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THE FORD FOUNDATION

Inter-Office Memorandum

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TO: Messrs. W. Myers, J. McKelvey,
D. E. Bell, W. Fredericks, F. F. Hill

DATE: February 16, 1970

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FROM: Sterling Wortman and Lowell Hardin

COPY TO: Mr. Albrecht
Mr. Hanson
Mr. Staples
Mr. Wilhelm
Mr. Gormbley

SUBJECT: Progress at IITA (Wortman-Hardin Visit -
February 8-14, 1970)

IITA's identity is emerging. In addition to the five-man administrative team (headquartered at Barclay's Bank Building), fifteen scientists (officed in a rented double house in the Bodija area) and a visiting scientist (Professor Murphy, plant breeder, Cornell) are on board. Morale is generally good. Accomplishments of the past eighteen months are great, especially so when one takes into account the uncertainties inevitably associated with such an enterprise in a nation at war.

STAFF

Dr. Albrecht and his administrative team are pleased with present rates of progress. Management, in part due to uncertainties involved (Nigerian conditions, changing costs, question of total capital and operating sums to be available), is rather closely held by the director. This gives rise to some restiveness by Albrecht's four administrative associates (Briggs, associate director; Leach, construction engineer; Mitchell, principal administrator; and Anderson, treasurer).

The scientific staff, under the leadership of Rodney Briggs, is becoming acquainted with the ecology, farming systems and agricultural problems of western Nigeria; visiting individuals, institutions and programs to assess the state of agricultural science, technology and practice in west Africa; beginning to formulate program alternatives; and becoming acquainted with one another.

Our impression of the scientific staff is that the age distribution (tending to favor youth) is good, despite African preference for gray hair. Institutional and experience backgrounds are varied. National origins include: southwest Asia, 4; Australia, 1; Great Britain, 3; Netherlands, 1; Canada, 1; Nigeria, 2 (librarian and the farm manager); Israel, 1; and the United States, 3 plus visiting scientist Murphy. Based upon presentations made, we were especially favorably impressed with Michael Harrison (of Kenya maize program fame), B. T. Kang (soil fertility with seven years of tropical experience), Arthur Lamey (plant pathologist with rice experience in Cuba and Thailand and chairman of IITA's research committee), and Frank Moormann (soil scientist-ecologist whose professional career has been in the tropics). Two of the young scientists, Tsai and Moody, evidence real adjustment

problems which seriously concern Briggs and Albrecht. On balance, there appears to be sufficient talent and drive in this group to move a development-oriented research program, given leadership and encouragement.

Director Albrecht plans to augment the present scientific staff (see list attached) by six additions this year: Dr. Moomaw, agronomist from IRRI on cropping systems, including rice; two plant breeders; an agricultural engineer; a senior agricultural economist; and a communications-information specialist. Ultimate size of the scientific staff is projected at around 32 to 34.

Issues:

1. Speed with which scientific staff is employed--i.e., why bring so many scientists on board prior to completion of IITA's plant? We concur with management's decision. Properly organized study, analysis and interaction at this stage can, in our opinion, save costly delays, false starts later.
2. Order in which various specialties are brought onto the team. Logically, perhaps, the commodity breeder-agronomists (rice, corn, grain legumes, root crops) do have some priority. Now that Harrison has arrived and Murphy is in residence, the team appears to have reasonable balance. After all, these scientists are versatile people capable of multiple roles.
3. Thoroughness of search before employing staff members. Now that a working nucleus is in residence and visiting widely, it does appear that additional effort should be invested in screening prior to making more offers. The counsel of Hanson and Beck, the need for French-speaking bilinguals and the feed-back from the FF-IITA-IRAT seminar series are all important inputs in this process. While IITA should not become a center for expatriates displaced by the "Africanization" of national institutions, this manpower pool should be systematically evaluated. Some of this evaluation can be done quite naturally by delegation to present scientists who are now visiting rather widely in Africa.
4. Compensation package. Give second-level administrative staff the same perquisite package as administrators and senior scientists? Equalization of treatment of those under IITA contracts versus RF or FF employment (especially in view of recent changes in the FF benefits to State Department standards and inclusion of thrift plan)? While these matters are not serious, they require continuous review and attention. Despite FF expectations, it is not at all clear that individuals under FF contracts will voluntarily shift to IITA contracts.

(Parenthetically, it does not appear that Paul Zuckerman's employment as a trainee was necessarily IITA's idea and it does appear that his total package of benefits is generous for a man of his training and experience.)

PROGRAM

The scientific staff is seminaring, working in committees, formulating projects. While officed separately from administration (unfortunate but apparently necessary), effective working relationships are evolving. Specific program thrusts which are emerging include:

1. Maize production. Harrison has clear objectives in mind. He will be a strong competitor for resources, an exacting team leader, and one who imparts a development dimension to all IITA activities. In some respects his proposed program has greater development clarity than that of CIMMYT -- even to and including the work on high lysine. CIMMYT management will be well advised to counsel closely with Harrison who for the past two years has been a CIMMYT staff member resident in Kenya.
2. Grain legumes. Leadership has not yet emerged. Will probably focus on cow peas (still under debate) and soybeans.
3. Root crops. Leadership and program are very preliminary. Consensus has not yet been reached on the relative importance of cassava, yams, and sweet potatoes. Irish potatoes are mentioned, too. We are strongly biased toward immediate and intensive work on cassava.
4. Rice. Here the talk is about upland rice, though IITA will have some paddy also. They seem to be waiting for Jim Moomaw's arrival to plan this work.
5. Soils and cropping systems. The group is sure of the central mission: to evolve economic alternatives to traditional shifting culture. How to go about it is, of course, subject to much more study. The soils-ecology team with Moormann appears able. A natural danger is to spend too much effort on description, aerial photo survey, classification of areas and too little on carefully designed field measurements. In general, the staff seems to be alert to the difference between description and a mission-oriented thrust that changes productivity.
6. Supporting work. Plant protection is well staffed and involved. Economics is undermanned (one fresh Ph.D. and a training associate) at a fairly critical time of priority setting.

Issues:

1. Priorities - as reflected in the discussion above.
2. Spread - how many different program thrusts? Here the tendency may be to attempt too many different projects too soon.

3. Training - how many trainees at what level under what system of management? This really is not yet an issue; simply a program component under development.
4. Cooperation with local or nearby Nigerian institutions. This appears to be evolving in a sound manner through joint IITA-Nigerian committee work.
5. Outreach - explain and identify IITA to other nations rapidly? This is probably well worth doing if visits throughout the region have specific purposes - evaluation and understanding of existing work, identification of collaborators, definition of problems, spotting of potential staff members. The possibility of promising an IITA product prior to having a package to deliver should be avoided, however.
6. Trouble shooting - how far to go in making staff services available for local or regional diagnostic and treatment work, especially in non-program areas?
7. Program presentation - how to define and describe program, especially to donors? The draft memo on program and budget presentation at international center week in New York was discussed in detail with the administrative staff.

PHYSICAL PLANT

Progress on buildings, campus and field station in the past eighteen months is remarkable. The massive, clean lines of the poured concrete structures are impressive indeed. The staff is pleased with the contractor and the rate of progress (while personally believing the job to be over-engineered by the architects).

The dam for the reservoir, being constructed directly by IITA staff at about one-third the contractor bid price (with some changes in specifications) is within six feet of fill level and will be complete before the rains come. This is another achievement in which the staff, especially Albrecht, Leach and Craig, can take justifiable pride. Since promised city water will now be unavailable to IITA, at least for two years or more, the Institute's own water supply (and sewage disposal plant) is an essential prerequisite for on-site operation.

From the arrow-straight, eight-mile enclosure fence through the forest to the central air-conditioning system and powerful stand-by generators, IITA's plant surely is unique in all of tropical Africa.

Issues:

Capital uncertainty. As we all know, estimates for the plant (including development of the experimental plots) came in at \$20 to \$21 million versus the earlier planned \$12 million. Director Albrecht reworked the plans within the degrees of freedom available to him. Two laboratory buildings, two storage sheds, two dormitories, and ten greenhouses were eliminated. The two remaining laboratory

buildings, administration building, library, food services, social center and auditorium were modified. Given these changes, the revised cost estimate was \$17.5 million.

Albrecht now has \$11.25 million in hand via Ford Foundation grants. His understanding is that the Foundation will provide \$15 million and will help raise the additional \$2.5 million elsewhere. How to go ahead full speed with construction yet not over-commit? The decision: build the structures as modified but erect only seven of the planned thirty-two (?) houses plus three apartment units (twelve apartments). Hold back on laboratory equipment orders until funds are in hand. Try to design and build houses less costly than those called for in the architect's specifications. (The seven now nearing completion will cost about \$59,000 each. Herb thinks that houses providing equally satisfactory space using RF-FF University of Ibadan standards can be built for \$32,000 to \$35,000 each.) The decision on residences has not yet been made (with resulting concern by staff families), but must be reached soon, presumably at the April IITA Board Meeting. As we understand it, Herb calculates that with \$17.5 million and by IITA building the dam with its own staff and shifting to lower-cost residential housing, the modified physical plant can be built and equipped and the site developed.

The strategy being followed appears to us to be appropriate and wise. We favor proceeding with the lower cost housing and living with whatever minor problems of staff dissatisfaction may arise from seven families occupying the more elegant homes. Essential equipment should be acquired as is now being done. If forced to a choice, the building shells should be erected under present firm contract prices and wait until funds are available to equip them.

Just as soon as it is at all possible, specifics on capital availability should be given to Dr. Albrecht. In the best of all worlds, this would be a guarantee of up to \$17.5 million and authority to build and acquire the most that is possible within the \$17.5 million limit. (If at some future date the Foundations are involved in building another center, we would favor establishing -- based upon hard planning and estimating -- a building allocation of a specific dollar sum. The board and director would then have full authority to create that which the given sum would acquire. If the plant thus created later proved inadequate, the issue of a supplement would then be considered on its own merits.)

EXPERIMENTAL PLOTS

The field plots on IITA's 2,000-acre site are being sequentially developed in an imaginative manner. Because the reservoir had to be cleared first, the staff conceived the idea of using the available area for maximum yield trials of maize and experimental plantings of grain legumes and root crops. The top corn plots (180 kg. of N. and 62,000 plant population) produced 6.5 tons per hectare, perhaps the highest yield on record in West Africa. A newly cleared, expanded area will be ready for the next crop season which begins in April. The crop area east of the

reservoir will go into intensive crops and irrigated plots; that on the west bank will be used for longer-run studies of shifting cultivation. We regard the retention of 18 pilot plots staked out from the present vegetation (ranging from pure cocoa to mixed underbrush and weeds) for multi-disciplinary evaluation and study as imaginative and likely to produce important insights. Preliminary analyses indicate that: the soils have a Ph of 6 to 6.5; P_2O_5 and K_2O may not be limiting in the first years after clearing; average rainfall is 48 inches with a bi modal distribution and dry season of three months or more; the IITA site is in the transition area from the rain forest to the dry forest zone; there is much cloudiness in the weather pattern; and the soils are judged to be a bit better than average.

The variability in soils, present cover and topography in the 2,000-acre unit is sufficiently great for most experimental purposes. The area is fully adequate in size.

RELOCATION OF VILLAGERS

On Friday, February 13, 1970, the Government of Nigeria made final cash settlement with the remaining villagers in the west bloc of the site. They now have 60 days to vacate their premises as other villagers have done before them. All of the settlers have now been paid as promised. Fulfillment of this contract by the Government of Nigeria under stress of civil war is a rather remarkable achievement.

The new village, helped the the Ford Foundation project under plans initially developed by David Smock, is receiving many of the families displaced by IITA's development. Several new houses are under construction. A water system is installed, the school buildings are complete and a self-organized community council is functioning. What could have been a major source of local ill feeling by those displaced appears to have been handled resourcefully and well.

The fact that the site is essentially cleared of former villagers is made more remarkable when one understands that the University of Nigeria has for some 10 or more years been trying unsuccessfully to obtain occupancy and use of its farm (1,000 acres plus) adjacent to IITA.

CONTACTS WITH NIGERIANS AND NIGERIAN INSTITUTIONS

The University of Ibadan, the federal and state agricultural research station, Moor Plantation seem to welcome IITA. This is a tribute to Dr. Myers, Dr. Albrecht, IITA's Board, staff members and the joint Nigerian-IITA committees which are developing research, training and educational plans together. Apprehensiveness on the part of state and national institutions is understandable. So far as we could detect, however, the situation is refreshingly positive.

RELATIONS WITH OTHER AFRICAN AGRICULTURISTS

Systematic staff travel and the recently initiated series of Ford Foundation-IITA-IRAT seminars are doing much to identify potential collaborators and to provide a basis for cooperative work and understanding in the region. We are especially impressed with the objectives, organization and method of conduct of the seminar series. The experience should be carefully evaluated for possible usefulness in other developing regions. Full IITA staff participation in those seminars which are held at Ibadan should be encouraged. Because some of the IITA staff people felt that they were inadequately involved in the planning exercise, it might be useful for Brian Beck, Albrecht and Briggs to devote a part of a staff meeting to the topic if it could be arranged for Beck to be present.

IITA APRIL DEDICATION

We raised with Director Albrecht and the administrative staff the question of non-Nigerian, non-American participation in the dedication of what is an international, not a binational, center. Perhaps Maurice Strong, in view of probable Canadian involvement, could be added to the group of speakers? Also, perhaps board members will wish to assist Herb in encouraging FAO Director General Boerma to come rather than send a delegate (Boerma's present intention).

POST-WAR NIGERIA

One cannot escape the feeling that Major General Yakubu Gowon's government is making a genuine effort to unify the nation. Easterners are returning to high positions held for them. While individuals, especially young and old without resources or influence, have suffered from malnutrition, rehabilitation is proceeding rapidly. Biafra as a region was historically dependent upon imported proteins. The war shut off normal sources. But returnees from the east report that private entrepreneurs are now rapidly moving into the void. As Hal Hanson points out, Nigeria's problems of the north -- wide disparity in incomes, education and infrastructure -- may well be much more difficult of resolution than rehabilitation of the energetic Ibo community.

SOME GENERALIZATIONS

IITA's mission is not one of closing a food population gap in a calorie sense. In Nigeria, most people, including thousands completely outside the money economy, have adequate quantities of bulky, starchy foods (cassava, plantain, yams). But the opportunities to catalyze improved protein nutrition, to help lower the real cost of food, to identify resource-conserving alternatives to shifting cultivation, to raise productivity above the "one-man, one-hoe" out-

put ceiling are tremendous. We see IITA setting new standards of scientific relevance and usefulness, for in fact these attributes are little in evidence at the University of Ibadan's faculty of agriculture and only moderately so at the Moor Plantation. While IITA's specific goals and means are only now being hammered out by staff and while shared planning with other international centers leaves much to be desired, the manpower is now in residence or in sight to get on with these essential tasks.

That we were well and warmly received by both IITA staffers, their wives and by the Nigerians with whom we visited is apparent. Equally apparent, we hope, is our enthusiasm for the potential inherent in the IITA concept.

IITA's SCIENTIFIC STAFF (February, 1970)

Caveness, Fields E.	Nematologist. Previous experience as staff member at Moor Plantation . (U.S.)
Harrison, Michael N.	Plant breeder. 12 years in Kenya (last two CIMMYT staff) maize program. (England)
Headley, Douglas D.	Agricultural economist. Dissertation research with Dr. Trant in Colombia. (Canada)
Juo, Anthony S. R.	Soil chemist.
Kang, B. T.	Soil Scientist. 7 years tropical work Southwest Asia. (Indonesia)
Lal, Rattan	Soil physicist. (India).
Lamey, H. Arthur	Plant pathologist. Prior experience (rice) in Cuba and Thailand . (U.S.)
Lawani, Stephen M.	Librarian. (Nigeria)
Moody, Keith	Agronomist, weed control. Background in Australia and Hawaii. (Australia)
Moormann, Frank R.	Soil scientist. Several years in Southeast Asia, especially Thailand. (Netherlands)
Murphy, Royce R.	Plant breeding. Visiting scientist for year on sabbatic from Cornell University. (U.S.)
Sadik, Sidki	Plant Physiologist. (Israel ?)
Tsai, James H.	Entomologist. (Taiwan)
Whitney, W. Keith	Entomologist. Extended commercial experience with Dow. (U.S.)
Williams, Robert J.	Plant Pathologist. (England)