CONSULTATIVE GROUP ON INTERNATIONAL AGRICULTURAL RESEARCH

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October 17, 1974

TO: Members of the Consultative Group

FROM: Executive Secretariat

SUBJECT: WARDA -- Report of Secretariat Mission

1. Attached is the draft report of a mission which visited WARDA in September 1974 as a result of the discussions during the 1974 International Centers Week on WARDA's program and operations. The report "Proposals for Strengthening the Research and Financial Management of the West Africa Rice Development Association" is intended as a basis for discussion of WARDA under Item 2b of the Provisional Agenda for the Consultative Group meeting to be held on October 30-31, 1974.

2. The report is an interim one in that, while it is based on the joint field work and discussions of the three mission members, there has not been time to clear a final text with the Secretariat of the Technical Advisory Committee which was represented by Mr. Devred. It is circulated now in the interest of helping Consultative Group members reach a decision on financing for WARDA in 1975. The text has also been sent to the TAC Secretariat and to the Chairman of TAC, Sir John Crawford, who will attend the Consultative Group meeting.

Attachment

PROPOSALS FOR STRENGTHENING THE RESEARCH AND FINANCIAL MANAGEMENT OF THE WEST AFRICA RICE DEVELOPMENT ASSOCIATION (WARDA)

DRAFT REPORT OF THE SECRETARIAT MISSION

(J. K. COULTER, SCIENTIFIC ADVISER, C.G. SECRETARIAT,
M. E. RUDDY, REPRESENTING THE PROGRAMMING AND BUDGETING DEPARTMENT OF THE WORLD BANK, AND
R. DEVRED, REPRESENTING THE TAC SECRETARIAT)

October 17, 1974

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CONCLUSIONS

1. Rice in West Africa is grown over a very wide range of environments and in a great variety of farming systems.

2. Any one station can cover only a very limited part of these conditions so that at least five adequately staffed research stations are needed to carry out adaptive research.

3. These stations would investigate local weed, pest, disease, soil fertility and water problems and adapt IRRI and IITA materials and production techniques to overcome these problems.

4. Several of the national programs in the area are under-staffed, under-equipped and with large requirements for research on other crops to undertake adequate programs on rice. Thus a cooperative program directed by experienced researchers is likely to make more progress than a series of un-coordinated national programs.

5. The Association has now been functioning for nearly three years and experience to date shows that certain changes are necessary, especially re-structuring of the management of research, budgeting and training functions. Given time to carry out these actions, WARDA should be in a position to make substantial contributions to rice production techniques in the region.

RECOMMENDATIONS

1. WARDA should appoint a research manager with adequate experience in international agricultural research.

2. The research manager and the research coordinator should develop an integrated plan showing priorities for research, staffing patterns and budgetary requirements for an overall program which would eventually integrate the present loosely defined W-1 to W-4 programs. Such a plan must take into account such constraints as the availability of staff, the availability of finance, the need to establish the scientific and financial soundness of the organization, the need to build up infrastructures at some of the stations and the logistics of organizing a research program over such a wide geographic area. This program should indicate the benefits to the individual countries in the region as well as to the region as a whole.

3. In 1975 the CGIAR should continue its support for WARDA at about the 1974 level. Such support would be used to maintain the more important parts of the W-1 program and finance the appointment of the research manager.

4. WARDA should develop the concept of an annual approved budget and a related financial plan. The budgeting should be linked to the short and medium term internal planning and programming of the institute. The Governing Council should be presented with an annual budget that shows WARDA's proposed operations and costs for the year ahead. For these purposes, the budget format in use throughout the system of international centers should be adopted.

5. Budget management responsibilities should be assigned to program managers.

6. The training program for staff to operate in rice research and production systems in the region should be critically examined. The need for different types of training, the availability of staff with the requisite basic training, the need for facilities and staff, taking into account those already present in the region should be assessed. The cooperation of IITA and IRRI in overall planning of this program is strongly recommended.

7. The role of the various committees should be re-assessed with a view to reducing their number. Provided that the re-structuring of the management of research and budgeting is done, the Steering Committee could be allowed to lapse and the Scientific and Technical Committee strengthened by the addition of two scientists from outside the region, one of whom might act as chairman.

8. The progress in carrying out these recommendations should be assessed in mid-1975.

PROPOSALS FOR STRENGTHENING THE RESEARCH AND FINANCIAL MANAGEMENT OF THE WEST AFRICA RICE DEVELOPMENT ASSOCIATION (WARDA)

Draft Report of the Secretariat Mission

INTRODUCTION

1. The mission, consisting of J. K. Coulter, Scientific Adviser, Consultative Group Secretariat, and R. Devred (FAO) representing the TAC Secretariat, arrived in Dakar on September 15 and left Monrovia on September 29. They were joined by Mr. M. E. Ruddy, representing the Programming and Budgeting Department of the World Bank, in Monrovia on September 23. The mission visited rice research stations in Senegal, The Gambia, Mali and Liberia; details of the mission's itinerary are given in Annex I.

2. Although rice consumption in West Africa is small compared with that in Asia, it is still a very important crop in most parts of the region and whilst comparable ecological zones exist in Asia there are very significant differences in the importance of these. Thus, mangrove swamps are important in Sierra Leone, The Gambia and Senegal; semi-flooded, inland valley swamps with very poor soils, some with high iron toxicity, are important in Sierra Leone, The Gambia and Nigeria. Non-flooded, rain-fed rice is grown in most countries of the region. Irrigated areas in Senegal and The Gambia have cool winters and hot summers with high insolation and low rainfall, whilst other countries have heavy rainfall, with one or two peaks and with much cloud cover during the growing season. Rice production systems in West Africa are often quite different from those in Asia for the cultivation of the crop is closely allied with farming of dry-land crops.

3. There is no doubt therefore that a great deal of adaptive research is needed on the IRRI materials and on the production techniques which have been developed there. In larger rice producing countries this is obviously part of the national program but the scattered nature of production in West Africa and the limited national programs fully justify a cooperative regional effort, provided such an effort has an appropriate structure for planning and managing the budgeting and research programs.

4. Following the decision of the international conference in September, 1969, to create the WARDA organization, a number of meetings and seminars were held and consultants helped identify problems and list priorities in order to institute research programs. In March, 1971, these were stated in a medium-term work program (Annex II) and were subsequently compressed into 14 research projects for presentation to the first session of the Governing Council in May, 1972. At the instance of TAC, further discussion between the Executive Secretary of WARDA and the representatives of IRRI, IITA and IRAT led to the decision to have a research program consisting of coordinated trials, referred to as W-1, and three special research projects, W-2, W-3, and W-4.

5. The political, scientific, technical and financial management of this unique organization is shared by four committees whose mandates are executed by the Executive Secretary. These consist of:

(1) the Governing Council, comprising one member from each of the 14 participating countries listed in Annex III; such members are usually at the Director of Agriculture or Ministerial level.

(2) the Scientific and Technical Committee consisting of five persons from the participating countries at the Director level and two outside scientists.

(3) the Advisory Committee with six scientists from within the region, some concerned with rice research, and 11 from outside the region representing donors or potential donors; IRRI, IRAT and IITA are also represented.

(4) the Steering Committee (set-up at the instance of the Consultative Group) consisting of 8 scientists from within and outside the region.

6. In general terms, the Governing Council has responsibility for the overall policy of WARDA, the Scientific and Technical Committees endorses the research program, the Advisory Committee the financial program, and the Steering Committee is intended to over-see the conduct of the research program. The Council and its Committees meet at least once per annum. Obviously, such a large management structure is expensive and WARDA's budget for travel of headquarters staff and meetings is $65,200 for 1974.

7. The WARDA program is organized in two action departments: research and development. The development department initially contained the training section but this has been transferred to the research department. Our mission was concerned only with the latter department.

THE RESEARCH PROGRAM

8. Initially a very large research program was put forward for WARDA's activities but eventually this was cut down to four components:

(a) W-1, coordinated variety and fertilizer trials;

(b) W-2, varietal improvement;

(c) W-3, soil fertility; and

(d) W-4, plant protection.

The W-1 Program

9. The W-1 program is the only program concerning the Consultative Group at the moment, which provided $575,000 in 1974 and which has been requested to provide $790,000 in 1975. WARDA's own documentation on the W-1 program has already been circulated to members of the Consultative Group and of TAC.

Basically the fertilizer trials use a standard design allowing the inclusion of two locally recommended fertilizer dressings and are laid down at appropriate stations for rainfed, irrigated, deep-flooded and floating rice throughout the region. The varietal trials cover the same ecological regions and use short, medium and long duration varieties; these are chosen from between 60 and 70 varieties, both local and introduced into the region. Standard conditions for experimental design, planting techniques, growth and yield recording, etc., are laid down so that results from such sites are comparable.

10. The work is coordinated centrally in Monrovia where there is a research coordinator, a soil fertilitizer trials coordinator, a varietal improvement coordinator, and facilities for the statistical analysis of the results.

11. At each site there are two monitors or field assistants who have undergone the three weeks training program by WARDA in Monrovia and who supervise the day-to-day work on the trials. At some stations they are under the direct control of a research scientist, at others they work without such day-to-day supervision and may be visited only at infrequent intervals by a research scientist.

12. Up to the present all the trials have been on research stations; WARDA does not have trials in farmers' fields. Twenty-eight research or experimental stations, including IITA, in 12 countries are taking part in the project. This mission was able to visit seven of these sites in Senegal, The Gambia, Mali and Liberia. It is probable that the conclusions drawn from the visits to these sites would be generally applicable.

13. From these visits we have concluded that the trials are being laid out and conducted according to the directions given in the program. Designs are followed carefully, the trials are properly labeled and cultural conditions are good. We conclude therefore that the results of the trials at the experimental stations, where there is a scientist in charge, have good reliability.

14. We do not have such faith in the results from sites where there is no scientist in charge. At one such site, Richard Toll, the fertilizer trial had to be resown because of poor irrigation management by the field assistant. We were not able to visit the Kogoni and Sicasso stations in Mali which are supervised only by field assistants with infrequent visits from the research scientist at Mopti, 700 km distant; we feel that adequate supervision cannot be given at such long range.

Advantages of the W-1 Program

15. Although the success of the W-1 program has depended on the presence of scientists at the stations rather than control exercised from headquarters in Monrovia, the program has nevertheless had a useful impact.

(a) Considering the problems involved in financing the program, the scattered nature of the trials and the geographic area covered, the program has got off to a good start.

(b) It has introduced, to the government policy makers, the idea that cooperation in a region with small scientific resources is beneficial.

(c) It has brought the rice scientists in the region together so that they can meet and discuss mutual problems.

(d) It has provided training for a number of assistant grade staff in the conduct and management of field experiments on rice. This experience will be invaluable for new programs including those in farmers' fields.

(e) It has emphasized the need for considerable modification of the IRRI varieties if they are to be successful in West Africa. Perhaps the most striking example of the need for this is the destruction of IRRI varieties by blast in the rainfed conditions in Suacoco, Liberia, whereas locally selected varieties have shown almost total immunity.

(f) It has emphasized the need for much adaptive research because of the wide range of climatic, soil and biological conditions in West Africa.

Problems in the W-1 Program

16. During the visits to the experiment sites a number of shortcomings were noted. Most of these should be remedied as the program develops, but they are recorded here to indicate the problems which the program has encountered.

(a) Most stations have had fertilizer trials for some years and the response to fertilizers is already generally known. A standard trial cannot provide sufficient flexibility to allow for the wide range of fertilizer needs between say the high sunshine areas of northern Senegal and Mauretania and the low sunshine areas of Liberia and Sierra Leone. The value of standard fertilizer trials carried out over a wide range of ecological conditions is limited and whilst these trials have been useful in introducing WARDA to the region this program should be restructured in the near future.

(b) Whilst the varietal trials do serve a useful purpose in showing how rainfall, for example, can influence blast attack, the varieties cannot cover all the ecological areas; for example, cold tolerance for the winter crop is of major importance in Mauretania, northern Senegal and The Gambia, but of no interest elsewhere.

(c) Scientists at some stations regard the trials as a rather unwelcome addition to their already over-loaded work program. In other words, they feel that they have had to use scarce resources on projects which they consider as having rather low priority. An example of this is the fact that a number of stations have brought in varieties from outside the WARDA program to include in their own programs. This problem can be overcome in the future by planning to have a more flexible program based on cooperation rather than complete coordination.

(d) Seeds supplied by WARDA sometimes arrive late, in too small quantities, with poor germination and with mixed strains. Length of growing season was sometimes wrongly classified. These are problems which should be overcome as WARDA gets its seed treatment and distribution facilities, now nearly complete, into action. It should then be able to send out properly treated pure seeds in time for planting.

(e) It has been stated that all imports of rice seeds into West Africa should go through the quarantine station at Ibadan. At the moment there is, in fact, a considerable amount of direct importation into countries of the region. This is not to say that such imports are irresponsible for the seeds come in accompanied by the appropriate phytosanitary certificates but it does suggest that, if WARDA is to take sole responsibility for importation and quarantine of rice seeds in the region, facilities will have to be greatly improved and the process speeded up. In this connection, funds for a glass house at Ibadan are being provided by WARDA.

(f) The detailed measurements to be made at each trial, for example the grain to straw ratio, moisture content of grain, require space and facilities which some stations do not possess; these additional measurements put another burden on the limited resources of the research station.

(g) In addition to paying the salaries of the two field assistants at each site, WARDA pays $300 for each experiment. Some stations say that this is insufficient to cover costs of an experiment, but this is obviously a reflection of the way in which costs are calculated;by including additional overheads, higher costs per experiment can be shown. Some stations regard the WARDA trials as an additional source of revenue. The longer-term policy should be that the countries themselves finance the trials and pay the salaries of the field assistants; this should apply particularly to any trials being done outside the stations on the farmers' fields. The cost of the trials in 1974 was budgeted at $275,000, i.e., about 50 per cent of the total W-1 WARDA budget. Recommendations for more stringent financial controls on the disbursements for these trials are given in the section on strengthening the financial management.

(h) Problems of supervising these trials from headquarters in Monrovia have not been fully appreciated. It is beyond the resources of the present staff to make a useful visit to each station at critical times like planting, during the growing season and near harvest. Until a proper program for visits is set out, the amount of time involved and the work to be done in connection with these trials cannot be realistically assessed; this shold form part of the overall research planning program.

(i) A varietal testing program in the absence of a varietal improvement or breeding program is of limited value; hence the necessity to integrate this part of W-1 into the W-2 program.

(j) Success of any program of coordinated or cooperative trials depends on the presence of competent scientists at experiment stations in the countries of the region. This gives rise to anomalous situations in which the stations which need the trials least do the best job whereas those stations with few scientific resources can do very little in the way of helping with the trials. Furthermore, several stations still depend heavily on expatriate scientists, whose position can change rapidly so that stations which are well supplied with scientists at one time can be without them a few months later. This will necessitate the strengthening of some stations, possibly under WARDA auspices. Where scientific supervision is weak, different types of trials may be necessary with reliance placed on quantity rather than quality.

TRAINING

17. This program has been transferred from the development department to the research department. WARDA has organized training at two levels:

(a) A three-week course in Monrovia for the field assistants; these trainees then return to their own country and work in the W-1 program.

(b) A six-month training program in rice production for trainees having a qualification equivalent to ingenieur de travaux, that is a middle grade agronomist.

18. For the first kind of training, WARDA has no control over the type of candidates and views were expressed at some research stations that such staff could be better trained on-site where they would thus be familiar with local problems. This would also alleviate the difficulty created by a common course whereby staff from some centers have to be released at a critical time in the research program in order to fit in with the course.

19. As regards the six-month training program, the first course was run at IITA and WARDA has requested that such courses take place annually. However, IITA, in view of its committments for training in other crops, can offer only a course in alternate years. This has led WARDA to propose setting up facilities for the six-month training at its headquarters in Monrovia, but so far only the Kuwait Fund has provided finance ($150,000) towards the establishment of these facilities.

RECOMMENDATIONS FOR STRENGTHENING THE RESEARCH MANAGEMENT IN WARDA

20. WARDA, because of the way in which it has been constituted, suffers not only from problems that any center encounters in trying to operate a program in an area where national research programs are generally weak, but also functions with an administrative structure which contains too many committees.

Initially such committees can undoubtedly contribute, but they are no substitute for scientists planning and operating a program in the field. Committees also exacerbate the difficulty of deciding on research priorities because each meeting tends to come up with new recommendations and new projects, themselves worthy, but impossible to institute with the existing resources. In spite of this, WARDA has managed to start a research program in the region; this is not a highly developed program but it is nevertheless an indication of what can be done. If WARDA were to be deprived of its role in research, then the centers, IRRI and IITA, would find it more difficult to operate effectively in this area.

21. The mission believes that there is a good case for re-structuring the research department of WARDA in such a way that it can play an increasingly important role in the region. This role may be defined as:

(a) helping to strengthen the national research programs;

(b) carrying out adaptive research in certain key centers where there are specific problems in rice production in the region;

(c) collaborating closely with IRRI and IITA so that the more basic work of these centers can be modified effectively for improving rice production; and

(d) organizing training activities for staff involved in both research and production so that the training is closely related to the problems of rice producing systems in West Africa.

22. The mission therefore suggests that the research program of WARDA be re-organized in such a way that the W-1 to W-4 programs can be integrated and that a set of priorities be worked out within this integrated program, taking into account the resources that are likely to be available from the donors who are contributing or propose to contribute to the research program of WARDA.

23. To do this effectively, WARDA will need to improve its program and budget process and recruit an experienced research manager for a period of at least two years to work with Dr. Will, the Research Coordinator. By doing so it can develop an integrated program, establish priorities, work out a modus operanda for coordinating with the international centers and ensure the recruitment of the right staff. The Centers, on their part, would work through WARDA rather than outside it. With this reorganization, it is hoped that WARDA would be given sufficient time to develop programs and to establish the confidence which the donors require before they will fully support such programs. The mission emphasized to the Executive Secretary of WARDA the importance of strengthening the scientific and budgeting capability of WARDA in order to attract donor finance. Terms of reference for the research manager are given in Annex IV.

24. The mission also emphasized the need for WARDA to devolve the responsibility for planning and budgeting the research program to the Research Coordinator so that he has adequate control over this program.

INTEGRATING THE W-1 TO W-4 PROGRAMS

25. Integration of these programs will have a high priority for the restructured management. Amongst the problems requiring consideration are the following:

(a) Adaptive breeding work. As outlined in Annex I, a considerable amount of breeding work is under way at several stations, but some important problem areas need additional resources. These include breeding for cold tolerance to give varieties which can be used in the winter period in northern Senegal, Mauritania and The Gambia and tolerance to iron toxicity. There is some good work on the latter at Suakoko in Liberia; continuation of this work is important. Breeding for tolerance to salinity and acidity will be done at Rokupr. This work should be of value in Sierra Leone, Guinea, The Gambia and southern Senegal, and parts of the Senegal River Valley. The program for dryland, rainfed rice at Bouaké and IITA should take care of the major problem of breeding for resistance to blast. An area of great importance is in Mali where deep water and floating rices are needed. At the moment there is little capability for rice breeding at the Mopti station and a plant breeder should be stationed there as part of the overall program.

(b) Weed control. Major problems in weed control are those of wild rice in northern Senegal and Mauretania, and weed problems in rainfed rice. As far as irrigated, flooded and swamp rice are concerned, the farmers themselves have systems to deal with weeds. The problem of wild rice in Senegal is important especially if mechanized cultivation is to be expanded. As far as weeds in rainfed rice are concerned, the trial at Sefa has shown that none of the presently available herbicides are as effective as hand-weeding. The use of hand-weeding depends on the amount of labor involved and a study of weeds in rainfed rice should include investigations on the farmers' labor inputs. Weed problems are location-specific, and research programs will need to be set up accordingly.

(c) Soil fertility. The use of local rock phosphates should be investigated especially in the inland valleys where the soils are acid and very poor in phosphate reserves. So far soluble phosphates appear more efficient than the insoluble local rock phosphates but further investigations on the residual value of the latter would appear to be worthwhile. Another problem in soil fertility is the management of the acid sulphate soils which are common in Sierra Leone, Guinea and southern Senegal. So far the farmers' management system on these soils appears to be as good as anything the scientists can devise. The acidity can be controlled by using large dressings of lime, but this is uneconomic as it has to be imported. Other ways of managing these soils using leaching with rain water or sea water need to be devised.

(d) Pests. Stem borers cause serious damage especially to floating rice. At present levels of production in the region, the best means of dealing with the pest problems is the breeding of varieties which are more tolerant that those presently available. In this connection, crossing *Oryza glaberrima* and *Oryza sativa* may produce some useful hybrids.

26. In integrating the W-1 to W-4 programs, the aim should be to make certain that some stations have enough scientific competence to cover one program well rather than trying to cover all the problems of rice production in West Africa. Thus it is desirable to build up a few good centers in the area. Richard Toll, Sefa and Djebilor in Senegal, Kaedia in Mauritania, Sapu in The Gambia, Mopti in Mali, Rokupr in Sierra Leone, Suakoko in Liberia, Bouaké in the Ivory Coast as well as IITA could be considered. These stations, with adequate staff and equipment, should be able to cover the major problems of rice growing in West Africa.

LINKAGES BETWEEN THE RESEARCH AND DEVELOPMENT DEPARTMENTS

27. WARDA has also an advantage, not available at other institutes, of a development department which is concerned with projects for developing rice throughout the region; this department should be able to inform the research department of WARDA where applied research is needed and where there are bottlenecks because of lack of knowledge and information. The development department could be particularly helpful to the research department by indicating ways in which the work of the latter could be made more effective and by defining farmers' attitudes to adoption of improved methods of production. The development department should also be able to quantify more clearly the major types of rice production and identify areas where progress is most likely to be made. This department should also be able to outline the training needs of the countries in the region and to convey these to the research department so that appropriate training programs can be organized as regards both the numbers requiring to be trained and the type of training needed.

EXTENSION

28. There is no doubt that there is even now a considerable gap between what has been done in the research stations and what the farmers are doing; and during visits to a number of research stations this gap was emphasized. Nevertheless, there will be an increasing need in the future to get the results of the research stations out to the farmers; at the moment this would not seem to be the role of WARDA but rather of the national research programs; nevertheless, WARDA may have to take some initiative in organizing ways of doing this; the training program whereby staff are being trained initially to work on research stations could be extended to train such staff for experimental and demonstration work in farmers' fields.

THE FINANCIAL MANAGEMENT

29. In its review of WARDA's financial practices, the mission considered its central task to be:

(a) To assess the extent to which the financial management procedures in use would ensure that funds received from donors are well managed, and

(b) To make specific recommendations if it felt improvements are needed.

Our assessment of the major elements of WARDA's financial management system (accounting and internal accounting controls; planning, programming and budgeting; and financial reporting - including the external audit report) are discussed in turn.

Accounting and Internal Accounting Controls

30. During its first year and a half of operations, WARDA's accounting office had more than its fair share of start-up problems. The first Chief of Administration and Finance, and the original Chief Accountant, were not able to organize and implement satisfactorily the "imported" FAO accounting system adopted by WARDA, nor were they able to establish basic budgeting procedures.

31. Following discussions with the external auditors (a Ghanaian firm) at the time of their first audit in the early spring of 1973, WARDA engaged a local Liberian public accounting firm to set up a more manageable accounting system. Recommendations for a new system were available in July 1973 and shortly thereafter work began on converting the accounts to the new system. This work was ongoing in October 1973 when the current Chief of Administration and Finance was appointed, under a UNDP grant, and he took additional steps to put WARDA's accounts in order. With the assistance of a staff member seconded from the Ghanaian auditing firm, work began on reconciling all bank statements since WARDA's inception and analyzing prior disbursements by project and source of funds for the purpose of reconstructing the accounts under the automated system developed by the Liberian public accounting firm. This work was completed only in mid-September 1974 just prior to the arrival of the mission.

32. As a result of these actions, WARDA now has a fully satisfactory system of accounting which (a) properly classifies and records transactions according to source of funds, project or activity, location of activity, and object of expenditure, and (b) is capable of meeting the basic needs of WARDA's management and donors for financial information.

33. Based on our review of the system of internal accounting controls and checks over the receipt and disbursement of cash, we believe that in general the procedures in use provide adequate safeguards and should ensure the integrity of accounting records. There is, however, one area of disbursements (advances on trials under the W-1 program) where the accounting procedures and controls need further attention. It is WARDA's practice to advance to national research institutions 75-80 per cent of expected field trial costs and require that the institutions account for these advances at the completion of the trials by submitting an "Imprest" Report (see sample attached as Annex V). In most cases, no supporting documentation is provided with the report and its acceptance by WARDA rests on the fact that a responsible official of the executing institution signs the report. Apart from the problem of suitable documentation for the report, it has proven difficult to get completed reports on time. Most of the reports reviewed by the mission were six months or more in arrears and incomplete (amounts advanced not shown, name of staff employed not provided, etc.). Reports for trials in one country are a year in arrears and still outstanding.

34. Since some $275,000 or 50 per cent of the W-1 grant is being disbursed on trials, we believe it is necessary for WARDA to tighten its accounting procedures with respect to these disbursements. A number of possible steps were

discussed with the Chief of Administration and Finance and with the Executive Secretary, and these are outlined in the recommendations.

Budgeting

35. Partly because the original financial officers lacked the capacity, and partly because the officers now in post have been preoccupied with sorting out the basic accounting records, WARDA does not as yet have an effective budgeting system. There is, however, a detailed set of tables showing the cost of staff and other requirements for each program or activity (the Secretariat, the Development Program and the Research Programs - W-1 through W-4), for the period 1974-78, but since important parts of most programs are not funded, or only partially funded, the tables show a combination of notional and "budgeted" costs. Moreover, the programs that are funded have elements in them for which the funding lapses at different time intervals. In consequence, the concept of an annual approved budget and a related financial plan is lacking. This was apparent from conversations with both the financial staff and the Executive Secretary; in describing WARDA's work program, actual (funded) operations were not always clearly separated from aspirations.

36. In practice, WARDA's management presents annually to its Governing Council, through the Advisory Committee of the Council, a detailed budget for the Secretariat (which is funded by the member states) and a description of the actual support received from various donors during the past year and amounts expected for the coming years. However, the presentation is narrowly focused; it does not present a total picture of WARDA's proposed program of work for the coming year nor does it put the budget year in the perspective of the longer term plan. Given the nature of the budget presentation, it seems that the Governing Council is not asked to judge or endorse the total budget on an annual basis and, consequently, the Council has no basis for assessing annual performance toward longer term objectives or cost performance against an approved budget.

37. In addition to the detailed budget for the Secretariat, WARDA provides potential donors with a detailed budget for programs they are asked to fund. Once agreement is reached with a donor, who seems to be able to influence or alter substantially the program being funded, the agreed budget is recorded in total in WARDA's accounts, but without regard to a specific financial year.

38. The mission regards the absence of a sound budgeting system, leading to an annual budget for all of WARDA's activities approved by the Governing Council, as a major weakness in WARDA's financial management system. Improved budgeting is a basic element in determining the level of support for WARDA by the Consultative Group.

Financial Reporting

39. Because of problems with the accounting system, WARDA has not been able to prepare regular internal financial reports throughout 1974 (the last trial balance was prepared in November 1973). However, a trial balance through September 15, 1974, was in preparation at the time of our visit and from the end of September WARDA should not have difficulty in preparing some regular internal financial reports.

40. Since its inception, WARDA's external auditors (Issifu Ali and Company - a Ghanaian firm of Chartered Accountants) have prepared three reports:

(a) a report dated December 4, 1973, to the Chairman of the Governing Council certifying to the total level of expenditure for the 22-month period ending September 30, 1973, (copy attached as Annex VI);

(b) a report dated May 31, 1974; to the Executive Secretary commenting on the Association's accounts; and

(c) a draft standard short-form audit report to the Governing Council, to be dated and signed when the accounts are adopted by the Council in November 1974, covering the first 25 months of WARDA's operations ended December 31, 1973. This report (copy attached as Annex VII) includes a standard balance sheet and statement of revenue and expenditure, as well as a more detailed schedule of expenditures showing staff and cost by major function.

41. As required under various grant agreements, WARDA provides periodic reports to individual donors accounting for charges to grants.

42. With respect to internal financial reporting and external reporting to individual donors, we believe that the accounting system now in use together with the system of budget reports outlined in Annex VIII, and described in the recommendations below, will be fully adequate.

RECOMMENDATIONS FOR STRENGTHENING THE FINANCIAL MANAGEMENT OF WARDA

43. During the visit, the mission discussed with the Executive Secretary of WARDA and his staff ways in which the financial management could be improved; such improvements should include the following:

(i) Accounting and Internal Accounting Controls. The mission suggested that WARDA consider:

(a) Advancing less of the expected ("budgeted") cost of the W-1 trials and require more complete substantiation of disbursements before additional funds are released;

(b) Sending financial staff to visit individual stations where reports are not received within a reasonable period of time after the completion of trials; and

(c) having the finance staff, or a contracted local auditor, systematically visit field stations for the purpose of determining "standard costs" which could be used as a basis for fixed price contracts - half payable in advance and half payable at the completion of the trials.

(ii) Planning, Programming and Budgeting. The mission suggested that financial management problems could be corrected by establishing procedures that:

(a) Formally link annual budgeting to the short and medium term internal planning and programming of the institution. With respect to this procedure we suggested that a formal mechanism be established for setting medium term goals for the institution. More specifically, we suggest that in July of each year the Executive Secretary distribute general guidelines to program managers outlining WARDA's current situation, priorities and likely constraints over the next two or three years, and call for the managers to submit programs of work that are responsive to WARDA's mandate and to the current guidelines. We further suggested that the financial staff be asked to price out the program of work proposed by managers, and in early September a formal program/budget review session be held with the program directors and the Director of Finance and Administration for the purpose of sizing the program and budget to be brought forward to the Governing Council for approval.

(b) Provide the Governing Council with an annual budget that shows WARDA's proposed operations and costs for the year ahead and places this program of work and budget in the context of a retrospective and perspective time series. With respect to this requirement we strongly recommend that WARDA adopt the budget formats used throughout the system of international centers. In making this recommendation, we recognize the fact that WARDA is not strictly similar in structure and finance to the normal international centers, but we nevertheless believe that this form of presentation would provide relevant disclosure of WARDA's work to its governing body. Moreover, it has the added advantage of aligning WARDA's budget presentation with those of the international centers which will facilitate the CG's consideration of WARDA's requirements. In line with this recommendation, we have drawn up a set of budget tables (attached as Annex VIII) which we suggest WARDA use in presenting its 1975 budget to the Governing Council and as a supplementary document in presenting its 1976 budget for the W-1 program to the CG Group in March of 1975.

(c) Assign budget management responsibilities to program managers. We suggest that once the annual budget is approved by the Governing Council, the amounts provided (that is, funded) be allocated by the Executive Secretary to program managers and that managers receive a regular report informing them of the provisions they are responsible for and charges and committments against various allocations. Annex IXattached provides a sample set of reports that would adequately satisfy this recommendation and other requirements for internal financial reporting. In suggesting this particular system of internal reporting we understand that WARDA does not now have a committment ledger and related procedures and that it would be some time, probably the middle of 1975, before committment data could be included in these reports.

(iii) Financial Reporting. With respect to the report of the independent auditor, we believe that the terms of reference for the annual audit should be drafted or at least approved by the Advisory Committee of the Governing Council and that the format of the audit report conform with the budget presentation made to the Council. This procedure is in line with what is being done in the system of international centers. A suggested audit report format for WARDA is provided in Annex X.

October 17, 1974

ANNEX I

MISSION ITINERARY

1. Bambey, Senegal - September 16. M. Gora Bey

This station, though not concerned specifically with rice, is the central research station for Senegal and gives specialized support in the major disciplines. There is a program to study the physiology of drought tolerance in rice (M. Dancette). This is examining the drought sensitivity of some common varieties used for rain-fed cultivation. In addition rainfall probabilities at each of the research stations in Senegal are being studied so that drought tolerance can be related to the probable incidence of dry periods of varying lengths. There are no WARDA trials at this station.

2. Richard Toll, Senegal - September 17. M. Aubin

This station was started in order to support rice production in the Senegal River basin. There is now a large UNDP project (FAO/OMVS) working on the Senegal River basin study and this has an agronomic research component at Guédé, near Richard Toll and at Kaédi in Mauritania, where there is an IBRD project covering 6,000 ha.

Richard Toll is now being taken over for sugar cane production but 30 ha. have been left for WARDA's seed multiplication activities and the WARDA W-1 trials have been allocated 1/2 ha. All the Richard Toll research activities, on both rice and upland crops, are being transferred to Fenaye, 15 km east of Richard Toll but this site lacks buildings and equipment. The Senegal River basin is typical of only a small area of rice production in West Africa, but yields in summer can be very large, because of the high insolation. However, there is little to be gained from coordinated trials at either Richard Toll or Kaédi as the ecological conditions have little in common with those elsewhere in the region, except perhaps Sapu in The Gambia. Weeds, particularly wild rice, and cold tolerance for winter rice are the important problems. With the lack of facilities at Richard Toll and the fact that there is an UNDP agronomist at Kaédi it is suggested that these two stations could have a low priority in the W-1 program for the coming year.

3. Djebilor, Senegal - September 23. M. Arie

This station is concerned with developing mangrove swamps, with breeding swamp varieties, and with insect pests and soil fertility. There is a large program for introduction of varieties from within and from outside the region and there is also a crossing program to breed varieties for local conditions. An entomologist is studying rice pests, particularly stemborers and the possibilities of their biological control.

WARDA has fertilizer and variety trials and there is also one trial on insecticides. None of the varieties in the WARDA saline tolerance trial had survived the saline conditions (5 millimhos conductivity in the soil solution when the 21 day old plants were transplanted.)

The station has quite a large program of fertilizer trials which overlap many of the tests in the WARDA fertilizer trial. There are two other WARDA variety trials, one with short-term, one with medium-term varieties; as with the fertility trials however these variety trials cover much the same range of varieties as do those in the station's own program. In a discussion on the role of WARDA, the scientists at the station expressed the hope that individual scientists, participating in the program,would have more opportunities to attend meetings.

4. Sefa, Senegal - September 24. M. Pirot

This station is concerned with rain-fed rice and is representative of a large area of plateau land in the approximately 1,200 mm rainfall belt. Rice is grown in rotation with groundnuts and maize or millet. Desirable characters in selected varieties are short growing season and resistance to blast, though the virulence of blast appears much less severe than at Suakoko (Liberia). Weeds are a major problem, 60 man-days/ha. being required by the farmers for weeding. Cyperus rotundus, which is extremely deep rooting, (> 80 cm) on these soils is especially difficult. A herbicide trial showed that some of the herbicides detroyed the rice; hand-weeding was the only effective treatment. To develop a successful herbicide would require a good deal of investigation on timing of application as well as type of herbicide.

Amongst the varieties, the locally made cross, G-302, seemed to be as successful as any of the introduced varieties. Because of good rainfall distribution, crops are very promising this year and yields of up to 4 tons/ha are expected. Farmers' yields in the areas are of the order of 800-900 kg/ha. There is a strong response to fertilizer but leaching of N and K fertilizer is said to be severe. In the WARDA fertilizer trial the locally recommended mixture was about as good as any of the other treatments.

Because of its unimodal rainfall pattern the work on rain-fed rice at this station strongly complements the work at IITA with its bimodal rainfall pattern.

5. Jenoi, The Gambia - September 22. Mr. Janneh

This is a small station with no resident scientist. WARDA has only two variety trials, one medium-term, deep flooded, the other long-term, deep flooded, at this station where the need is for salinity tolerance. Rice is transplanted in late August-early September when the salinity has been diluted sufficiently to prevent damage. In the absence of varieties with adequate tolerance of salinity and deep water there is unlikely to be any response to fertilizers.

6. Sapu, The Gambia - September 22. Mr. Ter Vrugt

As part of the IBRD project, the Gambian Government has retained ILACO to carry out a research and development program at Sapu station and in the adjacent region. The station grows irrigated and rain-fed rice. "Rain-fed" in the Gambian context means swamp rice which may be flooded periodically, in contrast to the "rain-fed" or upland rice of southern Senegal, Nigeria, etc., which is grown on plateaux which never flood. Under Gambian conditions, rain-fed trials are very difficult, for the length of time and depth of flooding has a profound effect on time to maturity and yield. Plots at lower lying points were ready for harvest whilst others were still green. Generally however short-term varieties do best.

The WARDA trials at this station include short-term, shallow water, short-term, deeper water, medium-term deep water and long-term deep water type. The varieties had not always been clearly distinguished however and some of the short-term varieties should have been included with the long-term ones and vice versa. In the standard WARDA fertilizer trial, the maximum N levels were too low for the ecological (insolation) conditions in irrigated rice in The Gambia.

Weeds are not a major problem in irrigated rice and can be controlled by cultural practices and available herbicides. In the "rain-fed" areas they are much more of a problem due to the unpredictable water regime.

Like northern Senegal, cold tolerant varieties for winter cropping are a major requirement in the irrigated area of The Gambia.

6. Mopti, Mali - September 19. Mr. Vuong

Due to aircraft delays there was time only to discuss the experiments with the scientist in charge but not to visit the experimental site.

In conjunction with ORM (Organisation Riz Mali) there is an IBRD-financed polder project near Mopti and this has some agronomic input. Apart from this there is only the IRAT agronomist but the agreement with IRAT is likely to finish soon so that he may be withdrawn.

A solution to the problems of Mopti and rice research in Mali will not be easily found. On the one hand the Mopti area represents an extensive zone of deep water and floating rice of great importance to Mali but potentially of much greater importance to large regions beyond Mali. On the other, the town and station are very remote, facilities are limited and a viable research unit would require extensive support. Nevertheless, research to produce higher yielding varieties, with faster stem elongation

to cope with fast rising floods, later maturing to avoid ripening whilst the land is still flooded and stemborer resistance, would fill a major gap largely neglected in West African rice research. Wild rice is also a problem in this region.

However, it should be the aim of WARDA and the donors to design a realistic program of financing and staffing which would place a viable research unit at Mopti and which would have adequate facilities and infrastructure to support it.

8. Suakoko, Liberia - September 27. Mr. Tubman

Both swamp and upland rice are being grown at this station. Upland rice is grown as part of the slash and burn agriculture in Liberia, being the first crop after the forest fallow. Swamp rice forms a more permanent type of agriculture in the inland valleys. Soils in these valleys often contain toxic amounts of iron and are also very low in phosphates.

The station has an UNDP rice agronomist, a rice breeder from IITA, financed by an IBRD project, and a Liberian rice agronomist. It is thus relatively well staffed and has a good program on rice improvement. Selection for tolerance to iron toxicity has revealed several very promising varieties. WARDA has two rain-fed variety trials, one for early maturing and one for medium-term varieties. These trials have shown outstanding damage by blast on the IRRI varieties but good tolerance by the local selections.

The station has made a collection of almost 800 lines of O.glabberrima and the hope was expressed that the Genes Board would take an interest in this collection.

With suitable varieties and some fertilizer, particularly the development of an infrastructure for fertilizer delivery, the agronomist considers that there is a very good potential for increased rice production in the inland valleys of Liberia and adjacent territories.

ANNEX II

MEDIUM-TERM WORK PROGRAM

LIST OF PROPOSED PROJECTS AND PRIORITIES
(As reported in March 1971 conference on WARDA)

1. Plant breeding

- Drought resistant high-yielding upland varieties;
- Upland and lowland varieties easy to mill;
- Blast and brown leaf spot resistant varieties;
- Lodging resistant varieties.

2. Plant physiology

- Photoperiodism;
- Effects on yield of planting date;
- Best planting date for different varieties.

3. Plant protection

- Plant pathology (emphasis on blast and brown leaf spot);
- Entomology (study of the effects of systemic and tropical insecticides);
- Birds and rodents control;
- Weed control (use of herbicides).

4. Agriculture

- Spacing and sowing rate;
- Studies on crop rotation and use of fertilizers as a way to discontinue shifting agriculture.

5. Development and Soils

- Soil surveys and land classification to determine the best rice soils within the region;
- Fertilizer trials and fertilizer response experiments;
- Study of soil conservation problems under rainfed rice cropping;
- Specific soil fertility problems on rice soils;
- Soil management problems;
- Chemical and physical investigations in connection with soil survey, soil fertility and irrigation development work;
- Salinity problems;
- Inventory of water resources in order to identify the possibilities of extending irrigated rice;
- Study of the best methods to develop lowlands and tidal swamps.

ANNEX III

LIST OF PARTICIPATING COUNTRIES

Cote d'Ivoire

Dahomey

The Gambia

Ghana

Guinee

Haute Volta

Liberia

Mali

Mauritanie

Niger

Nigeria

Senegal

Sierra Leone

Togo

ANNEX IV

TERMS OF REFERENCE FOR THE RESEARCH MANAGER

The research manager would have the following responsibilities and functions:

1. In cooperation with the research coordinator of WARDA, assess priorities, formulate an overall research program and prepare budgets for presentation to the Governing Council.

2. Establish close links with the Centers, especially IRRI and IITA, and with IRAT.

3. Visit the research stations in member countries, establish contacts there, become familiar with their programs and use this information as the basis for planning WARDA's cooperative research programs with the countries concerned.

4. Participate with the research coordinator in discussions with donors on support for the research program.

The research manager would require qualifications and international experience at the level of a Senior Scientist in an international center.

ANNEX V

PROVISIONAL STATEMENT OF EXPENDITURE

COORDINATED TRIALS 1974

(1 JANUARY - 31 JULY 1974)

Country: Currency used: Exchange rate:

Station: Variety trials, number:

Fertilizer Trials, number: Total number of Trials:

Average size of a coordinated field trial:

Total area of the coordinated trials at this station:

I. OPERATIONAL COSTS (of all coordinated trials at this station).

		Total
1.	Actual cost of land preparation	
2.	Actual cost of labour** Number of man-days / Rate per day	
3.	Fertilizers: Type: / Quantity: / Unit Price:	
4.	Insecticides: Type: / Quantity: / Unit Price:	
5.	Miscellaneous:***	
	SUB TOTAL ACTUAL OPERATIONAL COSTS	

II. ACTUAL INVESTMENTS: (for all coordinated trials at this station).

Item	Quantity	Unit Price	
SUB TOTAL ACTUAL INVESTMENTS			

III. FIELD ASSISTANTS: (actually employed for coordinated trials)

Name:	Monthly salary: Cost for 6 months:	
Name:	Monthly salary: Cost for 6 months:	
SUB TOTAL ACTUAL FIELD ASSISTANTS COSTS		
ACTUAL TOTAL COST OF COORDINATED TRIALS AT THIS LOCATION		

Name & Title of Responsible Officer)

Signature & Office Stamp

Date:

* Budgeted amounts per trial: US$300.00 for Operational Costs
US$100.00 for Investments
US$250.00 per month per Field Assistant.

** Employed in planting, weeding, harvesting & general maintenance.

*** Includes: stakes, labels, bags, rope, etc.

ANNEX VI

ISSIFU ALI & CO.

CHARTERED ACCOUNTANTS

PRINCIPAL

ISSIFU ALI, M.A., A.C.A., A.C.I.S.

Telephone 24674

Cables & Telegrams: ALICO

ARKU HOUSE
158A/1, LIBERTY AVENUE
P. O. BOX 6037
ACCRA, GHANA
WEST AFRICA

Our Ref IA/swo.

4th December, 1973

The Chairman,
Governing Council,
WARDA.,
E.J. Roye Memorial Building,
P.O. Box 1019,
MONROVIA, LIBERIA.

Dear Sir,

CERTIFIED EXPENDITURE
TWENTY-TWO MONTHS ENDED SEPTEMBER 30, 1973.

We arrived in Monrovia on October 20, 1973, at the request of the Executive Secretary to prepare a certified statement of expenditure for the twenty-two months ended September 30, 1973. We attach hereto the said statement.

2. In carrying out this exercise we

(a) Examined the system of internal control in operation,

(b) Vouched expenditure incurred for selected periods within the period under review on the basis of the effectiveness or otherwise of 2(a) above, and

(c) Thoroughly examined selected accounts for the twenty-two month period to ensure that the entries made therein were properly charged.

3. The final audit of WARDA's accounts will be conducted in April next year. We shall then submit, in addition to the accounts, our auditors' report on the financial operations of WARDA for the period ending December 31, 1973.

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4. In the course of our interim audit we carried out an appraisal of WARDA's accounting system and procedures. We have submitted to the Executive Secretary our findings and recommendations for the improvement of the existing system.

Yours faithfully,

ISSIFU ALI & CO.

Encl:

STATEMENT OF EXPENDITURE

PERIOD ENDED SEPTEMBER 30, 1973

SECRETARIAT EXPENDITURE		$368,126.07
PROJECT EXPENDITURE		
USAID	$243,430.50	
THE NETHERLANDS	14,680.22	258,110.72
TOTAL SECRETARIAT AND PROJECT EXPENDITURE:		$626,236.79

We certify that the expenditure above is a true and fair view of the financial transactions of WARDA for the period ended September 30, 1973.

Issifu Ali & Co.

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ISSIFU ALI & Co.
AUDITORS

ANNEX VII

REPORT OF THE AUDITORS TO

THE GOVERNING COUNCIL OF

THE WEST AFRICA RICE DEVELOPMENT ASSOCIATION

We have examined the attached Balance Sheet and Statement of Income and Expenditure and have obtained all the information and explanations necessary for the purpose of our audit.

In our opinion, and to the best of our knowledge and belief, the attached Balance Sheet and the Income and Expenditure Statement together with the notes thereon show a true and fair view of the state of the Association's affairs for the twenty-five months ended 31st December, 1973, and of its fund balances for the period ended on that date.

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CHARTERED ACCOUNTANTS

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WEST AFRICA RICE DEVELOPMENT ASSOCIATION

BALANCE SHEET AS AT 31ST DECEMBER, 1973

		$
CURRENT ASSETS		
Cash in Hand and at Bank		46,746
Time Deposit Account		146,475
Receivables - Member States	(Note 3)	216,521
Other Receivables	(Note 4)	34,690
Prepaid Expenses		2,163
Repatriation Fund Investment		2,781
Total Current Assets		$449,376
FIXED ASSETS	(Note 2)	
Motor Vehicles and Bicycles		15,918
Office Equipment, Furniture and Fixtures		46,366
Bungalow Equipment, Furniture and Fixtures		16,467
Total Fixed Assets		$78,751
Total Assets		$528,127
LIABILITIES		
Accounts Payable		41,144
Contributions in Advance - Member States		34,573
Total Liabilities		$75,717
FUND BALANCES		
General Fund		424,134
Reserve Fund		15,475
Unexpended Grants		7,105
Repatriation Fund	(Note 5)	7,696
		$452,410
Total Liabilities and Fund Balances		$528,127

WEST AFRICA RICE DEVELOPMENT ASSOCIATION

STATEMENT OF INCOME AND EXPENDITURE FOR

25 MONTHS ENDED 31ST DECEMBER, 1973

	GENERAL FUND	RESERVE FUND	REPATRIATION FUND	PROJECTS	TOTAL
	$	$	$	$	$
REVENUES					
MEMBERS CONTRIBUTIONS	821,404	-	-	-	821,404
GRANTS (Note 6)					
UNDP Support Contribution	477,444	-	-	35,693	513,137
U.S.A.I.D.	-	-	-	280,000	280,000
Netherlands	-	-	-	74,000	74,000
France	-	-	-	20,370	20,370
Ford Foundation	-	-	-	30,000	30,000
Interest on Time Deposit	-	13,475	-	-	13,475
TOTAL REVENUE	1,298,848	13,475	-	440,063	1,752,386
EXPENDITURE (Sch.)	874,714	-	(7,696)	432,958	1,299,976
EXCESS OF REVENUE OVER EXPENDITURE - BEING FUND BALANCES	$ 424,134	$13,475	$ 7,696	$ 7,105	$ 452,410

WEST AFRICA RICE DEVELOPMENT ASSOCIATION

SCHEDULE OF EXPENDITURE

FOR THE TWENTY FIVE MONTHS PERIOD 31ST DECEMBER, 1973

			$
A.	SECRETARIAT EXPENDITURE		
	I Personnel Costs:		
	Staff Costs		183,995
	Common Staff Costs		90,084
			274,079
	II Cost of Common Services and Miscellaneous Expenses:		
	Maintenance and Repairs		23,630
	Communications and Freights		13,397
	Miscellaneous Supplies and Services		19,676
			56,703
	III Travel and Missions		
	Official Travel		28,950
	Meetings and Governing Council		28,104
			57,054
	IV Other Charges		9,434
	TOTAL		397,270
	U.N. D.P. Support Expenses		477,444
	TOTAL SECRETARIAT EXPENSES		$874,714
B.	PROJECT GRANT EXPENDITURE		
	U. S. A. I. D.		
	Seminars	$ 33,670	
	Training (IITA, Ibadan, & Monrovia)	106,693	
	Coordinated Trials	78,786	
	Research Coordination	20,366	
	Seed Storage Centre	3,657	
	Plant Protection	6,308	
	Project Design	24,429	
			273,909
	NETHERLANDS: Research Coordination		72,986
	FRANCE: Seed Multiplication Centre (Richard Toll, Senegal)		20,370
	U.N.D.P. SUPPORT: Administration		35,693
	FORD FOUNDATION: Training (IITA, IBADAN)		30,000
	TOTAL PROJECT GRANT EXPENDITURE		$432,958

WEST AFRICA RICE DEVELOPMENT ASSOCIATION

NOTES TO THE ACCOUNTS

FOR TWENTY-FIVE MONTHS ENDED 31ST DECEMBER, 1973

1. GENERAL

These are the first accounts to be prepared by the Association and accordingly no comparative figures are given. The accounts cover a period of twenty-five months.

2. FIXED ASSETS

The Association follows the practice like other non-profit making organisations of not providing for depreciation. Fixed Assets are accordingly shown at cost.

3. RECEIVABLES - MEMBER STATES:

Receivables from Members represent outstanding contributions from Member States as at 31st December, 1973. The figure for receivables is made up as follows:-

Dahomey	$ 44,899
Ghana	51,536
Ivory Coast	1,220
Mali	32,103
Mauritania	59,552
Niger	27,209
	$216,521

As at May 31, 1974, additional $46,605 had been received from member states - $41,130 from Ghana and $5,475 from Mauritania.

4. OTHER RECEIVABLES

Other receivables include $8,404 representing advances to employees.

5. REPATRIATION FUND

The Association has created a fund to meet repatriation grants due to retiring internationally recruited staff. As at December 31, 1973, the Fund stood at $7,696. As at the same date $2,781 of the Fund had been invested in a Savings Account, the balance of $4,915 to be invested in the 1974 financial year.

STAFF PROVIDENT FUND scheme is also in operation. Each member of Staff contributes 7% of his salary while the Association contributes 14% towards the scheme. When an employee retires or leaves the Association he is paid the total amount contributed by him and the Association, including interest.

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6. DONOR COUNTRIES' COMMITMENTS

The commitments of Donor Countries and agencies to the Association, the amounts received and balances outstanding are as follows:-

	AMOUNT COMMITTED $	AMOUNT RECEIVED $	BALANCES OUTSTANDING $
U.S.A.I.D.	625,000	280,000	345,000
NETHERLANDS	100,000	74,000	26,000
FRANCE	160,000	20,370	139,630
	$885,000	$374,370	$510,630

Unutilised balances are available for use in 1974, in addition to commitments for the year.

The amount received from the Netherlands includes $45,000 representing the salary of a Research co-ordinator in Monrovia, paid direct by the donor country.

The amount received from France represents the salary of an engineer engaged at the Seed Multiplication centre in Richard Toll, Senegal, paid direct by the donor country. The commitment by France for 1973 is the equivalent FF. 800,000 converted at the rate of FF. 5 = US $1.

The Netherlands and France have also committed $75,000 and $160,000 respectively for the operations of the Association for 1974.

Contributions by UNDP amounts to $513,137 of which $477,440 represents Secretariat expenditure and $35,693 project expenditure.

Ford Foundation has contributed $30,000 towards training course at IITA in Ibadan, Nigeria.

TO: ADVISORY COMMITTEE & GOVERNING COUNCIL

ANNEX VIII
TABLE 1

WARDA
1975 BUDGET
Summary of Costs by Organizational Unit
& Object of Expenditure 1972 - 1978
(US$'000)

	Actual		Est. & Budget 1974 Est.	1974 Budget	Budget 1975	------Projected------ 1976	1977	1978	5-Year Total 1974/78
	1972	1973							
BY ORGANIZATIONAL UNIT									
1. Executive Secretary									
Executive Offices									
Admin. & Finance									
Common Staff Costs									
Governing Council									
Total Direct Costs a/									
Capital Items									
2. Communications & Documentation									
Communications									
Documentation									
Common Staff Costs									
Total Direct Costs									
Capital Items									
3. Development Department									
Headquarters Staff									
Field Staff									
Seed Multiplication Center									
Data Processing									
Common Staff Costs									
Total Direct Costs									
Capital Items									
4. Research Department									
W-1 Program									
W-2 Program									
W-3 Program									
W-4 Program									
Common Staff Costs									
Total Direct Costs									
Capital Items									
5. General Operating Costs									
Buildings & Grounds									
Motor Pool									
Communications									
Office & Misc. Supplies									
Common Operating Equipment									
Total Common Costs									
Capital Items									
Total Direct Costs									
Total Capital Items									
BY OBJECT OF EXPENDITURES									
Operating									
Personal Service Costs									
Consultants									
Operational Travel									
Equipment									
Vehicles									
Maintenance & Repair									
Communications & Freight									
Other									
Total Operating									

a/ Direct costs are defined as the following account numbers taken from WARDA's chart of accounts:

(i)	Salary costs	1101-1110
(ii)	Common Staff Costs	1201-1213
(iii)	Official Travel	3101-3103
(iv)	Meeting G. Council	3201-3203
(v)	Secretary only	4001-4004

TO: ADVISORY COMMITTEE & GOVERNING COUNCIL

ANNEX VIII
TABLE 2

WARDA
1975 BUDGET
Summary of Source & Application of Funds
(US$'000)

	--- Actual --		------ EST & Budget ------			-------- Projected --------	
	1972	1973	1974 (EST)	1974 Budget	1975 Budget	1976	1977	1978
I Summary of Sources and Application of Funds								
Total Funds Available:								
Cash Grants to WARDA:								
Member Countries								
UNDP/FAO								
FAO/Assoc.Experts								
France								
France Assoc.Experts								
USAID								
CGIAR								
Total								
Cash Received on Grants								
Grants Receivable at year End								
Earned Income								
Total Funds Available								
Grants in Kind								
Total Resources Available								
Application of Funds to operations:								
Executive Secretary								
Communication & Documentation								
Development Department								
Research Department								
General Operating Costs								
Total Operating								
Capital Acquisitions:								
Development Department								
Research Department								
Total Capital								
Funds Applied to:								
Unexpended balances:								
Member Countries								
UNDP/FAO								
France								
USAID								
CGIAR								
TOTAL APPLICATION OF FUNDS								
II. Funds Provided and Expenses by Activity								
Executive Secretary & General Overhead								
Member Countries								
UNDP/FAO								
Executive Secretary & Overhead Costs								
Unexpended Balance								
Communication & Documentation								
Member Countries								
UNDP/FAO								
Total Expenses								
Unexpended Balance								
Development Department								
Member Countries								
UNDP/FAO								
France								
USAID								
Total Expenses								
Unexpended Balance								
Research Department								
W-1 (CGIAR)								
W-2 (France Assoc Exp)								
W-3 (France Assoc Exp)								
W-4 (USAID)								
Total Expenses								
Unexpended Balance								

TO: ADVISORY COMMITTEE AND GOVERNING COUNCIL

ANNEX VIII
TABLE 3

WARDA 1975 BUDGET
Summary Financial Data 1972-1975
(US$'000)

	------Actual------		Est.	------ Budget -----	
	1972	1973	1974	1974	1975
Current Assets					
Cash					
Receivables:					
Member States					
Donors					
Other					
Prepaid Expenses (Trial Advances)					
Other current assets					
Total Current Assets					
Fixed Assets					
Office Furniture & Equipment					
Vehicles					
Research Equipment					
Furnishings - Staff Housing					
Buildings					
Land					
Other Fixed Assets					
Total Fixed Assets					
TOTAL ASSETS					
Liabilities					
Accounts payable - Member Countries					
Accounts payable - Other Donors					
Other Liabilities					
Total Liabilities					
Capital Balances					
Capital Grants					
Fully Expended					
Unexpended Balance					
Capital Grants in Kind					
Unexpended Operating Grants					
Total Capital Balances					
TOTAL LIABILITIES & CAPITAL					
Sources of Funds					
Member States					
CGIAR					
Other Donors					
Earned Income					
Total					
Application of Funds					
Operations					
Capital					
Unexpended Balance					
Total					

TO: ADVISORY COMMITTEE & GOVERNING COUNCIL

ANNEX VIII
TABLE 4

WARDA
1975 BUDGET
Table of Positions and Manpower

	Actual				Est. & Budget						Projected		
	1972		1973		1974 Est		1974 Budget		1975 Budget		1976	1977	1978
	Pos.	My	Pos.	My	Pos.	My	Pos.	My	Pos.	My	Pos	Pos	Pos
Executive Secretary													
Senior Staff													
Scientific & Supervisory													
Support													
Total													
Communications & Documentation													
Senior Staff													
Support Staff													
Total													
Development Department													
Senior Staff													
Scientific & Supervisory													
Support													
Total													
Research Department													
W-1 Senior Staff													
Scientific & Supervisory													
Support													
Total													
W-2 Senior Staff													
Scientific & Supervisory													
Support													
Total													
W-3 Senior Staff													
Scientific & Supervisory													
Support													
Total													
W-4 Senior Staff													
Scientific & Supervisory													
Support													
Total													
Total Research Department:													
Senior Staff													
Scientific & Supervisory													
Support													
Total													
Total Staff:													
Senior Staff													
Scientific & Supervisory													
Support													
Total Staff													

TO: ADVISORY COMMITTEE AND GOVERNING COUNCIL

ANNEX VIII
TABLE 5

WARDA 1975 BUDGET
Funded and Required Provisions
(US$'000)

	1974 Est.	1975 Budget	FY75 BUDGET: Requested from Member States	FY75 BUDGET: Fully Funded by Other Donors	FY75 BUDGET: New Grants Required
Executive Secretary					
Staff Costs					
Other Direct Costs					
Total					
Communication & Documentation					
Staff Costs					
Other Direct Costs					
Capital Items					
Total					
Development Department					
Staff Costs					
Seed Multiplication Center					
Data Processing					
Other Direct Costs					
Capital Items					
Total					
Research Department					
W-1 Staff Costs					
Training & Seminars					
Plant Quarantine					
Other Direct Costs					
Capital Items					
Total					
W-2 Staff Costs					
Other Direct Costs					
Capital					
Total					
W-3 Staff Costs					
Other Direct Costs					
Capital					
Total					
W-4 Staff Costs					
Training					
Other Direct Costs					
Capital					
Total					
Total Research:					
Operations					
Capital					
Total					
General Operating					
Buildings					
Motor Pool					
Communications					
Office Supplies & Misc.					
Common Operating Equip.					
Total Operating					
TOTAL WARDA					

INTERNAL REPORT - EXECUTIVE SECRETARY

ANNEX IX
TABLE 1

WARDA
Report on the 1975 Budget
For the period ending

.....
(US$'000)

	Commitments & Disbursements												Original	Revised
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Budget	Budget
Operating Costs														
Executive Secretary														
Executive Office														
Admin. & Finance														
Governing Council														
Total														
Communications & Documentation														
Communications														
Documentation														
Total														
Development Department														
Headquarters														
Field														
Seed Multiplication														
Data Processing														
Total														
Research Department														
W-1 Program														
W-2 Program														
W-3 Program														
W-4 Program														
Total														
General Operating														
Buildings & Grounds														
Motor Pool														
Communications														
Office & Misc.Supplies														
Common Equipment														
Total														
Total Operating Costs														
Capital Items														
Development Dept.														
Research Dept.														
W-1														
W-2														
W-3														
W-4														
By Object of Expenditure														
Personal Services Costs														
Consultants														
Operational Travel														
etc.														
Total														

WARDA
Cash Flow Statement Plan vs Actual
For the Month Ending
.....
(US$'000)

	JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		OCT		NOV		DEC		TOTAL	
	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Bud.	Actual
Balance Start of Month																										
Receivables:																										
Member States																										
Dahomey																										
Gambia																										
Ghana																										
Guinea																										
Ivory Coast																										
Liberia																										
Mali																										
Mauritania																										
Niger																										
Nigeria																										
Senegal																										
Sierra Leone																										
Togo																										
Upper Volta																										
Total																										
Non Member Donors																										
USAID																										
CGIAR																										
France																										
etc.																										
Total																										
Other Income																										
Total Cash Available																										
Disbursements:																										
Staff Costs																										
Other Operating Costs																										
Capital Items																										
Total Disbursements																										
Investments made during month ±																										
Cash Balance - End of Month																										
Investments - End of Month																										
TOTAL CASH POSITION																										

INTERNAL REPORT - EXECUTIVE SECRETARY

ANNEX IX
TABLE 3

WARDA
1975 ACTUAL VS BUDGETED STAFF
For the Month Ending
.....
Positions

	Actual												Budget	
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Original	Revised
Executive Secretary														
Senior Staff														
Scientific & Supervision Staff														
Support Staff														
Total														
Staff Costs														
Communications & Documentation														
Senior Staff														
Scientific & Supervision Staff														
Support Staff														
Total														
Staff Costs														
Development Department														
Headquarters Staff														
Scientific & Supervision Staff														
Support Staff														
Total														
Staff Costs														
Research Department														
W-1 Program:														
Scientific Staff														
Support Staff														
Total														
Staff Costs														
W-2 Program:														
Scientific Staff														
Support Staff														
Total														
Staff Costs														
W-3 Program:														
Scientific Staff														
Support Staff														
Total														
Staff Costs														
W-4 Program:														
Scientific Staff														
Support Staff														
Total														
Staff Costs														
TOTAL STAFF														
of which: Senior Staff														
Scientific & Supervisory														
Support														

INTERNAL REPORT TO DEPARTMENTS

ANNEX IX
TABLE 4

1975 BUDGET STATEMENT
For the Period Ending
.....
(US$'000)

	1975 Original Budget	1975 Revised Budget	Actually Expended To date	Committ. Outstanding	Total Exp.& Comm.	Balance
Authorized Staff						
Senior Staff						
Scientific & Supervisory						
Support						
Total						
Direct Costs						
Regular Salaries						
Post Adjustments						
Assignment Allowances						
Other Allowances						
Temp. & Overtime						
Contractual Services						
Consultants						
Common Staff Costs						
Operational Travel						
Equipment						
Total Operating						
Capital Items						
(List)						
Total Capital						
TOTAL CAPITAL						
TOTAL BUDGET/COSTS						

ANNEX X
TABLE 1

Recommended
Audit Reports
Certification Required for
Actual Figures

WARDA
Balance Sheet
As of December 31, 1974
(US$'000)

Actual			Budget	
1972	1973	1974	1974	1975
Current Assets				
Cash				
Receivables:				
Member States				
Donors				
Other				
Prepaid Expenses (Trial Advances)				
Other Current Assets				
Total Current Assets				
Fixed Assets				
Office Furniture & Equipment				
Vehicles				
Research Equipment				
Furnishings - Staff Housing				
Buildings				
Land				
Other Fixed Assets				
Total Fixed Assets				
TOTAL ASSETS				
Liabilities				
Accounts payable - Member Countries				
Accounts payable - Other Donors				
Other Liabilities				
Total Liabilities				
Capital Balances				
Capital Grants				
Fully Expended				
Unexpended Balance				
Capital Grants in Kind				
Unexpended Operating Grants				
Total Capital Balances				
TOTAL LIABILITIES & CAPITAL				

ANNEX X
TABLE 2

Recommended
Audit Report
Certification Required for
Actual Figures

Statement of Sources & Application of Funds
For the Year Ending December 31, 1974
(US$'000)

	Actual			Budget	
	1972	1973	1974	1974	1975
Summary of Sources and Application of Funds					
Total Funds Available:					
Cash Grants to WARDA:					
Member Countries					
UNDP/FAO					
FAO/Assoc. Experts					
France					
France Assoc. Experts					
USAID					
CGIAR					
Total					
Cash Received on Grants					
Grants Receivable at year End					
Earned Income					
Total Funds Available					
Grants in Kind					
Total Resources Available					
Application of Funds to operations:					
Executive Secretary					
Communication & Documentation					
Development Department					
Research Department					
General Operating Costs					
Total Operating					
Capital Acquisitions:					
Development Department					
Research Department					
Total Capital					
Funds Applied to:					
Unexpended balances:					
Member Countries					
UNDP/FAO					
France					
USAID					
CGIAR					
TOTAL APPLICATION OF FUNDS					

a/ Attach Schedule 1 to show funds provided and costs of individual donor.
b/ Attach Schedule 2 to show sources and uses of earned income for the current year.

Schedule 1: Funds Provided and Cost of Individual Grants for the Year Ending December 31, 1974
(US$'000)

	Grants Approved	Amounts Received	Expenses Charged - Direct Costs: Executive Secretary	Communication Documentation	Development Department	Research Department W-1	W-2	W-3	W-4	General Operating	% General Operating To Direct	Unexpend. Balance	Payable To Donors	Transferable to Unexpend. Balances
Member Countries														
Dahomey														
Gambia														
Ghana														
Guinea														
Ivory Coast														
Liberia														
Mali														
Mauritania														
Niger														
Nigeria														
Senegal														
Sierra Leone														
Togo														
Upper Volta														
Total														
Non Member Donors														
UNDP														
FAO														
USAID														
France														
CGIAR														
Etc.														
TOTAL														

Schedule 2: Detailed Schedule
Of Earned Income
For the Year Ending December 31, 1974
(US$'000)

	Actual	Approved Budget
Sources of Earned Income:		
Interest on Deposits		
Sale of Crops		
Sale of Assets		
Total		
Application of Earned Income Applied to:		
(List)		
Total		