimentaire et la performance relative de l'agriculture sahéllienne." Washington, 17-18 Octobre 1988.
- "Aggregate and Distributional Effects of Market-Oriented Cereal Policy Reform in Niger." Policy analysis paper. October 1988. (A French version of this document was presented at the April 1989 national workshop on cereal markets organized at OPVN.)
- "Plan d'action pour la politique semencière au Niger." Policy analysis and management paper. August 1988.
- "Action Plan for Seed Policy, Government of Niger." Warren C. Couvillon and Dale Rachmeler. February 4, 1988. (English version of preceding document.)
- "Politique de commercialisation et de gestion des marchés." Policy analysis paper prepared as a basic document for discussions with the donor community during the Rural Development Roundtable. April 1988.
- "La commercialisation primaire par les coopératives." Policy analysis paper. April 1988.
- "Les statistiques de l'agriculture et de l'environnement - orientations et programme d'action pluriannuel." Management/technical paper. March 1988.
- "An Evaluation of Cooperative Rolling Fund Management Systems in Niger." Jeffrey Metzel. Policy analysis paper. January 13, 1988.
- "An Economic Evaluation of a Phosphate Basal Dressing Scheme for the Niamey Department." Policy analysis paper. Examines the economic viability of a one-time large-scale application of phosphate on soils in one of Niger's seven departments. November 1987. (A French version of this document is also available.)
- "Analyse à moyen-terme de l'évolution des cours céréalières au Niger et de leur variabilité par rapport aux niveaux de production." Policy analysis paper. On the basis of monthly millet prices in Niamey from 1970 through 1986, examines the variability and cyclical evolution of cereal prices. November 1987.
- "La contribution des banques céréalières à la sécurité alimentaire et la stabilisation des prix au Niger." Policy analysis paper. Provides an assessment of the extent to which cereal banks contribute to food security and price stabilization. Novembre 1987.
- "Guide de référence à la base de données agricoles 'BASDONAG'." Provides description, keywords and file names for 128 files of miscellaneous statistics on the agricultural sector. October 1987.
- "Micro-Computer Use in USAID-Financed Projects in Niger." Michael D. Wybo. Management/technical paper. August 1987.

- "Evaluation de l'impact immédiat des investissements publics dans le secteur développement rural au Niger." Jeffrey Metzler. Economic analysis paper. June 1987.
- "Cotton Production and Marketing in Niger: A Brief Overview." Henri Josserand. Policy analysis paper. April 1987.
- "Résultats de l'analyse de l'enquête sur les stocks villageois." MAG/E policy research paper. Presents a final assessment of the CND program to establish village emergency stocks. 1987.
- "Results of Analysis of the Enquête Stocks Villageois." (English version of the preceding document.)
- "Note de réflexion sur les politiques de prix et de commercialisation des produits agricoles au Niger." Policy analysis paper used as the basis for discussions at the yearly national meeting of Ministry of Agriculture staff, Agadez. March 1987.
- "La place des cultures secondaires et du marketing dans la politique agro-alimentaire nigérienne." Policy analysis and discussion paper. December 1986.
- "Retrospective Study of Fertilizer Supply and Demand in Niger." Ministère de l'Agriculture, Direction des Etudes, de la Programmation, et des Statistiques Agricoles. Policy analysis paper. Examines major fertilizer issues: subsidies, use and crop response, supplies from donors and Nigeria, domestic phosphate deposits. August 1986. (An integral French version of this paper was published in 1987.)
- "Observations on the National Statistics Service Market Price Survey. Policy analysis paper. Provides recommendations on the regular collection and analysis of market prices for basic commodities. July 1986.
- "The Ministry of Agriculture and Agricultural Policy - Context, Diagnostic of Efficiency and Proposed Action Plan." Research and strategy paper. June 1986.
- "Les prix comme indicateurs de l'état et du fonctionnement des marchés céréaliers au Niger." Policy analysis paper, presents methods to assess cereal market efficiency through statistical analysis of free market prices. 1986.
- "Rapport Interimaire sur l'enquête stock villageois: Méthodes, état des travaux et résultats disponibles." Policy research paper. Presents a preliminary assessment of the November 1985 CND program to establish village emergency stocks. March 1986.
- "Fertilizer Subsidies - Methodological Notes and Suggestions." Henri P. Josserand. Policy analysis paper. Discusses proper fertilizer shadow price and subsidy calculations, given Nigerian supplies. October 1985.
- "Results of Analysis of the Enquete Stocks Villageois." Not Dated.
- "Résultats de l'analyse de l'enquête sur les stocks villageois." Not Dated. (French version of preceding document.)

APPENDIX C

FIGURES

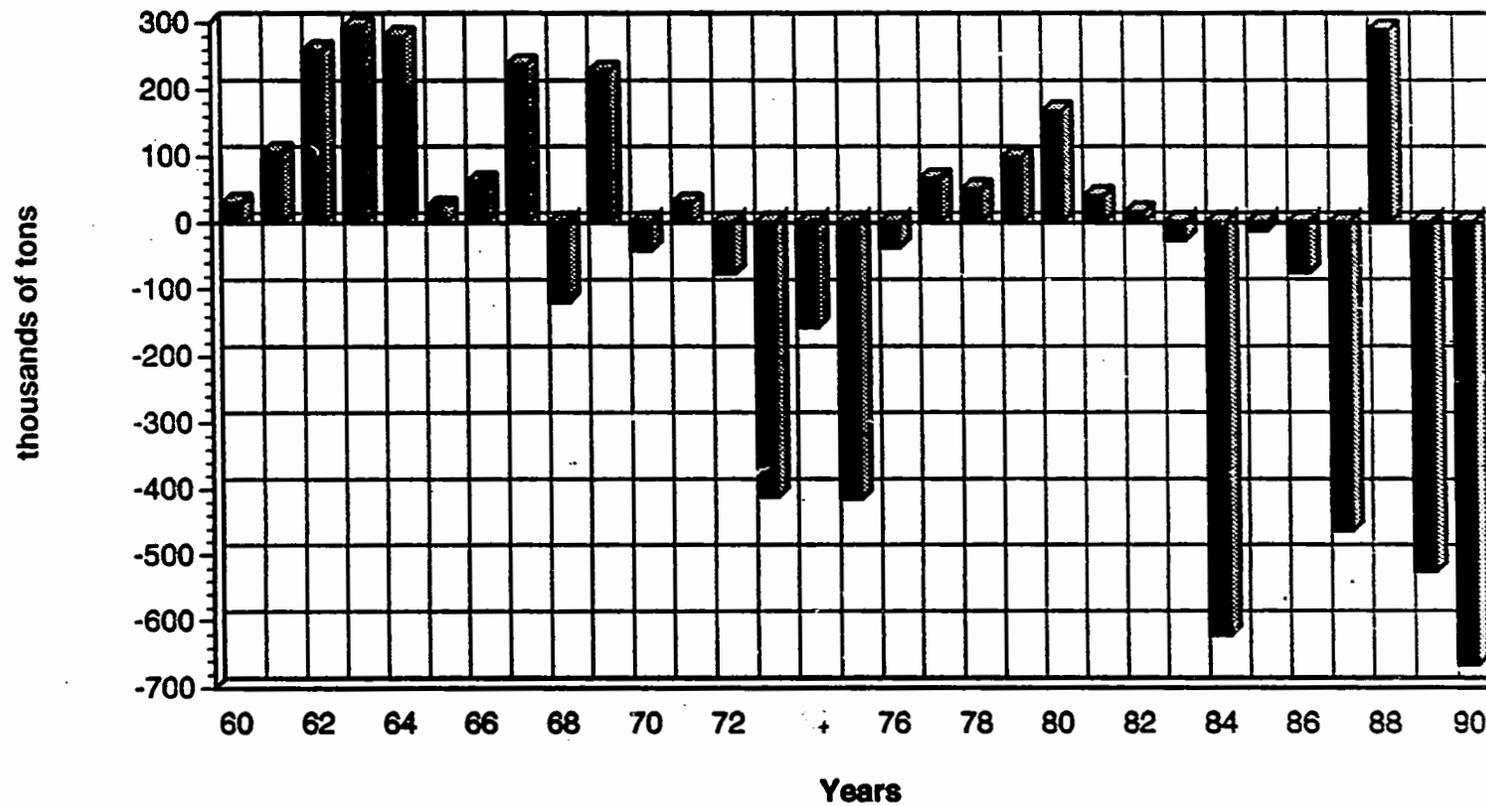
Figure 1: The Relationship between Population Growth, Cereal Production and Cereal Production per capita 1960-1990



Note: Population in thousands: Cereal Production in thousands of tons: Production per capita in kg/ha

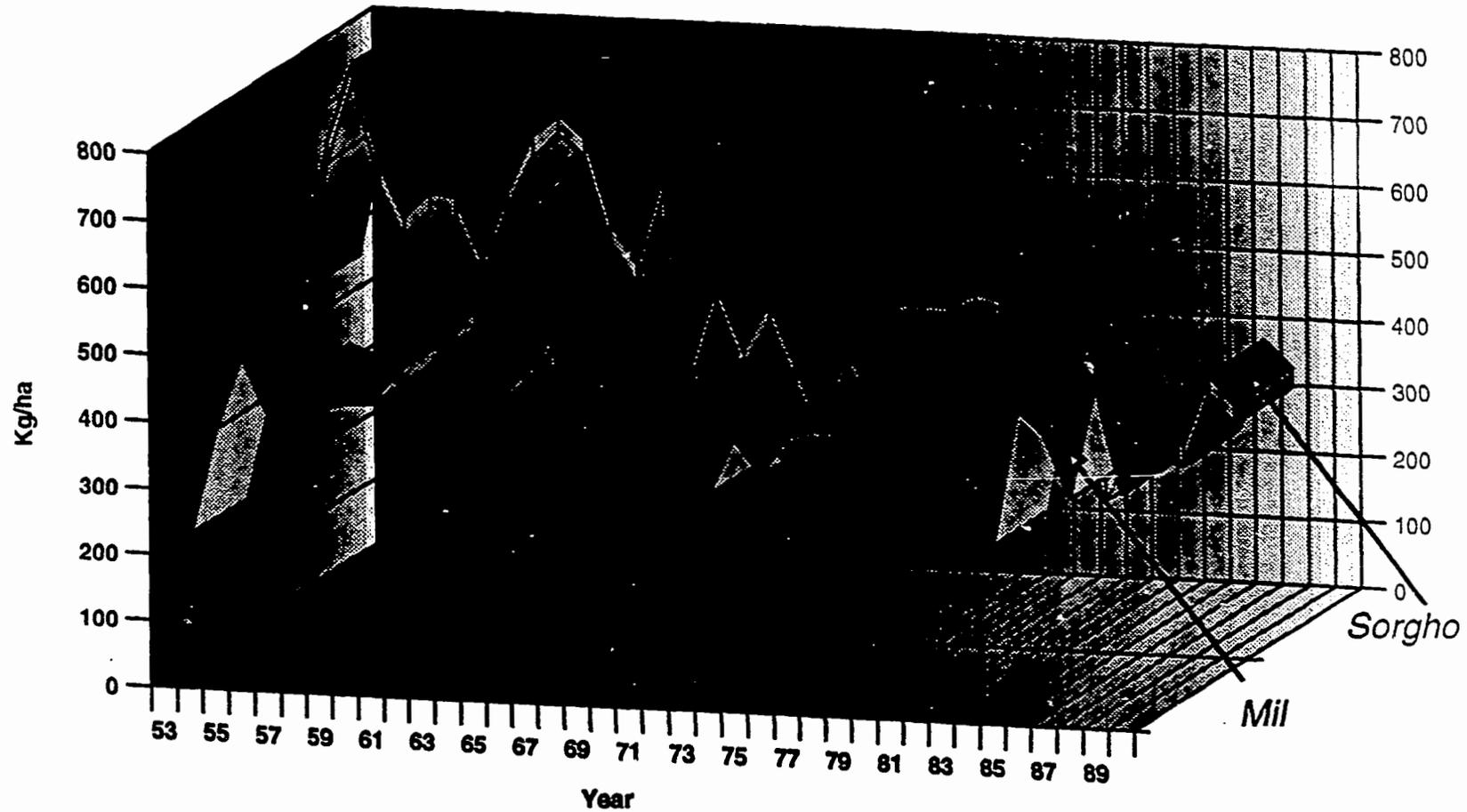
SOURCE: *Annuaire Statistique Series Longues*, 1991 p. 97, DSD/MP (Data: MAG/EL)
Prepared by: CRED/MAG/EL, Aug 1991

**Figure 2: Food Production Balance: Needs vs. Production
1960 - 1990**



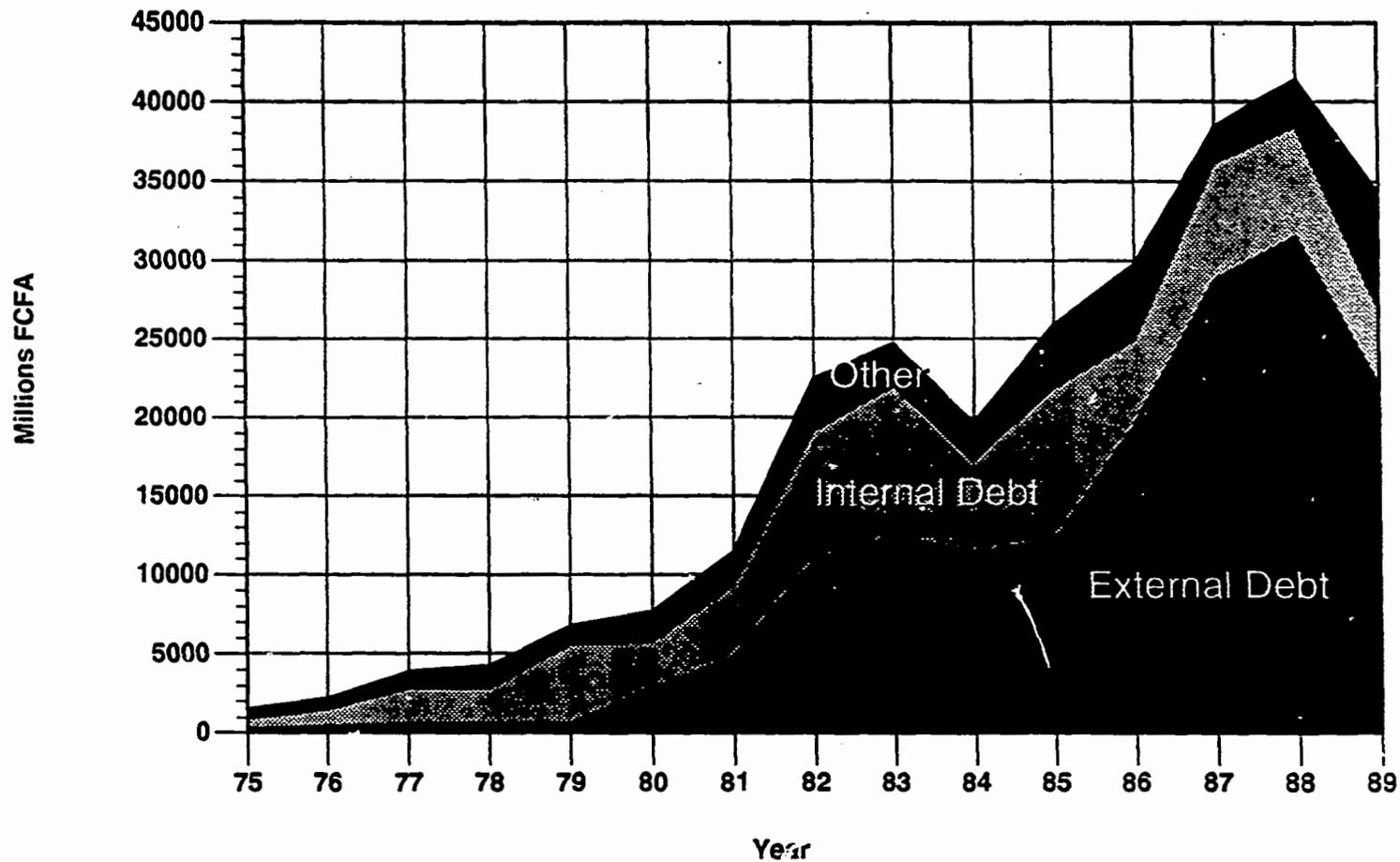
SOURCE: Annuaire Statistique Series Longues, 1991 p. 97, DSD/MP (Data: MAG/EL)
Prepared by: CRED/DEP/MAG/EL, Aug. 1991

Figure 3: Yields for Millet and Sorghum, 1953-1990



Source: *Annuaire Statistique Series Longues 1991*, p. 93-94 DSD/MP
Prepared by: CRED/DEP/MAG/EL, Aug. 1991

Figure 4: Evolution of the Public Debt, 1975 - 1989



Source: *Annuaire Statistique Series Longues*, 1991, DSD/MP p.213, 215 Data: DBC/MF
Prepared by: CRED/DEP/MAG/EL, October, 1991