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CONSULTANT PROPOSALS FOR THE EXPANSION OF THE EVALUATION PHASE OF THE SINE-SALOUM PROJECT

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TABLE OF CONTENTS

	Page
SUMMARY	1
INTRODUCTION	2
MEASUREMENT CRITERIA	3
SAMPLING PROCEDURES AND SURVEY DESIGNS	3
QUESTIONNAIRES	4
ANALYSIS	5
BUDGET	6

APPENDICES

Questionnaire: Village	8
Questionnaire: Concession	11
Questionnaire: Women	15

SUMMARY

The following represents my main recommendations for the evaluation of the Sine-Saloum Health Project. It was presented to and discussed with the Acting Director of the USAID Mission in Dakar on September 29-30, 1977.

Appendices A, B, and C represent drafts of interview schedules that I prepared while in Dakar. They represent revisions of questionnaires that were prepared earlier by the staff of the Sine-Saloum Health Project Two field trips out of Dakar were made on September 21-22 and on September 20-21, in order to develop and pre-test the questionnaires. The first field trip was to the village of Kaba Koto in the arrondissement of Paos Koto and the second field trip was to the villages of N'Dofane in the arrondissement of Niakhar and the village of N'Demene in the arrondissement of Paos Koto. I was accompanied by Ms. Cynthia Moore of the USAID Mission on the first field trip and by Ms. Moore and Ms. Viola Diop, also of USAID, on the second trip. The interviewers who pretested the questionnaires are students of the Ecole Nationale d'Économie Appliquée.

CONSULTANT PROPOSALS FOR THE
EXPANSION OF EVALUATION PHASE OF
SINE-SALOUM PROJECT

I. INTRODUCTION

The evaluation budget given on page D-8 of the project document assumes that only one baseline survey will be taken by a Senegalese sociologist before the end of 1977 ($5,000). The mid-project and final evaluation by an expert is estimated at $20,000.

It is clear from the proposal that more than one sociological baseline survey will be needed. There are two aspects of the evaluation:

a. Implementation of the project: (i.e., construction of health huts, etc.) In other words, were the outputs of the project in line with what was planned? Presumably a set of statistics will be generated by the system (e.g., number of visits by itinerant workers to villages). I am not concerned in this report with this aspect of the evaluation.

b. As stated on page 1 (Project Logical Framework) the main goal of the project is "the improvement in the level of health among the rural population. Elsewhere, there are indications that this will require the collection of morbidity and mortality statistics (page 1, project Logical Framework), page 28 "statistics regarding frequencies of illness before and after the project...will help quantify the economic effects of the project."

This aspect of the evaluation phase of the project should answer the following questions:

--What have been the effects of the project on health practices of villagers, particularly as they pertain to mothers and children?

--What have been the effects of the project on the level of health of villagers?

I would like to propose that answers to these questions will require the design and executions of a number of sample surveys. While only experimental designs would make it possible to provide clear-cut answers to these questions, the staggering of Departments and villages in the project provides a semi-experimental situation that can be used in the evaluation phase of the project.

II. MEASUREMENT CRITERIA

A. Health Practice

It would be easier to obtain systematic information on health practices in a survey than by observation, although some observation may be useful. The following aspects of health practices should be included in a survey:

1. Remedies used for illness and ways of caring for sick persons:
2. Methods of obtaining and storing water; and
3. Ways of caring for sick children.

B. Health Levels

Ideally, this would be measured by the frequency and severity of various types of illness, but the project is likely to have an influence on the extent of awareness of illness in villages. Nevertheless, an attempt will be made to obtain information on the more serious adult illnesses and children's illnesses. Levels of mortality may provide a better clue to the improvement in health, and, hence, it will be important to have adequate measures of infant, maternal, and adult mortality.

III. SAMPLING PROCEDURES AND SURVEY DESIGNS

The samples studied should be large enough to allow detecting changes that cannot be considered the results of sampling variability. On the other hand, cost factors preclude taking too large samples. One possibility would be to take all the villages in the project, but select only four concessions in each village.

For the 260 villages in Departments 1 and 2, this would yield a sample of 15,600 persons for the measurement of mortality and morbidity. This is somewhat small, since the populations of the ORSTOM villages were approximately 33,000 in Niakhar and about 17,500 in Paos-Koto. It would also be possible to take a sample of villages and increase the sample of concessions, but it would not be advisable to have a population much lower than 15,000. With an assumed death rate of 25 per 1,000, a birth rate of 50 per 1,000 as well as an infant mortality rate of 150 per 1,000 births, we would obtian 390 deaths, 780 births, and 117 infant deaths per year. A reduction in the population studied would mean a reduction in these vital events, increasing the risk of not being able to detect statistically significant changes in mortality rates.

While data on births and deaths will be available from the national demographic multiround survey to be started in January 1978, they may not be for the villages in the project. In any event, there will be coordination between the data collected for this project and the data to be collected for the national survey.

Taking the time references given in the project, I propose the following design for the surveys. The design takes advantage of the fact that the project is staggered between villages and thus, permits an analysis of what happens when pre-project conditions exist. The following design assumes that the villages and Departments are staggered as indicated in the proposal, but it could be adapted to a different schedule.

	DEPARTMENTS		
	1 & 2 260 Villages	3 & 4 210 Villages	5 & 6 130 Villages
PROJECT STARTS	JAN 1978	JAN 1979	JAN 1980
1st Round Survey	Jan/Feb/Mar 1978	Jan/Feb/Mar 1978	Jan/Feb/Mar 1979
2nd Round Survey	Jan/Feb/Mar 1979	Jan/Feb/Mar 1979	Jan/Feb/Mar 1980
3rd Round Survey	Jan/Feb/Mar 1980	Jan/Feb/Mar 1980	June/July/Aug 1980

IV. QUESTIONNAIRES

Three types of questionnaires will be utilized:

A. Questionnaire for the village chief: topics to be covered include: (See Appendix A)

1. Sources of water, methods transporting and storing water and of caring for water containers;
2. Vegetable production and consumption; and
3. Village waste disposal.

B. Questionnaire for the head of the sampled concessions: topics to be covered include: (See Appendix B)

1. Roster of residents of the concession and for each resident, whether absent or not, sex, age, relation to head, marital status, ethnicity, religion, and years of schooling;

2. Roster of children that were born since 1972 and who have moved away or have died, with name of child, name of mother, relation of mother to head, data of birth, date of departure, and place of residence, date and cause of death:

3. Roster of all other deaths since 1972, with name of deceased, age at death and cause of death; and

4. List of illnesses including all illnesses for children but adults limiting them to those that incapacitated the person for two days or more, with information on name of the sick person, duration of illness, who was consulted, symptoms of illness, and methods of treatment, including traditional treatment.

C. Questionnaire for one of the spouses of the head of a sampled concession: topics to be covered include: (See Appendix C)

1. Relation to head, age and duration of marriage, as well as date of each pregnancy;

2. Place of the last delivery, person who helped and nature of help;

3. Usual diet of family, including most recent use of meat and fish, and diet for baby;

4. For three childhood diseases, fever, diarrhea, and measles, questions on the nature of treatment and on special food given or on food withheld, and questions on the frequency of childhood diseases; and

5. Diet during pregnancy.

In addition, a demographic follow-up questionnaire will be used to find the changes in the household roster due to births, deaths, and migration between two rounds.

V. ANALYSIS

The design makes possible two types of analysis. One type will examine changes that have occurred in villages during the duration of the project. The other type will compare changes in villages in the project with those that occur in the villages that have not yet joined the project.

Changes in health practices will be measured by analyzing the changes in responses that occurred in the appropriate sections of the various questionnaires. The plan is to re-interview the same persons whenever possible. For example, we may find a shift from traditional to modern medicines in the treatment of certain types of illness. Information on diet as well as on the characteristics of concessions will make it possible to control for these variables in the analysis of change.

Changes in mortality will be analyzed by deriving various demographic rates, including death rates adjusted for age, infant and maternal mortality rates. Changes in morbidity will be somewhat more difficult to measure, but some attempt at doing so will be made in order to derive prevalence rates for certain types of illness.

VI. BUDGET

The following is an approximate budget for the proposed surveys. It assumes the following:

A. All villages will be included in the analysis and that it will take on the average two interviewers per village per day to complete all the questionnaires for the sampled concessions and women.

B. At least one supervisor and one driver are needed for each survey round in each set of villages. Again, this is probably conservative.

C. Interviewers are paid at the rate of 50,000 CFA per month, supervisors are paid 55,000 CFA, and drivers are paid 40,000 CFA. For interviewers, the daily rate used was approximately $7.00.

D. All field personnel will be Senegalese.

	DEPARTMENTS		
	1 & 2	3 & 4	5 & 6
Interviewers	$10,920	$ 8,820	$5,460
Supervisors	1,980	1,980	1,980
Driver	1,440	1,440	1,440
TOTAL	$14,340	$12,240	$8,880

Grand Total: $35,460

This amount excludes consultant time by expert, etc...as well as expenses of data analysis. Assume that the equivalent of two persons for two years are needed, at 50,000 a month. This would require $4,800. Data processing cost, etc. would add another $5,000. If this is added to the budget already prepared, assuming the expert time would be devoted to planning and analysis of the survey, we would have $85,260 which is a very conservative figure. An amount for cars and gasoline should be added to the budget.

Assuming that there are 22 working days in a month and that it takes two interviewers to survey one village in one day, it would take 15 interviewers three months to finish the work for Departments 1, 2, 3, and 4.

Or, if the survey were conducted year-round (staggered by department) eight interviewers would be necessary, four by Department working in groups of two, with one full-time supervisor and chauffeur.

APPENDIX A

QUESTIONNAIRE

VILLAGE

-o-o-o-o-o-o-

VILLAGE_____ COMMUNAUTE RURALE_____

Date de l'Enquête_____

Nom de l'Enquêteur_____

Durée de l'Enquête_____Heures_____Minutes_____

1. Nom du Chef de Village_____

2. Nombre de Concessions dans le Village_____

3. Comment sont éliminés les déchets humains?_____

_____

_____

_____

4. Comment sont éliminées les ordures ménagères?_____

_____

_____

_____

Dans le tableau suivant on demande des questions sur les source et stockage d'eau à boire pour les personnes, d'eau à boire pour les animaux, et d'eau pour laver le linge etc.... Si les sources sont les mêmes on l'indique sur le tableau.

VILLAGE_____ CONCESSION_____

SOURCE ET STOCKAGE D'EAU

	Saison	Sources	Moyens d'obtenir	Moyens de Stocker	Fréquence de Renouvellement d'Eau Nettoyage des Canaris, Vases, etc..
EAU POUR PERSONNES	Pluvieuse				
	Sèche				
EAU POUR ANIMAUX	Pluvieuse				
	Sèche				
AUTRES EAUX	Pluvieuse				
	Sèche				

VILLAGE_____ CONCESSION_____

9. Est-ce que les gens du village font du maraîchage (jardin de légumes)?

OUI_____ NON _____

Si, OUI, est-ce que ces produits sont pour la vente ou est-ce qu'ils sont mangés par les gens du village?

_____

_____

_____

_____

Si, NON, ou est-ce que vous obtenez vos légumes?

_____

_____

_____

_____

10. Quels sont les légumes que vous récoltez ou achetez?

_____

_____

_____

_____

APPENDIX B

QUESTIONNAIRE

CONCESSION

-o-o-o-o-o-o-o-

VILLAGE_____ CONCESSION _____

Date de l'Enquête_____

Nom de l'Enquêteur_____

Numéro de la Concession_____ Village_____

Les informations suivantes sont sur les résidents habituels qu'ils soient présents ou absents

N°	NOM	RHP ou RHA	SI RHA DUREE/LIEU	LIEN AVEC CC	SEXE	ETHNIE	RELIGION	AGE	ETAT MATRI-MONIAL	ANNEES D'ECOLE		OBSERVATIONS
										FRANÇAISE	CORANIQUE	
	1	2	3	4	5	6	7	8	9	10	11	12
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												

N°	NOM	RHP ou RHA	SI RHA DUREE/LIEU	LIEN AVEC CC	SEXE	ETHNIE	RELIGION	AGE	ETAT MATRI-MONIAL	ANNEES D'ECOLE		OBSERVATIONS
										FRANÇAISE	CORANIQUE	
	1	2	3	4	5	6	7	8	9	10	11	12
18												
19												
20												
21												

A la fin de votre liste demandez au CC (Chef de Concession) : "Est-ce qu'il y a d'autres personnes, bébés, enfants adoptés, travailleurs etc... qui sont des résidents habituels mais ne sont pas encore sur cette liste? Est-ce qu'il y a des résidents habituels absents qui ne sont pas encore sur cette liste?

RHP: Résident habituels présents - RHA: Résident Habituels Absents.

VILLAGE_____ CONCESSION_____

Quels sont les enfants qui sont nés dans la concession depuis 1972 mais qui résident ailleurs à présent

Nom de l'enfant 13	Nom de la mère 14	Lien de la mère avec le CC 15	Sexe	Date de Naissance 16	Date de Départ 17	Lieu de Résidence 18

Quels sont les enfants qui sont nés dans la concession depuis 1972 qui sont décédés depuis?

Nom de l'enfant 19	Nom de la mère 20	Lien de la Mère avec Le CC 21	Sexe	Date de Naissance 22	Date du Décès 23	Cause (Symptômes) du Décès 24

QUESTIONNAIRE

FEMMES

--o--o--o--o--o--o--

VILLAGE_____ CONCESSION_____

Date de l'Enquête_____

Nom de l'Enquêteur_____

Demandez au Chef de la Concession le nombre de ses épouses qui ont moins de 45 ans et qui sont actuellement au village ou dans les champs au moment de votre enquête. Ecrivez le nom de ces femmes dans le tableau suivant en commençant par la plus jeune et en finissant par la plus vieille.

Nombre de Femmes	Liste des Femmes
1	(1)_____
2	1._____
	(2.)_____
3	1._____
	(2.)_____
	3._____
4	1._____
	2._____
	(3.)_____
	4._____

La femme à enquêter est celle dont le chiffre d'ordre est encerclé.

VILLAGE _____ CONCESSION _____

1. Nom de la femme _____

2. Liens de parenté avec le chef de concession _____

_____

3. Age _____

4. Depuis combien d'années êtes-vous mariée? _____

5. (Dans les questions suivantes il faut inclure toutes les grossesses même si l'enfant est mort-né ou mort peu après la naissance et si possible il faut inclure les fausses couches)

Quand a eu lieu votre

5.1 première grossesse? _____

5.2 deuxième grossesse? _____

5.3 troisième grossesse? _____

5.4 quatrième grossesse? _____

5.5 cinquième grossesse? _____

5.6 sixième grossesse? _____

5.7 septième grossesse? _____

5.8 huitième grossesse? _____

5.9 neuvième grossesse? _____

5.10 dixième grossesse? _____

5.11 onzième grossesse? _____

5.12 douzième grossesse? _____

5.13 treizième grossesse? _____

5.14 quatorzième grossesse? _____

_____

_____

_____

VILLAGE_____ CONCESSION_____

6. Où a eu lieu votre dernier accouchement?_____

_____

7. Quelle est la personne qui vous a aidée pendant ou après l'accouchement?

_____

_____

8. A quel moment et comment la personne vous a-t-elle aidée?

_____

_____

9. Qu'est-ce que votre famille mange - t - elle d'habitude?

9.1 Le matin?_____

9.2 Le midi?_____

9.3 Le soir?_____

10. Qu'est-ce que votre famille a-t-elle mangé hier?

10.1 Le matin?_____

10.2 Le midi?_____

10.3 Le soir?_____

11. Quelle est la dernière fois que vous avez mangé de la viande?

_____

12. Quelle est la dernière fois que vous avez mangé du poisson?

_____

13. A quel moment et à quel âge vous commencez à donner à manger au bébé ou à l'enfant en plus du lait maternel?

_____

_____

VILLAGE_____ CONCESSION_____

14. Est-ce que vous préparez quelque chose de spécial à manger pour le bébé ou l'enfant?

OUI_____ NON_____

Si, OUI, qu'est-ce que vous préparez? (Obtenez autant de détails que possible)

_____

_____

_____

_____

_____

15.1 Quand un bébé a de la fièvre, est-ce que vous le faites soigner par quelqu'un?

OUI_____ NON_____

Si, OUI, par QUI?_____

_____

_____

_____

15.2 Est-ce que vous lui donnez des médicaments?

OUI_____ NON_____

Si, OUI, quels sont ces médicaments?

_____

_____

_____

_____

_____

VILLAGE_____ CONCESSION_____

15.3 Qu'est ce que vous lui donnez à manger?

_____

_____

_____

_____

_____

15.4 Est-ce qu'il y a des choses qu'il mange d'habitude mais que vous ne lui donnez pas à manger?

OUI_____ NON_____

Si, OUI, quels sont ces choses?

_____

_____

_____

_____

16.1 Quand un bébé a de la diarrhée, est-ce que vous le faites soigner par quelqu'un?

OUI_____ NON_____

Si, OUI, par QUI?

_____

_____

16.2 Est-ce que vous lui donnez des médicaments?

OUI_____ NON_____

Si, OUI, quels médicaments?

_____

_____

_____

VILLAGE_____ CONCESSION_____

16.3 Qu'est-ce que vous lui donnez à manger?

_____

_____

_____

_____

16.4 Est-ce-qu'il y a des choses qu'il mange d'habitude mais que vous ne lui donnez pas à manger?

OUI_____ NON_____

Si, OUI, quelles sont ces choses?

_____

_____

_____

_____

17.1 Quand un bébé a la rougeole, est-ce que vous le faites soigner par quelqu'un?

OUI_____ NON_____

Si, OUI, par QUI?

_____

_____

_____

_____

17.2 Est-ce que vous lui donnez des médicaments?

OUI_____ NON_____

Si, OUI, quels médicaments?

_____

_____

_____

VILLAGE_____ CONCESSION_____

17.3 Qu'est-ce-que vous lui donnez à manger?

_____

_____

_____

_____

17.4 Est-ce-qu'il y a des choses qu'il mange d'habitude mais que vous ne lui donnez pas à manger?

OUI_____ NON_____

Si, OUI, quelles sont ces choses?

_____

_____

_____

_____

18. Quelle est la maladie des enfants la plus fréquente?

_____

19. Quelle est la maladie des enfants la plus sérieuse?

_____

20. Lorsqu'une femme est enceinte est-ce qu'il y a des choses qu'elle doit manger parce qu'elles sont bonnes pour la grossesse?

OUI_____ NON_____

Si OUI, quelles sont ces choses?

_____

_____

_____

21. Lorsqu'une femme est enceinte est-ce qu'il y a des choses qu'elle ne doit pas manger parce qu'elles sont mauvaises pour la grossesse?

OUI_____ NON_____

Si, OUI, quelles sont ces choses?

_____

_____