WEST AFRICAN FARMING SYSTEMS RESEARCH NETWORK

RESEAU D'ETUDES DES SYSTEMES DE PRODUCTION
EN AFRIQUE DE L'OUEST

FINAL REPORT

WORK PLAN
1988-1990

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INTRODUCTION.

In the seventies and particularly in the eighties, donors and international agricultural research Centres (IARC) showed (and are still showing) a great interest in the secretariat and development of agricultural research networks in Sub-Saharan Africa. Strengthening collaboration among scientists, programmes and national and international institutions, increasing research efficiency, avoiding duplications and enhancing North/South exchanges mainly for the benefit of the South constituted the basic motivations.

Concurrently, with the development of farming systems research methodology within international agricultural research centres one could expect the process of technology development and transfer to accelerate in the course of time for the benefit of the african rural community and particularly the poorest and most numerous groups.

It should be recalled that FSR methodology is an upward approach unlike the traditional approach of agricultural research which is a downward essentially disciplinary or commodity-based approach confined to stations and therefore ignorant of the priority requirements of farms and of the internal and external context in which production must be achieved. FSR methodology is meant to be based on the following essential characteristics: (1) to have farmers as the major clients and to serve first resource poor farmers by identifying their constraints and adapting technologies to their conditions (2) to integrate farmers as participants in the various stages of research and transfer (3) to acknowledge the specificity of local, technical and human factors and consequently to propose solutions for target groups or recommendation domaines (4) to adopt an approach designed to solve farmers' problems and thereby to increase their productivity and their incomes (5) to view the farm as a system and consequently to evaluate technologies in relation to the components and the whole system; to be interdisciplinary and therefore to associate biological and social sciences (6) to complement and collaborate with disciplinary and commodity-based research so as to better guide it in its priority options and to adapt the resulting technologies (7) to test technologies on-farm with the participation of farmers and under their conditions (8) to collaborate with ex-tension services toward technology transfer and finally to assist in the definition of research priorities and in the preparation of agricultural policies.

The creation of the West African Farming Systems Research Network in 1982 at the initiative of the International Institute of Tropical Agriculture (IITA), the Institute for Tropical Agronomy and Food Crops Research (IRAT), the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) and the Gesellschaft fuer Technishe Zusammenarbeit (GTZ) was a response to this double concern of donors and international centres. From 1982 to 1986 WAFSRN virtually did not undertake any activities for the following reasons.
The first was the option of founding members to organize a professional

association of scientists rather than an informal structure of institutions to be coordinated by an international centre which would provide a technical and management support. Unlike almost all other networks created on the last model WAFSRN faced a problem of legal status which made the acquisition of financial resources very difficult and excluded any significant funding. Such a situation was only solved in 1986 by signing an agreement with the Scientific, Technical and Research Commission of the Organization of African Unity (OAU/STRC).

The second reason was the structuring of the network with a biennial general assembly, a steering committee composed of seven members and a part-time and roving benevolent coordinator. On the contrary, other networks had a full time coordinator paid by an international centre and had no steering committee nor general assembly of the member institutions.

From the outset the statutes of the network gave preference to national scientists. At the same time they made it less attractive financially and less credible in terms of technical capacities.

The Special Programme for African Agricultural Research (SPAAR) of the Consultative Group on International Agricultural Research (CGIAR) classified WAFSRN among the information exchange networks and did not include it on the list of the collaborative research networks recommended for funding by donors.

The Symposium held in Dakar in 1986 helped to cope with these handicaps by deciding to create a secretariat with a full-time coordinator and to negotiate an agreement with OAU/STRC. The steering committee therefore able to prepare in March 1986 a two year workplan based on the guidelines defined by members.

However, the committee insisted that the work plan and the sustaining strategy should be well adapted to the needs of mem- bers and particularly of West African national farming systems research practitioners, programmes and institutions. A meeting of national FSR leaders was organized in this regard in October 1988. Apart from the collaborative research activities and the support for obtaining funds which the committee considered that it could not start at that time, the strategy and the activities defined were endorsed by the national leaders. The representatives of the international agricultural organizations present also provided their support.

The objective of this report is to evaluate the two year programme. The following questions will be successively asked : (1) do the organization and functioning of the network allow it to fulfil its duties and consequently to meet the expectations of its members and of the various individuals and institutions interested in its activities and their results ? (2) Are the activities carried out during those two years in line with the objectives of the network and have they been as successful as expected ? (3) Are the objectives of the network really adapted to the needs of members and are they supported by the donors to the network and by the

institutions to which members belong? As a conclusion an attempt will be made to outline the necessary improvements and guidelines for the future.

ORGANIZATION AND OPERATION OF WAFSRN

The Legal Status of the Network.

The agreement with OAU/STRC which places the network under OAU legal umbrella proves to be an adapted solution. The legal deeds (requests for funds, management control) are effectively executed by the Executive Secretary of OAU/STRC. Staff recruitment and management are effected according to the regulations for the staff of the STRC. The network also takes advantage of the headquarters agreement between OAU and the Burkina Govern-ment: diplomatic immunity for the international staff, exemption from taxes and duties. The only problem which is raised relates to the remuneration offered to the staff which does not seem sufficiently attractive leading to few applications that were received for editor and documentalist posts. On the contrary, the network has enjoyed total autonomy to prepare and implement its work plan.

The Semi-Arid Food Grain Research And Development (SAFGRAD) Project of the STRC is responsible for hosting WAFSRN secretariat in Ouagadougou (Burkina Faso) and providing it with a number of services: financial and accounting management, communication facilities etc.. These services which were compensated for by the payment of 10% of the operating subsidies received should have allowed the secretariat to be light and therefore inexpensive. This part of the agreement could be filled only partially. The network had to rent its own premises, equip them and get some services. This has resulted in an unexpected increase in the operational costs of the secretariat which was borne with assistance from donors. The fundamental problem which had not been perceived at the beginning is that SAFGRAD is a project. As a provisional structure it only receives a limited financial support from OAU. It can make available to the network the services which it already has but cannot use funds received from its donors to supply these services. Solutions have been found to these problems but since the current funding for SAFGRAD will terminate in Mid-1991, the steering committee should henceforth think of the measures to be taken. Discussions with SAFGRAD and OAU/STRC management will be necessary.

The Network Structures.

The different structures of the network include the general assembly, the steering committee, the secretariat and the natio- nal correspondents.

- The statutes provide for the organization of a symposium every two years, and a general assembly of members on that occasion. The last assembly was held in September 1989 in Accra, Ghana, after that of Dakar, Senegal, in March 1986.

The activities and the management of the network, the definition of new guidelines and the re-election of the committee were discussed at that meeting. The link established between the symposium and the general assembly seems to be efficient because a large number of scientists can participate, and that makes exchange of information and experience possible. With the status of a professional association members can really participate in these meetings.

However, the two year interval could not be adhered to. The preparation takes much time of the secretariat and the cost of such activities is high. Although for an association it is not unusual to have a general assembly of its members the question of convenient frequency may however be raised. A three year frequency would for example help the network to devote more time and resources to activities which might contribute more towards the achievement of the objectives.

- The elected steering committee fulfils its role of executive body. It holds on the average between one and two annual meetings. The fact that it is mainly composed of senior scientists made some donors to fear that it would not give enough priority to the activities designed for junior national scientists and that it would impose higher requirements in relation to their professional experience. Without saying that this fear is unfounded the committee will undoubtedly have to develop in future mechanisms which will enable it to know the needs of members better so as to take them into account when planning the activities. It should be noted that the last elections enabled a woman and some national scientists closer to the field, to become members of the committee. Until now, the committee has also confined itself to a role of planning and monitoring body. The development of activities within the network may be hampered by the limited staffing of the secretariat. The members of the committee should consider the possibility of their playing a more active role in the execution of its programme and thereby support the secretariat. As will be indicated later, this would lead to a better understanding of the technical support needs of national programmes and scientists.

- The secretariat plays the role of a planning coordination and implementation organ. Its establishment has been slow because of difficulties in recruiting staff with the required qualifications and experience. The need to rent offices and to equip them, and the very long procedures involved have also delayed the secretariat in being operational within a reasonable time. The staff includes a coordinator, a documentalist and a secretary/administrative assistant. The data processing system which has been established facilitates text processing, the management of data bases, and publishing by the means of micro-computer.

- The national correspondents responsible for relaying the secretariat in the collection and dissemination of information were all nominated by the national agricultural research leaders in 1989. The network has also got collaborators in almost all international agricultural research centres operating in West Africa. Actually, the leaders of the resource management programmes of these centres

(which include FSR) have participated actively in the programmes of the network. The documentation unit is also establishing links with the documentation services of these centres and the initial reactions are positive. On the contrary, collaboration with other networks particularly in the area of farming systems is non-existent even if all coordinators profess to be willing to cooperate. If, as will be seen later, the network should undertake collaborative research, coordination and cooperation with these networks will become indispensable. The support requested from international centres will also be more important.

It can therefore be considered that the network and particularly the secretariat is well structured to fulfil the duties of an information exchange network. All the planned sections have been established. Links have also been established with the national and international organizations with which the network needs to cooperate.

It is through the analysis of the activities undertaken in relation to the objectives that the question of efficiency of this organization will be examined.

EVALUATION OF THE WORK PLAN

The general objective of WAFSRN is to promote and facilitate cooperation among the national, international and external scientists, programmes and institutions working in West Africa in the area of farming systems research. This collaboration should enhance support for scientists and strengthen national programmes through training, exchange of methodological experiences, comparison of results and better acces to information.

The specific objectives are:

- To stimulate collaboration in the area of planning and evaluation of farming systems research in West Africa.

- To improve methodological practices through the exchange of experiences particularly by organizing meetings, study tours for scientists and any other activities which would meet the needs of members.

- To organize, to assist in organizing and to institutionalize training activities on FSR approach for scientists and other rural development officers.

- To collect, process and disseminate relevant FSR results and particularly to encourage scientists to publish their results so that they can be largely available to all interested parties: scientists, research institutions, extension workers and their leaders, agricultural producers and professional organizations responsible for agricultural policy.

- To assist on request, national scientists, programmes and institutions in planning, implementing and evaluating farming systems research and possibly preparing requests for funds.

In this chapter, the above specific objectives will be considered one by one to see whether the activities carried out and the results obtained are in line with these objectives.

Collaboration in Planning and Evaluation.

The biennial programme did not provide for any specific activity designed to encourage national FSR scientists and programmes to jointly plan and evaluate their work. That was left for future.
There are several reasons for this decision. The various forms of activities of information exchange and training were accorded priority and their commencement was considered as a prerequisite to collaboration in planning and evaluation. Furthermore, the steering committee considered that for such activities to have an effect they needed to be carried out as part of the implementation of research involving national programmes. Being an association of FSR practitioners, WAFSRN had first to constitute itself in an information exchange network before reaching the stage of collaborative research network. The wide subject area covered by FSR and the existence of networks based on cropping systems also entailed some caution. During the meeting of the national FSR leaders organized in October 1988, they requested that a higher priority be given to the implementation of collaborative research programmes. However, the emphasis placed on fund-seeking for participating national programmes has shown that national leaders conceived cooperation in planning and evaluation only under the activities for which the network would provide additional financial resources. At the Symposium and the general assembly meeting in Accra in August-September 1989, members held the same reasoning. It may therefore be considered that it was logical that this objective be postponed for a second programme of the network. The effect of the diversity of farming systems in West Africa and consequently of the diversity of themes in which research teams are interested is that a collaborative research project regrouping all FSR teams from the Sahel to the forest zone would have only methodological issues as federating element. Its management would be in any case heavy. It was therefore considered more appropriate to wait for the moment when the network would be in a position to organize itself in small working groups or in sub-networks with scientists and programmes working on farming systems close enough to develop common technical themes. The information collected on scientists and programmes and the organization of the symposium largely in working groups on agro-ecological zones permit now to start collaboration within the network in the area of planning and evaluation through collaborative research programmes which will regroup national scientists and programmes on agro-ecological zones. This was the orientation which has been confirmed by the general assembly.

Two collaborative research groups, the one on maize-based farming systems and

one on cassava-based farming systems, created at the initiative of IITA, and regrouping some FSR programme scientists who are working in the forest and Sudan zones have besides requested to join the network. The steering committee has given its consent and approved the establishment of a working group on women in agriculture. The organization of these groups may not be consistent with the one based on agro-ecological zones. The first two have already made an inventory of priority research themes and methodological problems and have established light operation modalities with an annual rotating workshop and part-time organisers. So they have in fact started. It will be seen later that the implementation of collaborative research programmes raises some problems of staffing, coordination and fund management for the secretariat and the whole network which does not have the logistics enjoyed by international centres.

Improvement of Methodological Practices.

The 1988-1989 programme provided for different activities with the non-exclusive objective of improving methodological practices through exchange of information.

The first activity was the meeting of national FSR leaders in October 1988. Each participant presented a FSR country report and in particular outlined the main methodological approach used, assessed the achievements and the difficulties encountered as well as describe the adaptations made. The discussions had contributed to the understanding of the diversity of approaches, the problems related to the institutionalization of the approach and the difficulties encountered in on-station research/on-farm research and research/extension linkages as well as in farmers' participation in the research process.

The second activity planned was a visit to Mali with the objective of studying the experience gained by the FSR programme in the Sikasso region. This visit could not be undertaken because of the work calendar of the Mali team.

The third one was a technical workshop on irrigated farming systems in the Senegal River Valley. Once again, the workload for the preparation of the symposium and the time required to look for the necessary funds led to its cancellation.

The fourth activity was the symposium which was held in August 1989. The working groups based on agro-ecological zones devoted part of the discussions to the analysis of the methodological problems raised in the various papers. The questions recapitulated those already identified by the meeting of national FSR leaders. Added to these are concerns about the duration and complexity of the diagnostic phase, the practice of interdisciplinarity the techniques for on-farm experimentation and data analysis, and the very conception of the approach. While some participants advocated a simple approach based on rapid diagnosis and technical experimentation, others stood for a broader and more ambitious

FSR conception which would take into account several levels of analysis and intervention: farming systems but also agrarian systems. This conception, while not neglecting short term research on simple problems would help, through a gradual approach and specific methods, in tackling the problems of environmental degradation and consequently of natural resource management and also in conducting the so-called "socio-economic experiments". These would consist in studying with farmers the forms of groupings and of organization for land management , credit or any other activity useful for the agricultural community. In addition to strengthening of linkages with commodity research some participants advocated the development and better linkage with research on internal and external marketing and the processing of agricultural products. In view of the deterioration of official extension services a greater collaboration with non- governmental organizations and farmer associations was also recommended.

It can be correctly said that these activities are insufficient to have a real impact on the methodological practices of FSR scientists in the region even if one should take into account the training activities which are discussed later and which should also contribute to the impact. They have nevertheless contributed to a review the most urgent methodological issues for which more specific and better focused activities should be undertaken.

The proposed approach will be as follow :

For the any chosen subject, the field teams and researchers will be requested to present case studies describing the methods and techniques used, the problems encountered and the results achieved. A small scientific committee of two to three members will be responsible with the assistance of the network documentation unit for preparing a selective bibliography, reviewing the existing litterature on the subject, preparing a synthesis of the case studies and formulating methodological recommendations. A harmonization or consensus workshop involving some fifteen to twenty participants will examine them and submit recommendations to practitioners. The network will publish the results and incorporate them into the training courses offered in the region. For this mechanism to function, the network will certainly have to find funds to cover the costs and also to pay lump sum allowances to the authors of the studies and to the members of the scientific committee.

Training in FSR Methodology.

The 1988-1989 programme put priority on the training of junior scientists in research methodology and scientific writing. The strategy was as much as possible not to let the network organize its own training activities but instead to induce the regional and preferably national institutions to establish training courses adapted to the needs of scientists and to help them in the process.

Therefore, after discussions, IITA accepted to establish training courses in FSR for junior scientists and to offer instead a short term training course in on-farm

research. This course is designed for agronomists and agro-economists with more than three years of field experience.

After the necessary step taken by the network, the University Centre of Dschang in Cameroon, which is specialized in agricultural sciences accepted to establish an annual training course in FSR methodology and with time to become a centre of excellence in this area for Western and Central Africa. The International Programme of the Institute for Food Sciences of the University of Florida, IITA, the French Research/Development Network and the Institute of Agronomic Research of Cameroon were convinced to be with this initiative so as to assist UC Dschang in organizing and institutionalizing the course. This support should extend over three to four years. Concurrently the network sought and provided most of the funds required. The first course was organized in january 1988 and was designed for Dschang teachers-researchers. The organisers of future courses were selected from that group of participants. The first regional annual course was held for 3 weeks in january and february 1990. It hosted 20 participants from 10 countries of Western and Central Africa out of nearly forty applicants (4 other candidates accepted from two countries could not attend at the last moment). The course was organized for francophones. The one planned for next year will be for anglophones. The work and plots of the research/development programme implemented by UC Dschang in the Bafou District were used for the demonstration of the course and for practical exercises on the field. The organizations which support the Centre provided resource persons and teaching materials but the course was essentially given by Dschang teachers. The evaluation which was made by participants was positive. Several improvements must be made in the content and organization of the course. The cost per participant was also very high because participants were lodged and partly catered for outside the University Centre which will no longer be the case. Effort should be made to reduce the costs so that the Centre can bear them more conveniently. The lecturers should also acquire more experience in farming systems research so as to justify the objective of its being a centre of excellence in this field. In addition to the research/development programme in the Bafou District, a second programme in Fotomena district was initiated in late 1989. The first programme which started in 1986 explicitly aims at training the regular students of the Centre in working in rural environment. Teaching materials have already been produced and are used for the courses, exercises and field training of the students. The network encourages such an approach which aims at reforming the teaching practices, the content and objectives of teaching as well as research based on work in rural environment. With time, the experience acquired could be developped and made available to the training and agricultural research establishments of other countries.

In addition to the Dschang course, the network organized in 1988 a ten day workshop on the approach to research/development for twenty-one scientists of the Directorate of agronomic research of Guinea Conakry. Since the request was formulated late and uncompletely, the workshop was limited to a methodological initiation of the future research/development scientists. Following our

suggestions this was complemented by a real training course organized six months later by the CIRAD Agrarian Systems Department.

The second type of training included in the network programme of activities was on scientific writing. This course which was linked to the proposed launching of a scientific journal by the network was to encourage national scientists to disseminate their results. It was to be organized in the same way as the course of the Dschang Centre. The delays in the starting scientific journal hampered its implementation. Nevertheless, members have requested that it should be retained in the next programme.

If the impact of the training component should be assessed it should be actually noted that it has been limited. For example, if one takes the case of Guinea which had to start several programmes it would have taken several years for all the junior scientists to take advantage of the Dschang course. The network must explore the ways and means of meeting the training requirements of national systems better. The ideal thing would be to encourage and help those national systems which need to organize their own training activities. Such an assistance could be in the form of programme development, supply of teaching materials, search for funds and provision of trainers. We feel that this does not debar the existence of regional training courses as the one in Dschang. On the one hand all the countries do not have the capacities necessary for organizing their own training. On the other hand, in some topics or for some countries the needs are not important enough to justify training at national level. The retention and establishment of training courses at regional level seem more appropriate if these courses also give the opportunity of generating and testing teaching materials which will later on be made available to national systems.

Scientific and Technical Information.

Within the planned activities, the 1988-1989 programme gave priority to the establishment of a system for the exchange of information on farming systems research approach, methodology and results. The information exchanges had to be achieved in different activities. The most important was the creation of a documentation unit within the secretariat with the responsibility of collecting, processing and disseminating information. The second one consisted in publishing a quaterly newsletter. Thirdly a scientific journal would be launched and finally the symposium, the workshops and monitoring tours would be organized.

- The role of the documentation and information unit is to promote the exchange of information among members but also with other interested parties. The unit started just in December 1989 with the arrival of the documentalist. The delay of more than a year was due to project misconceptions, particularly the assumption that it was possible to entrust the documentation unit to a locally recruited mid-level documentalist with experience in bibliographic data processing. After fruitless search the profile and qualifications of the

documentalist as well as the cost had to be redefined and therefore the project was reviewed so as to recruit at regional level.

Information collection had begun before the unit started. This collection has become systematic. All the national correspondents have been requested to provide the non-conventional literature produced by the national scientists in the respective countries. The sources of scientific and technical information on FSR have been identified and requested to supply documents, particularly conventional literature to the network. These are essentially international centres and western agencies which specialize in tropical agriculture and have computerized data bases and documentation centres. The unit has a data processing system with a micro computer and suitable softwares (CDS/ISIS and Dbase IV) and has been able to start processing, storage and dissemination of information. In principle as from mid-1990 with an initial stock of about one thousand bibliographic references, user services from the data base should be started. The following altogether services would be provided :

1) A selection of recent bibliographic references with abstracts which will be published in each issue of the quarterly newsletter. The first selection was published in March 1990.

2) A directory of the Network members and a directory of West African farming systems research programmes and institutions. These directories will be produced on the basis of membership forms sent by members and programme records provided by national correspondents. The information on members have already been entered in a database meant for it. The information on programmes and institutions will be entered in April and May 1990. From the two data bases called PROCRE (for scientist profiles) and BAPIR (for data on WAFSRN programmes and institutions) it is expected that the directories will be produced and distributed by the end of the first half of 1990.

3) Selective bibliographies on various aspects of FSR in West Africa, for example on maize-, yam-, sorghum/millet-, based farming systems and on methodological aspects. These documents will be produced from the data base called BIRES (WAFSRN computerized bibliographic data) and distributed to institutions, programmes and individuals.
4) A computerized bibliographic search service .It will be possible to search the data base on request for references relating to any specific aspect of FSR in West Africa. In the long run, the institutions that have computer facilities may receive on disquette a copy of all the references available in the data base.

5) A photocopy and reference service. Members may request photocopies of a limited number of documents available at the documentation unit. In some cases it will be possible to forward their requests for documents not held to other friendly libraries for assistance.

In principle the proposed services should fully contribute to the promotion of information exchange within the network and also with all parties. The priority

given to the litterature produced by national systems and the collaboration with the major information sources should enable the network to perform a function which is not currently possible while avoiding duplication of effort. For example, the bibliographic information processed by the relevant international centres will not have to be processed again but will in most cases be just transferred to the data base. The difficulties likely to be encountered are first related to document collection. The network will have to bear the costs of photocopying the existing documents which national correspondents would collect whereas the funds available for this purpose are limited. The same holds true of the proposed photocopying services and generally for the production and distribution of network publications in sufficient quantity. May be one should consider billing the service costs to some categories of users and limiting the number of free publications for others. It will also be necessary in future to request from donors additional grants for these services.

- The WAFSRN Bulletin is the medium of communication amongst members. It is also a means of informing the individuals and organizations interested in the network activities. It includes several items: information on the network and its activities, information useful for readers, small articles on research or methodology, a section on bibliographic data with summaries prepared by the documentation unit. It was first published in 1986 with the assistance of IITA services and one IITA scientist. After the establishment of the secretariat in Ouagadougou, the coordinator decided to retain provisionally this assistance from IITA so as to maintain the same quality of editing and printing. This has impeded the regular publication of the bulletin. Only four issues in each of English and French were published between 1988 and 1989. This mistake has certainly slowed down the development of the network activities. It was corrected and an issue fully prepared in both languages and printed in Ouagadougou was distributed in March 1990 and a second issue is being prepared and will be published early in July. In future the bulletin should be published every three months. Only 250 copies were published out of which 80% were distributed to anglophone readers. The mailing list has been revised for the last issue, 300 copies of the English version and 200 copies of the French were printed and mailed. A target of 600 copies for mailing by late 1990 seems realistic. As regards the sending of articles or information for publication by interested scientists or organizations there has been no difficulty for the moment. Nevertheless efforts will be made to request more, particularly from francophone national scientists who have not responded much up to now.

- The creation of a semi-annual scientific journal was decided in early 1988 after lengthy discussions. The objective is to enable scientists to publish their results and to make these known at regional level. The journal is not designed only for farming systems research. It is open to any research conducted at least in part in rural environment and integrating the view of agricultural producers. Without the criteria and procedures for selection of the articles being identical with those of international journals they should be selective enough for the articles to be considered as scientific publications. During the Accra general assembly the scientists advocated that the journal should be recognized by the

national authorities responsible for their promotion. Scientists are therefore the essential target of the journal. Some categories of users of research results, extension workers, and staff of non governmental and aid organizations responsible for agricultural policy will also be attracted as readers and possibly authors. To ensure adequate standard, the recruitment of an editor, the establishment of a scientific committee and a procedure of peer review had been provided for. The search for an experienced and bilingual editor which lasted almost throughout 1989 without success led the major donors to wonder about the standard of the journal, the criteria and procedures for selecting the articles and the rationale of a full time editor. Discussions between the network and these donors resulted in a compromise. The new strategy adopted is to launch a journal in which articles submitted by scientists will be published without any procedure of peer review. The network coordinator will play the role of editor. He will select the articles and review them quickly. The selection criteria will be such that junior scientists are sure of being able to publish articles and the quality of the journal would be up-graded as the performance of West African scientists rises. The fear that the access to publish in the journal will be limited to experienced scientists will be removed. It is therefore the strategy which changes but the objective which is to create a journal open to all scientists and not only to an elite remains. The preparation of the first two issues with a selection of the papers presented at the symposium has started and the publication is scheduled for the third quarter of 1990.

- The technical meetings such as the symposium and the workshops are not only aimed at exchanging information. They contribute towards the attainment of all the objectives. The experiences presented and discussed help to improve the methodological practices and to disseminate the technical results. They also help to identify the technical themes and the methodological issues for which collaboration among scientists and programmes is useful.

The facts show that a major part of the scientific litterature produced by national systems is made up of the papers written on such occasions. Asking participants at the technical meetings of the network to write papers is a good way of developing information exchange. As previously indicated this information will be used to prepare the first directory of the programmes and institutions. At the Accra symposium, eighty three papers were presented covering almost all aspects of FSR in West Africa. It can be considered that one or several communications were presented on more than 80% of the FSR or R/D programmes implemented in the region. In future, the network will have to maintain this rule so as to encourage scientists to disseminate the results of their work.

The strategy adopted by the network to promote information exchange should between now and late 1990 start to bear fruit. It should be recalled however that this concerns almost exclusively the scientists. Extension workers and those in-charge of them, non governmental organizations, farmers or at least their organizations as well as agricultural policy makers are not explicitly taken into account. Should this restriction be maintained even if provisionally or should

specific activities be planned for these users? The steering committee should give an answer to this question while preparing the new programme. The implementation of the various activities will also very quickly take up virtually the time available to the secretariat. The problem is therefore how to implement other activities.

Support to National Systems.

More than any other the objective of assisting scientists, national programmes and institutions on their request in planning, implementation and evaluation of their research activities and in seeking for funds raises the greatest problems for the network. In the 1988-1989 programme it had simply been recommended that the coordinator should meet the requirements of national systems within the limits of his competence and the time available. Following the first trips undertaken, the steering committee decided in October 1988 to suspend these supports which might well take too much time to the prejudice of the priority objectives of information exchange and training. Recourse to experienced members of the network was discarded because of the problems of financial compensation and leave authorization which this might entail. The supports given so far are the following:

- Ten day support to elaborating the department of farming systems research and agricultural economics of the Senegalese Institute of Agricultural Research in August 1988. It involved elaborating a methodology for reconnaissance survey for zoning and selection of villages and representative farms and in training the field survey staff.

- Fifteen day support to the Department of Agronomic Research (DRA) of Guinea Conakry in September 1988. It consisted in preparing and organizing a workshop on the approach to research/development methodology for twenty one scientists who would form the regional research/development teams of the DRA. After the workshop, a few days were devoted to preparing proposals for the methodology and organization of institutionalization of research/development in Guinea. On the other hand it was not possible to undertake the follow up consultancy requested by DRA. However they were assisted in obtaining this support from CIRAD.
- Participation in the FSR training course for the teachers/scientists of the University Centre of Dschang in January 1989 for fifteen days. The participation in the organization of the course was an excellent opportunity for preparing the support for the Centre in the establishment of the regional annual FSR training course.

- Participation for seven days in the evaluation and orientation of the Training Programme in Applied Research under Rural Environment by the Department of Agronomic Research (DRA) of Benin in March 1990. This consultancy jointly requested by DRA and the Royal Tropical Institute of the Netherlands (aid agency) was jointly undertaken with a scientist from IITA and a technical adviser from the Ministry of Rural Development. Working with the project scientists and

the DRA officials, the programme activities, the methodology, the technical results and the problems of institutionalization and generalization of research/development in Benin were reviewed. Recommendations on these issues were also formulated.

- It should be added to these specific supports the invitations to participate in the seminars and workshops organized on FSR by national establishments which consider presence of the network advisable.

Has the support provided to national systems been useful to them and to WAFSRN? Unquestionably the answer is yes according to the reactions of the national scientists and authorities.
Both in Guinea Conakry and in Benin, the diagnosis and recommendations made were considered as highly positive by the scientists, the heads of agricultural research and officials of the Supervisory Ministry to whom we submitted them. The fact that we could work in Guinea in collaboration with an ISNAR team responsible for research planning, in Benin with a specialist from IITA, and in Cameroon with specialists from IITA, the French R/D network and the University of Florida makes the consultancies even more significant. The reactions of field scientists and heads of FSR appear to be even more positive particularly because of the comparisons made on this occasion with the experiences of other countries. A further evidence of the interest in these consultancies is that in Guinea, Senegal as well as in Benin, the beneficiaries wished that the network could continue providing this support, which was not possible. For the network there is no doubt that these supports are the most efficient way of collecting information, knowing the potential members, understanding the experience and problems of national systems the area of FSR and consequently orienting its activities. The assistance to national systems proves to be positive for those who appreciate the fact that WAFSRN is not directly linked to donors and provides a good knowledge of the experiences in neighbouring countries. It has also highly positive effects for the network. However it has its set-backs. The coordinator cannot be competent in everything. If one considers the time required for preparing the consultancies and for writing final reports, two consultancies per year should be maximum beyond which other activities may suffer. If in future this objective should be maintained, efforts to achieve it should not be left with the secretariat even if the latter is staffed, because the problem of competences would remain. We feel that two approaches should be explored.

The first would be to integrate the technical and methodological supports requested by scientists and programmes in the collaborative research groups. The experienced scientists working in these groups should be able to respond to the requests.

The second approach would be related to the general aspects: organization, institutionalization, evaluation, search for funding. It should be possible to select among the experienced scientists of the network some ten volunteers from various disciplines and with some experience in FSR management who would

handle the requests submitted by national institutions. This, we believe, implies that the network has specific funds to cover the costs and also to pay them some financial compensation which should not be comparable to the usual consultancy fees.

FUNDING OF THE 1988-1989 WORK PLAN

Following the decisions of the symposium of March 1986 in Dakar, the memorandum of understanding with OAU/STRC, the establishment of a permanent secretariat with OUA/SAFGRAD in Ouagadougou and the completion of a work plan, several donors welcomed the requests for fund by the network.

The International Development Research Center

The International Development Research Center (IDRC) of Canada approved two requests for funds. The first grant involving (IDRC 3-P-86-0272 project) for a two year duration involving 450,000 Canadian dollars which should have ended on November 1, 1989 was extended to April 30, 1990; that is an extension of six months and involving a total amount of 569,467 Canadian dollars. The project supports the operation of the several bodies of the network: secretariat, steering committee meetings, biennial symposium and FSR training workshop of the Dschang UC.
The second grant (IDRC 3-P-87-0107 project) also has a two year duration. It was revised in july 1989. It covers the period from July 1, 1989 to June 30, 1991 for a global amount of 229,000 Canadian dollars. The project supports the creation of a scientific and technical information system: salary of the documentalist, documentation products and equipments for data processing and reproduction.

The French Ministry of Cooperation.

The French Ministry of Cooperation granted FF 700,000 for technical activities planned in the 1988-1989 programme: meetings of national FSR leaders, FSR training workshop of the Dschang UC, workshop on irrigated FSR (integrated in the symposium), editing of documents and supplement for the steering committee meetings.

The Ford Foundation.

Ford Foundation provided a grant of 233,000 US dollars (project 880-1132) for a duration of two years covering the period from October 1, 1988 to September 30, 1990. The project supports the operation of the secretariat (secretary, renting and maintenance of offices) and the establishment of a scientific journal (salary

of the scientific editor, production and publication of four issues of the journal). Since the recruitment of an editor has been cancelled and in view of the delay in the starting the project it is expected that it will be reviewed.

Other Donors.

Other donors participated in the funding of the symposium held in August/September 1989. GTZ contributed 12,000 deutschmarks, the Dutch Ministry for cooperation 49,000 florins, the Gender and Agriculture Project 11,325 US dollars and IITA 6,000 US dollars (in addition to transportation by bus for some ten participants).

A number of observations should be made about funding of the the network. First of all it is diversified enough and except for IDRC, the withdrawal of a donor would require readjustments but would not jeapordize the existence of the network. A comparison with other networks managed by SAFGRAD and international centres shows that the latter have only one donor but this donor grants a higher amount over a period of four to five years. WAFSRN must on the other hand almost permanently devote some time to the search for grants for its various activities and to the preparation of technical and financial reports. Besides the resulting uncertainty and the subsequent cautious attitude, the management of interwoven projects with different schedules consumes much time. It will certainly be too difficult to harmonize these schedules but these hitches would be reduced if donors would agree to make grants over longer periods, for four to five years for example.

LESSONS FROM THE FIRST PHASE AND GUIDELINES

Establishment of a Scientific and Technical Information Network.

The brief note of the activities between 1982 and 1987 and the evaluation of the 1988-1989 work plan show that unlike other regional networks based on a commodity, or cropping system and managed by an international centre, WAFSRN has experienced a long period of embryo. This has not impeded a large membership of scientists as evidenced by their participation in the Accra symposium, the papers presented which cover almost all the FSR programmes implemented in the region and particularly the defined guidelines. Most meetings organized by the network and the discussions and correspondence between the secretariat and members create an impression of a feeling of pride for having an own association. This confirms the option adopted in 1982 by a limited number of scientists particularly West African scientists to make WAFSRN a professional association and not a network of institutions. This adherence of members is also a tremendous asset if it is well exploited and if their expectations are properly met. Nevertheless there is a gap between members expectations on the one hand and the planned activities and particularly the achievements of 1988 and 1989 on the other hand. The

programme established by the steering committee and implemented by the secretariat aimed primarily at making the network first a network for exchange of information and experience and secondly at providing a technical and training support. It is in a second phase that activities likely to make the network a collaborative research network (according the definition of SPAAR) would be implemented to meet the whole of the expectations of members. Then there is no divergence between the needs of members and the proposals of the committee. The priority given to the establishment of a scientific and technical information system and to training activities was quite consistent with the possibilities and predictable constraints of the network: time required for fully structuring the network, for establishing the secretariat and for seeking the financial means needed for the operation and the activities. In practice the difficulties encountered and the delays in the implementation were more than expected. It is therefore quite logical that some disatisfaction may be observed among members and also donors. This should not call to question the essential objectives, which were confirmed by the general assembly in September 1989. Consequently reflection should focus on the strategy and the activities to be carried out.

Since the planned scientific and technical information system is not yet fully operational, it must still deserve priority. The establishment of the planned three data bases on bibliographic, scientists profiles, FSR programmes and institutions respectively, the provision of services to users, the regular publication of the quarterly bulletin and of the semi-annual scientific journal should be the priority task of the secretariat. We feel that the products and services to be supplied to members and users are now well defined and that the secretariat has the necessary staff and means except perhaps for the production of the scientific journal which is a real challenge. A precise and detailed schedule has also been worked out so that everything should be operational between now and late 1990. Therefore, it is up to the steering committee to see to it that this schedule is complied with and that its members and national correspondents effectively support the secretariat particularly in the collection of documents, information and articles to be published in the bulletin and in the journal. A follow-up system will also be established so as to ensure that the products and services provided meet the needs of beneficiaries and to make the necessary readjustments.

Despite the workload for scientific and technical information activities, the coordinator should devote adequate time for training. However, the strategy and activities selected so far must be reviewed. Although the priority given to the training of junior scientists in FSR methodology does not raise any objection one may however doubt whether the training of some twenty to thirty scientists per year is enough to meet the requirements of the national systems of Central and Western Africa. This also lays aside the specific training needed by national scientists already involved in field research. While taking into account the limited means available, the network should define a more flexible and diversified strategy. The key-elements of such a strategy should be the following:

1) Continued support for the University Centre of Dschang for the development of a centre of excellence in the field of training and farming systems research.

2) Encouragement and support for national systems in implementing their own training activities. In this respect the network may fulfil the following functions: to build-up experience in FSR methodology, produce teaching materials and make them available; mobilize the resource persons available in the region so as to assist national systems in the design and implementation of training workshops.

3) Inclusion of the specific training courses required by participants in the activities of the collaborative research groups. This strategy cannot of course be left solely with the secretariat. Its implementation will only be possible if competent individuals within the network are willing to participate.

Advancing to a Collaborative Research Network.

The above priorities and strategy are what can be done within the context of the current organization of the network, the level of staffing of the secretariat and the financial resources available while assuming a real commitment of the members of the steering committee, the national correspondents, the existing competences and the participation of members. In order to achieve other objectives additional human and financial resources, a better organization of the network and a greater participation of all concerned will be required. Since this corresponds to the needs expressed by members and to the expectations of donors there is no reason why it should not be pursued. The movement of WAFSRN from an information exchange network to a collaborative research network will bring with it the real challenge : implementing the programme. For each of the objectives, an attempt may be made to specify the strategies and activities outlined in the 1989-1990 work plan.

The establishment of collaborative research groups with scientists and programmes to plan, implement and evaluate common and priority research themes has been approved by members and two existing groups have already joined the network. Our strategy should aim at systematizing these groups as a priority on the agro-ecological basis so that the approach remains comprehensive and takes into account all the aspects of farming systems and of their physical and socio-economic environment. This should not exclude however the establishment of working groups on more specific issues such as women in agriculture. It is evident that network members relate the creation of these groups to the availability of additional funds for the chosen activities. This implies that each group should prepare a precise programme of activities with cost estimates that the network should seek the funds required. The secretariat will have to resort to external competences to perform this task, and approach more donors apart from the current ones. Even if each collaborative research group must organize itself with volunteers to carry out these activities it will be necessary to strengthen the secretariat and the management support provided by SAFGRAD in order to 1) manage funds and maintain proper relations with

donors ; 2) assist group leaders in implementing the activities; 3) and ensure effective interaction between collaborative research and other network objectives. Indeed, if the activities of the collaborative research groups concern mainly planning, implementation and evaluation of field activities, they should not preclude training, improvement of methodological practices, support to scientists and programmes not to mention information exchange. These groups must be such as would facilitate close attention to the needs of national scientists, programmes and institutions. While allowing them maximum autonomy, the secretariat will have to coordinate and particularly to develop the results for the use of the entire network and other interested parties.

The improvement of methodological practices is an objective already adopted by the maize and cassava-based farming systems collaborative research groups. It should be the same for all other groups to be created. Through technical meetings, monitoring tours and training workshops, the methodological issues identified will have to be considered. In the area of training also, the support to national systems and particularly the development of teaching materials will give priority to these issues. The network strategy would not however be complete if there were no mechanisms to formulate recommendations and consequently to harmonize methodological practices. Since an inventory of the methodological problems faced by scientists has been made after the Accra symposium a simple mechanism can be proposed so as to start solving them. As a first step each methodological problem would be assessed by means of case studies requested from national scientists and programmes of an analysis of the existing literature. Secondly, a workshop of harmonization or consensus would have to formulate recommendations for practitioners. The network would be responsible for disseminating these recommendations. For the implementation of such a mechanism it will be necessary that those who will work on it viz writers of case studies, people in charge of the analysis and synthesis of the existing literature, and of the harmonization or consensus workshop should devote the necessary time and therefore should receive some financial remuneration.

The support to national scientists, programmes and establishments cannot be separated from the other objectives of the network. The experience of the last two years shows that it is not expedient to leave it to the secretariat which has neither the multiple competences, nor the time for undertaking it alone. For this objective to be achieved, we feel that the strategy must recognize two aspects: the support to scientists and programmes, and the support to national systems.

The support to scientists and programmes is largely provided through the activities of information exchange, training and collaborative research outlined above. It should be complemented by giving to scientists and programmes the opportunity to benefit from specific and individualized supports from more experienced scientists within the collaborative research groups. On the other hand, as indicated, the national research agencies may expect a support complementing those already provided by donors and international centres in the area of FSR planning, evaluation or institutionalization and/or funding

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request. To play this role of advisor, the network may select volunteers from its most experienced members to respond to requests.

CONCLUSION

The lessons from the implementation of the 1989-1990 programme are clear enough.

The first one which may look obvious for a network is related to communication between members, the steering committee, the secretariat and donors. For the committee and the secretariat, it is imperative to know the needs of members, to inform them about the planned activities and consequently to have them participate. It is also necessary to inform donors in order to obtain their support and avoid misunderstanding, and misconception of the objectives and strategies of the network by them. The mistakes in the formulation of the scientific and technical information component and the time taken to correct them illustrate well enough the need for a good communication between the various parties concerned.

A second lesson relates to the preparation of the next work plan. The essential objectives of the network are not questioned by anybody. On the other hand, everybody would like them to be implemented which of course cannot be done concurrently in view of the resources available. Based on the experience gained and on the difficulties encountered, the committee and the secretariat must therefore pay a particular attention to preparing the strategy, defining the activities, articulating them and establishing a realistic schedule. It would be better to present and discuss this programme with members particularly through the quarterly bulletin of the network, and also with donors. Also important are the definition and implementation of a regular follow up/evaluation of the activities which should be complemented by periodic surveys among members in order to ascertain the correlation between their expectations and the services provided and to make the necessary adjustments.

An external evaluation every four or five years could usefully complement this mechanism.

A third lesson relates to the participation of all parties in the activities. The network cannot rest on the shoulders of the secretariat and of its coordinator in particular even if a better planning and a better organization could accelerate performance. The committee should show an example by assisting the secretariat in the selected activities. National correspondents are also requested to collect publications and to encourage scientists to participate more actively. We shall be able therefore to very quickly see whether our expectations are justified.

We feel that the network is emerging from its period of embryo to its objectives with a good organization and a good adherence of its members. The activities carried out so far such as the meeting of national FSR leaders, the biennial symposium, the FSR methodology training course and the supports provided to national systems, have been undoubtedly successful. Consequently the achievements of the 1988-1989 programme are not negligible and there is ground for optimism for the next programme.

1990-04

WAFSRN WORK PLAN 1988-1990

AU-SAFGRAD

AU-SAFGRAD