

PN-1112-035  
vol 03977

Report #7  
Report of GARD Consultancy  
Agricultural Statistics  
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April - May, 1986

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TRIP REPORT - AGRICULTURE STATISTICS

April 10 - May 2, 1986

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This report summarizes my activities during the first follow-up technical visit to The Gambia as recommended in the "Review of the Agricultural Data System at PPMU -- With suggestions for Improvement" dated February 28, 1986. The trip was designed to be the first of a series of inputs by Dr. Aaron C. Johnson, Jr. and myself in which we assist in addressing the statistical needs of PPMU, with particular attention to the National Agricultural Sample Survey (NASS). The terms of reference (TR) indicated this trip was to focus on the implementation of the 1986 NASS through assistance in the design of the questionnaires, designing and conducting the enumerator training, conducting a management seminar for the supervisors, and outlining the computer analysis of the data. I was also to discuss the original evaluation report, and assist in evaluating strategies for procuring a resident statistics advisor.

In summary, thanks to the efforts of Baboucar Gai, Yaya Jallow, Neil Patrick, and the PPMU staff, the trip was a success. All of the objectives listed in the TR were accomplished. More specifically, I will list the trip accomplishments and then comment on future involvement.

Questionnaire Design - Upon my arrival, Neil Patrick had already drafted the survey questionnaires and the enumerator's handbook. We had just enough time for a quick review of the documents before Neil was forced to make an

unexpected trip to the States. I finalized the forms and despite electric power outages in the latter part of the week, the typing, duplication and collation of the questionnaires was completed in time to begin the training on April 21.

Enumerator Training - The enumerators were assembled at the Animal Health training room in Abuko for the week's sessions. The week began with Baboucar Gai, Yaya Jallow, and myself as the principle instructors. Neil Patrick returned on Wednesday to lead the instruction on the main questionnaire topics. The sessions included lecture, demonstrations, field practices, and test problems. Judging from the enumerators' response to the field practice and the test problem, their understanding of the new questionnaires was good. A problem arose at the end of the training when it became obvious that there was a shortage of enumerators to staff the desired number of field locations. The shortage occurred because the three enumerators who have been trained as computer operators still hold enumerator staff positions. Until these people are placed in other slots, no new enumerators can be hired. This problem was resolved by assigning the computer operators to the field temporarily until part-time enumerators can be funded and trained. PPMU is hopeful that CILSS will assist with paying some enumerator salaries this year.

I view the survey design, questionnaires, enumerator's manual and training school as good first steps in getting the 1986 NASS off the ground. The supervision of the data collection phase and the maintenance of timely logistical support for the field staff will be critical tests in determining

whether accurate data can be collected. Unfortunately, the two leaders of the Farm Economics and Statistics Section will be out of the country during the first months of the survey.

Supervisor's Seminar - I met with the six survey supervisors and the senior supervisor on April 28 and 29. During that time we reviewed all of the survey forms including the special instructions on the selection of the sample dabadas and the deadlines for returning completed forms to Banjul. We also discussed the principles of management, communications and problem-solving. They completed exercises that emphasized the various skills and techniques necessary to be an effective supervisor and participated in a wide ranging discussion of field problems.

Summary Procedures - We met with the computer programmers to discuss the summary and analysis needs of the NASS. The computer needs were documented in a detailed set of expansion and summary specifications. Paul Jakus, Lamin Jabang and Neil Patrick will oversee the systems design and programming. This task is expected to be completed before Paul and Neil complete their tours in mid-June.

Discussion of the Evaluation Report - I met with the officials and ex-patriot staff of PPMU on Sunday April 20 to discuss the report of our previous visit. While we reviewed the report page by page, and many comments were made, I believe the major points were as follows:

- The statements printed on page four were viewed as indictments on the validity of PPMU's statistics. I responded that they were included to illustrate the perceptions of PPMU's data users and therefore validated the statement that PPMU has a public relations problem. We discussed possibilities for correcting these perceptions, including a statistical review committee, a schedule of statistical reports, a more official looking release, and the need for a resident statistical adviser. I conceded that the report did not mention PPMU's prior recognition of many of these shortcomings nor the efforts PPMU has made in soliciting assistance from data users with very little cooperation. One comment to the charge of "two sets of books" is that some departments insist on releasing their own 'guesstimates' in obvious contrast to the published PPMU reports. Obviously, there is a real need to educate the agricultural data users, even if PPMU was to produce perfect data.
  
- The need for district estimates, and special use samples was discussed. It was emphasized that for this year, however, the sample size of only 15 dabadas per district was totally inadequate for providing district level estimates. We are studying the possibilities of increasing the sample size to approximately 30 dabadas per district with a proportionate decrease in area measurement or crop cutting so the current workload and number of enumerator staff positions would not have to be expanded.
  
- We discussed the changes in this year's survey design that allows the enumerators more time between their regular assignments so they can

collect other data for ad hoc surveys. The enumerators were made aware of these plans during the training sessions and fully expect to do more than just the NASS data collection this year.

- Exception was taken to our comment that if any agricultural census was to be conducted, it should be funded and conducted by some other agency (page 12 of the report). PPMU believes that since the provision of agricultural data is central to the mission of the unit, any agricultural census should be conducted through the PPMU. I stated that while I don't disagree, I do think any agricultural census should be a low priority because of a census' huge staff and budget demands.
  
- We discussed the budget needs to keep the Price Reporting system and GADS programs operational. The major concern is that the price reporters, GADS enumerators and three computer operators have been part of a shared arrangement with MFP in which the total number of enumerators has been about 10 greater than the number of positions on the PPMU roster. This means that as the MFP project terminates, PPMU is left with projects requiring 46 enumerators when it has only 36 positions. In a later effort to resolve the shortage, PPMU has appealed to CILSS for funds to pay the added personnel for the next year.
  
- The suggestion that PPMU and GARD share the MFP microcomputer facilities was not acceptable to PPMU. PPMU has begun rewiring their office space and is seeking the staff positions necessary to employ the computer

operators. Hopefully, any misunderstandings between GARD and PPMU concerning the computers and personnel have been resolved and both groups will establish their own microcomputer installations. They will, however, share programmer/analysts. PCV computer programmer, Patty O'Neal, and MFP programmer, Lamin Jabang, are to be counterparts and share responsibilities at PPMU and GARD. Elon Gilbert has stated that this arrangement should result with more than one person equivalent going into the PPMU computer shop. PPMU has every intent on hiring Lamin and offering him training at a later date. PPMU is requesting that CILSS fund Lamin's salary until he can be placed in a permanent PPMU staff position.

- We discussed the PPMU documentation center and its need for photocopying facilities to overcome the perception that documents in the center are inaccessible to outsiders.
  
- The three technical assistance options were discussed. PPMU thinks Option 1 is the most desirable alternative. They have asked FAO to assist in locating a volunteer to fill the position until a resident expert can be procured. The Director thinks there are some possibilities of funding through UNDP/FAO and has resigned himself to the fact that GARD is unwilling to fund Option 1. (As the go-between in this discussion I know Elon views the problem more as being 'unable' than 'unwilling' because of the way the GARD project is designed. His view is that if the agricultural statistics component of the project is expanded, some other component will have to be eliminated. Whatever the case, it is obvious

that a communication gap still exists on this subject. Hopefully it can be resolved during the Annual Work Plan meetings.) While PPMU thinks that Option 1 is the preferred route, they also see the Johnson/Rowe technical assistance as valuable backstopping. A letter to this effect will be sent through channels.

- The participant training schedule (Appendix Table 2 of the report) and its connection to the present PPMU staff positions was discussed. PPMU is in the process of nominating two individuals for training: one for a BS degree in statistics/economics, and the other for a one-year computer programming session. I think the training list should be viewed as indicative of the level of need perceived by Johnson/Rowe to provide trained people for the key statistics positions. It does not adequately represent the timing of those training needs nor does it take into account the attrition that will undoubtedly occur.

Future Support for Agricultural Statistics at PPMU - As mentioned above, we discussed the future input of Johnson and Rowe at the report review meeting. I also discussed the topic on several other occasions with various members of the PPMU staff.

It is envisioned that this technical assistance will take the form of a series of training exchanges whereby Gambians will travel to the United States

for short-term training, and Johnson and Rowe will return to The Gambia providing technical assistance.

These exchanges should be considered to be the short-term trips suggested in Option 1 as support for the resident TA. The inputs are particularly necessary in the interim period before a resident TA is settled in-country. Until then, we suggest providing a fairly extensive program of assistance to the Farm Economics and Statistics Section at PPMU in the areas of: sample design, questionnaire design, enumerator training, field methodology, data summary, analysis, and publication. Once the TA position is filled, there may still be a need for some backstopping of the TA in specific technical areas depending on the qualifications and interests of that person. (In this regard, it may be helpful for Johnson and Rowe to assist in evaluation of the candidates' credentials prior to the selection.) The following is a detailed description of the exchanges planned for the next year:

June 5 - August 9: Data Systems Short Course, Madison, WI.

PPMU's senior field supervisor, Yaya Jallow will attend the Data Systems short course taught by Johnson and Rowe in Madison. In addition to the regular information gained from the course, Jallow will receive assistance from Johnson and Rowe on two specific research projects. The research will analyze data from the NASS and provide information that will help make the data collection procedures more cost-effective.

First, Jallow will bring, to the course, data on the field sizes measured by the enumerators last year. Analyzing these data will provide statistics on the field sizes for each crop. From these we can establish reasonable limits for the number of fields that must be measured in order to provide reliable area estimates.

The second project will be to analyze crop cutting data from the 1985/86 NASS. Again, this analysis will provide suggestions on how to make the time-consuming task of yield measurement more cost-effective. Hopefully, the results of both of these projects can be introduced in the latter stages of this year's NASS.

As an adjunct to this training it is hoped that Jallow can spend an additional three weeks in Madison working with microcomputers. He has a high interest in learning how to use the software packages that will allow him to help analyze the NASS data on the microcomputers PPMU is acquiring from MFP. The funding for the six-week short course has been provided by a FAO/UNDP grant. The request for a three-week extension is also being requested of FAO/UNDP.

September: Field Procedures Research.

Johnson will make a trip to study the field procedures being used in the NASS. With the high level of interest in providing district level estimates from the NASS, and the ceiling on the number of enumerator

positions, it will be necessary to streamline the field procedures. Johnson will collate the information from the area measurement and yield analysis mentioned above with the current field procedures in the search for more cost-effective data collection methods. This must be a short trip because of Johnson's teaching schedule, but it will provide invaluable insight into the specifics of the field data collection problems in The Gambia, and identify procedural changes that may be implemented during the remainder of this year's survey.

October/November: Data Summary, Analysis and Reporting.

During a four-week visit beginning in mid-October, Rowe will assist with the summary, analysis and reporting of the early crop data from the NASS. In order to be successful in this task, several preparatory steps must have been accomplished. Most importantly the enumerators must have completed their work on schedule. The data must also have been put into computer media and the computer programs must be ready. If these conditions are met and the summary goes smoothly, a report will be drafted and started through the necessary channels for publication. It is anticipated that the 'early-warning' information requested by CILSS can also be summarized at this time.

January 1987: Data Summary, Analysis and Reporting.

Beginning in mid-January, Johnson or Rowe will spend four weeks assisting PPMU with the final summary and data analysis of the NASS. The expected

product of this visit will be the final report with tables of crop area, yield and production for the major crops and a short narrative. Also included in the publication will be a description of the survey methodology and sampling procedures complete with estimates of the sampling errors.

March 1987: Data Analysis Training.

Johnson and Rowe will adapt portions of their summer short course to the needs of The Gambia and present a two-week in-country course on data analysis. The intent is to train approximately 15 middle-level technicians from various sections and departments in agriculture in the procedures for editing, summarizing, evaluating and publishing data. This course will not only improve the technical skills of the participants but will also serve as a consciousness-raising session on data issues. If possible this course should be coordinated through the Management Development Institute (MDI).

Also during this trip, Johnson will assist in revising the sampling plan for the NASS, and Rowe will help finalize the questionnaires and training agenda for the upcoming survey.

In closing, I must state that this has been a most enjoyable trip for me. I have appreciated the hospitality of the PPMU staff and the opportunity to become acquainted with more of the supervisors and enumerators. I was

impressed with their eagerness to discuss the problems and their willingness to accept new ideas in survey methodology. I hope this is just the beginning of many fruitful trips and a long association. My personal thanks to everyone at PPMU and GARD that has contributed to making this visit a success.

John S. Rowe

May 2, 1986

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