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ORGANIZATION OF AFRICAN UNITY  
SCIENTIFIC, TECHNICAL AND RESEARCH COMMISSION  
(OAU/STRC)

THE SEMI-ARID FOOD GRAIN RESEARCH  
AND DEVELOPMENT PROJECT JP-31 SAFGRAD

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REPORT ON IFAD-SUPPORTED SAFGRAD  
RESEARCH COORDINATION AND FARMING SYSTEMS RESEARCH

By

Director of Research, SAFGRAD

May 1984

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## S U M M A R Y

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The IFAD support to SAFGRAD project started through funding the position of the director of research as of 28 September 1983. The support covered the coordination of research and initiation of the farming systems research in three countries. Substantial improvement in the coordination of research has been achieved. The implementation of the farming systems research has been slightly delayed mainly due to the availability of three man consultants' team as of late November or early December. Instead, the consultants were able to start their work in January and their programme proposal was received on 21st February 1984. Furthermore, mechanism for implementing the FSR programme was not well conceived and elaborated in the original project document. Since the 9-10th April 1984 Project Management Committee decision, recruitment of staff for Upper Volta FSR was aggressively pursued. Agreement with host government (Upper Volta) is expected to be completed soon. The FSR programme in Upper Volta will be launched sometimes in September. The four research scientists for the other two country FSR will also be recruited in August and their FSR programme to be initiated by October or November. The schedule of activities and yearly budget for each country FSR programme are also included in this report.

REPORT ON IFAD - SUPPORTED SAFGRAD  
RESEARCH COORDINATION AND FARMING SYSTEMS RESEARCH

INTRODUCTION

The Semi-Arid Food Grain Research and Development Project (JP-31 SAFGRAD) is a regional research programme that is implemented by the Coordination Office of the Scientific, Technical and Research Commission of the Organization of African Unity. The SAFGRAD project was started about six years ago and is supported by the USAID, IFAD, French Aid for Cooperation (FAC) and member states. The project serves 25 countries in the sub-Saharan semi-arid regions of Africa.

The IFAD support to this project started through funding the Director of Research as of 28 September 1983. This report covers two major areas of activities:

1. The Coordination of Research
2. The IFAD-supported Farming Systems Research

I. COORDINATION OF RESEARCH

The first three weeks of October 1983 were spent in examining research programmes of SAFGRAD that were carried out in cooperation with International Institute of Tropical Agriculture (IITA), the International Crops Research Institute for Semi-Arid Tropics (ICRISAT) & the Farming Systems Research Programme with Purdue University. After reviewing the research programmes from documents and through discussions with residents scientists, USAID and other organizations, it became quite clear to re-vitalize the structured mechanisms for SAFGRAD research coordination and management. These are:

**The Consultative and Technical Advisory Committees**

To provide policy and management guidance, the consultative

committee (CC) was expected to meet at least once a year. Since the SAFGRAD project was started, this committee (composed of donors, member states, cooperating agencies) has only met once. The Technical Advisory Committee (TAC) that reviews research programmes and assesses technical matters was expected to meet several times, but only met twice before the director of research post was created. As a result, the project was faced with certain difficulties in coordinating research and research administration and management. After assessing the status of the project, the international coordinator and the director of research became fully engaged in the preparation of relevant documents to organize the Second Consultative Committee Meeting that took place on 7 - 8 November 1983. Within two months period, the Consultative Committee Meeting was followed by the Technical Advisory Committee that was held from 9 - 11 January 1984. Reports on deliberations of these meetings including technical research progress papers were completed. This meeting of TAC provided broad recommendations that were deliberated during the Third CC meeting held on 9-10 April 1984. A series of these meetings (every two and three months) had created a chain of activities of preparation of documents. The SAFGRAD research programme was reviewed, evaluated and provided with policy and operational management guidelines through re-vitalization and normalization of TAC and CC meetings (details are available in the respective reports of CC and TAC deliberations).

Furthermore, the final evaluation for the phase I of the project was carried out from 28 January to the first week of March 1984. All components of the project, (the core crop improvement programme, farming systems research activities, regional research coordination, administration and management, training and the Accelerated Crop Production (Officers) Programme ACPO that is implemented in five member countries) were thoroughly examined. Since this final evaluation (of Phase I) activity was given high priority by the OAU/STRC management, the international coordinator and the director of research became continuously busy with members of the evaluation team during the first two weeks of February and occasionally there after.

## II. STATUS OF FSR PROGRAMME

According to the project document, IFAD-supported FSR was to be initiated soon after the consultants' programme proposals. The search for consultants was started since mid-August by OAU/STRC, Lagos Office. As noted in the minutes of the first Project Management Committee Meeting (PMC) (Annex 1) the consultants were able to start their work the first week of January. This has caused some delay to initiate the project. In the meantime, the project document was critically examined and found to be deficient in its implementation strategies and restrictive as to where the FSR programme could be started. In order to facilitate the initiation of the project, the following actions were taken:

### 1.0 The First Project Management Committee (PMC) Meeting of IFAD Funded Farming Systems Research

After carefully reviewing the FSR original document, it was proposed to the Executive Secretary of the OAU/STRC to organize the Project Management Committee. The PMC was formed as proposed and held its first meeting on 10th January 1984. In that meeting, it was decided (Annex 1) that:

- a. the consultants and the director of research visit Mali, Senegal and IITA, Ibadan, Nigeria.
- b. only countries which have already Accelerated Crop Production (Officer) Programme be considered for IFAD-FSR. The rationale was that the ACPO programme can become complementary to FSR;
- c. the ACPO criteria for country selection was found restrictive and it should be changed since many countries have shown an interest for FSR support;
- c. the Project Management Committee nominates its own chairman during the next meeting whereas the director of research would serve as its Secretary;

- e. the meeting of PMC should be held concurrently with that of the Technical Advisory Committee.

In consultation with Prof. A.O Williams, Executive Secretary, OAU/STRC; Dr M.A Kasseba, Senior Technical Advisor, IFAD; and J.M Menyonga, the International Coordinator, SAFGRAD, terms of reference were provided to the three-man FSR consultant team (Annex 2).

The consultants arrived in Ouagadougou on 6th January and completed their study on the ongoing FSR in Upper Volta on 13 January 1984. To facilitate their work, they were provided with relevant documents. Arrangements were also made for them to discuss with various resident scientists and officials of IITA, ICRISAT, FSU/Purdue University, IRAT, IVRAZ, Ministry of Rural Development and Extension and many other organizations. From 14 to 29th January 1984, I accompanied the FSR consultants to Mali, Senegal and to IITA, Ibadan, Nigeria. The report of the trip is appended in Annex 3.

## 2.0 The Second Project Management Committee Meeting

The FSR consultants' report was received on 21st February 1984. After studying and assessing the report, a proposal on how to implement the project was submitted to OAU/STRC. The modified version of the same proposal was also discussed during the Second Project Management Committee Meeting that took place on 9-10th April 1984 concurrently with the third Consultative Committee Meeting of the SAFGRAD Project. In this meeting, the PMC was given a report on how the IFAD-FSR could be implemented (Annex 4).

As discussed in this meeting, the main focus for strengthening SAFGRAD/FSR in Upper Volta was to:

- a. fill identified disciplinary gaps and strengthen the national FSR;
- b. use the same programme for guidance and backstop service and coordination of FSR among other countries to



be initiated by the Project;

- c. consolidate knowledge already gained from several FSR activities.

After lengthy deliberation on this matter, the PMC decided that:

- a. the first FSR-Programme be started in Upper Volta as was recommended;
- b. the Upper Volta country FSR-team be composed of an agricultural economist, a specialist in animal production and a soil scientist.

### 3.0 Implementation Strategies

The committee also discussed in some detail the proposed implementation strategies. Although SAFGRAD has implemented its crop improvement and production programmes through special research contracts with International Institutes such as IITA and ICRISAT, the Committee recommended the options that FSR programme be implemented directly by SAFGRAD through direct interaction with National FSR programmes. In the case of Upper Volta programme, three options were discussed (Annex 5).

### 4.0 Recruitment of Scientists

Soon after the Project Management Committee decided that the the first FSR Programme be started in Upper Volta, announcements of vacancies for professional research scientists were sent to 30 institutions in 14 countries. Job description, qualification requirements and general information forwarded to various institutions are appended in Annex 6.

A search committee composed of SAFGRAD officers, team Leaders of IITA, ICRISAT and FSU programmes will screen out and process applications that are being received. Short listing of candidates will be made as soon as adequate applications are received. It is planned that the final interview

of candidates will be made sometimes in August as shown in schedule of activities (Table 1).

### 5.0 Negotiation with Upper Volta Government

The SAFGRAD headquarters located in Upper Volta has already started several research programmes with the host country. The FSR to be launched was discussed with the Upper Volta research officials and scientists of the Voltaic National Agricultural Institute (Institut Voltaique de Recherches Agronomiques et Zoo-techniques -IVRAZ). The officials and scientists of the host country and SAFGRAD officers are working together to finalize the contents of the programme and the areas of agreement. It is expected that the protocol of agreement with the host government be completed soon.

IVRAZ, the national organization for Agricultural Research had decided recently to organize its National FSR since last April 1984. Three Voltaic scientists are identified and given the responsibility to set up the office for FSR Unit at Kamboinsé Central Agricultural Experiment Station. In the series of the discussion that were held, it was pointed out by the SAFGRAD officers that:

- a. IFAD-professional and other input support need to be complemented with host government contributions;
- b. the national scientists (now identified to start the national FSR) and the IFAD-supported scientists will be integrated to form the initial core of the national FSR. The expatriate scientists' role is to advise and provide backstop services to the national FSR through execution of the technical aspect of FSR programme with the national scientists and facilitate the development of strong national FSR;
- c. funds allocated for programme will be a joint contribution (not necessarily) in equal proportions.

## 6.0 Development of the Upper Volta FSR Programme

it has been made clear to officials of the government, international agencies and bilateral programmes involved in agricultural research and extension development including some farming systems research, that the purpose of the IFAD-Support is to strengthen the national FSR. Thus far, a national FSR programme in Upper Volta is yet to be organized. It has been only since the last two months that the Voltaic research and extension development authorities decided to organize FSR at the national level. It is agreed that the IFAD-FSR support could facilitate the government's effort to establish the national FSR. Once the agreement is signed, SAFGRAD and IVRAZ (the national research organization) will evolve the specific programme as follows: first, the FSR programme that is being prepared, involves a multidisciplinary team in which IFAD-FSR support could only provide a few of the components (through professional staff support) of the broader farming systems research. Second, depending on the situation, the FSR may start with limited FSR components and include more components as the programme becomes more developed. Some of the strategies to initiate the national FSR are:

### 6.1 Organizing IVRAZ/SAFGRAD Workshop

SAFGRAD should encourage IVRAZ to organize workshops in order to consolidate knowledge from on-going FSR activities, and initiate the national FSR. The workshop would involve researchers of FSU/SAFGRAD, IRAT, ORD, ICRISAT/FSR, IITA, ORSTOM, etc.

From this workshop, it is expected that:

- a. adequate information will be generated in the type and nature of FSR within Upper Volta;
- b. linkages among programmes will be established for complementary FSR activities;
- c. the coordination of FSR within Upper Volta could be facilitated.

## 6.2 Establishing The National FSR Committee

The national FSR could evolve from on-going FSR activities and from new ones to be initiated in different regions of Upper Volta. Review of current FSR programmes have shown that they are narrow in scope and only cover small components of farming systems research and development. The IFAD-support in this regard is to assist IVRAZ to assemble resources from various on-going FSR projects and develop a broader FSR programme that can only be carried out through a multidisciplinary research team. The national FSR committee under IVRAZ would be able to synthesize inter-disciplinary research teams. The IFAD-FSR support could facilitate the realization of this committee. The main function of National FSR committee would be to:

- a. advise IVRAZ on FSR policy and suggest mechanisms of assembling resources (man-power, funds, etc.) in order to develop broader FSR programme with various components such as the integration of cropping and animal production systems, soil-water management, agro-forestry systems, animal traction, improving the fertility of soil, intensification of agriculture, socio-economics and technology transfer programmes, etc.
- b. review, assess and approve FSR programme to be executed;
- c. facilitate the coordination of FSR within Upper Volta;
- d. advise IVRAZ on man-power and FSR programme development.

BUDGET

The FSR budget for Upper Volta and other two countries is reported in table 2, 3 and 4 respectively. The other two countries with two man FSR team have similar budget. The FSR programme of Upper Volta is expected to begin by September and that of the remaining two countries by October/November 1984 (based on recent interest of some member states). The cost of these programmes and those including that of the coordination office from now to 30th December 1984 are detailed in the report of the financial controller. The figures in the tables mentioned above include the estimate cost of the FSR programme for each year.

In regard to Upper Volta FSR, discussions are currently pursued that the project will be funded and administered jointly. It is believed that, gradual increased commitment by the host government in man-power and funding operational costs ensures the continuity of the research programme after the project funding is terminated.

SCHEDULE OF ACTIVITIES

<u>ACTIVITIES</u>	<u>APPROXIMATE DATE OF EXECUTION</u>
*Recruitment of staff for Upper Volta and other two countries FSR	August
Agreement with host government (Upper Volta)	July
Other countries - host government Agreement	September/November
Placement of staff and commencement of FSR programme (Upper Volta)	by mid September
Other two countries	October/November
Workshop Upper Volta (IVRAZ/SAFGRAD)	late September
Training of field staff	October
Planning & Programming session for all country programmes	November

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\*Recruitment of scientists for all three country-programmes will be effected simultaneously (to save funds).

Interviews for seven scientists is expected to be carried out during the first week of August.

BUDGET FOR FSR PROGRAMME - UPPER VOLTA

	Y E A R S			TOTAL
	1	2	3	
Figures in Thousand of dollars				
<b>A. <u>International Staff</u></b>				
1. Soil Scientist - 1	80	71	71	222
2. Agri-Economist 1	80	71	71	222
3. Animal Scientist -1	80	71	71	222
	240	213	213	666
<b>B. <u>Local Operational Costs</u></b>				
1. Field Support Staff	64	64	64	192
2. Operational Expenses	39	89	107	235
	103	153	171	427
<b>C. <u>Training</u></b>	10	10	10	30
<b>D. <u>Equipment</u></b>				
1. Vehicles	28	-	-	28
2. Motor cycles	5	-	-	5
3. Furniture & Equipment	36	-	-	36
	69	-	-	69
<b>E. <u>Workshop Support</u></b>	10	10	10	30
<b>TOTAL .....</b>	432	386	404	1222

BUDGET FOR FSR PROGRAMME COUNTRY B.

	YEARS			TOTAL
	1	2	3	
Figures in Thousand of dollars,				
<b>A. <u>International Staff</u></b>				
1. Agronomist	80	71	71	222
2. Agri-Economist				
3. Animal Production Specialist	80	71	71	222
	<hr/> 160	<hr/> 142	<hr/> 142	<hr/> 444
<b>B. <u>Local Operational Costs</u></b>				
1. Field Support Staff	64	64	64	192
2. Operational Expenses	39	89	107	235
	<hr/> 103	<hr/> 153	<hr/> 171	<hr/> 427
<b>C. <u>Training</u></b>	10	10	10	30
<b>D. <u>Equipment</u></b>				
1. Vehicles	28	-	-	28
2. Motor cycles	5	-	-	5
3. Furniture & Equipment	26	-	-	36
	<hr/> 69	<hr/> -	<hr/> -	<hr/> 69
<b>E. <u>Workshop Support</u></b>	10	10	10	30
<b>TOTAL .....</b>	<b>352</b>	<b>315</b>	<b>333</b>	<b>1000</b>



BUDGET FOR FSR PROGRAMME COUNTRY C.

	Y E A R S			TOTAL
	1	2	3	
Figures in Thousand of dollars				
<b>A. <u>International Staff</u></b>				
1. Agronomist	80	71	71	222
2. Agri-Economist				
3. Animal Production Specialist	80	71	71	222
	160	142	142	444
<b>B. <u>Local Operational Costs</u></b>				
1. Field Support Staff	64	64	64	192
2. Operational Expenses	39	89	107	235
	103	153	171	427
<b>C. <u>Training</u></b>	10	10	10	30
<b>D. <u>Equipment</u></b>				
1. Vehicles	28	-	-	28
2. Motor cycles	5	-	-	5
3. Furniture & Equipment	26	-	-	36
	69	-	-	69
<b>E. <u>Workshop Support</u></b>	10	10	10	30
<b>TOTAL .....</b>	352	315	333	1000

## LIST OF ABBREVIATIONS

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CC	Consultative Committee
FAC	Fonds d'Aide et de Coopération
FSU	Farming System Unit
FSR	Farming System Research
ICRISAT	International Crop Research Institute for Semi-Arid Tropics
IFAD	International Fund for Agricultural Development
IITA	International Institute of Tropical Agriculture
IRAT	Institut de Recherche Agronomiques Tropicales et de Cultures Vivrières.
IVRAZ	Institut Voltaïque de Recherches Agronomiques et Zootechniques
OAU/STRC	Organization of African Unity/Scientific, Technical and Research Commission
ORSTOM	Office de Recherches Scientifique et Techniques d'Outre Mer
ORD	Organisme Regional de Developpement
PMC	Project Management Committee
TAC	Technical Advisory Committee
SAFGRAD	Semi-Arid Food Grain Research and Development Project
USAID	United States Agency for International Development

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FIRST MEETING OF THE PROJECT MANAGEMENT COMMITTEE  
IFAD - FUNDED FARMING SYSTEMS RESEARCH OF SAFGRAD  
(OUAGADOUGOU, UPPER VOLTA - 10 JANUARY, 1984)

MINUTES

Agenda : IFAD supported Farming Systems Research programme.

In attendance

Prof. A.O Williams,	Executive Secretary OAU/STRC - Chairman
Dr M.A Kasseba,	IFAD
Mr John Becker,	USAID
Mr Robert Nicou	FAC
Dr S.R Singh,	IITA
Dr Herbert W. OHM,	FSU (Purdue University)
Dr Brhane Gebrekidan	ICRISAT
Dr Peter Malton,	ICRISAT (FSR)
Dr. J.M Menyonga	SAFGRAD
Dr Taye Bezuneh	SAFGRAD, Secretary.

The Chairman explained the problems he encountered in the identification of consultants as the main reason for the delay in the elaboration of the Farming Systems Research (FSR) programme. After consultations with ODA, IRAT, ICRISAT and IFAD, three consultants were finally selected, namely Dr David P. Gibbon, Mr François Couprie (Soil Specialist) and Prof. Félix I. NWEKE (Agricultural Economist). They were in Ouagadougou during the week of 9-14 January, 1984. Although three weeks were proposed for the consultants, it was generally agreed that this could be increased if additional time was necessary.

In the project document, one of the criteria for selecting countries for FSR involvement was the presence of Accelerated Crop Production Officers (ACPOs). The choice was thus limited to Cameroon.

Mali, Senegal, Togo and Upper Volta.

Considering the interest which many member countries have shown for FSR, the committee agreed that the criteria for country selection be reviewed by the consultants and appropriate recommendations made in their final report for later consideration by OAU/CSTR and IFAD. It was also stressed that any changes in the operational guidelines of the project document could only be effected by IFAD.

In accordance with the existing selection criteria, the consultants and the director of research were to visit two of the five (5) ACPO countries (Mali and Senegal) which were considered suitable for FSR activities. Although some committee members expressed objection because Senegal had been involved for a long time in FSR, the Chairman stressed the need for further strengthening of their FSR capabilities, and the fact that Senegal was one of the countries affected by frequent food shortages in the Sahel. Other countries discussed as possible locations which should be examined included Togo, Benin and Cameroon. It was also emphasized that even if the project document specified three countries for FSR involvement, the actual implementation could start with one country and then increase the number gradually in due course.

The project Management Committee (PMC) would nominate its own chairman during the next meeting. The director of research would serve as secretary. Before fixing dates of meetings, the secretary should contact OAU/STRC after consultation with the chairman. As much as possible, PMC meetings should be timed to take place around the same period as those of the TAC of SAFGRAD. At the end of their mission to Upper Volta, Mali, Senegal and Nigeria (IITA) the consultants should propose ways by which the FSR programme can work in close collaboration with the International Agricultural Research Centres as well as the relationship between the International Coordinator and the Director of Research of the SAFGRAD project.

Finally, it was agreed that the IFAD unded FSR component should not be involved in Upper Volta where Purdue University has already made much progress. However, close collaboration between FSU, FSR teams in other member countries and the PMC was greatly encouraged.

The next meeting of the PMC was recommended to be held within six months, during the same period with TAC.

Secretary

Chairman

Terms of reference of consultant team to IFAD Funded Farming Systems Research component of the OAU/SAFGRAD Project

The three man-team is required to carry out the following on behalf of OAU/STRC and IFAD during the period of January 5th to January 31st 1984.

**General**

1. To advise OAU/STRC on the FSR approach in accordance with the IFAD Project.
2. To prepare a plan of action for FSR in the three member countries in accordance with the Project.
3. To work in close collaboration with the Director of Research and the International Coordinator to effect the above
4. To collaborate with the International Centres which have ongoing activities in SAFGRAD and other institutions which are considered to be carrying out work relevant to the Project.
5. To visit selected countries in West Africa and assesses their suitability as bases for the IFAD Project.

**Specifically the team is asked to :**

1. Review ongoing FSR in Upper Volta carried out by Purdue University, the International Institutes, IRAT and other relevant activities, and propose, if appropriate, support for FSR in relation to national agricultural research needs.
2. Propose appropriate linkages of the SAFGRAD/FSR in the Upper Volta national programme and with the regional SAFGRAD/FSR Project.

3. Visit Mali and Senegal and examine the feasibility of developing IFAD funded FSR programmes in each country. If the IFAD proposal is welcomed, proposed suitable roles for the FSR teams.
4. For all FSR teams, suggest disciplines, terms of reference, scheduling, activities, and expected outputs.
5. Review existing SAFGRAD links, contact arrangements etc.. and propose an appropriate administrative structure for the implementation of FSR in the SAFGRAD Project.

TRIP REPORT ON FARMING SYSTEM RESEARCH ACTIVITIESBY THE DIRECTOR OF RESEARCHTRIP COMMENTS REPORT ON FSR ACTIVITIES IN MALI AND SENEGAL

The FSR Consultants made study tour in Upper Volta, Mali, and Senegal. The main purpose of the study is to have an overview of Farming System Research in these countries. In upper Volta, the team had lengthy discussion with SAFGRAD research cooperators i.e IITA, ICRISAT and Farming System Unit of Purdue University. Short visits was also made to IRAT, IVRAZ, FAO and other projects in Upper Volta. I accompanied the team to Mali, Senegal and Nigeria.

MALI

14th January, left Ouagadougou at about 7.30 am and arrived Bamako at 9.30 am. The same morning visited the SOTUBA Agricultural Research Station where the SAFGRAD ACPO Office for Mali is located. Met Mr Dolo Panaganigou, Head of Research Station. I briefed the purpose of the FSR consulting study being to identify areas of research gaps in farming system research and to explore for possible technical assistance.

Both Mr Lamine Traoré, SAFGRAD ACPO and the SOTUBA research Station head made arrangements for us to meet other research officials. In Mali, FSR is recognized as a major departement of IER. In the afternoon, we were fortunate to meet at SOTUBA Station, Mr Diarra, Coordinator of the national FSR. Otherwise, it would have been necessary for us to drive to Sikasso (about 400 km from Bamako), the headquarters of the national FSR. Discussion centered on current FSR activities and future plans and USAID support in Mali. Also the IDRC support was discussed. Major areas of FSR studies in Mali are :

- Maize and animal production systems ;
- Intercropping maize, millet and sorghum with grain legumes ;
- Conservation of soil in high rainfall area and maintaining soil fertility.

It was indicated that there is a research gap in assessment and estimation yearly national food production. The FSR Coordinator however, did not delineate specific areas for FSR support.



16th January morning : Held discussion with Dr Zanasonego, Director of Agronomic research. Agronomic research in Mali includes food crops (millet, sorghum, maize, peanut) textile crop (coton etc.), fruit and vegetable, tobacco and new crops. Research in animal science, forestry and fishery is under the Ministry of Rural Development.

Dr Zanasonego emphasized the need to strengthen certain areas of crop science research if constraints identified through FSR has to be overcome. It was stressed that the research system has to improve its research capabilities in order to alleviate major constraints of food production as continuously identified by FSR.

Regarding the functional linkage between research and extension, it was pointed that research and extension themes are decided during the national annual research and development agencies meeting. Among the programmes that national guidances is provided are :

- type of agronomic research.
- multi-location variety and cultural practice studies ;
- pre-extension tests.

In Mali, the SAFGRAD ACPO Programme handles the national pre-extension trials. The liaison link between research and extension is the ACPO Programme.

16th January afternoon : Held discussion with Dr Reddy, USAID Agronomist in Mali. He explained that 10 years plan for farming system support is completed and approved. The project which may cost close to 17 million dollar is expected to be started by September, 1984. This FSR project is comprehensive and will cover five regions. Training of both short and long-term are considered. It is expected that 13 Malians will be trained at M.Sc. level and 6 other at Ph.D level.

Dr. Reddy emphasized USAID mission will not support duplication of efforts. Regarding consideration of FSR programme at Sikasso if IDRC discontinues support, it was explained USAID will continue to fund the project by about 50,000 dollars per year. It is also anticipated that IDRC fund support to FSR in Sikasso may continue beyond 1986.

17th January

afternoon

Held discussion with Mamadou Fatogoma Traoré, Director of Agricultural research. Mali plans of FSR activities as well as new technical assistance in FSR was discussed.

### SUMMARY ABOUT FSR IN MALI

1. FSR in Mali is being supported by USAID to cover five development zones.
2. The FSR programme that was carried out since the last five years concentrated on crops and with some integrated animal production soil fertility research.
3. Identification of constraints has been the major thrust of FSR in Mali.
4. Specific FSR support need was not indicated, although the need to integrate crop and animal production system at national level is apparent. If IFAD, FSR support is considered in Mali, it was indicated to cover completely new area:

18th January - Left Bamako at 12 noon on train for Dakar via Keys, Tambacomda and Sine Saloum Region. The country side has become bare, since most of trees were removed and there is an extreme soil degradation due to loss of organic matter and soil erosion. Arrived in Dakar 20 January.

FSR IN SENEGAL : 20 - 22 JANUARY

as reported by CGIAR Technical Advisory Committee on Farming System, (1978) - Senegal has the best conceived, organized and developed national FSR programme.

Already five farming system research teams are initiated in Senegal. Each FSR is composed of agronomist, economist, animal science expert, and occasionally soil scientist, and rarely forestry and fishery disciplines. The shortage of experienced research personnel was indicated. Michigan State University is assisting FSR as well as training at M.Sc. and Ph.D level. It was estimated that small FSR team has been working for several years at Senegal river basin. The consulting team explored the possibility for obtaining research reports on FSR studies. It was not made available. As result, it was difficult to delineate recommendation made by FSR consultants is based on brief discussion and on brochure detailing research organizational structure.

SUMMARY

1. It was indicated that FSR programme may benefit more from qualified and experienced staff input instead of specific programme of its own identity.
2. FSR programme has integrated programme of crop and livestock production.
3. Implementation of FSR programme is in progress to cover other five regions.

From 23 - 27 January, the consultants and myself were at IITA to prepare the FSR reports. Based on the first draft of the study, I invited the IITA Farming System Research group for preliminary discussion on FSR consultants proposal. The minutes is attached with this report.

PREPARATION OF FINAL REPORT AT IITA 23 - 27 JANUARY  
AND DISCUSSION ON IFAD-FSR PROPOSED PROGRAMME WITH IITA FSR  
SCIENTISTS

Date : 26/1/1984

PRESENT WERE

IITA FSR Staff

- |    |                  |  |
|----|------------------|--|
| 1. | Dr H.H Terkuile, | Director, Farming Systems                        |
| 2. | Dr H. Mutsears,  | Agronomist, Office Station Research              |
| 3. | Dr H. Ezumah     | Agronomist, Office Station Research              |
| 4. | Dr P. Ay,        | Sociologist, Office Station Research             |
| 5. | Dr H. Ashraf,    | Production Economist, Office Station<br>Research |

CONSULTANTS

Dr. Felix I. NWEKE

Dr Gibbon

Mr Couprie

Chairman : Dr. Taye Bezuneh, Director of Research, SAFGRAD

As it has been the policy of SAFGRAD to involve international institutes in both project formulation and implementation, briefing on IFAD supported FSR proposal was given. The FSR consulting team explained its findings. Regarding Purdue University FSR programme, it was felt that there is a gap of research to be strengthened, such as soil fertility and integration of animal production. The linkages among research programmes in Upper Volta remains to be improved. The team, has recommended that Upper Volta to be one of the countries for FSR Programme to be strengthened. The following professional staff were proposed :

- a. Soil fertility expert already identified in the project
- b. Experienced Agricultural Economist
- c. Livestock expert

### COMPOSITION OF FSR TEAM

The original proposal of FSR Staff requirements by the consultants did not include Agricultural Economist or any other social scientists.

Several questions were raised :

1. Why new FSR programme in Upper Volta where already Purdue University team is making progress ?
2. Proposal is long term while approved project document is short term (3 years). It was suggested that the FSR Programme should be based at initial phase on simple experiments and build upon broader integration of production systems.
3. It was also suggested that other countries where FSR is not strengthened should be considered for immediate support.

SECOND MEETING OF THE PROJECT MANAGEMENT COMMITTEE OF IFAD  
FUNDED FARMING SYSTEMS RESEARCH OF SAFGRAD  
HELD IN OUAGADOUGOU, UPPER VOLTA ON 9 - 10 APRIL, 1984

MINUTES

Agenda : IFAD Supported Farming Systems Research

In attendance

Regular Members of the Committee

Prof. A.O Williams, Executive Secretary, OAU/STRC - Chairman	
Mr M.A Kasseba	IFAD Representative
Mr J.A Becker	USAID "
Mr Robert Nicou	FAC "
Dr Curtis R. Jackson	ICRISAT "
Dr Robert Ohm	SAFGRAD/FSU "
Dr J.M Fajemisen	IITA
Dr J.M Menyonga	International Coordinator, SAFGRAD
Dr Taye Bezuneh	Director of Research, SAFGRAD, Secretary

Observers

Dr Mustapha M.B Sall	ILCA
Dr Woods Thomas	Purdue University
Dr Solomon Beckure	ILCA
Dr Mario Rodriguez	SAFGRAD/IITA
Prof. Akinola Agbola	Nigeria
Dr Robert Gray	USAID

The Committee considered countries recommended for FSR support. The IFAD representative indicated there is no objection to start the programme in the three countries recommended by the consultants or in other countries mentioned in the proposal as long as the project will not be duplicating other similar efforts. The reasons that were advanced for starting the new SAFGRAD/FSR in Upper Volta were to :

1. Fill identified disciplinary gaps, and strengthen the national FSR ;
2. Facilitate the development of national FSR that could be integrated within the national research and extension system ; the project build upon experience of existing FSR programmes ;
3. Improve coordination of FSR within the region using the ongoing SAFGRAD research to back up workshop and training activities ;
4. Consolidate knowledge already gained from FSR activities .

It was evident that the Upper Volta national FSR has yet to be developed as an integral part of its national research system. The IFAD FSR support could facilitate this effort. After lengthy discussion on the matter, the Project Management Committee (PMC) decided that first FSR programme be launched in Upper Volta as recommended (with regional FSR networking responsibilities at appropriate time). The proposal to select the other two countries was deferred to the next meeting of the PMC (recommended to be held in October 1984 with TAC)

### IMPLEMENTATIONS

The meeting continued on 10th April 1984. At that meeting, the proposed strategies were discussed and the following options were proposed for consideration :

1. The project be contracted to International Agricultural Research Centres, such as ICRISAT, IITA, and ILCA.
2. The programme be integrated into the existing FSU, ICRISAT, and other FSR programmes by filling identified disciplinary gaps and become complementary with ongoing programmes. OAU/STRC/SAFGRAD will directly execute the IFAD-FSR project.
3. The OAU/STRC establishes special host country contractual arrangements where by the SAFGRAD-FSR is integrated within national research and extension systems.

The above three options for implementing the project were discussed. Members of the committee called for SAFGRAD to directly implement the project. As a result, the last two options (2 and 3) were accepted.

Furthermore, it was emphasized that backstop support arrangements be made with ILCA in addition to the already existing collaborative research work of IITA and ICRISAT. The committee agreed on the recruitment of a soil scientist, an agricultural economist, and a specialist in animal production for the Upper Volta programme by the OAU/STRC-SAFGRAD Coordination Office. Vacancy announcement should be sent to various institutions in Africa, International Agricultural Research Centres and to several foreign organisations. The short-listed candidates and a possible place for the interviews should be communicated to OAU/STRC, Lagos.

In addition, the Coordination Office was advised to effect the necessary arrangements and agreements with the Government of Upper Volta and report implementation status of the project to OAU/STRC, Lagos, before the next IFAD meeting.

As reflected in the first Project Management Committee meeting, the committee approved the nomination of Mr J.A Becker as the chairman of the Project Management Committee.

Secretary

Chairman



SUGGESTIONS FOR IMPLEMENTING PROPOSED  
IFAD SUPPORTED FARMING SYSTEMS PROJECT

The FSR consultants report recommended that FSR programmes be started in Upper Volta, Mali and Senegal. The proposed FSR envisages looking into the overall farming systems set up. Considering the rapid deterioration of the resource base for productive agriculture, the programme calls for an integration of crop and animal production systems as well as long range soil improvement. The FSR studies currently adopted in most African countries lack some relevant FSR components.

RATIONALE FOR STRENGTHENING FSR IN UPPER VOLTA

The IFAD-FSR consultants review report seems to indicate that broader and long-term issues of Farming Systems could not be addressed by specific FSR projects but through coordination and linkages of various research systems. Programmes already initiated in Upper Volta by few agencies have specific objectives with major focus to complement components of respective projects. SAFGRAD - as a coordination Unit, could take advantage of existing FSR activities and synthesize a broader FSR programme that includes cropping and animal production systems, soil-water-management, agro-forestry ect... SAFGRAD through IFAD fund could strengthen FSR in Upper Volta by supporting specific deficient areas to complement existing programmes. Realizing the gaps and deficiencies of FSR in Upper Volta, the IFAD-FSR consultants have proposed and recommended additional input (man-power and other components of the project) to strengthen the Voltaic National FSR and Research System. The SAFGRAD FSR team will work very closely with FSU and other ongoing FSR in Upper Volta and national research and extension organisations.

Another dimension of SAFGRAD is its regional emphasis. Taking advantage of some FSR projects, the ICRISAT and IITA

core crop improvement programme in Upper Volta and animal and crop production research of national programmes, SAFGRAD/FSR could serve as a backstop for other country FSR programmes to be started by the project. For example, the programme will serve as a centre for various FSR activities such as training, workshops, planning and programming of country-FSR and coordination of FSR-networks.

Furthermore, the third Technical Advisory Committee realizing the various farming systems research activities in various countries has recommended for SAFGRAD to exert greater effort in order to coordinate and harmonize FSR activities among member states. Strong SAFGRAD/FSR team in Upper Volta could facilitate coordination efforts in strengthening national FSR. One of the activities of the team will be to organize annual workshops to discuss FSR research results with project scientists, station based commodity scientists and representatives of others institutions engaged in related work. Occasional regional FSR workshops involving research workers in the field and technical scientists could also be organized by the team to discuss methodologies of farming systems employed among member states. Considering the overall FSR programme proposals, there does appear a strong case for strengthening SAFGRAD/FSR in Upper Volta mainly to :

1. Fill identified disciplinary gaps and strengthen national FSR,
2. Improve FSR coordination among member states
3. Consolidate knowledge already gained from several FSR activities
4. Provide guidance and backstop service to country FSR

#### SPECIFIC FSR PROGRAMME

Under Upper Volta conditions specific programmes will be developed through continuous interactions with scientists of IVRAZ, ORD - extension agents, technical scientists of ICRISAT, IITA, the ACPOs and FSR scientists. To coordinate FSR activities,

series of discussions will be held through the SAFGRAD Coordination Office. The National FSR is expected to emerge from such coordinated activities of programmes which also include man-power development.

#### COMMENTS ON MALI-FSR-PROPOSAL

In Mali USAID is ready to start (by September 1984) a ten-year support amounting to \$ 17 million. Of course, some form of IFAD-FSR support could further strengthen the present level of FSR activities. If SAFGRAD is to initiate a programme, it seems that it would be a duplication of efforts. One alternative is to link the programme with existing research projects. The International Livestock Centre for Africa is already monitoring an agro-livestock production system in Mali. Perhaps through special OAU/STRC collaborative contract agreement with ILCA, the programme could be started within a relatively short time. On the other hand, considering the IDRC and the level of USAID support, other countries should be considered for IFAD-FSR assistance.

#### COMMENTS ON SENEGAL PROPOSAL

According to the studies made by the Technical Advisory Committee (TAC) on Farming Systems Research of the Consultative Group on International Agricultural Research (CGIAR), Senegal has the longest history, best conceived and most developed national FSR. The report further elaborated that :

"The basic concept of the programme is an integrated system of research to create and diffuse production systems, within a regional framework, in the country. The system provides a structure to gather information, assist in identifying agricultural zones or regions, analyze present production systems, evaluate possible new technical systems, study production factors, and involve the farmer in the design and decision process".

Furthermore, ISRA (Institut Sénégalais de Recherches Agricoles) already has FSR teams in five major regions covering different agro-ecological zones in Senegal. Although the Senegal

FSR is already strengthened, the national research officials, however, have indicated that staff input of highly experienced personnel may be considered. The FSR consultants' proposal is based on the overall needs to stabilize and improve the resource base for productive agriculture which is also the case in most sub-saharan African countries.

#### OTHER COUNTRIES TO BE CONSIDERED

The programme proposed by the consultants is equally relevant to a number of other African countries where the resources for agriculture are deteriorating in alarming proportions. Without much delay and with little modification, the proposed FSR programme could also be started in the following countries, where SAFGRAD has already agricultural research and development activities.

#### CAMEROON\*

In Northern Cameroon, SAFGRAD has been operating an ACPO programme for the last few years. In addition, the research and extension base of the region has gradually been strengthened. The major farming systems research activities in the humid and sub-humid zones of Cameroon are carried out by the International Institute of Tropical Agriculture (IITA). Farming systems research in the drier northern part of the country is just beginning.

BENIN\* - Although SAFGRAD has not yet started an ACPO programme there, an agreement was signed with SAFGRAD since the last three years. This country has recently shown interest to receive FSR support.

GHANA - There is limited support in FSR in this region. The research and extension base is also conducive to initiate FSR

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\*Relatively more conducive to initiate Country FSR Programmes.

activities. Already the research group at the Nyankpala Station has made contacts with FSU in Upper Volta for collaborative research and is still looking for support in this field.

TOGO - In the Northern part of the country SAFGRAD has fielded an ACPO programme. Even though the national research and extension base has yet to be strengthened, an FSR programme would be useful.

MAURITANIA - Completely Arid to semi-arid country. As a member state of SAFGRAD, it has continued participating in regional trials and workshops. A few years ago, Mauritania showed interest in the ACPO-programme. The national crop and animal science research is yet to be developed. If a one or two man FSR team is placed and integrated within the national agricultural research Unit, it could provide much needed technical assistance in FSR and related fields.

ETHIOPIA - The peasant agriculture is one of the largest in Africa. About 25% of the country (250,000 sq.Km) is semi-arid where about four million people reside. The Institute of Agricultural Research (IAR) responsible for coordinating all research activities in Ethiopia has established a small socio-economic unit which works very closely with technical scientists in crop science in evaluating packages of technology and transfer. Farming system research, therefore, is at its initial stage of development.

SOMALIA - Its agricultural research and extension programme is being developed. FSR has yet to be organized.

SOUDAN - Has a well developed agricultural research base. FSR is at initial stage of development. As a very large country, support in FSR from several sources may be necessary.

GUINEA - Virtually very little information is available on FSR activities in Guinea.

## IMPLEMENTATION STRATEGIES

Thus far, SAFGRAD has implemented its project through special contracts with the International Institute of Tropical Agriculture (IITA), International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) and Purdue University. The FSR consultants' report calls for a relatively comprehensive and long range farming systems research. The major components of the FSR programme are the integration of :

- crop and animal production systems,
- long-term studies to restore soil fertility,
- agro-forestry : also as a component of the programme.

The focus of the proposed FSR programme is to improve the resource base for increased agricultural productivity and also to stabilize the deterioration of the rural environment. The programme therefore requires an interdisciplinary team. OAU/STRC may need to consider immediately the following alternatives for implementing the FSR programme :

### I. Special contractual Agreement with the following International Agricultural Research Centres.

1. International Institute of Tropical Agriculture, IITA
2. International Livestock Centre for Africa, ILCA
3. International Crops Research Institute for the Semi-Arid Tropics, ICRISAT.

### II. Integration with SAFGRAD/FSU ongoing Programme

If the IFAD is to strengthen national FSR, then a special working relationship could be arranged with the national research programme IVRAZ, FSU, and other programmes. This can be achieved through staff input in disciplines that FSU or other FSRs are not able to provide field staff.

### III. Special SAFGRAD-Host Country Contractual Arrangement

This can be organized with the national research organisations where the FSR programme is to be conducted. The SAFGRAD/FSR will thus be integrated with the national research and extension systems. The international professional staff input would be provided through OAU/STRC in consultation with the international institutes and donors.

SEMI-ARID FOOD GRAIN RESEARCH AND DEVELOPMENT (SAFGRAD) PROJECT

FARMING SYSTEMS RESEARCH POSITIONS



ORGANIZATION OF AFRICAN UNITY SCIENTIFIC, TECHNICAL  
AND RESEARCH COMMISSION (OAU/STRC) THE SEMI-ARID  
FOOD GRAIN RESEARCH AND DEVELOPMENT PROJECT JP-31 SAFGRAD

GENERAL INFORMATION

The Semi-Arid Food Grain Research and Development Project (JP-31 SAFGRAD) is a regional research programme that is implemented by the Coordination Office of the Scientific, Technical and Research Commission of the Organization of African Unity (OAU/STRC). The Coordination Office headquarters is located in, Ouagadougou, Upper Volta. The SAFGRAD project was organized and started in 1977 through the cooperation of 25 member countries of Africa.

The Major Activities of SAFGRAD Project are to :

- 1.0 Facilitate the improvement of cereals (sorghum, maize, millet) and grain legumes (cowpea and groundnuts) and cultural practices that require low-inputs in maximizing yields under semi-arid farming systems in the sub-Saharan region of Africa.
- 2.0 Coordinate regional research network among member states. SAFGRAD collaborative research with international institutes (IITA and ICRISAT) serves as a backstop for generating technology relevant to the small farm conditions in semi-arid regions.
- 3.0 Promote exchange of improved plant materials, and technical information among member states through regional testing, workshops and monitoring tours.
- 4.0 Strengthen national agricultural research and extension programmes through short and long-term training, seminars and research inputs. Improving the indigenous research capabilities of member states is also given special attention within the SAFGRAD project.
- 5.0 Promote the diffusion and transfer of farm adaptive technology through its Accelerated Crop Production (Officers) programme that improves the institutional-functional linkages between agricultural research and extension within

national programmes of member states.

- 6.0 Support national programmes in developing appropriate farming systems (including the improvement of soil fertility, water-soil management) in order to rebuild the declining resource base for productive agriculture.

### RESEARCH PROGRAMME

- . The maize and cowpea improvement programme of SAFGRAD is carried out by the International Institute of Tropical Agriculture (IITA) where its resident research activities are conducted in Upper Volta at the Central Experiment Station at Kamboinsé.
- . The sorghum and millet research is carried out by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT). Resident research on sorghum and millet is based at the Institute for Agricultural Research of the Ahmadu Bello University, at Samaru, Nigeria, while soil and water management research is carried out at Kamboinsé.
- . SAFGRAD/ICRISAT sorghum and millet research coordination office for Eastern Africa is located in Nairobi. This programme coordinates sorghum and millet research throughout the region.
- . Another component of the SAFGRAD project is the Accelerated Crop Production Officer (ACPO) Programme started in cooperating countries as a catalyst in developing close links between the regional research conducted through SAFGRAD and national agricultural research and extension agencies. One of the major activities of the programme is to conduct pre-extension trials and promote the introduction of farm adaptive technology through the national agricultural extension system. ACPOs are well experienced agricultural specialists who are integrated into the national agricultural research and extension systems.

- . Farming Systems Research (FSR) of SAFGRAD is currently conducted by Purdue University. SAFGRAD recently obtained IFAD support to strengthen National FSR in various countries. This new programme will be in due course implemented by SAFGRAD Coordination Office of OAU/STRC.
- . Training workshops in different fields of agricultural development are effected through the SAFGRAD Project. The short-term training involving crop production courses are carried out at some national research stations or at the International Agricultural Research Centres (IITA and ICRI-SAT). Long-term training for M.Sc and Ph.D are pursued at various universities.

SAFGRAD is a multidonor project with major funding by the United States Agency for International Development (USAID). The other donors are the International Fund for Agricultural Development (IFAD) and the French Aid for Cooperation (FAC).

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ORGANIZATION OF AFRICAN UNITY SCIENTIFIC, TECHNICAL  
AND RESEARCH COMMISSION (OAU/STRC) THE SEMI-ARID  
FOOD GRAIN RESEARCH AND DEVELOPMENT PROJECT JP-31 SAFGRAD

FARMING SYSTEMS RESEARCH POSTS

I. Agricultural Economist

Qualification and experience

Ph.D or MSC. in Agricultural Economics with at least 10 years experience in social and natural sciences research and development, and of relevant farming or farming systems research.

Job description

-As team leader of a country Farming Systems Research (FSR) programme, assist the SAFGRAD Director of Research in supervising and executing specific activities of the FSR

-Provide leadership to initiate greatly expanded applied research activities that link on-farm, sub-site and station research

-Facilitate and ensure the development of an integrated farming systems including crops, livestock production systems and agro-forestry

-Assist the Director of Research in developing and organizing workshops training in FSR.

Language

Candidate should be able to speak and write French & English and should be proficient in one of them.

Remuneration

Attractive and negotiable basic salary and conditions of service similar to those of International Agricultural Research Centres.

Duty station

Upper Volta

## 2. Livestock Production Scientist

### Qualification

Ph.D or MSC with broad experience in livestock production systems with specific experience in agro-pastoral systems and applied research ; minimum experience of five years. Some experience in African agriculture is preferred.

### Job description

Under the supervision of the country FSR programme :

- Examine the feasibility of the animal production component (both small and large stock) of increasing farming systems. Animal as generators of food, draught, wealth and partial restorers of soil fertility.

-Contribute to national and regional FSR programmes where there is currently no or minimal livestock research activities and link relevant station and off station work.

-Develop the animal production component of FSR programme and also assist the team leader in organizing and preparing training materials in this field.

### Language

Candidate should be able to speak and write French & English and working knowledge of one of them.

### Remuneration

Attractive, negotiable salary. Conditions of service similar to those of International Agricultural Research Centres.

### Duty Station

Upper Volta.

### 3. Soil Scientist

#### Qualification

Ph.D or MSC with at least 8 years experience with broad knowledge of semi-arid tropical soils/crops/tree inter-relationship, soil fertility maintenance using renewable resources. Some years of experience in African agriculture is desirable.

#### Job description

Under team leader of the project :

-Conduct research and soil amelioration measures using various cultural agronomic practices, trees, pastures and arable crop combinations ; focus on on-farm and sub-site activities in all villages where FSR team is operating.

-Conduct research related to monitoring rate of soil fertility changes in major semi-arid zones.

-Develop and conduct soil fertility experiments as a component of the overall FSR programme.

-Assist in developing training materials in soil fertility and building the resource base in agriculture.

#### Language

Candidate should speak French & English and working knowledge of one of them.

#### Remuneration

Attractive, negotiable salary. Conditions of service similar to those of International Agricultural Research Centres.

#### Duty Station

Upper Volta

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Department of Rural Economy and Agriculture (DREA)

African Union Specialized Technical Office on Research and Development

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1984-05

# REPORT ON IFAD-SUPPDRTED SAFGRAD RESEARCH COORDINATION AND FARMING SYSTEMS RESEARCH

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