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**SENEGAL CEREALS PRODUCTION II  
PROJECT NO. 685 - 0235  
CONTRACT NO. AFR-0235-C-00-1048-00**

**END-OF-TOUR REPORT**

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End-of-Tour Report - Kathryn Craven, Agricultural Economist

SODEVA Cereals II Project, Senegal, September 1984

This paper is divided into four parts: I. The Scopes of Work; II. What has been achieved, including an analysis of constraints; III. Conclusions and Recommendations, and IV. Bibliography.

The following scope of work is a composite drawn from the three different scopes of work that outline the Economist's position in the Senegal Cereals Project. The scopes of work, which are found in the original Project Paper, in the Aurora/AID contract, and in a separate paper provided by Aurora Associates to the technical assistants, have been re-arranged so that the listing of like tasks are put together and repetitions deleted.

I a. The agricultural economist is to provide expertise in the area of data collection and analysis (evaluation) since (s)he will serve as technical advisor to SODEVA's Evaluation Section (DEP), helping to determine areas of study and assuring that the studies carried out conform to established principles of data collection and will result in information valid for useful analysis of on-going production themes.

b. Assist the DEP in obtaining baseline data and in determining the acceptability and success of extension themes. Assess the relevant aspects of the project's impact on consumption. Has the project helped to stabilize family incomes and improved diets?

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c. Assist in socio-economic surveys and the evaluations used to determine the impact of SODEVA's operations.

d. Provide technical advice in the formulation and application of plans for activities in the project area, including work management.

II a. The consultant will play a major role in the liaison between SODEVA and CNRA in assuring that production recommendations developed by SODEVA are cost beneficial at the farm level by reviewing, analyzing and reworking research information suitable for processing at Pout.

Assist SODEVA's Evaluation Section in putting research findings into useable terms for production of technical brochures for use by extension agents.

c. Transform research results into SODEVA recommended practices. Determine the implications of these recommendations on the farming community so that SODEVA can refine its direction and evaluate its programs.

III a. Assist in the compilation of a finalized in-country training plan for extension agents (in collaboration with SODEVA and other technical assistance).

b. Assist SODEVA and ISRA in training and monitoring their staff at Dakar, Pout and Bambey, especially as regards II a.

c. Assist in the training and supervising of counterparts in a manner determined by SODEVA.

IV. Prepare an end-of-project evaluation of the WID component to see what the project's impact was on women's access

to extension, relief from heavier household duties, literacy and health care training (as a complement to the survey done at the beginning of the project).

V. Assess SODEVA's contribution to the Senegalese economy. The impact of off-farm and off-season farm employment should also be analyzed in this context.

VI. Perform other duties as required for the fulfillment of the project.

VII a. Prepare a final report including a summary of all work done during the contract period with recommendations relating to the continued progress of the project.

b. Prepare periodic reports as requested by the GOS (i.e., SODEVA and ISRA) and/or USAID.

Part II. Performance vis-a-vis the Scope of Work

A. Before assessing the degree of achievement of each task area outlined in the Scope of Work, I would like to comment on what I perceive to be a divergence between that Scope of Work and the realities of working as a technical assistant within SODEVA.

In my view, there are at least four basic assumptions underlying the Scope of Work which do not match reality of the work situation I found at SODEVA. These are:

1. that technical assistants necessarily have more experience and/or education than their SODEVA counterparts;
2. that the staffs of SODEVA and ISRA would permit the technical assistants to act as advisors and decision-makers in areas concerning the project;
3. that the bureaucratic structures of SODEVA and ISRA would permit the technical assistants to work in concert in the completion of project tasks; and
4. that the work priorities outlined in the Project Paper would necessarily coincide with SODEVA's work priorities and interests.

In regard to the first point, some technical assistants had superior training to their immediate SODEVA colleagues and some did not. In my case, I was assigned to work with an economist who also had his doctorate in economics from a Western University (Paris). He and I worked extremely well together and, except perhaps for my greater field experience, were on equal footing professionally. Any notion that I was 'training' him was

ludicrous; we both shared work and opinions as would any two individuals who have equal education and different experiences.

With regard to the second point, whether my education and experience had been superior or not, the interpretation of technical assistance among SODEVA senior staff did not allow for a role as advisor. The senior staff rejected out-of-hand any notion of counterparts. This was perhaps done for good reason, given the paternalistic nature of past technical assistance during the colonial and immediate post-colonial era. But it had the effect of submerging any decision-making role that the technical assistants could play. We were expected simply to work within the division to which we had been assigned, carrying out the tasks deemed appropriate by our division chiefs.

While there was some room for us to suggest the areas in which we would have liked to work, most of this work could not be carried out individually. The fact that each technical assistant had originally been assigned to a separate division, each with a separate division head, prevented us from working together on project tasks (Point III). Further, since the Cereals Project is not the only work SODEVA is involved in, division tasks are much broader than those defined in the project. This means that division work priorities do not always allow sufficient room for carrying out the project tasks deemed necessary by the technical assistance (Point IV). Again, since most of this work could not be done individually, it often got left undone.

As a result of all of this, I often felt as if my presence at SODEVA was without purpose. I did not feel that I made an important contribution either to the project specifically or to SODEVA in general. This was not for lack of trying, as I hope the following analysis of performance will demonstrate. But it did make me wonder whether organizations like SODEVA are given sufficient hand in the design of projects like the Cereals II Project, or whether they simply take technical assistance because it is part of the AID package. In the future, I would hope that USAID would proceed with greater care in their project designs so that they assure (1) that the ideal goals set for technical assistants match working realities; and (2) that the domestic institution in fact wants technical assistance in the first place.

B. Performance of Tasks

My accomplishments as concern task I A in the Scope of Work can be summarized as follows: I participated in numerous meetings in which data collection and analysis were discussed. I introduced the notion of collecting real prices for agricultural products on the annual Agro-Economic Survey (as opposed to simply valuing production at official prices as had been done). I worked with the SODEVA statistician in tabulating and analyzing one year's survey results and pointed out many of the deficiencies and contradictions that existed in the data. (The analysis for that year was subsequently scrapped). As a result of this experience, the other SODEVA economist and I wrote a note expressing our opinion on what should and should not be analyzed

out of future Surveys (no. 17)\*. We did not feel that the statistician should have been making the decisions of what was to be analyzed, and we pushed other members of the DEP to contribute their own thoughts on the needs of future analyses. I would like to add here that all of this was done after I was officially re-assigned to the DTO and had no more official links with the Study Bureau (DEP). Also, with reference to the first point in the Scope of Work, I wrote a critique of the current practices of report and statistical table presentation (no. 5) which I found had frequently omitted author or division identification, dates, proper headings and labelling. I don't know whether anyone paid much attention.

With reference to Point Ib. in the Scope of Work, in my first Tentative Work Plan (no. 2) I proposed doing a study with the audio-visual expert on the impact of extension of different audio-visual methods used in extension. I thought that the results of such a study could improve SODEVA's extension performance by orienting it toward those methods that were the most effective. Here, the fact that we were each in a different division (with different superiors and different divisional work priorities) prevented us from ever carrying out the study - although the wish to do so remained alive until David Van Dyk left.

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\*The numbers in parentheses refer to bibliographic entries found at the end of this report.

A note on the consumption effects of the project. While a thorough analysis of the consumption effects of the project would have been extremely valuable, it would have required a pre-project consumption survey which did not exist. On the other hand, a rough estimate of the consumption effects based simply on food production increases assumes that such increases were forthcoming. This was true in the second year of the project, but forces outside of SODEVA's control (unavailability of fertilizer, high input prices and lack of sufficient rainfall) all mitigated against production increases in the third year of the project. Since the economist will not be present to analyze the fourth year's production, nothing was done along these lines. One can only say that farmers were very keen to acquire the higher yielding Souna III seed but supplies were always well below demand; and this is an indicator that the Souna III technical package was positively viewed by farmers and had beneficial consumption effects.

Point Ic. deals with socio-economic surveys and evaluations. My contribution to SODEVA's annual Agro-Economic Survey was treated above. In regard to evaluations, I was asked to and executed a number of general evaluation outlines to be used to evaluate several of SODEVA's principal activities (no. 3). I made a major contribution to the DEP's evaluation procedures through the work I did in analyzing the Joint Agronomic Trials. No one had ever done that kind of evaluation before within SODEVA and we had a number of fruitful debates over the methodological approach used. For all of its faults, this evaluation got people

within SODEVA thinking about the problem of assessing the economics of joint farm trials, and I hope that our discussions mean that SODEVA staff will continue to do this work after I have left (see no. 6, no. 9, no. 13, no. 14, and no. 16).

I also worked on an evaluation of SODEVA's current extension philosophy with two other members of SODEVA's staff (no. 2). We presented the paper to other staff members at a meeting concerned with SODEVA's new directions in extension. It was a good collaborative effort especially since it cut across divisional lines. Unfortunately, its very ad hoc nature could not sustain further cross-divisional work in this area.

I would note here that one of the problems with the way work is organized at SODEVA is that there is little coordination of effort between divisions. The Study Bureau (DEP) has its schedule of work, the Technical Division (DTO) another, and the Training Division yet another. Instead of the work of the DEP directly supporting the needs of the Technical Division, it has a life of its own. For the first time this year, people from several different divisions (including Administration and Finance) wrote the Annual Report together as an integrated whole rather than each division writing a separate report. There is yet no mechanism for regular communication between the DEP and the DTO except for monthly meetings that involve all of SODEVA and at which logistics and procedure are more often discussed than substance. In my opinion, SODEVA lacks an overall guiding philosophy and work plan through which each division shares the

same general goals for the organization and knows what the appropriate tasks are to accomplish these goals. Without the clarity provided by long term planning and shared goals, staff members' work get swallowed up in day to day 'fire-fighting' and problems that need carefully developed solutions often do not get solved.

Concerning the second point in the Scope of Work, I spent much of the latter half of my second year involved in liaison activities. I found that I was the only economist that had ever participated in the Cellule de Liaison meetings (between SODEVA and ISRA) and that an economist's voice was necessary to assure that trials were designed and information collected on them that could result in economic analyses. It was this lack of economic input that precluded my analyses of the first year's results. And it was also this lack of input that pushed me to design separate economic follow-up forms for the trials (no. 14). Although the information from these forms was never analyzed because ISRA never sent out the final technical reports, the effort at producing these forms has had an impact on the DEP which now, I noticed, is placing similar follow-up forms based on a similar design for other evaluations.

As for being able to turn the trial results into extension materials - this never happened. For one thing, the Pout A-V Center was finished two years late, just a few months before the end of my contract. Even since its completion, no clear plan has been presented as to how the Center is to function, or who within SODEVA is to channel information to it for the production of A-V materials. At present, the Center's staff is rather

independently selecting current extension topics and making slide shows or video tapes. There is at present no mechanism by which members of the DTO or the DEP can have a voice in what is done at the Center. Therefore, this key item of the Scope of Work was designed in ignorance of the realities of how A-V work is carried out (or not) at SODEVA and of the lack of linkages within the bureaucracy that would have permitted the work to have been carried out as designed.

On the other hand, even if the Center had been completed on time, and a long term plan for its use designed and functioning, the results of the agronomic trials have not been significant enough over time or space to enable hard conclusions to be drawn about their economic efficacy. I made suggestions to the DEP concerning the importance of follow-up surveys to see if the trials have had any effect on farming methods in the areas where the trials were carried out. But the DEP never took up my suggestions.

Besides participating directly in the Cellule de Liaison for the Agronomic Trials, I also participated in early design meetings for the new Soil Regeneration project. My exposure to the concerns of this project led me to do a study of farm by-product use in the Peanut Basin. I sensed, after a number of field trips that there was a potential conflict developing between two of SODEVA's programs: the use of farm by-products for animal fattening and the needs for organic materials of impoverished soils. The solution of using animal manure for the latter cannot work under present conditions in the Northern

Peanut Basin because there, people burn manure for lack of other fuel. The study I did shows the uses and trade-offs of farm by-products (no. 19).

Concerning the third major area of the Scope of Work, as I mentioned above, training questions are beyond the scope of the divisions to which the technical assistants were assigned. The Agronomist was able to make a contribution in this domain through some initiatives she took through the Cellule de Liaison, but they were specifically related to the Agronomic Trials. As concerns the training of counter-parts, SODEVA never subscribed to the idea of counter-parts in the first place, and supervision of others was out of the question.

For my entire tenure at SODEVA, I tried to accomplish the task prescribed in Point IV of the Scope of Work. I had suggested a mid-Project review and evaluation of the WID component with particular emphasis placed on assessing what the project's impact had been on women's work loads and incomes. I knew that an analysis of work loads would require a fairly intensive time-and-motion study and would require a hefty chunk of enumerator time. I brought this up in early DEP meetings. The reaction of DEP members was basically that it sounded like a good idea, but that I'd have to work it out myself with Marie Kane (SODEVA's WID directress in Thies). It was not that the DEP wasn't interested, but each of its members had his or her own study priorities and schedules were filled fairly far in advance. When I raised the issue with Thies, I was told that the Regional Office in Thies was planning to do its own evaluation of the

Women's component. Although I doubted that they had the time or energy to do a time-and-motion study, I said nothing and waited. When their report came out, it did not, in fact, treat the areas that I had planned to cover. Their report included a good discussion of the management problems affecting the functioning of the millet mills, but no comment on the socio-economic impact of the latter on village welfare. Some time later, the DEP in Diourbel came out with their own evaluation of the WID component for their region which closely paralleled the Thies study. I finally decided, after numerous attempts, that no one was interested in my vision of the problem. After nearly a year, I suggested to my supervisor that I drop my plans for such a study. He said no, that I should do the study, but that, once again, I must get Marie Kane's approval. At the time, however, she was in the States for 6 weeks, so I decided to go ahead and visit some of the Project's WID villages in order to prepare my questionnaires. The initial sorties were very informative and I wrote up some of my impressions in the form of trip report (no. 11). When Marie Kane returned, I wrote her a short note telling her what I intended to do in the study and asked her for an appointment so that we could discuss it. Time passed, I received no response. I saw her at some regional meetings and broached the subject again. She said that she was far too busy just then. More time went by, and I asked her again. This time she said rather cryptically that she would answer me in writing. A month or so later, I received an extremely frosty and formal letter informing me that she had looked over my outline and found that

everything that I had proposed had already been covered in other evaluations and that if I insisted on doing a study in this area I would have to revise the nature of my inquiry. I was completely non-plussed. I tried to show her that I had great professional respect for her and that I wanted to work with her, but to no avail. When I discussed this with my supervisor, he said that he and Marie had already talked about the "problem" and that it was "obvious that the two of you cannot get along". I was surprised, because we had never had any other problem but she seemed unwilling to work with me. I do not know what she told my supervisor - there was some intimation on his part that somewhere in my procedure I had done something wrong. Since she refused my overtures and never allowed me to explain in person what it was I was trying to do, we were, de facto, unable to work together. But I would like it on record that it was not from my not trying.

Because I still felt that what I had proposed still had not been dealt with effectively elsewhere, I took all of the reports and evaluations of the WID component, dissected them to see what they had and had not said, and compared this to what I had proposed doing and to what I felt still needed to be done (no. 18). The decision, of course, now rests with SODEVA as to whether they wish to pursue my ideas for an economic evaluation or not.

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whether they wish to pursue my ideas for an economic evaluation or not.

Because of the very great difficulties with externalities this year (poor rainfall, high input prices, lack of agricultural credit and the unavailability of fertilizer), the Peanut Basin farmers, the Cereals Project objectives and, therefore, SODEVA's impact on the Senegalese economy made a very poor showing in 1983/84. Even without the confluence of all these factors, an assessment of an extension agency's impact (Point V in the Scope of Work) would be very difficult to make. With these other factors present, such an assessment is made nearly impossible. As can be seen in my first Tentative Work Plan (no. 1), I had planned to attempt such an evaluation. But this soon appeared to me to be a waste of time. I have, however, suggested to SODEVA in meetings on the Agro-Economic Survey that much more attention be paid, in the future to off-farm and off-season employment so that these elements, to the extent that they are linked to SODEVA's extension efforts, can be brought to bear on future evaluations of that agency's contribution to the economy.

Point VI is a very general statement. I fulfilled it to the best of my abilities given the constraints of the bureaucratic structure, personalities and the institutional interpretation of my role at SODEVA.

Point VII is completed with this report. Periodic reports were done on request, although most of what I wrote was self-initiated. I have left a short note with SODEVA concerning the

areas I feel that still need further study (no. 21). Since SODEVA is currently fighting for its survival within the Senegalese government, these may or may not be carried out after the Cereals Project ends.

One of my long standing suggestions to SODEVA has been for the establishment of an economic information bank like the statistical information bank that the DEP has already started. This would require a systematic gathering of and reporting on a number of economic indicators that could serve economic analysts both within and outside of SODEVA. Such an undertaking, however, would require a real commitment on the part of SODEVA because such a systematic collection requires lots of manpower, good organization and institutional follow-through. If one wants to establish a useable time-series for, say, real agricultural prices, it does no good at all to collect information for 6 months here, or a year there. There are a number of vital areas in which basic economic information is embarrassingly absent and whose absence renders any in-depth economic analysis impossible. What follows is my basic list of information that is needed on a regular basis but that only exists in the spottiest form at present. I have already written a short note and reproduced real market prices for a number of agricultural products\* as an attempt to inspire future efforts along these lines (no. 20).

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\*Figures exist at the Direction de la Statistique but do not appear in print except as part of the Cost of Living Index.

### Part III. Areas Requiring Further Study

- I. Agricultural labor times for each of the most important crops: peanuts, millet, cowpeas, manioc, corn, etc.
  - a. How much total time is devoted to a particular crop each season?
  - b. Who does which task, when? (Men, women, children, individuals, groups)?
  - c. Who makes labor allocation decisions in the compound? (Who can call on family labor for use in his own fields)?
- II. Real costs of purchased and non-purchased inputs used on the major crops.
  - a. Chemical fertilizers, organic fertilizers, farm equipment, traction animals, etc.
  - b. A description of the network for sales and procurement: who buys? who sells? who manufactures? who repairs? What are the costs involved at all levels of these transactions?
- III. Traditional storage methods
  - a. Description of the different types used for various crops.
  - b. Costs of local construction and maintenance.
  - c. The length of life of the storage means.
  - d. The methods of use and what it protects against best.
- IV. The means of local transport for goods and people
  - a. Description of transport means used for different needs.
  - b. Purchase and maintenance costs of equipment and animals.
  - c. The length of useful life of equipment and animals.
  - d. Delineation of zones in which transport means differ and why (tse-tse fly, etc.)?

V. The Range and Use of Farm By-Products

- a. For animal feed.
- b. For construction.
- c. For agriculture (soil building).
- d. For fuel.
- e. For augmenting income (sales).

VI. Animal Raising and Maintenance

- a. Seasonal prices for various kinds of animals
- b. Which kind of animals are kept and which are sold, and why?
- c. How are the different animals fed?
- d. What are the different farm and home uses to which each kind of animal is put?

VII. Description and Metric Equivalences of different local measures used for farm products (grain measures, storage pile measures, sack measures, etc.)

- a. For sales purposes.
- b. For home use.

VIII. Borrowings for Production

- a. What are the amounts and nature of seasonal borrowings for agricultural production?
  1. In kind.
  2. In cash.
- b. What is the nature of the credit system?
  1. Who borrows; who lends?
  2. What are the terms?
- c. What are the consequences to family incomes of annual borrowings? Are the bulk of borrowings made for production or consumption purposes?

**IX. Labor migration**

- a. Who leaves? why?
- b. Where do they go?
- c. What do they earn?
- d. Is the money channeled back into the family farm?
- e. What is the importance of off-farm earnings compared with that earned on the farm?
- f. What are the regional differences in payments for both on-farm and off-farm labor?

**X. Parallel Markets for Agricultural Products**

- A. Description of the circuits used for sales of agricultural products (corn, millet, cowpeas, manioc, peanuts, vegetables).
  1. Who buys and who sells?
  2. What kind of and how many intermediaries are in the sales chain?
  3. What does each economic actor earn? - farmer, trader, final salesman?
  4. What are the seasonal prices for these goods? How do they compare to the official prices?
  5. What are the approximate magnitudes of the flows on both the official and unofficial markets?

**XI. Farmer's Production Choices**

- A. On what basis do farmers choose their cropping mix each year? (e.g., between more millet or more peanuts).
- B. What are the most important factors influencing these production choices: relative official prices, relative real prices, off-farm income opportunities, the bountifulness of the previous agricultural season.
- C. What are the changes being observed in the traditional cropping patterns? What do people grow now that they did not grow before and vice versa?

- D. What new elements are altering the traditional pattern of choice? - weather, population pressure, off-farm opportunities for employment, etc.?
- XII. Farmer's Awareness of the Technical Solutions to Agricultural Problems
- A. Study the effectiveness of the different extension methods used by SODEVA (A-V, personal, radio, etc.)
  - B. What are the traditional methods used to solve these problems?
  - C. How much of the technical solutions (both traditional and from research) are well understood by SODEVA extension agents?
- XIII. Consumption Study of Peanut Basin Rural Families
- A. What is consumed typically in each ecological zone during each season? (Note especially the strategies for filling the hungry period).
  - B. How has consumption changed over the past 10-15 years (more imported food now? different crops?) Why?
  - C. What is the evidence of the impact of SODEVA's extension themes on consumption?
- XIV. Study of the Project's Impact on Women's Work Loads and Incomes
- A. Need a 'before' and 'after' picture of women's allocation of time.
  - B. Reasons for changes in the time devoted to various tasks.
  - C. Impact of the extension information provided by SODEVA on women's agricultural production.
  - D. An estimate of women's income changes and the reasons for those changes.

### Summary Statement

I found my 22 months at SODEVA both rewarding and frustrating. I found the collaboration with my SODEVA colleagues for the most part extremely stimulating and enriching. I found most of them personally conscientious and highly motivated but lacking often the institutional means and organization to really do more. My own frustrations resulted from these factors, as well as the fact that there did not seem to be a place for me within the structure. Even my economist colleague (counterpart) was rarely used as an economist stricto sensu. Because of the apparent lack of knowledge of what an economist can do, I think ways should be devised by the Senegalese economist to publicize the analytical potential of this domain within the organization. My frustration results most of all for my inability to do more in a realm where there is still so much to do.

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