

Issues and Initiatives
Relative to Expansion of the
Soil Management CRSP in Africa

A Report to AID and BIFAD
March, 1987

TROP SOILS

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Prepared by
C. B. McCants
Director, Management Entity
March, 1987

Executive Summary

By telephone and letter the Management Entity (ME) for the Soil Management CRSP (SM-CRSP) was informed that AID and BIFAD were concerned that proper approvals had not been granted for the proposed phasing-down of the program in Brazil, for increasing the program in Africa and for revising the distribution of funds among participating universities. This subject arose during their discussions of a protest by the University of Hawaii regarding the level of funding projected for its program.

The letter from Dr. Gill requested that the ME (a) provide relevant background information that led to the planned program and budgetary changes, and (b) cancel a trip to Cameroon by SM-CRSP personnel that was scheduled to begin less than two weeks from the date of the communication. A request by the ME for a meeting with AID and BIFAD to discuss the issues was not granted.

Encouragement by AID and BIFAD, since 1984, to reduce SM-CRSP activities in Brazil and increase them in Africa was common knowledge in Washington and by the ME and by all program participants; it reached a climax in 1986. Approval to explore the potential for work in Africa, and specifically Cameroon, was granted with acceptance of the three-year work plan which began in 1984; authorization for the ME to modify the allocation of funds within the SM-CRSP is provided in the grant. AID and BIFAD personnel were in meetings where these subjects were discussed and were informed via copies of relevant correspondence.

The Board of Directors, Technical Committee and External Evaluation Panel were active participants throughout the initiatives. Support and funding for an expanded program in Africa is a major concern among universities in the SM-CRSP with the greatest potential for loss of funds.

A pre-determined plan was followed for considering an expansion of the program in Africa. It included consideration of countries with agroecological zones, available personnel and an infrastructure where a collaborative program could be undertaken that would capitalize on available soil management technology. Significant attention was given to the potential for linking with existing programs.

This approach led to extensive investigation on initiating a program in Zambia that would have been collaborative with the University of Illinois. The initial results were favorable, but the prospect was shelved when the outlook became dim for continuation of the University of Illinois project in Zambia.

Attention was then directed to Cameroon due to its inclusion in the five-year plan for the SM-CRSP, the favorable response

from the USAID Mission and the potential for linking with IITA. The preliminary discussions were favorable and arrangements were completed for an on-site study, April 4-11, by representatives of IITA, the ME, Cornell University and Texas A & M University. The trip was cancelled in response to AID's request.

Funds received by the University of Hawaii are 19% of the total SM-CRSP expenditures through December 1986 and projected to be 21% of the total during the three-year extension. Funding for the program in Peru and Indonesia was approximately 58% and for Africa 25% of the total through December 1986. Under the current budget projections the amounts are 47% and 29%, respectively, for 1986-1989.

Copies of communications and financial details related to actions taken are included in the report.

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I. Purpose

This report is a response to Dr. Tej Gill's (1)¹ oral and written request for information about proposed changes in research and allocations of funds in the Soil Management (SM) CRSP. In particular, Dr. Gill inquired about:

1. The CRSP's decision to investigate the potential for initiating research in Cameroon. (Under this proposed expansion, Cornell University would serve as the lead university).
2. Recommendations to the SM-CRSP's Board of Directors that research by Cornell in Brazil be reduced and that changes be made in budgetary allocations as a result of these shifts.

In a telephone conversation with Dr. Gill on March 9 and March 13, he stated that the University of Hawaii (UH) had contacted the AID legislative affairs office to protest the fact that its budget was being reduced at the same time the CRSP was considering an expansion of the program in Africa and the budget for Cornell was being increased to support this expansion. Dr. Gill reported that a member of BIFAD was disturbed that these program and budget actions had not received BIFAD's approval. Concern was also expressed about the need to avoid political difficulties for AID and the SM-CRSP.

According to Dr. Gill, AID and BIFAD had concluded that representatives of the Management Entity, Cornell University and Texas A & M University should cancel a trip to Cameroon, scheduled for April 4-11, because the travel was to undertake activities that had not been formally approved.

¹ Numbers in parentheses refer to reference documents that are included in the appendix.

A request by the Management Entity (ME) to Dr. Gill's office for a joint meeting with officials from BIFAD, AID/S&T, AID/African Bureau and AID/Asian Bureau to discuss the issues raised by them was denied.

This report attempts to respond to the concerns of Dr. Gill, BIFAD and AID by summarizing the facts and reasoning that led the CRSP to consider revisions in program orientation and funding allocation.

II. Facts and Interpretations Underlying the Management Office Operations

The current grant to the ME for continuation of the SM-CRSP states that "North Carolina State University was selected as the ME with total program and fiscal responsibility for the CRSP" (2, Article I, Section D). This language is basically the same as used in the initial grant. The interpretation of the charge is that the ME will maintain close communications with AID and BIFAD to determine their current views and long-range projections on areas of emphasis and priorities, and will keep informed on program capabilities and performance among participants from each university and host country. These facts are to be analyzed and adjustments made as necessary and feasible to provide the maximum support for AID and BIFAD objectives; such efforts are to be undertaken in a spirit of mutual confidence and respect. The assumption has been that formalities would be limited to those necessary to meet federal government and University business operations and fiscal requirements.

The Management Office, under the leadership of the Director, is charged with the responsibility to carry out the requirements of the ME. Consultation with and advice from the Board of Directors (Board), Technical Committee (TC) and External Evaluation Panel (EEP) is fundamental in the decision-making process and subsequent operations. However, due consideration has to be given to the fact that the Board and TC are composed of administrative and research personnel from the constituent universities. Naturally, each member advocates for his or her program. It is not possible for the Director to always promote or carry out actions that satisfy all four universities.

III. AID and BIFAD Signals on Decreasing SM-CRSP in Brazil and Increasing Activities in Africa

When approval was given to initiate the program in Brazil (3), and during the discussions on the three-year extension of the program in the country, both AID and BIFAD were apprehensive about this activity because it would be

centered in an AID graduate country. They, however, accepted the ME's analysis that (a) the information obtained in Brazil would be applicable to other regions, particularly some in Africa, because of similarities in agroecological conditions and (b) the information could be obtained much more economically in Brazil than in other countries, particularly those in Africa, because of the local personnel availability and infrastructure development. There was a clear understanding with AID and BIFAD that the ME would seek to capitalize on these two features and that the Brazil component would not be viewed as a long-term operation.

In virtually all meetings with the SM-CRSP during 1984 and 1985, AID and BIFAD encouraged the CRSP to reduce the program in Brazil and to expand the one in Africa. This message became even more emphatic in 1986, due to pressure from the U.S. agricultural sector to reduce support for work in Brazil and the public concern about starvation in Africa. Among those urging the CRSP to restructure its program were: Dr. Nyle Brady, Dr. Jack Robbins, Dr. Anson Bertrand, Dr. Tej Gill, Dr. John Malcolm, Dr. Fred Hutchinson, Dr. Fred Johnson and Dr. Robert Kleiss. The prevailing opinion in AID was recently summed-up by one high-ranking AID official who, when told we were planning to reduce the program in Brazil and increase it in Africa, commented, "Why reduce it in Brazil? Why not get out?"

Given these continuing messages from all levels of administration, it seemed superfluous and unnecessary to ask for written approval; not to have undertaken initiatives would have been irresponsible.

The common knowledge that the SM-CRSP should expand in Africa is reflected in the five-year plan developed to support the request for extension of the SM-CRSP (4). Cameroon is specifically identified as a target country. The fact that AID and BIFAD approved this plan was assumed to be all that was needed to proceed with exploratory details. The Grant (2, Article III, Section 2) lists the procedures for initiating work with a host country. There is no statement or suggestion that prior approval for such initiatives is necessary from AID or BIFAD.

IV. Exploring Potential For Expanding the Program In Africa

A. Formal Communications with AID and BIFAD on Exploring New Initiatives in Africa.

Although a large number of the communications with Mr. Cal Martin and others were informal, there are records of meetings or actions where the ME and Cornell

University discussed related information in the presence of AID and BIFAD personnel.

1. At a Board meeting on October 17, 1985, the Director of the Management Entity reviewed the "Zambia Initiative by Cornell University" (5, page 3).
2. On October 11, 1985, Dr. Thurman Grove of Cornell wrote Mr. John Patterson, USAID/Lusaka, to review his trip to Zambia and proposals for follow-up activities (6).
3. On October 14, 1985, Dr. Grove advised Dr. John Malcolm, Mr. Marcus Winter, and Mr. Leonard Pampa, on the exploration work in Zambia (7, 8, 9).
4. On November 20, 1986 there was an extensive discussion by the Board on the Africa initiative and phase-down of the program in Brazil. In attendance was Mr. Fred Johnson of BIFAD. Dr. Duane Acker was briefed on this discussion (10, pages 3, 4, 5, and 6).
5. A copy of a telex to Dr. William Judy, USAID/Yaounde, to formalize telephone discussions was sent to Dr. John Malcolm (11).
6. Dr. Judy's reply to the ME telex was sent by cable through normal AID channels (12).

B. Involvement of Board, TC and EEP in Considerations on Expansion of SM-CRSP in Africa

All three groups have been active participants in the informal and formal discussions on expansion of the program in Africa. The underlying plan was that this expansion would occur under the leadership of Cornell University, and would depend in part on a phase-down of Cornell's operations in Brazil. Records of the fact that this subject was discussed occur in the Program Plan for 1984-1989 (4), minutes of Board meetings in October 1985 (5) and November 1986 (10), and a report of the EEP (13).

C. Management Entity Response

Urged on by AID and BIFAD to phase-down the program in Brazil and expand in Africa, the ME concluded in 1986 that it should take a more assertive approach.

Thus, recommendations were made to the Board at its November, 1986 meeting that Cornell University be encouraged to pursue efforts to establish a collaborative program in Africa and to post a senior scientist in the region (14). The recommendations were approved (10, page 4).

D. Divergent Views

Throughout the considerations, representatives of the Board and TC from North Carolina State University and the University of Hawaii have orally and in writing expressed reservations to the Director of the Management Entity about expanding the program in Africa. Their concern is that such an action could reduce the funding for their programs (15, 16, 17).

E. Initiatives

1. The Plan. We recognized that, although there is a great need for additional soil management information in Africa, it is a difficult area in which to conduct collaborative research. Major contributing factors are (a) the limited qualified personnel and supporting infrastructure and (b) the large number of programs that are competing for these scarce resources. Furthermore, the cost of an expanded program in Africa would be substantially higher than the one conducted by Cornell in Brazil. The need to reallocate funds within the SM-CRSP to provide the additional resources was recognized and considered justifiable.

The basic plan was (a) to study agroecological conditions in Africa, (b) select areas where the Cornell expertise could be most usefully applied, (c) examine specific sites within the areas with the potential to carry out a collaborative program and (d) submit a formal proposal to AID and BIFAD for approval when all the SM-CRSP criteria had been met. The purpose of advising AID and BIFAD was not only to obtain its concurrence, but also to demonstrate that we had received its message to institute program changes and had given it a positive response.

2. Initial Investigations. Dr. Armand Van Wambeke, Cornell University soil scientist, has extensive experience in Africa. He, along with Dr. Douglas Lathwell, developed a project proposal and submitted it to the ME in October, 1984, in which

they outlined a specific plan for identifying the areas in Africa where extropolation of information obtained in Brazil may be technologically feasible (18).

Texas A&M, under the leadership of Dr. Frank Calhoun, already had a program in Niger and Mali; the plan was to link it to other programs that might be started in Africa. Thus, Dr. Calhoun was kept informed on the Cornell activities, (19), and was provided opportunities to make inputs into the evaluation (20, 21). The ME was kept fully informed on all the developments.

3. Investigations for a Program in Zambia. Based on the general studies conducted in 1984 and early 1985, and discussions with Dr. Cal Martin and Dr. John Malcolm, the decision was made to focus on Zambia. The reasons were (a) encouragement from the African desk of AID; (b) the country contains agroecological zones where available TropSoils information is applicable; and, (c) there was a possibility of linking with the University of Illinois's ZAMERE project.

Dr. Van Wambeke, while on a trip to Zambia on other business, and paid by non-SM-CRSP funds, obtained more detailed information on the soils and agroecological zones and reported this to Dr. Lathwell, Dr. Calhoun and the Management Entity (22, 23).

Dr. Thurman Grove, Cornell University, attended the SMSS Forum on Soil Toxonomy and Agrotechnology transfer in July 1985 and during this trip made extensive contacts with Zambian, USAID and other personnel with knowledge of the local situation (24). The cost of this trip was paid by Cornell University from non-Soil Management CRSP funds.

There were immediate internal communications in Zambia as a result of the Grove and Van Wambeke trip (25), as well as, communications from personnel in Zambia with Dr. Grove (26,27,28,29,30). There was extensive telephone communications with the University of Illinois and USAID/Lusaka, and some confirming correspondence (31,32,33).

In late 1985, communications with the USAID/Lusaka indicated that local financial support for

a TropSoils program in Zambia was dimming but there continued to be expressions of hope that something could be worked out so that TropSoils could provide some local assistance (34).

Efforts to arrange for a Soil Management CRSP supported trip by Dr. Grove to Zambia to make a further on-site analysis were denied by USAID/Lusaka (33). However, because of the strong interest of the University of Illinois in linking the ZAMERE program with the Soil Management CRSP, it made arrangements for and paid the cost of a trip by Dr. Grove in April, 1986, to study further the appropriateness and feasibility of such a linkage. The results were communicated to USAID/Lusaka, Government of Zambia and the University of Illinois (35, 36). Dr. Grove recommended that Cornell proceed with its plans to initiate a program in Zambia and to post Dr. Bowen on-site (36, 37). AID/S&T was sent a copy of these recommendations.

During the latter half of 1986, mission support for the ZAMERE project decreased and the prospects for a program in Zambia substantially diminished (38).

4. Investigations For a Program in Cameroon. When the prospects for a program in Zambia appeared slim, our major attention turned to Cameroon. It had been considered as a potential location when we developed our plan of work in 1984 (4, page 19). Discussions with Mr. Cal Martin, Dr. Robert Kleiss and others in AID and BIFAD indicated it was a priority country on their agenda.

Dr. Pedro Sanchez, while attending an IBSRAM meeting in Cameroon in January 1986, was invited by USAID to give a report on TropSoils work (39). The results of the seminar and follow-up events and discussions were quite encouraging. Dr. Sanchez communicated this assessment to the Management Entity who then wrote to Dr. J. P. Ekekil and advised him of our interest in exploring further the potential for a collaborative program (40). Cornell, Texas A&M and AID were provided copies of this communication.

From information provided by AID, the possibility was raised of linking a program in Cameroon with an on-going IITA program. Dr. Tony Juo, the IITA leader of that program was contacted and

arrangements were made to meet with him during the annual meeting of the American Society of Agronomy (41,42). The discussion was held and he strongly favored and encouraged us to consider Cameroon as a priority site for expanding the program in Africa (43). During the same ASA meeting, the Director of the Management Entity talked with Dr. William Judy, USAID/Yaounde who also encouraged us to examine the potential for a program in Cameroon (44).

Two telephone calls were made to Dr. Judy to confirm Mission interest and to request guidance on appropriate procedures (45). His response was that we make a formal request, via telex, which could also serve as the official request for country clearance as required by AID procedures. The telex was sent, and a copy sent to AID (11).

USAID/Yaounde response, via cable through normal AID channels, was to approve the objectives of the trip, the date, and the travelers (12). Communications were undertaken with IITA to obtain approval for Dr. Juo to participate in the study (46, 47, 48, 49). Meeting schedules were arranged, visas were obtained and airline travel completed. The trip was cancelled after receiving the written request to do so from Dr. Gill (1).

V. Budgeting, Allocations and Expenditures

A. Background

The report from Dr. Gill stating that the University of Hawaii was dissatisfied with the budget for its program was no surprise. The ME had been informed by University personnel of this discontent both orally and in writing (50, 51). Exercise of political action to influence a change, however, was not expected since the budget had been approved by a three to one vote of the Board (52).

B. Principles Employed In Budgeting Funds

The grant which established the SM-CRSP in 1981 contained a time-phased budget for each of the four universities and the ME. Allocation of funds by the ME to each university was based initially on a formula calculated from data in the Grant. As we gained experience, it became evident that this procedure was unsuitable because it provided no flexibility to adjust

funding to individual program needs, program quality, university capability or utilization of allocated funds. For example, after three years the University of Hawaii had used only 54% of the funds allocated by the ME and 37% of the amount prescribed in the Grant (53).

At the June 1984 meeting of the Board and TC, the ME recommended that the SM-CRSP shift from the block grant form of budgeting and fiscal management to one that is project oriented. Under this form, a given program, e.g. University of Hawaii, would consist of a series of projects, each one self-standing and with its own budget (54). This recommendation was accepted. The procedure was used in developing and reviewing the Plan of Work for the three year extension (55). It became fully operational with the beginning of 1986-1987 program year, October 1, 1986 (56).

In June 1986, each program coordinator was asked to develop a detailed budget for each project and submit it to the ME by August 1. The procedure for analyzing and acting on these requests are described in detail in "Projects and Budgets for the Soil Management CRSP, 1986-1987" (56).

C. Fiscal Management by University of Hawaii

This program has a history of under-utilization of allocated funds during the peak funding period, over expenditure during times when reduction should be occurring and laxity in attention to fiscal details. After two, three and four years in operation, funds used were 25, 54 and 74% of the funds allocated, respectively (53). During the fifth year the ME reduced the allocation from the amount calculated by the formula. This action resulted in an increase in the use of obligated funds to 92%.

For the period October 1 - December 30, 1986, the University of Hawaii initially requested \$161,000. A request for an additional \$208,000 was made later (57), making the total for the period \$369,000. The actual billings during the three-month period were \$672,905.

D. University of Hawaii Faculty Participation

One of the fundamentals of the SM-CRSP is that the research programs are to be led in large part by campus-based faculty. The program is not intended to depend primarily on field-based expatriates. The University of Hawaii has had the fewest campus-based faculty leaders of

any university in the program (58). The absence of campus-based faculty involvement seriously limits its ability to conduct a program of this type, and is considered to be one of the factors contributing to the under-utilization of allocated funds.

Their request to employ three field-based senior scientists during 1986-1987 was considered unjustified, in light of the limited number of campus-based participants and the reduction in AID funding.

E. Actual Funding to Each Component for the 1986-1987 Program Year

The funding requested by each university for 1986-1987 and the funds which have been or will be allocated are given in the Appendix (59). For the University of Hawaii the amount to be allocated is 103% of the request; for the SM-CRSP as a whole its 86%.

AID imposed some restrictions on the use of funds such that certain ones had to be used prior to January 1, 1987 and others could be used only after January 1, 1987. Thus, it was necessary for the ME to allocate them under these terms (60). Each Program Coordinator was fully informed on this situation and advised to use prudent management techniques (61). The fact that the University of Hawaii received a higher percentage of the annual funds during the first three months of the program year than the other components should have posed no special fiscal management problems.

F. Projected Funding for Each Component During the Three-Year Extension, 1986-1989

The projected funding for each component is based on the actual funds provided during October 1, 1986 - September 30, 1987, plus the projected funding recommended to and approved by the Board (59, 60, 62, 63) is given in the Appendix (64). A summary of the University of Hawaii account follows:

\$ 164,000	obligated	October 6	(65)
\$ 130,000	obligated	November 3	(66)
\$ 75,000	committed	November 8	(67)
<u>\$ 900,000</u>	projected	December 30	(62)
\$1,269,000	total		

For the University of Hawaii, total reimbursements from September 1981 through December 1986 is 19% of the total actual SM-CRSP expenditures (68). The current projected allocation during the three-year extension is 21% of the total projected SM-CRSP expenditures (64).

G. Redistribution of Funds

During the past 5 1/4 years, approximately 58% of the total SM-CRSP funds have been spent in Indonesia and Peru and 25% in Africa (68). Under the projected budget, and assuming half of Cornell's budget is spent in Africa, the expenditures would be approximately 47% in Peru and Indonesia and 29% in Africa. Given the admonitions from AID and BIFAD to increase the program in Africa, the projected shift in funds seems modest.

Appendix

APPENDIX

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4	Global Plan, from "TropSoils Program Plan, 1984-1989"
5	Minutes of the Board of Directors Meeting, October 17, 1985
6	Letter to John Patterson from Thurman L. Grove
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16	Pedro A. Sanchez, Analysis of Proposed TropSoils Budget, November 18, 1986. Excerpts only.

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37 Memorandum to D.J. Lathwell from Thurman L. Grove

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39 Pedro A. Sanchez, Cameroon Trip Report, January 21-29, 1986, pages 10-11

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AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D.C. 20523

March 17, 1987

Dr. Charlie McCants
Soil Science Department
North Carolina State University
P.O. Box 7113
Raleigh, N.C. 27695-7113

Dear Charlie:

This is to confirm my last week's telephone conversation with you that our office and BIFAD needs relevant background information which lead the Soil Management CRSP to explore, as we understand, termination of the Brazilian site, consideration of Cameroon as a new site, and changes in budgetary allocation related to this shift in the CRSP design. This requested relevant information should include, minutes of meetings of EEP, Board, ME or others, during the past year or two.

As the Agency and BIFAD is much concerned about the possible implications of any major change in the CRSP design we request that you submit a formal proposal to our Office requesting a review and amendment to the current CRSP plan. Such a proposal will be given an expeditious consideration.

In the meantime we suggest that you postpone the planned 3 person team visit to Cameroon until such time that the Agency and BIFAD has an opportunity to review the requested proposal and make a decision on its disposition.

Sincerely,


Tejpal S. Gill
Chief
Renewable Natural Resources
Office of Agriculture
Bureau for Science and Technology

cc: D. Bathrick
R. Kleis
F. Johnson
J. Malcolm

MAR 20 1987



North Carolina State University

School of Agriculture and Life Sciences

Management Entity
Soil Management CRSP
Box 7113, Raleigh 27695-7113
(919) 737-3922

March 23, 1987

Dr. Tejpal S. Gill
Agency for International Development
S&T/AGR/RNR
Washington, DC 20523

Dear Tej:

I have received your March 17 letter in which you ask for information regarding certain activities of the Soil Management CRSP.

The background details requested will be provided as soon as they can be assembled and organized into a formal report form. Preparation of an official request for approval to revise our program operations will be delayed until the Management Entity has discussed these recent developments with the Board of Directors and the External Evaluation Panel and receives their input into an appropriate response.

The trip to Cameroon has been cancelled. There will be no plans for travel to explore new initiatives until the current situation is resolved.

Sincerely,

A handwritten signature in cursive script that reads "C. B. McCants".

C. B. McCants
Director

CBM:mbs
CC: Dr. John L. Malcolm

ORIGINAL

Dr. C. B. McCants
Director, TropSoils
Soil Management CRSP
Box 7113
North Carolina State University
Raleigh, North Carolina 27695-7113

SUBJECT: Grant No. DAN-1311-G-SS-6018-00
Soil Management Collaborative Research
Support Program (CRSP)

Dear Dr. McCants:

Pursuant to the authority of the Foreign Assistance Act of 1961, as amended, the Agency for International Development (hereinafter referred to as "A.I.D." or the "Government") hereby grants to North Carolina State University (hereinafter referred to as "ME," "University" or "Grantee"), an amount not to exceed \$870,000. This amount represents initial funding to support the University acting as the Management Entity (ME) of the Soil Management CRSP as detailed in the Schedule (Attachment A) and the Program Description (Attachment B) of this Grant.

This Grant is effective and obligation is made as of the date hereof and shall apply to commitments made by the Grantee to support Grant activities during the three (3) year period from September 25, 1986 through September 24, 1989.

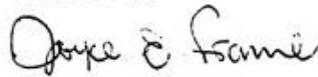
The total estimated cost for this grant is \$9,000,000. A.I.D. will obligate additional funds, subject to funding availability, up to the total estimated cost. However, the Government shall not be obligated in an amount exceeding the amount stated in the first paragraph above. The obligated amount is considered sufficient to fund activities through February 11, 1987.

This Grant is conditioned upon the University's administration of funds in accordance with the terms and conditions set forth in the Schedule, the Program Description, and the Standard Provisions (Attachment C) which are appended hereto and to which the University agrees by acknowledging receipt of this Grant by authorized signature below.

ORIGINAL

Please sign the original and eight (8) copies of this grant, and return the original and seven (7) copies to the undersigned, making sure to return all copies marked "funds available."

Sincerely,



Joyce E. Frame
Grant Officer
Chief, Food and Agriculture Branch
AID/W Projects Division
Office of Procurement

Attachments:

- A - Schedule
- B - Program Description
- C - Standard Provisions
- D - Negotiated Indirect Cost Rate Agreement
- E - CRSP Guidelines

Acknowledged:

NORTH CAROLINA STATE UNIVERSITY

Name: Howard W. Etzel

Title: HOWARD W. ETZEL
Assoc. Dean for Research

Date: SEP 26 1986

FISCAL DATA

PIO/T No.: 6361547
Appropriation No.: 72-1161021.3
Allotment No.: 643-36-099-00-20-61
Budget Plan Code: DDAA-86-13600-AG11
Project No.: 931-1311
Project Name: Soil Management CRSP
Total Estimated Amount: \$9,000,000
Total Obligated Amount: \$870,000
Funding Source: S&T/AGR, AID/W
DUNS No.: 99-099-0301

FUNDS AVAILABLE

AUG 29 1986
VMS
o/c 4190

Program Accounting Section
Office of Financial Management

SCHEDULE

ARTICLE I - AUTHORITY, PURPOSE AND PROGRAM DESCRIPTION

- A. Under Title XII of the Foreign Assistance Act of 1961, as amended, A.I.D. is authorized to provide assistance in support of the Soil Management Collaborative Research Support Program (CRSP), including support of research projects identified for specific problem-solving needs.
- B. Title XII provides for the creation of a Board for International Food and Agricultural Development (BIFAD) whose responsibilities include participation with A.I.D. in recommending, planning, developing, implementing, and monitoring Title XII activities.
- C. BIFAD and A.I.D. have developed a CRSP approach to research in areas falling within the provisions of Title XII. The CRSP approach is designed to link institutions including U.S., international and developing country agricultural institutions, under the auspices of a Management Entity (ME), which will be the prime Grantee, having common interests in organized programs of research on selected problems. The ME is to have overall responsibility for managing the CRSP and administering the funds made available by A.I.D. in support thereof.
- D. Pursuant to the authority of Title XII, in cooperation with BIFAD, A.I.D. developed a CRSP for research in the area of Soil Management. North Carolina State University was selected as the ME with total program and fiscal responsibility for the performance of the CRSP. The administrative work of the CRSP, organized and funded through the ME, is achieved through the Program Management outlined below. The purpose of this Grant is to provide continuing A.I.D. support of the University as the ME and participating Universities as detailed herein and in the Program Description, Attachment B. All activities of this program will operate under the "Guidelines for the Collaborative Research Support Programs Under Title XII of the International Development and Food Assistance Act of 1975," dated June 21, 1985.

ARTICLE II - OBJECTIVE

A. General

1. The objective of this program is to develop and adopt improved soil management technology that is agronomically, ecologically and economically sound for developing nations in the tropics.

2. The funds made available under this grant may be used to finance the costs specifically incurred by the Grantee in the implementation of this CRSP in accordance with Schedule ARTICLE VI - FINANCIAL PLAN and Attachment B hereto and subject to the terms and conditions set forth herein.

B. Specific Objectives

The specific objectives of this Grant are to enable the Grantee to organize and mobilize financial and human resources necessary for mounting a major multi-institutional U.S.-LDC collaborative effort of research and training related to soil management by:

1. Linking institutions having common interests in organized programs of research on this CRSP;
2. Mobilizing and coordinating the research talent from eligible institutions to ameliorate world food, nutrition and poverty problems by research in the priority area of this CRSP; and by
3. Achieving optimum collaboration under a Global Plan for information exchange on this CRSP with A.I.D. Missions, International Research Centers, and LDC Institutions.

ARTICLE III - PROGRAM ACTIVITY

A. General

The Grantee is both the ME and Fiscal Agent assuming responsibility for the performance of research for this CRSP. In assuming this responsibility, the Grantee will undertake the following tasks in the implementation of this Grant:

1. Continue existing linkages and establish new linkages with developing country institutions (with the assistance of A.I.D. Regional Bureaus and Missions), and work with those institutions to define the portions of the program to be done in the developing countries.
2. Maintain a program global plan that displays the specific objectives, budgets, schedule of expected inputs, outputs and indicators of each project (both in the U.S. and with specific institutions in developing countries), and the critical and supporting relationships among projects. The program global plan will also define the managerial and funding relationships among program participants.

A description of the anticipated arrangements for subgrantee project, including relationships with institutions, will be included in the program global plan to the extent that the planning for such arrangements has been completed at the time of program plan submittal. A copy of the program global plan will be submitted to A.I.D. for comment and will be used by A.I.D. to assess the progress of the program and of its component projects. It is understood that the initiation of CRSP activities with any additional approved host country will include the following general procedures:

- a) On-site visits by U.S. scientists to develop complete understanding between the host government administrators and the appropriate CRSP entity.
 - b) Drafting and approval of Memorandums of Understanding between the host governments and the appropriate CRSP entities.
 - c) Identifying the highest priority global problems with host country scientists at collaborating institutions. Specific research areas will be identified.
 - d) Development of detailed work plans with the determination of exact research site.
 - e) Drafting of work plans and budgets by the U.S. and host country principal investigators.
 - f) Planning research facilities and infrastructures.
 - g) Research project budget needs and research goals for future years.
 - h) As the program develops, put forth efforts to seek means for expanding attention to research other areas.
3. The Grantee, in assuming responsibility for the performance of research for this CRSP, and for the relevance of that research promoting program goals, will undertake such tasks as may be necessary to integrate the research activities of subgrantees and to promote the usage of the research results by the LDCs extension system.
 4. The Grantee shall, throughout the duration of this three (3) year Grant, retain the right to phase out, on appropriate notice, the activities of the program at any overseas worksite, providing that in the opinion of A.I.D., there is good and sufficient reason for so doing, consistent with program objectives.

B. Eligible Subrecipients

The Grantee may make subgrants only to those institutions that meet the requirements of eligibility as defined in Section 296(d), Title XII of the Foreign Assistance Act of 1961, as amended, and which are so designated (see 43 FR 37049, dated August 21, 1978). Other U.S. institutions may receive subcontracts, but not subgrants. The Grantee and subgrantees may make appropriate financial arrangements with LDC institutions as necessary to support a research project of the Grantee or subgrantee carried out under this Grant.

C. Review and Evaluation

The Management Entity (ME) will monitor projects' fiscal management on a regular basis. Annual programmatic evaluations will be carried out by the External Evaluation Panel (EEP). Other evaluations will be performed as deemed appropriate. (See "Program Management" below)

D. Related Activities

Each subgrant should identify any activity otherwise being conducted by the subgrantee which is relevant to this CRSP but which is neither a part of the work encompassed by the subgrant nor entails any obligation on the part of the subgrantee under this Grant. This should include a substantive description of the activity, identification of the principal personnel involved, and, if feasible, an approximation of the dollar cost.

E. Program Management

1. Management Office (MO)

The Management Office consists of two people -- the Director and an Administrative Assistant. In May 1984 an editor was employed. That position was jointly funded: 70 per cent from the Soil Management CRSP and 30 per cent from the International Programs office of the University. The two person administrative personnel staff, with the assistance of occasional temporary labor, is considered adequate to meet the foreseeable needs of the Management Office.

Board of Directors and Technical Committee Meetings

An increase in the frequency of meetings of the Board of Directors and Technical Committee, both jointly and separately, will be necessary in the future. Now that all programs are operational (this CRSP is an on-going effort

ORIGINAL

JUL 12 1982

Dr. Henry P. Smith
Dean for Research
Research Administration
North Carolina State University
Post Office Box 5356
Raleigh, North Carolina 27650

Subject: Amendment No. 3
Grant No. DAN-1311-G-SS-1083-00

Dear Dr. Smith:

Pursuant to the authority contained in the Foreign Assistance Act of 1961, as amended, and the Federal Grant and Cooperative Agreement Act of 1977, the subject Agreement is hereby amended effective the date of this letter to reallocate budget amounts to include research on soil of the acid savannas. The total estimated cost of this grant is unchanged.

Schedule

1. Under the Program Description, add the following:

"5 Research on the Acid Savannas - Brazil

Investigations with field work in Brazil with Cornell University, North Carolina State University and the host institution, EMBRAPA - Empresa Brasileira de Pesquisa Agropecuaria - will do the following:

- a. Characterize the soil of the experimental sites on the experiment station at Planaltina and on farms where cooperative experiments may be conducted.
- b. Seek ways to reduce the cost of lime and fertilizer on the acid infertile soils of the acid savannas.
- c. Develop practices to maintain an adequate balance of bases, CA, K, and Mg in soils of the region.
- d. Estimate the economic returns from lime and fertilizer use under present circumstances and a range of possible cost/price/yield response scenarios.

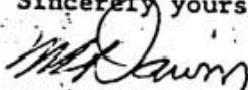
ORIGINAL

- e. Explore ways to increase the rooting depth of field crops and pastures.
 - f. Identify crops which may tolerate adverse soil conditions or extract essential plant nutrients more efficiently, reducing the amount of fertilizer and lime needed to produce a satisfactory crop."
2. Under Article XIII, Budget, delete "A. Budget - Summary" in its entirety and replace with "A. Budget Summary" attached hereto as Attachment A and made a part hereof.

All other terms and conditions of the grant remain unchanged.

Please sign the original and seven (7) copies of this grant in the space provided and return the original and six (6) copies to this office.

Sincerely yours,



Morton Darvin
Grant Officer
Agriculture/Nutrition Branch
Central Operations Division
Office of Contract Management

ACCEPTED:

NORTH CAROLINA STATE UNIVERSITY

NAME: _____

TITLE: _____

DATE: _____

Fiscal Data

AID's Obligated Amount: \$3,450,000
Appropriation No.: 72-1121021.3
Allotment No.: DDAA-82-13600-AG11
(243-36-099-00-20-21)
PIO/T No.: 931-1311-3621015

THE GLOBAL PLAN FOR TROPISOILS

In establishing and funding the Soil Management Collaborative Research Support Program, TropSoils, the Agency for International Development (AID) drew on a comprehensive set of studies and recommendations from the Planning Entity. The Planning Entity, an experienced group of experts in international agricultural development, assessed the need for such a program, articulated its goals and proposed a mode of operation. At the same time, the Planning Entity submitted what has come to be called a global plan. This global plan, endorsed by AID, has from the beginning been integral to the design and management of TropSoils. The plan that follows, updated to take advantage of new insights gained from the first three years of operation, renews the essential commitment to global attack and coordination on soil constraints to food production first set forth by the Planning Entity.

TropSoils' global plan, in outline, is:

- to conduct user-oriented research based on established principles of soil management, along with principle-oriented research as needed, to overcome soil constraints to crop production for developing nations in the tropics.
- to conduct these studies in collaboration with partner nations and international research centers so as to make the best use of available knowledge and resources, ensure the research is adapted to both user and setting and link people and institutions into active soil-management networks.
- to deploy the research efforts according to agro-ecological zones, which are groupings of tropical regions that share many soil and climatic characteristics in common, so as to focus the programs and facilitate the extrapolation of results from one area to another.
- to establish and sustain long-term research at primary sites in each zone and develop secondary sites as needed to adapt new technologies to achieve the efficiency and continuity necessary for sound soil-management programs.

--to coordinate work at each of these primary sites under the leadership of a U.S. land grant university with proven expertise in its respective zone, so that projects draw on all the resources and experience of the university, both in the field and on the campus.

--to team these programs, and their respective networks, into a single, unified program, global in scope, assisted and guided by the Technical Committee, the Board of Directors, the External Evaluation Panel, the Management Entity and the primary funding agency, AID.

--to encourage the broadest exchange among all components of this unified program, through publications, site visits, technical conferences and other regular communications.

The background of this global plan, its components and expected impact, follow.

THE PROBLEM

Projections are that food production must increase at the rate of 3 percent per year during the 1980's and 3.8 percent per year during the 1990's to meet demands in the developing nations. Estimates are that approximately one-third of the additional food will be produced on new land and two-thirds by increasing yields on land already in cultivation. To accomplish this goal, about 200 million hectares of newly cleared land must be brought into production within the next 20 years. This area is equivalent to all of the cropland in the United States.

There is enough land available to meet this need. However, the greatest potential for new cropland, as well as the greatest need for technology improvements, occurs in the tropics, where, without careful management, soil constraints will severely limit plant growth and food production.

THE CHALLENGE

None of the tropical lands available for increasing food production are ideal. The humid tropics and acid savannas, which for the most part have favorable rainfall and temperature regimes, have soils whose chemical properties constrain plant growth. The semi-arid tropics and steppes have many of the same kinds of soil-related problems, plus population pressures and limitations imposed by climate.

The areas eligible for agricultural development have been identified as some of the world's most fragile ecosystems. Thus, it will be difficult to both farm these lands and at the same time preserve natural resource base--the soil. Already, badly managed fields have been abandoned, and valuable forests are being cut and cleared to replace them.

Since soils play a critical role in the success or failure of farming systems in the tropics, it is not enough to focus only on the crop or commodity. Appropriate soil-management technology is essential to the task of increasing and sustaining food production under the socio-economic conditions of developing nations. This technology is lacking.

THE GOAL

The goal of TropSoils is to develop and adapt improved soil management technology which is agronomically, ecologically and economically sound for developing countries in the tropics.

THE STRATEGY

Agroecological Zones. While developing nations in the tropics share in common such soil constraints as soil acidity, nutrient deficiencies, physical problems and water stresses, these constraints manifest themselves in varying ways and degrees from region to region. The strategy conceived by the Planning Entity, approved by AID and implemented by the Management Entity, is to structure the attack on the soil constraints along agroecological zones. While a given zone is not a homogeneous unit, the constraints are sufficiently common to provide a focus for the research. The zones and their basic features are as follows:

1. Humid Tropics. This is the portion of the tropics where there is no more than a three-month dry season and temperature is not a limiting factor to plant growth. The native vegetation is tropical rainforest. Soil acidity and nutrient deficiencies are common chemical constraints to crop production.
2. Semi-arid Tropics. This zone of the tropics is characterized by a protracted dry season of six-to-nine months duration. Erratic precipitation, wind and water erosion, desertification, soil acidity (accompanied by phosphorus deficiency) are major constraints to crop production.
3. Acid Savannas. This portion of the tropics is characterized by a strong dry season of four-to-six months duration, savanna vegetation and predominantly acid soils with inherently low nutrient levels but generally good physical conditions. Temperature is not a limiting factor to plant growth.

4. Steeplands. This category includes the densely populated regions of the tropics where soil erosion is a major concern. Soil properties, moisture and temperature regimes vary.

Primary Research Sites. The second component of the strategy is to utilize primary research sites within an agroecological zone. This feature enables the research to be concentrated in a manner that will maximize the output from limited resources and the continuity necessary for long-term research. There is a primary research site within each agroecological zone and there are two in the humid tropics. The countries with primary sites are:

Humid Tropics - (Latin America) - Peru
Humid Tropics - (Asia) - Indonesia
Semi-arid Tropics - Niger
Acid Savannas - Brazil
Steeplands - to be determined

Lead University. A third component of the strategy is to designate research leadership responsibility for a primary research site to a U.S. university that has experience with the predominant soil constraints. This approach provides a means to utilize the scientific expertise in specialized subjects and to provide a focal point for overall program management. The TropSoils plan provides for the following lead university arrangement:

Humid Tropics (Peru) - N. C. State University
Humid Tropics (Indonesia) - University of Hawaii
Semi-arid Tropics (Niger) - Texas A&M University
Acid Savannas (Brazil) - Cornell University
Steeplands - undetermined

Collaboration. The fourth component of the strategy is inherent to the CRSP concept-collaboration. The primary participants are AID, the U.S. universities and the collaborating country agricultural research organization. For the various zones these are:¹

Humid Tropics (Peru) - NCSU; INIPA
Humid Tropics (Indonesia) - UH; NCSU; CSR
Semi-arid Tropics (Niger) - TAMU; INRAN; ICRISAT
Acid Savannas (Brazil) - CU; NCSU; EMBRAPA

¹ NCSU: North Carolina State University
INIPA: Instituto Nacional de Investigaciones y Promocion
UH: University of Hawaii
CSR: Center for Soils Research
TAMU: Texas A&M University
INRAN: Institut Nationale de Recherches Agricoles der Niger
CU: Cornell University
EMBRAPA: Empresa Brasileira de Pesquisa Agropecuaria
ICRISAT: International Crops Research Institute for the Semi-Arid
Tropics

In addition to the collaborating country institution, attention is given to expanding the sphere of activity to a broad base of organizations with related interests. In this group are international agricultural research centers, to include IITA and CIAT, and countries other than those for the primary research sites, for example Mali and Cameroon in Africa and Ecuador and Bolivia in South America.

EXPERIMENTAL APPROACH

The role of soil management in the food production is to rectify mismatches between soil characteristics and plant requirements. Several basic concepts undergird the TropSoils experimental approach and serve as a base of reference for determining if a project is likely to contribute to the program's goal:

1. The research establishes cause-and-effect relationships between soil properties and plant growth, as influenced by climate.
2. The approach uses established principles of soil and crop science. When necessary, basic research is conducted to clarify existing principles or to explore new ones.
3. Technology packages generated through research are designed to be flexible enough to accommodate both the user and the resource.
4. The soil-management technology must be effectively transferred from the research sites to other locations, making it truly global in scope and application.

CONTINUITY

Research to provide soil management technology for developing countries is dynamic and, thus, must be sustained. Research needs change as users of the resource change. This has been demonstrated in developed countries. Recognizing this need for continuity, the TropSoils plan uses a collaborative approach to establish a soil management research infrastructure within each partner nation. This collaborative approach develops in the partner nation a pool of trained scientists and leaders who can direct their own research and technology-exchange programs. Furthermore, it links people and institutions into a network that will serve to keep attention directed on ways to most effectively use and conserve the soil resource.

IMPACT

TropSoils is a research program. Its goal is to develop soil management technology that is user oriented. For the technology to

have an impact on food production, it must be applied. While technology transfer is not a designated TropSoils goal, TropSoils does have a vital interest in the ultimate outcome of the technology developed. Therefore, it will seek opportunities to interface with technology transfer programs, to provide constructive inputs and to use the results of these interactions in assessing and prioritizing its research efforts.

Minutes
Executive Committee
of the
TropSoils Board of Directors
for the
Soil Management CRSP

Westpark Hotel
Rosslyn, Virginia
October 17, 1985

1. Committee Members Present

Dr. Ada Demb
Dr. Robert H. Miller
Dr. Edwin B. Oyer
Dr. E. C. A. Runge

2. Others Attending at Various Times

Dr. John Malcolm, AID/S&T
Dr. Tej Gill, AID/S&T
Dr. Anson Bertrand, AID/S&T
Dr. Jack Robbins, AID/S&T
Dr. Robert Kleiss, BIFAD
Dr. Fred Johnson, BIFAD
Dr. John Coulter, World Bank

3. General Remarks

3.1. Dr. Kleiss recently has been appointed as Executive Director of BIFAD, replacing Dr. Fred Hutchinson. The level of expectation for outputs by CRSPs is exceedingly high -- perhaps more so than is reasonable, he said, and consequently critics of the program are quick to seize on any weaknesses or limitations to enhance their position. The situation is especially critical within AID at this time because of financial constraints and the resulting effect of all programs striving to maintain their financial base. He stressed the importance of conducting programs where there is mutuality of interest for all collaborators in the CRSP.

3.2. Dr. Robbins focused on some of the criticisms directed toward the CRSP and suggested some actions that are appropriate. Much of the criticism of the CRSP arises from persons without technical backgrounds in the subject matter. Reductions in personnel within AID has eroded severely the number of people with the technical competence to evaluate or understand many of the S&T programs. Thus, more concerted actions by leaders of such programs is necessary to fill the void and help blunt the criticism. He spoke to the well-known issue that many field missions are either neutral or negative toward the CRSPs. The level of

support varies in proportion to the level of CRSP activity in a given country. At a recent meeting of ADO's in the LAC region, those from countries where CRSPs are active were generally supportive; those from countries where there was no direct CRSP activities were generally negative. He stressed the importance of maintaining close communication with mission personnel in the collaborating country to help get the technology developed in place and of working with those in other countries where the program is relevant, to the extent that is feasible. He also stated that he "didn't think the CRSP should play a brokerage role." (These comments and one by Bertrand that "CRSPs should not get involved in technology transfer, but take the information to the gate," leaves unanswered and further confuses the responsibility of CRSPs in the dissemination of the technology they develop). Robbins spoke at some length on the current controversy about the contribution of AID supported programs, past and present, to the current farm crisis situation in the U.S. He provided several documents (copies on file in the Management Entity office) that refute many of the allegations.

The importance of the EEP was stressed and was said to be one of the strongest elements of the CRSP. Its role needs to be carefully considered and it should not be expected to be judge, jury and executioner. The EEP should not be "forced to do management work," Robbins said. Rather it should examine strategies employed and progress being made to achieve objectives.

3.3. Dr. Bertrand was not expected to attend the meeting due to a conflict; but due to a change in his schedule was able to be present. He requested that we do more to help the ADOs understand the relevance of CRSP activities. The Inspector General is studying the contributions of AID programs to improved farming in developing countries. Presumably this will include the CRSPs and Bertrand is concerned there may be some adverse effects. A preliminary report on another AID supported activity is said to conclude that, except for the development of improved rice and wheat varieties, the "IARCs have been totally ineffective." He spoke of the need for more members of the EEP to participate in the review of the field sites. Presumably he was referring to the visit of Coulter to Indonesia, Thorne to Brazil and Niger and Hildebrand to Indonesia. The reasons for these actions were explained and he was advised that full panel reviews of the program in Niger and Indonesia are scheduled for 1986.

3.4. Malcolm reported that documentation is being developed which will allocate the SM-CRSP the remaining funds authorized under the original grant. The amount is \$2.3 million and is for funding through September 25, 1986. The level of funding for the three-year extension has not been established, though he is hopeful that the \$3.0 million per year requested can be obtained. He

requested that information on accomplishments be disseminated to him and others -- as rapidly as possible in order that the program be highly visible. He called again for more evident linkages among components of TropSoils.

3.5. Dr. Coulter commented on the problem of the CRSPs meeting the high level of expectation, given the difficulty of the task, the time required to conduct meaningful research and the fact that measurement of progress is being judged on the basis of program impacts. Efforts are now underway to estimate the impact of the IARCs; this is resulting in considerable controversy. He suggested that a more appropriate approach may be to evaluate the CRSPs on the basis of their output rather than their impact.

4. Management Office Report

Some of the major developments in each of the program components that have occurred since the last meeting were highlighted. These are outlined as follows:

Acid Savannas

- Lathwell and McCants trip to Brazil in August
- Change in administration of EMBRAPA, Louis Carlos Pinheiro Machado, President
- Change in administration of CPAC; Dr. Guido Ranzini, Director
- Eduardo Dos Rios, New Board representative
- Zambia initiative by Cornell University
- Scientist exchange program

Semi-Arid Tropics

- Calhoun and McCants trip to Niger in June
- Status of program
- Budget issues
- Field review scheduled for 1986

Humid Tropics - Indonesia

- Uehara, McCants and Cassel visit to Indonesia in March
- Hildebrand visit in June
- Field review scheduled for 1986
- Change in team leader - Colfer replacing Thompson
- Need for increase in on-site personnel
- Collaborating institution inputs

Humid Tropics - Peru/Brazil

- Change in government in Peru
- Change in Board representative
- Change in project leader for Brazil

- Network development delayed
- Relationship of program to IBSRAM

Management Office

- Personnel changes
- Emphasis on publications
- Management review by AID
- Annual reports and annual review
- Request for external review of Management Office
- Data in Tables 2-6 reviewed

5. Board Discussion

5.1. Annual Review. There was a consensus that an annual review by the EEP of progress of the research and based on the annual report is desirable. The suggestion was made that the Board should attend this review but following considerable discussion no formal action was taken. The Management Office will consult with the Board, and to the extent possible, schedule the review so as many as possible will not have a conflict and thus can attend if they choose. The question of extent of participation by collaborating country scientists and Board representatives was addressed. The Management Entity was encouraged to obtain as much participation as practical.

5.2. Budget for Semi-Arid Tropics Program. Background information was presented by the Management Entity and the proposed actions in Table 6 recommended. The subject was discussed at some length by the Board after which it was decided to postpone a decision pending further study by the Management Entity. This study is to involve Texas A & M University program and administrative personnel and to include acquisition of more precise data on past and future expenditure actions and administrative procedures. The Management Entity is to submit a report of its study to the Board for consideration.

5.3. Review of Administrative Office. The program director called attention to the reviews either conducted or planned for the research programs of TropSoils and suggested that a thorough review of the administration would seem appropriate. The program is entering its fifth year and much improvising and individual judgements have been made regarding policies and administrative procedures. While they seem to be working reasonably well, revisions can and should be made wherever they would improve operations and efficiency. The Board, in Executive Session, discussed the request and agreed to initiate such a review. The details are still under development, but the following general features emerged: (1) the review should be under the control of the Board, not the EEP; (2) the review team would consist of the

Chairman of the Board plus an outside consultant with
in program management and (3) the study should involve
participation by the Program Coordinators.

5.4. Technical Committee. After discussing the historical
functioning of the technical committee, there was a consensus
that a need exists to better define its role and operations. The
feeling among the Board was that more peer reviews of projects
and progress could be beneficial. The value of a meeting of all
project leaders was discussed and there was general agreement
that this would be useful but costs and logistical problems may
make it unfeasible. The subject will be discussed further.

5.5. Budget. The Board approved funding of programs for
year 6 at 93% of the level recommended in the Program Plan. The
funding level for year 7 will be determined after the oral review
is complete, now scheduled for the spring, 1986.

5.6. Board Chairman. The Board at its February, 1985
meeting agreed that the term of the Chairman would be for two
years. The current Chairman, Dr. Demb, was elected to the
position at the October 1983, meeting. The executive committee
elected Dr. Ed Oyer to succeed Dr. Demb, subject to concurrence
by the collaborating country representatives on the Board. Dr.
Demb will communicate with the full Board on these actions.

Note from Director: Dr. Demb has been an able and
effective Chairman and a valuable source of counsel and guidance
to the Management Office. Her rational and incisive analysis of
situations and articulate presentation of her views and the Trop-
Soils program have been significant constructive factors in the
progressive development of TropSoils.



New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University
Department of Agronomy
Bradfield and Emerson Halls, Ithaca, N. Y. 14853

October 11, 1985

Mr. John Patterson, Director
USAID/Lusaka
USAID/Department of State
Washington, DC 20523

Dear Mr. Patterson:

During July I attended the SMSS Forum on Soil Taxonomy and Agrotechnology Transfer in Lusaka as a representative of the Soil Management-CRSP (TropSoils). While there I discussed potential collaboration between TropSoils and Zambia Ministry of Agriculture and Water Development (MAWD) with MAWD. Minister Chinkuli and Dr. Nicholas Mumba expressed considerable interest and referred me to Dr. Patel for discussion of specific possibilities.

Collaboration among Cornell, TropSoils, and MAWD seems especially appropriate. Approximately 80 percent (24 million hectares) of the soils in the high rainfall areas of northern Zambia are highly weathered Oxisols and Ultisols. Constraints to agricultural production on these soils result from soil acidity and inadequate soil supply of phosphorus and nitrogen. During the past fifteen years Cornell and other TropSoils institutions have accumulated considerable expertise on such soils while conducting research in South America, the Caribbean, and West Africa. Technologies have been developed to overcome constraints and the soils are productive when properly managed. These technologies are likely transferrable to Zambia after adaptive research to match them to local conditions.

Discussions with Dr. Patel resulted in identification of specific research priorities that would be appropriate for a collaborative program. I visited the mission and spoke with Marcia Ellis. Mr. Gibson had left for his new assignment and the new ADO had not yet arrived. Neither you nor Mr. Perry was available.

Dr. Patel suggested that a beneficial program would involve adaptive research on amelioration of soil acidity, management of phosphorus, and management of nitrogen, especially organic sources, in a project situated at the new research station at Mutanda. This location seems ideal. Population growth is rapid in the Northwest province and local food production is desirable. Soils at Mutanda are principally highly weathered Ultisols that are not only extensive in Zambia, but occupy substantial areas in Angola and Zaire. Consequently, resultant technology would be of regional importance. Mutanda is situated near the copper belt and services are reasonably available for expatriate staff. While this location seems desirable, we're flexible and open to alternate suggestions.

Dr. Patel's proposal is for us to provide two professional staff for field studies at Mutanda and one professional soil scientist to provide laboratory support at Mt. Makulu. Junior staff, as available, would work on specific problems under the supervision of senior staff. All staff would fulfill a training function for Zambian counterparts. Opportunities would exist for Zambian soil scientists to pursue graduate studies at Cornell. Dr. Patel suggested a schedule that would have staff in place by September for the 1986 growing season. This schedule would ensure a minimum of three years of field experiments as TropSoils is funded through fall 1989. If TropSoils is funded beyond 1989, we would be prepared to continue studies beyond this date.

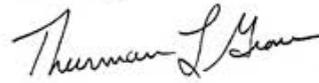
Dr. Patel also expressed a desire for us to conduct a workshop, preferably in July or August 1986 on management of highly weathered soils. This workshop would serve to identify national priorities for soil research, it would establish coordination among soil research programs in Zambia, and it would serve as a planning tool for the collaborative program. Cornell has conducted similar workshops in Latin America which were well attended and proved very useful.

Recent discussions with Dr. John Nicolaidis, Director of International Agriculture at University of Illinois, have reinforced the importance of soils research in Zambia. Dr. Nicolaidis suggested that the ZAMERE program has identified the importance of soil constraints to agricultural production. He expressed Illinois' willingness to collaborate with potential TropSoils programs in Zambia. We anticipate collaboration with ZAMERE in research programs and the workshop.

We solicit your comments on the compatibility of our proposed with USAID objectives. If our programs are complementary, we request your participation in the planning process. We also solicit your consideration of financial support. Cornell's current budget does not allow for as large a program as that proposed by Dr. Patel. However, we believe that Dr. Patel's proposal is appropriate to the needs for soils research in Zambia. We will investigate the possibilities of reallocation of funds within TropSoils, but feel that we should simultaneously investigate alternate sources of financial support. Preliminary budget estimates for a research program and the workshop are appended. Current TropSoils support is indicated.

We look forward to your response.

Sincerely,



Thurman L. Grove
Cornell/TropSoils

TLG:LH
ENC

Collaborative Research Project
Preliminary Budget Estimates*

Object:	1986-87	1987-88	1988-89	Total
Salaries:				
Senior Staff (3)	\$99,000	\$108,000	\$120,000	\$327,000
Junior Staff (2)	22,000	24,000	26,000	72,000
Fringe Benefits:				
Senior Staff	25,000	27,000	31,000	83,000
Allowances:				
	35,000	35,000	35,000	105,000
Supplies:				
	10,000	10,000	10,000	30,000
Equipment:				
	35,000	10,000	10,000	55,000
International Travel:				
	30,000	20,000	20,000	60,000
Other Direct Costs:				
	5,000	5,000	5,000	15,000
Indirect Costs:				
	<u>75,000</u>	<u>80,000</u>	<u>82,000</u>	<u>237,000</u>
Total:	\$336,000	\$319,000	\$339,000	\$984,000
Current Funding:	<u>109,000</u>	<u>124,000</u>	<u>130,000</u>	<u>363,000</u>
Additional Funds Required:	\$227,000	\$195,000	\$209,000	\$621,000

* Assumes rental housing available and that Zambia MAWD provides routine field equipment, e.g. tractors, plows, planters, etc.

Workshop on Management of Highly Weathered Soils
Preliminary Budget Estimate

Airfare (4 Americans, 2 Brazilians, 1 IITA Scientist)	\$15,000
Per diem: (7 days, 7 foreigners)	4,000
(5 days, 15 Zambians)	4,000
Miscellaneous: (programs, proceedings, etc.)	<u>2,000</u>
Total:	\$20,000

(607) 256-2287

October 14, 1985

Dr. John Malcolm
USAID/S&T/AGR/RNR
USAID - Department of State
Washington, DC 20523

Dear John:

We continue in our efforts to establish a collaborative program with the Ministry of Agriculture and Water Development (MAWD) in Zambia. Enclosed find copies of letters to MAWD, USAID/Lusaka, and John Nicolaides at University of Illinois. Dr. Nicolaides has expressed interest in collaborating through the ZAMERE program that is managed by his office.

We thank you for your advice in this matter and will keep you informed of our activities.

Sincerely,



Thurman L. Grove
Cornell - Trop Soils

TLG:vaw
Enc.

(607) 256-2287

October 14, 1985

Mr. Marcus Winter
USAID/AFR/TA/ARD
USAID - Department of State
Washington, DC 20523

Dear Mr. Winter:

Cornell University and the Soil-Management CRSP have entered deliberations with the Zambia Ministry of Agriculture and Water Development (MAWD) concerning a collaborative soil-management research program on highly weathered soils of northern Zambia. Enclosed for your information are copies of letters to MAWD, USAID/Lusaka, and Dr. John Nicholaides at University of Illinois. Dr. Nicholaides has expressed interest in collaboration with us through the ZAMERE program.

Sincerely,

Thurman L. Grove
Cornell-Trop Soils

TLG:vaw
Enc.

(607) 256-2287

October 14, 1985

Mr. Leonard Pampa
USAID/AFR/Zambia Desk
USAID-US Department of State
Washington, DC 20523

Dear Mr. Pampa:

Reference is made to our telephone conversation of 17 September 1985 during which I informed you of our interests in collaborative soil-management research with the Zambian Ministry of Agriculture and Water Development (MAWD). Enclosed for your information are copies of letters to MAWD, USAID/Lusaka, and Dr. John Nicholasides at University of Illinois.

Thank you for your advice and comments on our activities. We will inform you of future developments.

Sincerely,

Thurman L. Grove
Cornell - Trop Soils

TLG:vaw
Enc.

MINUTES OF THE TROPISOILS BOARD MEETING
WESTPARK HOTEL
ROSSLYN, VIRGINIA
NOVEMBER 20-21, 1986

Present were Charles McCants (North Carolina State), Ed Oyer (Cornell), Robert Miller (North Carolina State), Ray Smith (a new Board member from Hawaii), Lawrence Apple (from the Management Entity in North Carolina), and John Malcolm (USAID Washington). Ed Runge was elected Secretary for this meeting. Dr. Ed Oyer serves as Chairman of the Board of Directors for TROPISOILS.

Minutes will be distributed to the Board members and the Management Entity in attendance and after they have had a chance to correct the minutes, they will be distributed to Board members, members of the Technical Committee (project coordinators for the four universities). Dr. Charles McCants will send out the minutes after they are finally available.

Dr. Bob Kleiss from BIFAD was present for approximately an hour and a half at our meeting. He was introduced to the group by Dr. Ed Oyer.

Dr. Kleiss indicated that a letter from the administrator of USAID was sent to the Title XII officers at 35 different universities. There were ten points in the memorandum and the responses are available for review in Dr. Kleiss' office. Summaries of responses will be made and distributed. However, individual responses will not be circulated. Dr. Kleiss indicated that the survey was a 2 1/2 page letter and had gone out the last couple of years from Dr. E. T. York. It was sent in late May and contained questions such as "Why isn't the technical support to missions used more?" Questions about the management of university projects versus contracts, etc. Generally the responses were good. They also went out to 70 missions and 50 of the 70 missions responded. Only 17 of the 35 universities responded. There was no discernable dicotomy in responses from these groups.

Issues were raised as to the quality of university staffing and their preparation for assignment, promotion and tenure track for some university employees versus less than that for other universities for their overseas employees. Questions regarding the continuity of contractors for follow on projects evidently was discussed. Evidently there shouldn't be a need to go out for bids in some instances and sole source contracts can be issued. To use sole source contracts you will probably need to visit with the AID mission directors and the Assistant Administrator for AID in the various regions such as the Ivory Coast for Niger and Mali. Sole source follow-ons may also have to be discussed with the contract officers at the mission.

Evidently several summaries of these responses were made and have not been distributed at this point. Bob Kleiss did one, Buster Brown did one, and Irv Long did an unsolicited summary. Management of university projects came out as a problem identified by AID missions. They want more field authority for the Chief of Party on contract interpretations. Evidently AID has decentralized much more to the field in recent years. Mission directors now serve 42 months versus 31 months as an average tenure time.

TROPSOILS MEETING MINUTES

Page 2

Dec. 12, 1986

Duane Acker is Agency Director for Food and Agriculture, S&T/FA, and has taken up his responsibilities. His deputy is Bill Furtic. David Bathrick, from Peru, has been selected to take Anson Bertrand's position and will join the Office of Agriculture, Bureau for Science and Technology January 1, 1987. Irv Long retired and his position is likely to be filled by Dr. Curtis Jackson. This is the research and university relations position with AID.

CRSP evaluation is in a wind-down. Ed Hogan is doing the final report and it is due in December 1986. Dr. Kleiss feels that it will be a positive report.

USAID still does not know the budget for the CRSP. They hope to be treated no worse than centers and that will be a 13.5% reduction. There was also discussion on the definition of the CRSP objectives. Is it still the narrow research focus as identified by Dr. Bertrand or is it wider than that? Dr. Kleiss feels we still need a clear research focus, however there is some criticism because of the lack of technology transfer for some of the CRSP that may be valid and needs to be addressed. CRSP's do not have the resources to do this transfer but it is a part of the collaborative research program as presently understood.

Dr. Tej Gil joined the group. He is acting in the position formerly held by Dr. Bertrand (retired) as well as his previous role within AID/W. He commented that we are in highly uncertain times with uncertain policies with new people. One production CRSP (small ruminants) was critically reviewed and recommended for phase out. Dr. Brady asked that they not phase out any project at this point. The centers' cut was 13.5% and it appears that CRSP will not be cut any more than the 13.5% according to Dr. Brady. Dr. Gill discussed various budgets scenarios. He feels the best is the 13.5% reduction but there is much ambiguity of what base will be used in applying this 13.5% reduction. Dr. Gill indicates that everyone is tense at this point and morale is the poorest it has been in his 16 year tenure.

The Inspector General's review is written. Evidently they brought up "what did the CRSP do versus what they said they would do?" He feels there may be a need to emphasize natural resource land conservation and environmental safeguards over production at the present time. There are many groups around the world that would support such an approach.

The budget approach at the present time needs to emphasize core funding and buy-ins. For example, mission support for specific research in various countries may be vital to carrying out objectives. The soils CRSP has more money authorized than we can ever expect to receive. The current limit for mission support to CRSP is about \$100,000. We also discussed the possibility of grants versus contracts. Evidently grants such as we have are much more flexible than contracts.

John Malcolm discussed the Inspector General's Report. He feels the fact that they are called "Inspector General" gives more status to the report than the competency of the people preparing it - even if the report is later refuted. He feels it is absolutely essential to document objections to reports such as the Inspector General has prepared. We also need to keep in mind that people

TROPSOILS Meeting Minutes

Page 3

Dec. 12, 1986

at the various missions in countries where we work receive most of their advancement and credit for planning programs that will be carried out in a couple of years. They won't be in their same position five years from now. Consequently, we need to adjust and write our output to answer this short term need when it is possible to do so. He also stressed that communication is essential. The three-year progress report was good. We can't be this elaborate on a regular basis, but similar documents should be prepared when possible. With reduced funding, he feels we should continue to use all our sites but may have to change the way we run our business. One of the main problems in our Soils CRSP is determining what base everyone is using to calculate our budget. It was brought up that we have to make commitments to graduate students on a three-year basis and it is hard to do so with our present budgeting climate.

What strategy should TROPSOILS pursue was discussed. Should we stress the natural resources area? Obviously it is important to have something on technology transfer, etc. It is also felt that deemphasizing productivity might be useful with commodity groups. I'm not sure we were in agreement on this. We need to press forward with as much force as possible given the reality of our present budget. If the 13 1/2% reduction is on top of the projected funding of \$200,900/month, we would be at a spending rate of about \$175,000/month. This is considerably less than all project coordinators feel is reasonable.

The Board discussed the need for a mid-course adjustment. The Soils CRSP was originally conceived to be a total research document. Training per se was not included in the TROPSOILS CRSP originally. Employing graduate students wasn't considered to be a part of training, but the purpose was to carry out research. Consequently we refer to graduate students as junior scientists and all of us need to do this consistently. It was also emphasized that the Soils CRSP needs to move with the times and emphasize training, institution building and technology transfer in addition to research. However, we will need to prioritize among these based on the funding that is available. In summary, we need to adjust the Soils CRSP to the times in which we are working.

We also discussed the African connection. Cornell has moved toward Africa and maybe Zambia. The University of Illinois project in Zambia has an uncertain future at present. Movements to Cameroon were discussed and will be discussed further in the document.

At this time Fred Johnson joined us from the BIFAD office. He works with BIFAD and particularly is in charge of tracking CRSP.

Cornell responsibility in the CRSP was discussed further. It was mentioned whether or not we should continue to maintain differences between the acid savannas and the humid tropics. The soils are both acid and many of the same techniques apply. The bigger difference is that there is a wet/dry season in the acid savannas and that is not true in the humid tropics. Should Cornell phase down in Brazil? It was a feeling of the Board that additional pressure to reduce activity in non-USAID countries was inevitable, and that a shift in

resources from Brazil could be used to increase an African connection for the CRSP. In general, the Board would like to see Cornell maintain some ties with Brazil but that new efforts really need to be made in Africa, probably Cameroon. Evidently there is a Cornell-Rockefeller initiative on root and tuber crops in the Ivory Coast at the present time. They would like to look at Ghana and Cameroon as well but only have an invitation from the Ivory Coast so far.

In general, the Board felt another African site should be pursued and that priority should be given to Cameroon. Connections with the Texas A&M program should be in Niger and Cameroon and needs to be considered by Cornell. Texas A&M needs to consider Cornell's interest as well. Possibly cooperation in Niger as well as Cameroon between the two institutions can be accomplished even with the small amount of funds. We discussed the recommendations of the Management Entity relative to programs.

RECOMMENDATIONS OF THE MANAGEMENT ENTITY RELATIVE TO PROGRAMS

The BOD endorsed a mid-course adjustment in the TROPSOILS CRSP program to increase emphasis on the management of natural resources (soil and water) to enhance the well-being of farmers while sustaining the resource base and maintaining environmental quality. A majority of the CRSP resources should continue to support an improvement in our knowledge and a better understanding of soils of the tropics. The BOD requests the ME to plan and implement a shift in program emphasis toward technology development and its dissemination. The BOD encourages the continuation of training of U.S. and developing country scientists to perform independent soil management research and the enhancement of the institutional base that can sustain soil management research. To accomplish these goals, the BOD endorses the Management Entity's additional recommendations:

1. That Cornell University be encouraged to continue its efforts to establish a collaborative program in the acid savannas and/or humid tropics of Africa, and to post a senior scientist in the region.
2. That the University of Hawaii be encouraged to initiate an expanded program (a) to evaluate the utility of its "expert systems" technique for making soil management recommendations and (b) to establish collaborative relationships with other countries in southeast Asia.
3. That North Carolina State University be encouraged to accelerate its networking and technology validation programs in the Latin America-Caribbean region and to explore the opportunities of and potential for such activities in the humid regions of Asia and Africa.

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4. That Texas A&M University be encouraged to investigate the opportunities and potential for increased collaboration with other African countries and programs in the semiarid tropics and to submit a proposal for relevant action.

It is the intention of the BOD that the program adjustments recommended above be implemented within the funding levels available but any major new initiatives in Africa must be dependent on supplemental resources. This document was passed by the Board.

The big problem with the Management Entity recommendation is what to do with them relative to our pending budget reduction. Cornell has hired Buddy Bowen on their staff and expects to place him in their overseas program. The question is where? His Ph.D. work was done at the Brazil location.

In conclusion, the Management Entity should work out an orderly reduction in the Brazil operation with Cornell and channel resources to Africa to the degree possible. Certainly we need to be careful about sending the wrong signals to the Brazilians. Any new African initiative needs to be at a level consistent with funding. Adequate funding for an African initiative needs to be defended with Dr. Acker, Dr. Brady and others. Evidently there is supposed to be money available in Africa at the mission level since these missions were not cut to the degree the others were. There is also a need to solve problems in Niger to the degree possible before we split our efforts in such a way that we are not effective either in Niger or at another site such as Cameroon.

This pretty well summarizes our discussion through November 20, 1986.

The Board reconvened on Friday morning, November 21st. Budget was discussed. We are currently funded at a \$200,900 level per month. The money not previously used was rolled forward to fund the program from September through December 31, 1986 except for the Management Entity. Funding is now approved through April 27, 1987. Therefore, any cut that takes place in the \$200,900 per month level should take place after this time. Evidently any funding that we receive beyond April 28, 1987 will be for one additional year on a calendar or fiscal year basis.

The document titled Projects and Budgets for the Soil Management CRSP 1986 to 1987 was discussed. The summary is on pages 5, 6, and 7 and are all based on a \$200,900/month basis. Obviously these will have to change and priorities made when we know our final budget. For example, Cornell's budget on page 10 for project 103 is new and relates to Dr. Buddy Bowen's program. Existing projects will have to be looked at very closely after funding is available. Obviously the program coordinators, the Management Entity, as well as the Board of Directors will have to be involved in making these decisions. Decisions on vacant positions and other matters need to be postponed until funding is known.

We were joined by Fred Johnson and John Stovall from the BIFAD Board. Budget discussions were reviewed with them as well, and how to approach Duane Acker, who we were going to see at 10:00 was discussed. It was moved and seconded by

the Board that the Board of Directors endorse a mid-course correction for the TROPSOILS CRSP. The recommendations of the Management Entity as modified by the Board of Directors needs to be reviewed as part of this motion previously incorporated in these minutes.

Drs. Johnson and Stovall indicated that cuts to AID have a lot of exceptions, Africa, child health, etc. Taking exceptions meant the rest of AID would take a 26% cut. Centers and CRSP were cut 13% instead of the 26% the rest of AID's people took.

We adjourned at this point and went and visited with Dr. Duane Acker who had replaced Dr. Jack Robins.

Dr. McCants started our discussion by indicating that a substantial base of technology which was applicable to other parts of the world has been developed by the Soil Management CRSP. The real questions is "how do we go the next step?"

1. Do we expand programs in Africa?
2. Do we increase networking?
3. Do we do more in technology transfer?
4. How can we do more when funding is being constrained?

Dr. Acker asked "what is the technology that has been developed?" Various members of the Board discussed the technology that had been developed which they felt could be used, such as looking at the landscape in the Peru area and determining what cropping production practices should be carried on at these landscape positions. The fact that the semi-arid tropics has a soil chemistry problem that overwhelms water utilization in the area is another significant finding and needs further research.

Dr. Acker indicated that CRSP forward funding through April 1988 is in place. The reduction in spending is projected at 13 1/2%. The real question is "what base is being used to apply the 13 1/2% to?" During the last twelve months, the TROPSOILS spent at the rate of \$241,000/month. Gramm Rudman changes imposed a \$200,900/month spending level. That was the figure Dr. Acker had in his printouts. Last year there was an 18% reduction in the CRSP, but there was no reduction to the centers funded by USAID. Evidently, AID will be closing one \$340,000 project. Others could be closed but political reality is unlikely to allow it.

It was also emphasized that the cost of operating in Africa versus elsewhere is much higher. Certainly AID is interested in Africa and work there by the Soil Management CRSP. The cost of technology transfer program was also discussed with Dr. Acker. Networking of the Peru projects using Yurimaguas as a training site for other countries was discussed.

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Page 7
Dec. 12, 1986

The fact that soil problems in the Sahelian region are holding back the adaptation of improved cultivars such as sorghum, millet, peanuts, etc. was discussed. The soil acidity and fertility problem will have to be solved before many of these cultivars can be successfully tested or grown in many regions in this part of the world. Hawaii's experts systems extrapolation was discussed as well.

It was mentioned to Dr. Acker that Dr. McCants, Dr. Apple and Dr. Oyer will be visiting with Dr. Brady on Wednesday, November 26th.

In summary we had a very good visit with Dr. Acker. Good information was mentioned by each member of the Board of Directors in attendance and Dr. Acker seemed to be very receptive to the group.

The recommendations of the Management Entity relative to budget was discussed. The new figures were written in by all of us on Table 1. We really couldn't act on budget detail because of undetermined cuts. It was indicated what would happen to budgets if the \$175,000/month figure becomes reality. The Board of Directors discussed recommendations relative to budget and it was decided to delay action pending future information. Dr. McCants was asked to redo the budget with this information. (Dr. McCants is presently working on this budget and will be turning it in soon). The recommendations are reproduced here as part of this report.

RECOMMENDATIONS OF THE MANAGEMENT ENTITY RELATIVE TO BUDGETS

1. That the recommendations submitted in the memorandum to each Board member dated November 6, 1986 on the subject "Allocation of Funds from Grant DAN-1311-G-SS-6018," be approved.
2. That the projects and budgets submitted in "Projects and Budgets for the Soil Management CRSP, 1986--1987," be approved.

The Board of Directors also received the recommendations of the Management Entity relative to the external evaluation panel. There are three recommendations of the Board in this category. Again, they are reproduced here as part of this report.

RECOMMENDATIONS OF THE MANAGEMENT ENTITY RELATIVE TO THE EXTERNAL EVALUATION PANEL

1. That the number of full members on the panel remain at three and the responsibilities remain the same as previously defined.
2. That a panel of associate members be kept up to date with recognized expertise in Soil Science, Systems Analysis and Socioeconomics and whose primary responsibility will be to provide technical evaluations of individual research projects.

3. That the Management Entity exercise its responsibilities to ensure that the Panel's recommendations are implemented as appropriate.

The Board discussed the need for major review of the Soil Management CRSP at the end of 1987 similar to that held in Atlanta in February of 1986. Full scale reviews of the Hawaii and Brazil programs will be held in the next several months. In general it was felt that the annual review was needed and should include Board members, EEP, project coordinators, etc. The best time to hold this would probably be in the fall of 1987, somewhere in the October to December time-frame. The Board of Directors moved that such a review be held and it was seconded and passed.

The generic document with the International Board of Soil Research Management, Inc. was discussed. Basically we are in agreement with this generic document, but it needs to be finally approved after it is available in the final form.

This pretty well summarizes the discussion of the Board of Directors as we met in the Westpark Hotel in Rosslyn on November 25 and 26, 1986.

E. C. A. Runge, Secretary

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FEB. 12. 1987

ATT: DR. WILLIAM H. JUDY
USAID/CAMEROUN

VISIT IN CAMEROUN IN JANUARY 1986 BY P. SANCHEZ WITH J. ECKEBIL AND USAID PERSONNEL AND RECENT DISCUSSIONS BY C. MCCANTS WITH W. JUDY AND T. JUD REVEAL SUBJECTS OF COMMON INTEREST FOR POTENTIAL COLLABORATIVE WORK IN CAMEROUN OF SOIL MANAGEMENT CRSP (TROPISOILS). WITH IRA, USAID AND IITA. ACTIVITIES WOULD INCLUDE DEVELOPING RECOMMENDATIONS FOR ON-FARM FERTILIZER USE AND OTHER IMPROVED SOIL MANAGEMENT PRACTICES. APPROACH WOULD BE TO COUPLE SOIL CLASSIFICATION, SOIL CHEMICAL AND SOIL PHYSICAL PROPERTIES WITH SPECIFIC CROP REQUIREMENTS. TROPISOILS HAS RELATED INFORMATION AND EXPERIENCE FROM WORK IN OTHER SEMI ARID AND HUMID TROPICS AREAS THAT CAN BE ADAPTED TO CAMEROUN AGROECOLOGICAL AND SOCIOECONOMIC CONDITIONS. PROCEDURE WOULD INVOLVE DEVELOPING BEST APPROXIMATIONS BASED ON AVAILABLE EVIDENCE AND REFINEMENT THROUGH VALIDATION STUDIES. TROPISOILS SENIOR SCIENTISTS CAN BE PROVIDED ON TDY AND LONG TERM BASIS TO COLLABORATE WITH COUNTRY INSTITUTION. PRIMARY FUNDING WOULD BE PROVIDED BY TROPISOILS. PROPOSE VISIT BY C. MCCANTS, TROPISOILS MANAGEMENT ENTITY, D. LATHWELL, CORNELL UNIVERSITY AND L. HOSSNER, TEXAS A & M UNIVERSITY TO (A) DISCUSS SPECIFIC INTERESTS AND OPPORTUNITIES FOR COLLABORATIVE WORK AND (B) SUBJECT TO MUTUALLY AGREEABLE PROGRAM OBJECTIVES (1) DEVELOP PRIORITIES AND OPERATIONAL DETAILS AND (2) INITIATE APPROPRIATE ADMINISTRATIVE ACTIONS. RECOMMEND TEAM ARRIVE APRIL 4 AND DEPART APRIL 11. PLEASE REPLY TO THIS TELEX NUMBER, 579369
NCSU SOILS RAL

REGARDS,

C.B. MCCANTS

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Reference 12

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FOR: SGT/AGR, J. MALCOLM, PLEASE PASS TO MCCANTS, YERIMA,
HOSSNER, AND LATHWELL

E.O. 12356: N/A
TAGS: N/A
SUBJECT: PROPOSED TROPICSOILS CRSP PROGRAM VISIT TO CAMEROON

STATE 39055

1. THIS CABLE RESPONDS TO REF A AS WELL AS THE FEBRUARY 12, 1987 TELEX FROM C. B. MCCANTS, NORTH CAROLINA STATE UNIVERSITY AND THE TELEPHONE CALL BY B. YERIMA, TEXAS A&M UNIVERSITY ON SEPTEMBER 19, 1986.
2. PROGRAM APPROACHES OUTLINED BY SANCHEZ WHEN HE VISITED IRA AND MISSION IN MID-1986 IN CONJUNCTION WITH IBSRAN CONFERENCE GENERATED CONSIDERABLE INTEREST. THERE IS STRONG INTEREST BY IRA AND USAID/CAMEROON IN WORK BY TROPICSOILS IN CAMEROON AS DESCRIBED IN MCCANTS TELE. THUS, FOLLOW UP PROGRAM VISIT BY TEAM OF THREE TROPICSOILS SCIENTISTS - C. MCCANTS, L. HOSSNER, AND D. LATHWELL - APPEARS TO BE LOGICAL NEXT STEP.
3. WE ARE INTERESTED IN SOIL FERTILITY WORK WHICH WILL SUPPORT CURRENT CEREAL AND GRAIN LEGUME RESEARCH AND UPCOMING FERTILIZER INITIATIVE. ALSO, WE WOULD LIKE TO TAKE ADVANTAGE OF WORK AT ICRISAT SAHEL CENTER AND OTHER TROPICSOILS AND UNIVERSITY RESEARCH IN TROPICAL HUMID, SUB-HUMID, AND SEMI-ARID AREAS.
4. WE STRONGLY ENCOURAGE ALL INTERESTED ENTITIES - TROPICSOILS AND U.S. UNIVERSITIES - TO PREPARE AND PRESENT A UNIFIED INTEGRATED PROGRAM SO THAT IRA CAN WORK WITH ONE PROGRAM AND ONE MANAGEMENT.
5. WE MUST ADVISE IT IS UNLIKELY THAT ANY MISSION FUNDS CAN BE MADE AVAILABLE AT THIS TIME FOR THE TROPICSOILS PROGRAM. ALSO, IRA IS CURRENTLY UNDER SEVERE BUDGET CONSTRAINTS IMPOSED BY A GREATLY REDUCED LEVEL OF 1986/87 NATIONAL FUNDING FOR ALL INSTITUTIONS AND ORGANIZATIONS. THE FUNDING PROBLEM APPEARS TO BE TEMPORARY AND IRA IS ATTEMPTING TO COPE BY REDUCING THE SIZE OF ITS RESEARCH PROGRAM.
6. WE HAVE DISCUSSED WITH IRA THE PROPOSED DATES OF APRIL 4-11, 1987 FOR TROPICSOILS VISIT TO CAMEROON FOR CONSULTATION WITH IRA AND USAID. THIS TIMING SEEMS APPROPRIATE.
7. MISSION CONCURS IN TRAVEL BY ABOVE THREE NAMED SCIENTISTS. BE ADVISED THAT VISA FOR CAMEROON MUST BE OBTAINED IN ADVANCE OF ARRIVAL IN DOUALA. GROUP SHOULD PLAN TO ARRANGE FIRST MEETING IN YAOUNDE. WE WILL MAKE HOTEL BOOKINGS IN YAOUNDE AND ADVISE NAME OF HOTEL CLOSER

UNCLASSIFIED

MAK 09 1987

From: "Report of the
External Evaluation
Panel Based on the
April 1986 Review"

FUTURE ALLOCATION OF RESOURCES FOR TROPSOILS

- A. Alternatives for matching the work program to the resources available in view of the impending major cut in resources for the CRSP.
1. Terminating one of the country programs
 2. Making cuts in some or all of the existing programs with attendant reduction in program objectives.
 3. Finding less costly ways to accomplish the same objectives, e.g. by closer collaboration amongst the four universities.
 4. Supplementing the budget by other funding.

Various combinations are also possible.

- B. Criteria used to select the agroecological zones when the CRSP was planned were reviewed by EEP to ascertain if those criteria continue to be valid for TROPSOILS research sites.

These criteria included:

1. Area of land involved in the zone
2. Number of people involved in the zone; number presently there and number zone potentially can support

3. Chances of achieving something useful by research in the zone
4. Level of support indicated by the USAID Mission(s) in the zone
5. Level of support indicated by potential host country(s)
6. Technical and socio-economic feasibility of research
7. Presence of ongoing development projects
8. Logistical problems involved in research conduct
9. Present poverty level (1/GNP) of countries in the zone

This led to the selection of these four agroecological zones for the CRSP research:

1. Humid tropics
2. Acid savannahs
3. Semi-arid tropics
4. Steeplands

When funding below the anticipated level was apparent, the steeplands program was dropped in order to keep a minimum size program in any one country. The planning group considered an annual budget of \$500,000 to be the minimum acceptable level for any program conducted by a U.S. university under TROPISOILS.

Strong emphasis was placed on this criterion of an annual budget of minimum size; hence the decision to limit the participation to a small number of universities, in contrast to some of the other CRSPs which have a much larger number of participating universities.

C Conclusion of EEP regarding continuation of research in the four agroecological zones:

It is the opinion of the EEP that the conditions listed above have not changed appreciably since the initiation of TROPISOILS. Hence EEP recommends to the ME and Board that they continue supporting the existing programs in Brazil, Indonesia, Niger and Peru.

In support of this decision, the EEP points out the following:

Since 1979, events in Africa have emphasized the need for new technology to improve agricultural production. Such technology cannot be imported from elsewhere without major modifications to meet the social and economic conditions of the countries concerned. Furthermore, the deterioration in the semi-arid tropical areas is attracting more and more attention from AID and donors generally.

The population pressure of people and cattle can only increase and can only be alleviated by increasing the productivity of the better areas and encouraging the regeneration of the woodlands being destroyed rapidly by demands of cultivators and city dwellers for firewood.

The world has become increasingly concerned about the destruction of the forests of the humid tropics and there is more and more pressure to conserve these or to convert them to non-destructive self-sustaining agriculture. The Amazon area and South East Asia are the primary targets for these pressures.

Development of the acid savannahs in Latin America and Africa with their good potential under high management would relieve some of the pressures on the rain forests.

- D. The Management Entity should take a detailed look at finding less costly ways to accomplish the same program objectives.

Apart from closer collaboration amongst participating universities, there may be opportunities for other international institutions to undertake some of the work without use of CRSP funds.

Supplementing the budget may be a possibility, though some of the funding may be short-term. Nevertheless, if the "core" of the program could be maintained, short-term funding could be effective.

- E. The above notwithstanding, the CRSP must adjust to a significant cut in budget. Therefore, EEP recommends the following in regard to TROPISOILS budgets and programs:

1. Semi-Arid Tropics:

EEP recommends CRSP funding for the TAMU-TAES/Niger Program at no less than the level in the proposed budget.

This program may need some additional funding to maintain its existing size. While this program has had difficulty in getting underway and some setbacks from personnel changes, the proposed 1986-87 budget is slightly below the minimum size envisioned by the TROPISOILS planning group.

As indicated above, the importance of the semi-arid tropical areas in the U.S. and world concerns requires that

this program continue to be supported at a level which will give it good chance to provide its potential benefits. A small amount of additional funding may be required to examine the socio-economic aspects of the program. As a beginning, a consultant might be added to appraise the socio-economic studies already made in Niger by ICRISAT and others, to ascertain their applicability to the TROPSOILS program. This is a difficult economic and social environment and the assistance of a socio-economist is needed to determine the applicability of research results to the zone.

2. Acid Savannahs:

EEP recommends CRSP funding for the Cornell/Brazil Program at the level in the proposed budget.

If some additional work is undertaken in the acid savannahs of Africa, additional funding will have to be obtained, probably from non-CRSP sources.

The proposed 1986-87 budget for this project is well below the minimum size envisioned by the planning group and has never been as great as that minimum annual amount.

3. Humid Tropics:

a. EEP recommends CRSP funding for the University of Hawaii/Indonesia Program at the level in the proposed budget and that only two resident senior scientists in Indonesia should be supported from CRSP funds: one social scientist and one biological scientist.

b. EEP recommends funding for the NCSU/Peru Program at a slightly reduced level.

c. EEP recommends continuation of the cooperative arrangement under which North Carolina State University provides backstopping for a scientist in Indonesia dealing with management of lands cleared from forest.

4. Management Entity:

EEP recommends that the Management Entity look very closely at the allocation of resources in the total CRSP in the light of this evaluation.

Recommendations
of the
Management Entity Relative to Programs ¹

1. That the research programs be designed and conducted in a manner that will contribute (a) to an improvement in our knowledge and a better understanding of soils of the tropics, (b) to the development of technology that has immediate application, (c) to an increase in the number of LDC scientists with competence to perform independent soil management research and (d) to establishing an institutional base that can provide sustained soil management research.
2. That resources be allocated and utilized in a manner which will provide effective support for each of the above stated objectives.
3. That Cornell University be encouraged to continue its efforts to establish a collaborative program in the acid savannas and/or humid tropics of Africa, and to post a senior scientist in the region.
4. That the University of Hawaii be encouraged to initiate an expanded program (a) to evaluate the utility of its "expert systems" technique for making lime recommendations and (b) to establish collaborative relationships with other countries in southeast Asia.
5. That North Carolina State University be encouraged to accelerate its networking and technology validation programs in the LAC region and to explore the opportunities of and potential for such activities in the humid regions of Asia and Africa.
6. That Texas A & M University be encouraged to investigate the opportunities and potential for increased collaboration with other countries and programs in the semiarid tropics of other African Countries and to submit a proposal for relevant action.

¹ Submitted to Board of Directors for consideration at its November 20-21, 1986 meeting.



North Carolina State University
 School of Agriculture and Life Sciences
 Academic Affairs, Extension & Research

Department of Soil Science
 Box 7619, Raleigh 27695-7619
 (919) 737-2655



MEMO TO: C. B. McCants
 FROM: R. H. Miller *Bob Miller*
 SUBJECT: Proposed Tropsoils Budget
 DATE: November 25, 1986

The news of a further USAID budget cut for Tropsoils was certainly a shock and disappointment. It will test the patience of all of us, and it certainly will make your task as well as mine a great deal more difficult.

There are a number of observations which emanated from the Board meeting which need further comment. This is especially true since the Board in Executive Session did not take any action on a proposed budget.

1. It would be my desire that the Board of Directors be involved in determining and/or approving the final proposed budget. It was not apparent to me if this was the procedure which will be followed. It was a topic left without resolution.
2. I am highly supportive of the gradual move of Cornell into Africa as discussed and approved by the Board. However, I am not supportive of the proposed increase in Cornell's budget to support this effort until the latter part of 1987 or early 1988 when all necessary investigations of opportunities are completed and the Board of Directors has met to evaluate the chance for success and future impact on Tropsoils activities.
3. Although I recognize and appreciate that all universities in Tropsoils will be seriously hurt by the budget reductions, I am convinced that the NCSU program will be the most seriously impacted. Our level of program activity and large variety of initiatives make us particularly vulnerable. I ask you sincerely to provide us an opportunity to plan and disengage in a manner which will cause us the minimum of negative impacts.
4. It would seem useful for you, Lawrence Apple and perhaps Pedro or I to meet with N. Carolina's Congressional delegation to talk about the USAID agriculture budget in general and the Soil Management CRSP budget in particular. Sometime in December or early January would seem appropriate.

RHM/vsw

cc: L. Apple



North Carolina State University

School of Agriculture and Life Sciences

Management Entity
Soil Management CRSP
Box 7113, Raleigh 27695-7113
(919) 737-3922

MEMORANDUM TO: Dr. R. H. Miller

FROM: C. B. McCants
C.B. McCants

DATE: December 11, 1986

SUBJECT: Proposed TropSoils Budget

This reply is to your memorandum of November 25 on the above subject. I appreciate you sharing these views and suggestions with me and trust the following response will be useful.

1. It was not clear to me from the Board's action on the Management Entity's budget proposal, what was intended to be the next step. I discussed it with Ed Runge and his interpretation is that, because of the uncertainties at the time of the meeting on the base for the budget cut, that the ME needed to reconsider its recommendations after the situation was clarified, and submit them to the Board for consideration. The problem with this delay is that subgrants, including funding commitments, must be developed and approved before December 31 for the Participating Institutions to have access to operating funds. I have prepared another budget based on a new set of criteria and submitted it to Dr. Apple. The figures in this proposal are the basis for the budgets given in the subgrants. After he has responded to the proposal and any adjustments made, it will be transmitted to the Board for action. Any changes arising from Board recommendations will be incorporated into the subgrants via the amendment process.
2. With respect to the Cornell initiative in Africa, aside from personnel costs there is less than \$5000 budgeted for new programs. Thus the major portion of the funding for any work they undertake in Africa will need to come by diversion from Brazil or from other sources. Thus the only way to significantly reduce the cost of the African initiative being undertaken by Cornell would be to terminate Bowen's appointment, an action I'm not prepared to support.
3. You can be assured of my continued efforts to assist the

(continued)

N. C. State program in its difficult transition. However, I do not think it will be useful in terms of accomplishing this by assuming significant reallocations of funds from other programs.

4. We need to continue to make known the assets of our program and how they can contribute to the management of tropical soils and the significant accomplishments that we've achieved. I don't believe, however, that it will be productive to singularly engage legislative bodies on this issue at this time. I'm concerned that it would be counterproductive. At a later date and through some jointly organized effort, we could have some impact.

CBM/ev

Reference 16

From: Sanchez, P.
"Analysis of
Proposed TropSoil
Budget"
November 18, 1986

- b) Page 2. Personnel: NCSU was the only university that suffered a cut in personnel already employed for the period Jan 1-Sept 30, 1987.
- c) Cornell: Africa is not included nor mentioned in any of Cornell's projects. The Cornell budget increase is therefore to support Cerrado research in Brazil, a low priority in USAID's eyes and very difficult to justify. If Cornell is to be involved in Africa, specific projects for Africa should be developed before budget approval is given by the Board of Directors.

5. The cuts are not uniformly distributed. The projections for Year 7 and 8 show the following cuts as percent of peak funding years:

Hawaii	45%
NCSU	41%
Texas	31%
ME	10%
Cornell	+2%

6. In terms of the total CRSP budget, the changes in distribution among institutions in Year 4 vs. Years 7 and 8 are:

	<u>% of CRSP Year 4</u>	<u>% of CRSP Year 7 and 8</u>	<u>Change</u>
NCSU	32	25	-7
Hawaii	22	16	-6
Texas	22	21	-1
ME	13	19	+6
Cornell	10	18	+8



University of Hawaii at Manoa

College of Tropical Agriculture and Human Resources
Hawaii Institute of Tropical Agriculture and Human Resources
Gilmore Hall 202 • 3050 Maile Way
Honolulu, Hawaii 96822

Office of the Director

January 15, 1987

Dr. Charles B. McCants
Soil Management CRSP
N.C. State University
Box 7113
Raleigh, NC 27695-7113

Dear Charlie:

Upon my return from the TROPSOILS Board of Directors Meeting and also after receiving Dr. Goro Uehara's report of the Program Coordinator's Meeting, I discussed the projected budgets for all Soil Management CRSP components prepared by the Management Entity with our College Administration (Dean and Director). I have attached a copy of our analysis of the obligated and projected distribution of funds and several comparisons of monthly rates among the CRSP components. Needless to say, we are somewhat displeased with this projection. As a Board Member of Tropsoils, I feel obligated to present this reaction to you and ask you to consider taking steps to correct the disproportionate distribution of allocated funds among TROPSOILS components.

We have reread the discussion notes and minutes from previous BOD meetings and also detailed notes and communications on the current status of TROPSOILS prepared by Dr. Ada Demb before leaving the Board. Nowhere in these documents and records of previous discussion and decisions of the BOD do we find any indication of program deficiency or lack of performance in the Hawaii program to explain or justify your projected distribution of funds. In fact, the results of the most recent EEP review of the Soils Management CRSP provide a recommendation that the Hawaii program be continued at the same level, with no indication of the desirability of a disproportionate cut of the Hawaii program with respect to the other components.

The projected distribution of funds will clearly weaken and drastically reduce the Hawaii component activities. I know this is also true for the North Carolina State program, but the Hawaii component will be taking a larger percentage cut relative to all other TROPSOILS components.

AN EQUAL OPPORTUNITY EMPLOYER

January 5, 1987

We believe that Dr. Goro Uehara has effectively defined the goals of the Hawaii program, namely, to improve and validate its soil acidity expert system and to develop a soil phosphorus model. Further, indications are that these results can be readily coupled with the soil-plant water balance model at Texas A&M and the soil nitrogen management capability at Cornell.

The informal feedback that the UH has received from Indonesia is that the TROPSOILS is very highly regarded and praised by officials and field scientists of both AARD and the USAID Mission. The projects are in mid-course, and despite staff changes during the past year, the results are now beginning to be transmitted into needed soil management recommendations for resource poor farmers in Indonesia. But even more important is the fact that the UH program is now prepared to produce a soil management information system based on the work done by UH, Cornell, and Texas A&M that will provide answers to questions about the management of soil acidity, phosphorus and nitrogen, and water balance for both millet and rice, in environments ranging from the semi-arid to the humid tropics. We strongly believe that the final results of the program review in Indonesia scheduled for February 1987, will further bear this out.

In response to your memorandum of 12/30/86 to the Board of Directors requesting Board action on the ME budget projections, I have related these concerns to Ed Oyer by telephone. I have further indicated my negative vote on the budget projections based on the following points:

- 1) The previous EEP evaluation report indicated that the Hawaii component should be maintained at the current level (relative to other components).
- 2) It is reasonable that final decisions on the long-term budget should await the February evaluation of the Hawaii component by the EEP.
- 3) The BOD voted in November, 1986 that no new thrusts in Africa (Cameroon) should be initiated without new money being allocated to the TROPSOILS CRSP. The relatively large expansion of the Cornell program into Africa is contrary to this BOD action.

Therefore, I request that you consider developing a new distribution of CRSP funds once the program review in Indonesia is completed that would provide some level of additional support to the Hawaii component.

I would appreciate receiving your response to our concerns and the above request.

Sincerely,


M. Ray Smith
Acting Assistant Director

jg
Attachment
cc: Dr. Goro Uehara



(continued)

Distribution of Funds to TROPSOILS
Components, Dollars x 1000

	<u>Obligated Monthly</u> <u>Rate 1/87 - 4/87</u>	<u>Projected Monthly</u> <u>Rate 5/87 - 9/89</u>	<u>%</u> <u>Change</u>
Cornell	26.3	27.5	+ 4.6%
Hawaii	37.1	26.1	-29.6%
NCSU	56.4	37.3	-33.9%
TAMU	42.2	32.3	-23.5%
ME	38.9	25.8	-33.7%
Contingency	0	4.7	—
	<hr/> 200.9	<hr/> 153.7	

	<u>Requested Monthly</u> <u>Rate 10/86 - 12/86</u>	<u>Projected Monthly</u> <u>Rate 5/87 - 9/89</u>	<u>%</u> <u>Change</u>
Cornell	29.0	27.5	- 5.2%
Hawaii	53.7	26.1	-51.4%
NCSU	73.7	37.3	-49.4%
TAMU	49.0	32.3	-34.1%
ME	40.7	25.8	-36.6%
Contingency	—	4.7	—
	<hr/> 246.1	<hr/> 153.7	

Percentage Change From Requested
Monthly Rate (10/86 - 12/86) to
Obligated Monthly Rate (1/87 - 4/87)

Cornell	- 9.3%
Hawaii	-30.9%
NCSU	-23.5%
TAMU	-13.9%
ME	- 4.4%

Percentage of Total Allocation to TROP SOILS Components

	<u>10/1/86 - 12/31/86</u>	<u>1/1/87 - 4/26/87</u>	<u>1/1/87 - 9/30/89</u>
	<u>%</u>	<u>%</u>	<u>%</u>
Cornell	11.8	13.1	17.6
Hawaii	21.8	18.5	17.6
NCSU	29.9	28.1	25.5
TAMU	19.9	21.0	21.6
ME	16.5	19.4	17.6



North Carolina State University

School of Agriculture and

Management Entity
Soil Management CRSP
Box 7113, Raleigh 27695-7113
(919) 737-3922

January 30, 1987

Dr. M. Ray Smith
Department of Agriculture Equipment
and Mechanization
University of Hawaii
Honolulu, HI 96822

Dear Ray:

I have received your January 15 letter regarding the proposed TropSoils budget. The following background and facts are submitted for your information.

1. Initially, the Soil Management CRSP operated under a block grant funding procedure; the various components were allocated a predetermined amount and percentage of available funds. In 1985, the Management Entity recommended, with EEP support, and the Board approved shifting the management format to a project oriented basis; requests, evaluations and funding would be by projects. The procedure became fully operational with the 1986-1987 program year.
2. Utilizing the information in "TropSoils Program Plan, 1984-1989," the Management Entity prepared a "Project Statement" for each project in the Plan and submitted it to the respective Program Coordinator for review and revision. The Statements, as approved by Dr. Uehara for the University of Hawaii, are included in "Projects and Budgets for the Soil Management CRSP, 1986-1987," referred to hereafter as "P and B, 1986-1987."
3. Each Program Coordinator was requested to submit a detailed budget worksheet for each Project Statement, including salary and related information, with the understanding that it would be held in confidence. An example of one such worksheet from the University of Hawaii, with salary information blanked out, is attached. A summary of the requested budget, by object category, is given for each Project Statement in "P and B, 1986-1987."
4. After reviewing all the requests, program operations and projected funding for 1986-1987, the procedures described on Page 1 of "P and B, 1986-1987" were

adopted. A basic decision was that currently filled positions would be given priority over vacant positions.

5. The primary reason why the University of Hawaii appears to have received a disproportionate reduction in funding is that its budget proposal included requests for a large number of vacant positions for the research projects. In addition, its backstopping request did not provide the personnel details requested, even though several special attempts were made to secure it, since I assumed that persons were currently employed in the positions. These facts are shown by the following data, part of which are given on Page 33 of "P and B, 1986-1987" and the remainder calculated from information in the Detailed Work Sheets provided by Dr. Uehara.

Funds Requested, 1986-1987

Personnel Costs		\$535,000
Current employees	258,000	
Vacant positions	134,000	
Backstopping	143,000	
Non-Personnel Costs		110,000
Total		\$645,000

6. Even though the necessary personnel details were not provided, the Management Entity did include \$86,000 for backstopping. In addition, funding for a vacant GRA position (\$15,000), plus funding for non-personnel costs in excess of that requested, was provided. These facts are shown in the following table and reported on Page 33 of "P and B, 1986-1987."

Funds Projected, 1986-1987

Personnel Costs	\$359,000
Non-Personnel Costs	140,000
Total	\$499,000

7. When we received the notification in November of a reduction in funding, revisions in the previously developed projected allocations for 1986-1987 were necessary. The current allocations for the University of Hawaii are projected as follows:

October 1 - December 31	\$164,000 ¹
January 1 - April 27	144,000
April 28 - September 30	151,000
Total	\$459,000

(continued)

¹An additional \$130,000 was formally obligated and \$100,000 tentatively obligated for the October 1 - December 31 period. Thus the total allocations for the 1986-1987 budget year will be approximately \$689,000.

8. Projections beyond 1987 are highly speculative and are for general planning purposes only. Actual allocations will vary depending on program priorities, progress on individual projects and available funds. Attempts to compare funding between university components beyond 1987 is not considered to be productive.
9. While there is no a priori right of any University to a given percentage of the budget, the 17% projected for the University of Hawaii for January 1987 - September 1989 in the December 30 memorandum to the Board is consistent with the University of Hawaii's historical relative expenditure rate as given by the following data.

Total Billings By Components of SM-CRSP
September 1981 - October 1986¹

<u>Component</u>	<u>Total</u>	<u>%</u>
Cornell	780,910	7
Hawaii	2,004,295	18
NCSU	4,599,587	41
TAMU	2,718,406	24
Mgmt. Ent.	1,177,545	10
Total	11,280,743	100

¹This is the latest date for which billings have been submitted by all universities.

10. In response to other points in your letter:
 - a. The EEP report in April 1986 assumed level funding and I do not interpret it as recommending any special considerations be given to the University of Hawaii. The appearance of a disproportionate cut is due to the requests for a large number of vacant positions which were not funded, as previously discussed.
 - b. Funding for the expert systems project, referred to on Page 2 of your letter, is provided at the full amount requested (see Page 55-56 of "P and B, 1986-1987"), contrary to what you apparently have assumed.

c. Substantial funding for soil-phosphorus modeling is still provided, though after five years, no definitive results from this activity have been presented.

d. The program at Sitiung has received good reviews and Carol Colfer's leadership, influence and productivity were unquestionably outstanding. However, in assessing the program at Sitiung, the major impact of North Carolina State University must be included due to the input of on-site senior scientist Dr. Mike Wade, graduate students Dan Gill and Karim Makarim and back-up campus faculty, Dr. Kamprath and Dr. Cassel.

e. I talked with Ada Demb many times on a range of concerns about the University of Hawaii program. However, I did not feel it necessary nor desirable to formalize them in writing. Her response was always one of support and defense of the questioned activities. I have talked also with Goro on several occasions about (a) lack of any meaningful research program output by Dr. Thompson, during his time with the program (b) lack of University of Hawaii graduate students in the field program (only two in five years), (c) failure to utilize funds on a timely basis, (d) questionable qualifications of Dr. Guyton for the needs of the program in Indonesia and (e) the low productivity of the program.

f. The CRSP is structured around major inputs by campus based faculty. To date, there have been only two University of Hawaii faculty with any apparent input into the program, Dr. Uehara and Dr. Yost.

g. The decision to provide a relative increase in funding to Cornell University was made by the Management Entity based on the following primary considerations: (1) a shift in its operations from Brazil to Africa, (2) high campus-based faculty input into the program, currently numbering seven, (3) quality of its work (4) capability to conduct and manage a larger program and (5) low backstopping costs resulting from substantial campus administrative support.

My conclusion is (a) that the relative proportion of the funds allocated and projected for the University of Hawaii is consistent with its historical expenditure pattern, program performance and management potential and (b) the amount allocated and projected should enable it to conduct a productive program that focuses on high priority issues within its area of expertise.

I'll be pleased to discuss the budget and program with you and Goro at any level of detail you desire after the EEP review is complete and to work with you all to maximize the outputs consistent with available resources.

Since your letter pertains to a matter involving the Board of Directors, I'm sending them a copy of my response.

Sincerely,

C. B. McCants
Director

CBM:ja

cc: Dr. Goro Uehara
Dr. E. B. Oyer
Dr. R. H. Miller
Dr. E.C.A. Runge
Dr. J. L. Malcolm



New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University
Department of Agronomy
Bradfield and Emerson Halls, Ithaca, N. Y. 14853

October 24, 1984

TO: Dr. C.B. McCants
FROM: D.J. Lathwell
RE: Future sites for collaborative research

Enclosed is a project proposal Dr. Van Wambeke and I prepared for site review for extrapolation of the acid savanna research. In addition maps with estimates of potential areas that Dr. Van Wambeke prepared are included.

You may wish to fund this through the Management Entity as our overhead rate is now approaching 70% and yours may be somewhat lower and result in some saving to the overall CRSP costs. I leave that to you, however.

It does appear that there are significant land areas where extrapolation of results might be tested. We believe this is worthy of investigation.

DJL:jf

Encl.

Program: Management of Soils of the Acid Savannas

Project Leader: D.J. Lathwell, Professor of Soil Science
A. Van Wambeke, Professor of Soil Science,
Cornell University
C.B. McCants, Director, Management Entity

Research Topic Title: Evaluation of sites in the Acid Savannas for future collaborative research

Goals: To locate sites in Latin America and Africa on soils of the acid savannas and to develop linkages with host country institutions where future collaborative research of mutual interest might take place.

Project: Site visitation and evaluation for future collaborative research

Objectives:

- 1) To construct soils, climate, and vegetation maps of the continents to locate and describe the acid savanna regions of the world.
- 2) To establish contacts with institutions in several countries where acid savannas occur.
- 3) To visit several countries to determine the feasibility of developing collaborative research programs complementary to that under way at CPAC.

Reasons for the project:

At least one-half of the acid savanna regions are found outside the main body of them in Brazil. Large areas occur in Colombia and Venezuela in South America and limited areas are found in Central America. Extensive areas of acid savannas are found in West and Southern Africa. While we believe it is reasonable to expect that much of the work on the Oxisols in de Cerrados of Brazil can be transferred to Oxisols with similar properties in other regions. The behavior of the Ultisols may be somewhat different. The extent of these two soil orders in the acid savanna region needs to be known. This would be followed by contact and visitation with institutions in potential host countries.

Relevance to other programs:

If, indeed, suitable sites can be located and working relations established with host institutions, then the results of research from CPAC can be tested and its suitability for other regions projected.

Generalized procedure:

Information on soils, climate, and vegetation for Africa is being put together to locate regions of similar conditions. Contacts will be

made by collaborators from Cornell and the Management entity; determine the potential for working in these regions (or countries). If suitable conditions are found then a collaborative program will be explored and developed.

Potential sites for collaboration:

Panama in Latin America offers potential as Cornell already has a program underway. The soils are Oxisols but the savannas are limited.

In West Africa, the Ivory Coast offers possibilities as a potential site. In Southern Africa, Zambia appears to offer promise. Other possibilities may exist in Central Africa.

Anticipated duration:

The phase of establishing contact and exploring possibilities should take from 6 months to a year. January 1, 1985 to December 1, 1985.

Budget:

<u>Object</u>	<u>1/1/85 - 12/31/85</u>
Salaries	None
Travel-International	
West Africa	15,000
Southern Africa	20,000
Panama	
Direct Costs	2,000
Telephone	
Copying, etc.	
Indirect Costs	26,000
Total	<u>\$63,000</u>

Estimates of Areas with Acid Savannahs in Africa

The source was the FAO Soil Map of Africa (1977). Ferralsols were taken as the equivalent of Oxisols. Acrisols were correlated with Ultisols, and the Ferralic Arenosols considered to be similar to Psammentes.

The comparison between the Cerrado in South America with the African savannahs results in the following table (in hectares *10⁶)

	<u>South America</u>	<u>Africa</u>
Oxisols	94.5	182.6
Psammentes	34.3	58.5
Ultisols	19.1	76.8
	<hr/>	<hr/>
	147.9	317.9
	(million hectares)	

The vegetation units of the FAO publication equated with the Campo Cerrado included in the computation all the savannahs (FAO symbol 4) and the large leaved dry forests (symbol 2c) of the FAO vegetation legend.

An additional table (attached) gives the areas covered by each soil component in each country. The Central African Empire, Zaire and Zambia are most typical for Oxisols, Tanzania has dominantly Ultisols, and Angola has large areas of sandy savannahs.

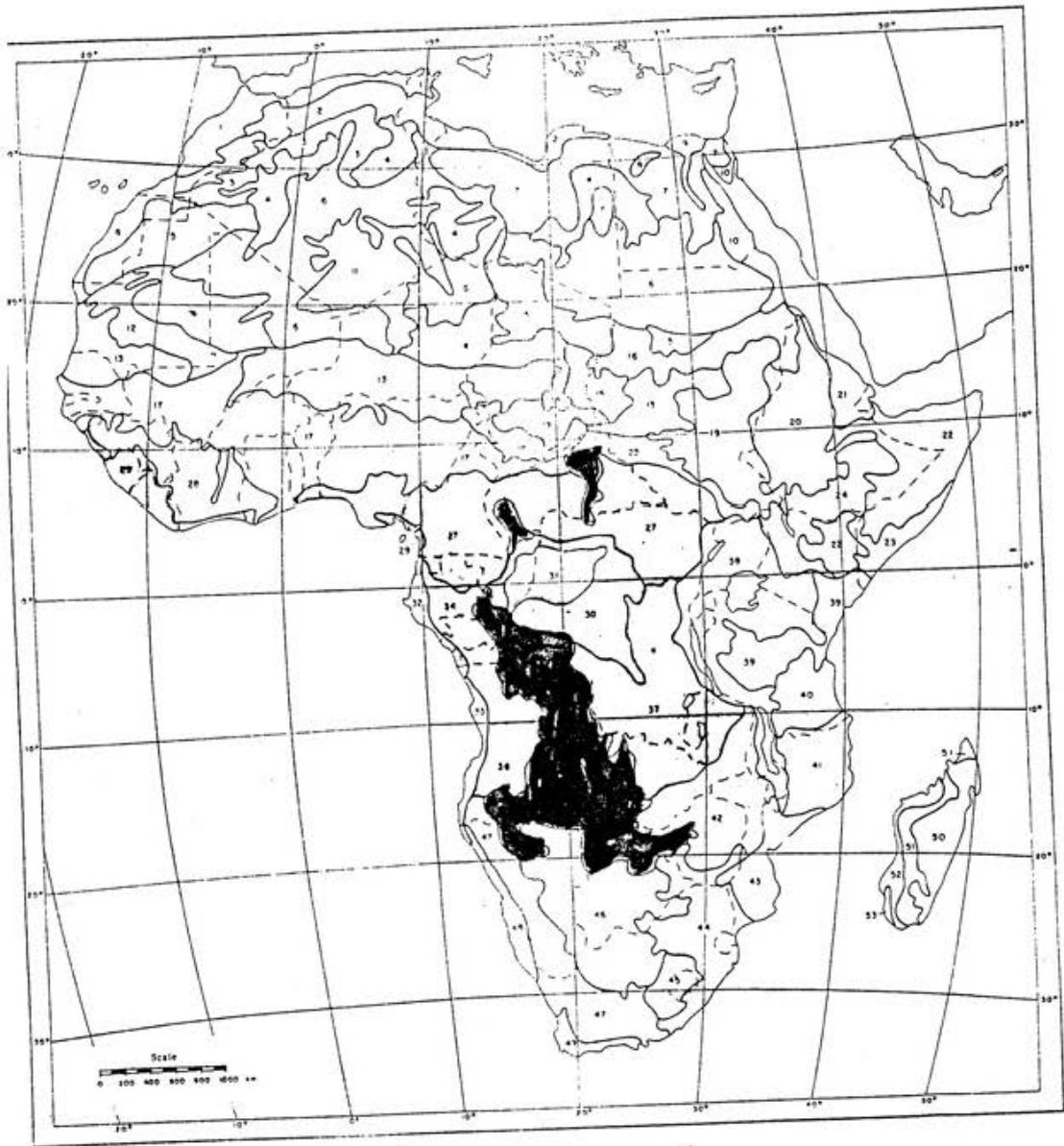
In West-Africa it would be worthwhile to contact Dr. P. Ahn who is at the Institut des Savannes (IDESSA) in Bouake, Ivory Coast leading a cropping system research team.

2. BROAD VEGETATION REGIONS



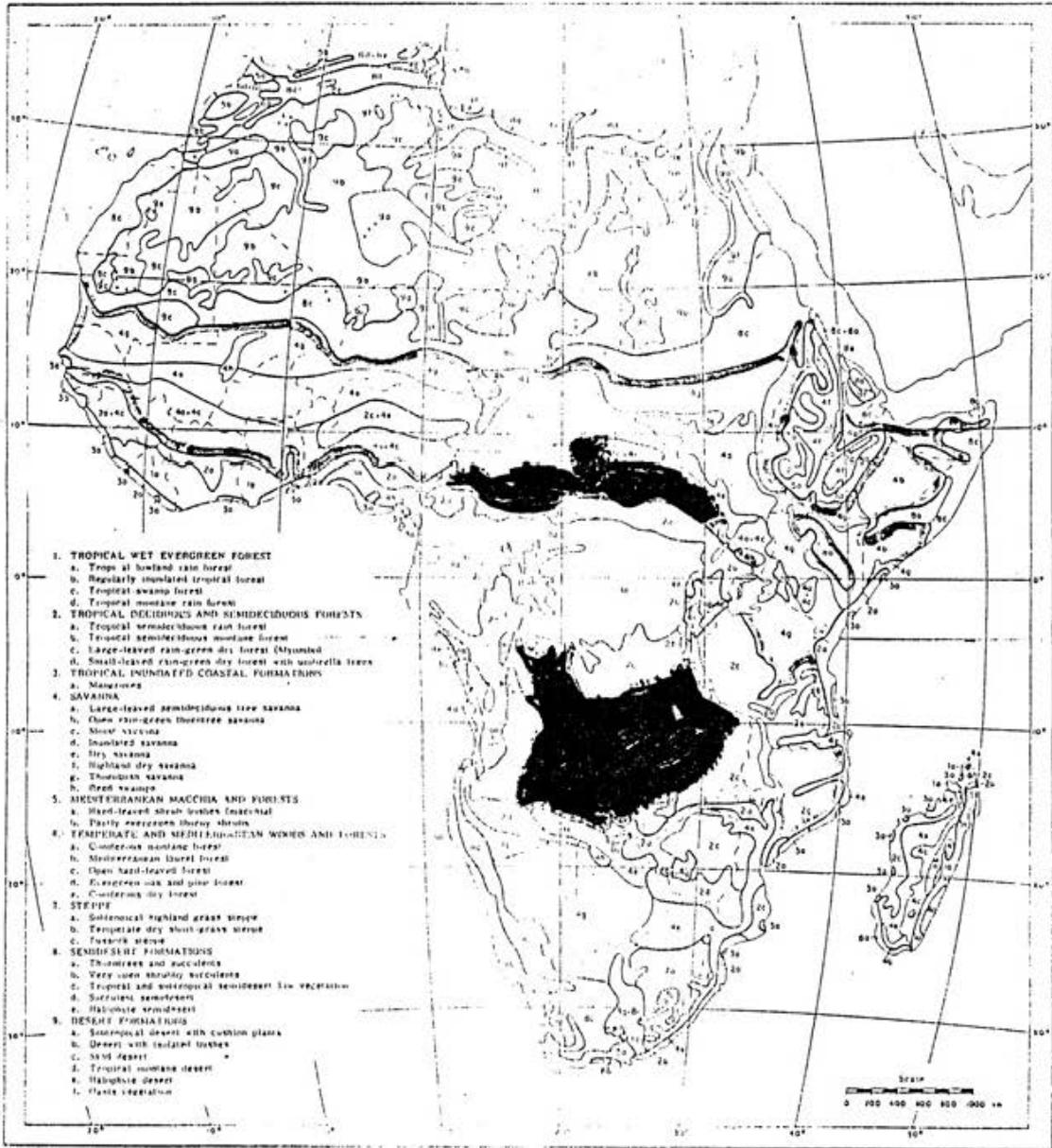
200 + 200

Area under savanna (4) and large leaved dry forests (2c)



-  Soil associations with
dominantly Oxisols
-  Soil associations with
dominantly Psammisols
(sands etc)

2. BROAD VEGETATION REGIONS



Savanna
on
sands and
fards



Savanna
on
dominantly
oxidized
soils

AREAS IN THOUSANDS OF HECTARES

	<u>Oxisols</u>	<u>Ultisols</u>	<u>Psamments (Qf)</u>
Angola	29445	1633	36043
Burundi	1722	-	-
Cameroon	3822	890	-
Central Afric. Emp.	32484	4507	9692
Chad	81	42	2700
Congo	-	-	492
Ethiopia	-	379	-
Ghana	-	180	-
Guinea	-	5434	-
Ivory Coast	-	8252	-
Kenya	2804	71	-
Malawi	3146	-	-
Mali	-	740	-
Mozambique	16749	-	-
Nigeria	-	2423	-
Rwanda	1040	-	-
Sierra Leone	1099	-	-
Sudan	13831	-	-
Tanzania	3010	31926	2878
Uganda	11547	2137	-
Upper Volta	-	111	-
Zaire	22556	-	23282
Zambia	38281	18	-
Zimbabwe	1022	-	-
	<hr/>	<hr/>	<hr/>
	182,639	58,543	76,778
	57.4%	18.4%	24.1%

Areas of Soil Associations containing Oxisols (except Humox), Ultisols and Psamments under savanna and large-leaved dry forests (Myombo) in Africa not including Madagascar.

(source FAO, Soil Map of Africa)



New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University

Department of Agronomy
Bradfield and Emerson Halls, Ithaca, N. Y. 14853
(607) 256-5457



December 10, 1984

Dr. Frank G. Calhoun
Texas A & M University
Department of Soil and Crop Science
College Station, TX 77843-2474

Dear Frank:

I am sending you herewith the documentation I had prepared for Dr. Lathwell regarding the areas covered by soil associations containing Oxisols, Ultisols or Psamments, where they occur under savannas and large leaved dry forests in Africa.

From these data it results that Oxisols occupy the largest areas in the Central African Empire, Zaire and Zambia. Ultisols would be dominant in Tanzania and Ivory Coast. Angola and Zaire are the countries which contain most Psamments.

As we discussed in Las Vegas, it may be interesting to estimate the area of the semi-arid tropics in Africa where CRSP research can be conducted or to which it can be extrapolated. You may wish to extract this from the FAO map to identify the countries which would physically be the most representative.

On the basis of this inventory and other considerations, we may then ask the appropriate individuals to select a small number of locations which would offer the highest probability for a successful soil research activity in Africa.

I thank you in advance for keeping me informed about further developments in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read 'A. Van Wambeke', with a long horizontal flourish extending to the right.

A. Van Wambeke
Professor of Soil Science

AVW:vow
Enc.

cc: D. Lathwell
C. McCants
E. Oyer

AREAS IN THOUSANDS OF HECTARES

	<u>Oxisols</u>	<u>Ultisols</u>	<u>Psamments (Qf)</u>
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Ivory Coast	-	8252	-
Kenya	2804	71	-
Malawi	3146	-	-
Mali	-	740	-
Mozambique	16749	-	-
Nigeria	-	2423	-
Rwanda	1040	-	-
Sierra Leone	1099	-	-
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Areas of Soil Associations containing Oxisols (except Humox), Ultisols and Psamments under savanna and large-leaved dry forests (Myombo) in Africa not including Madagascar.

(source FAO, Soil Map of Africa)



TEXAS A & M UNIVERSITY
DEPARTMENT OF SOIL & CROP SCIENCES
COLLEGE STATION, TEXAS 77843-2474

May 17, 1985

MEMORANDUM

TO: C.B. McCants
FROM: F.G. Calhoun 
RE: Acid Savanna/Semi-Arid Tropics Program expansion - Africa

Attached please find the following:

1. Analysis report for program expansion
2. Letter Van Wambeke to Calhoun
3. Response from Calhoun to Van Wambeke

It appears appropriate that analysis and dialogue on program expansion into Africa on the part of Cornell and Texas A&M now merits your reaction to the above documents.

Reaction of Management Entity to the joint recommendations in analysis for this effort would be appreciated. Specific reaction to the identified countries and the mechanisms to achieve this joint effort specifically relating to items 5A-D and item 6 in the recommendation from Van Wambeke is needed.

Speaking for the Semi-Arid Tropics Program our primary concern at this point in time is the start up of the Mali Program, and balancing off the cost of that expansion program with the current costs of operating a fully staffed program in Niger. Implementation of a third Semi-Arid Tropics Research site in Africa will require additional funds from the core budget for the Soil Management CRSP for us to participate. A reaction from the Management Entity would be preferable at this point in time before Texas A&M and Cornell proceed with a proposal for identification of a third research site for the semi-arid tropics and an African expansion site for Cornell in the acid savannas.





New York State College of Agriculture and Life Sciences
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Cornell University
Department of Agronomy
Bradfield and Emerson Halls, Ithaca, N. Y. 14853
(607) 256-5457

Reference 21.

May 6, 1985

Dr. Frank Calhoun
Texas A&M University
Department of Soil and Crop Science
College Station, TX 77843-2474

Dear Dr. Calhoun:

I read the report on possible expansions of the Soil Management CRSP's to Africa dealing with acid savannas and the semi-arid tropics.

I agree with the choices of countries which result from this study. It could serve as a focus on locations where to start further inquiries. It does not necessarily eliminate other possibilities.

Some remarks on the report follow.

1. I do not think that Cornell is interested in the development of soil management packages on acid leached Psamments. I believe we would prefer concentrating our efforts on Oxisols and Ultisols.

2. The report mentions joint research projects. I understand these are similar research topics to be carried out in different agro ecological zones. In my understanding it should not mean that we search for one site which could represent both the semi-arid tropics and the acid savannas. The sites, of course, could be located in the same country where the two zones occur, and this may stimulate interchange of ideas and have a beneficial effect on the research.

3. The comments on Table 3 discussing the soil moisture regimes confirms my impression that an attempt was made to identify a station with an intermediate soil moisture regime between the semi arid and the savannah environments. I do not think that it is possible to find such a site.

4. The four countries which have been identified (Cameroon, Kenya, Tanzania and Zambia) should offer the best conditions for further investigations on locations of the CRSP projects.

5. The mechanisms to achieve this would in my view probably have to include the following steps:

(a) Consultation with the Africa Bureau at AID, Washington on conditions in these four countries with respect to the political, economic and social situation.

(b) A review of literature and detailed inventory of research capabilities, infrastructure, influence of the Research Institutions and the Ministry of Agriculture in these countries, and their willingness to cooperate with joint projects. Include the activities of the International Centers in the review.

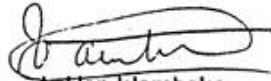
(c) Visits to the four countries and preliminary discussions with potential institutions.

(d) Installation of projects.

6. I consider that the selection of African sites will require the appointment of a permanent senior staff member for a period between 12-24 months. He should be well versed in technical, administrative and diplomatic skills. Ideally he should speak French and English. I believe he should be at a centrally located site in Africa from which he can easily travel. I believe that Kenya or a country close to that location would be optimal.

Please let me know what further assistance I can give to the expansion of activities in Africa and I will be glad to help.

Sincerely,



A. Van Wambeke
Professor of Soil Science

AVW:vaw

cc: C. McCants
T. Grove



New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University
Department of Agronomy
Bradfield and Emerson Halls, Ithaca, N. Y. 14853
(607) 256-5457

Reference 22.

August 8, 1985

Dr. D. Lathwell
Agronomy Department
8th Floor Bradfield Hall
Cornell Campus

Dear Doug,

I submit a short report on my trip to Zambia in connection with Tropsoils' plans to set-up research activities in Africa.

I have been able to collect climatic data on the major agro-ecological zones in Zambia. They seem very similar to the conditions of most of the acid savannas in the tropical regions. I also have detailed information on about 20 soils located in or close to experiment stations or farms. The samples were analyzed at the Lincoln-Nebraska USDA Soil Conservation Service Laboratories and the classification of these profiles in Soil Taxonomy and the FAO system has been done in the field.

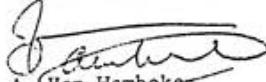
Dr. Grove has been introduced to the Ministry of Agriculture and interviewed with the Minister himself. I had an opportunity to talk to the Deputy Vice-Chancellor of the University of Zambia at Lusaka, Dr. Ben Mweene; I could not see the Vice-Chancellor of the University, Dr. Jay Mwanza who is a Cornell alumni. Dr. Mweene was very interested in seeing US Universities involved in agricultural research in Zambia.

At the USAID mission, I talked to Dr. James G. Snell, agricultural economist, who said that the Tropsoils objectives were in line with the development goals of the USAID mission. He pointed out that Zambia, as well as Cameroon, is listed by AID among the countries capable of providing the necessary infra-structure for agricultural research. I had also an opportunity to explain the Tropsoils objectives to Dr. Kelvin Martin, Agricultural Research Officer at the Africa Bureau in AID/Washington. Further contacts with these individuals should be continued. I could not see Dr. Ragan, Head of the Illinois Crops project with the Ministry of Agriculture in Lusaka.



I will prepare a detailed report on the soil and climatic conditions in Zambia in order to allow the Tropsoils Management Unit to make an appropriate choice for a possible expansion of the Soil Management CRSP in Africa. I am confident that conditions representative of the acid savanna environment will be found in Zambia. I do not know whether the aridity in the southern part of Zambia will be sufficient to be included in the objectives of agricultural research conducted by the University of Texas.

Sincerely yours,



A. Van Wambeke
Professor of Soil Science

AVW:vaw

cc: E. Oyer
R. Lucey



New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University
Department of Agronomy
Bradfield and Emerson Halls, Ithaca, N. Y. 14853
(607) 256-5457

MEMORANDUM

TO: Dr. D. Lathwell
[REDACTED]
Dr. E. Oyer
Dr. F. Calhoun

FROM: A. Van Wambeke *AVW*

DATE: October 17, 1985

RE: Zambia Report

I am sending you herewith a copy of my report on Zambia. It focuses on the physical environmental factors which are important in considering areas suitable for research under the Soil Management CRSP.

Although Zambia seems to offer possibilities both for the Semi-Arid and Acid Savannah components of the CRSP, I suggest that other countries in Africa be considered for the same objectives.

I wish to thank all sponsors of this travel for their support. Since most data in the report have been taken from the work of others, it is recommended to use the report for in-house purposes only.

AVW:vaw
Attachments

COPY OF REPORT AVAILABLE FROM DR. VAN WAMBEKE OR THE MANAGEMENT ENTITY





New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University
Department of Agronomy
Bradfield and Emerson Halls, Ithaca, N. Y. 14853

September 13, 1985

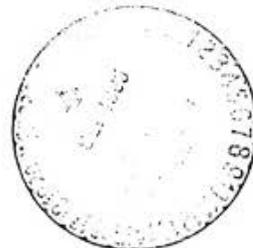
MEMORANDUM

TO: C. B. McCants
Trop Soils Board of Directors
External Evaluation Panel
Program Coordinators

FROM: Thurman L. Grove 

Enclosed for your information is a copy of the report from my recent trip to Zambia. I travelled as a representative of Trop Soils to investigate possibilities for collaborative studies in Zambia. I'm pleased to report that the Zambians are enthusiastic about collaboration. We will continue in our efforts to establish a Zambia-Trop Soils program.

TLG:LH
ENC



Zambia Trip Report

12-19 July 1985

Thurman L. Grove

The purposes of this trip were to attend the SMSS Forum on Soil Taxonomy and Agrotechnology Transfer, to become familiar with current soil research activities in Zambia, and to investigate possibilities for collaboration between TropSoils - CRSP and Zambian counterparts. The nature of this report is primarily administrative rather than technical. Professor Armand Van Wambeke participated in the SMSS forum and will report on the technical aspects of soil and climatic resources of Zambia.

SMSS Forum:

The forum was well attended by members of the Zambian soils community, expatriot soil scientists working on technical assistance programs in Zambia, and representatives from Botswana and Zimbabwe. Several high ranking officials of the ministry including the Honorable Minister attended the forum during the first day. The forum thus provided good opportunities for accomplishing the objectives of the trip.

I was provided a half-hour on the formal schedule for a presentation of the TropSoils program. I outlined the history, objectives, and current status of TropSoils projects.

Current Research Activities:

There are limited numbers of Zambian soil scientists and consequently few Zambian soil research projects. Most research is conducted within

(continued)

bilateral technical assistance programs that are staffed by with smaller numbers of Zambian counterparts. It appears that crop production is sparse and research on soil management is even less common. Brief reports on several projects follow:

Soil Survey is sponsored by NORAD in collaboration with the Department of Land Use of the Ministry of Agriculture and Water Development (MAWD). Robert Magaii is leader of the Zambian Soil Survey Unit with headquarters at the Mt. Makulu Experiment Station. There are Soil Survey Units in each province. Soil Survey appears to be an intensive effort that employs large numbers of Zambians and a fair number of expatriates. The Soil Characterization Laboratory at Mt. Makulu provides analytic support to the Survey. The lab is well equipped and also provides analytic services to the MAWD Departments of Research and Extension. R. James Cheatle supervises the lab and acts as soils coordinator for the Ministry. Twenty-five percent of Zambia's soils are mapped and one-hundred twenty-five survey reports are available.

Integrated Rural Development Project at Mpika is sponsored by the British Overseas Ministry, Carl Berryman project leader. I did not have direct contact with this project, but understand that it is a small farming systems study.

Soil Productivity and Research Project at Kasama is sponsored by NORAD and performed by Agricultural University of Norway, Carl Solberg project leader, Alfred Mapiki, MAWD Department of Research counterpart. This program focuses on agroforestry and legumes. To date soil research has been limited. Alan Stapleton, a soil physicist, has recently joined the project. Bal Ram Singh, a soil chemist, will join the program within a year.

Zam-can Wheat Research Project at Mt. Makulu and Mbala is sponsored by CIDA and performed by a private firm from Saskatchewan, Richard Little project leader. Wheat is an important crop in Zambia as 92% of consumption is imported. The Zam-Can project includes breeding, basic agronomy, and soil science. Ted Angen, a Canadian soil surveyor, works on the program matching soil resources and genotypes. Most wheat is grown in the south under irrigation on soils with high base status. Bill Aulakh, a Canadian agronomist, is conducting field trials under rainfed conditions at Mbala near the Zaire border. Soils at Mbala are Oxisols with low CEC, low pH, and high Al saturation in the subsoils. The project includes trials with varieties (Brazilian varieties are used on the Oxisols), green manures, liming, and phosphate fertilization. Angen and Aulakh have visited CPAC and with advice from Dale Ritchey have started some experiments on leaching of calcium. There's no evidence of leaching during the first two years.

ZAMERE is sponsored by AID and managed by the University of Illinois, Jim Ragin project leader. This is a crop breeding program conducted in collaboration with MAWD Department of Research. A recent review of the program recommended addition of a soil research component.

Belgian Aide Programme to Department of Soil Science at the University of Zambia (UNZA), Jaak Lenvain, team leader, Obed Lungu, acting department head. The Soil Science Department consists of five members of whom two are in residence, two are in Belgium working towards Ph.D. degrees, and the Department Head is on sabbatical leave. Two Belgian soil chemists and Lenvain, a physicist, serve as replacements for the absent faculty members. Lungu (Ph.D. - Davis) and the Belgian chemists are doing soil fertility trials on Alfisols at the University research farm. Vernon Chinene (Ph.D.

with Uehara at Hawaii) is participating in IBSNAT. Lenvain is in soil-water relations.

Possibilities for Collaborative Research

I visited with Marcia Ellis, Education Officer, at the AID mission. Ernest Gibson, the Ag Officer was transferred to Niger two weeks before I arrived. The new Ag officer, Willie Cook, will arrive about 1 September. I believe he is currently the Ag officer in Ghana. Ms. Ellis indicated that CRSP objectives are coincident with mission objectives. She advises us that the second phase of AID's Zambia program will enter the planning phase this fall for implementation in fiscal year 87. Consequently, this is a good time to collaborate with the mission in planning future activities. She also suggested that we contact Mr. Patterson, the new mission director during his visit to Washington in August. I called the Southern African Office of AID upon my return and learned that Mr. Patterson had returned to Zambia. It may be worthwhile to investigate collaboration with Illinois as they've been managing ZAMERE.

I discussed potential collaboration with Lungu, Chinene, and Levain of the Department of Soil Science. They expressed interest, but were candid in identifying potential problems. Their field facilities consist of two farms in the Lusaka area that are situated in Paleudalfs which are inappropriate to either the Cornell or Texas objectives. To involve the University at other locations we must first collaborate with the Ministry and solicit their permission to involve the University staff. The soils faculty has a heavy teaching load. They feel that travel to distant research stations would be impossible during the academic year.

Collaboration with the University is probably desirable in the long-term, but is inappropriate at this time.

I had several discussions within MAWD. The pertinent organization follows:

Minister: Hon. General Kingsley Chinkuli
Director of Agriculture: Dr. Nicholas Mumba
Deputy Director, Land Use: Joseph Mutello
Deputy Director, Extension: Mr. Mulele
Deputy Director, Research: Madame R. K. Chungu
Chief Agricultural Research Officer: Dr. B. Patel
Acting Soils Coordinator: R. James Cheatle

It seems clear that the Zambian government has placed a high priority on agricultural development. This decision is relatively recent. The depression of copper prices (their traditional export), their land-locked location, social and economic instability in South Africa (upon ^{om}when they are economically dependent), and unrest in Zimbabwe (through which many imports are transported) have contributed to desires for self-sufficiency in food production. Technical resources within Zambia are limited and a great deal of technical assistance is required.

I met with Minister Chinkuli, who was very enthusiastic about collaboration. He informed me that Zambia has neither the financial nor the personnel resources to accomplish their development objectives and thus must rely on collaborative technical assistance. He's pleased with the current collaborative programs. He was very interested in my suggestion that technology developed in Brazil could be adapted to the highly weathered soils of Zambia. He told me he would ask appropriate MAWD personnel

(continued)

to be sure to meet with me and referred me to Nick Mumba, Agriculture and Bady Patel, Acting Deputy Director of Research.

Nick Mumba, Director of Agriculture chaired the technical session on the first afternoon of the forum. I had a short meeting with him. He was enthusiastic about potential collaboration and suggested I discuss details with Dr. Patel.

I met with Dr. Patel twice. Dr. Patel is a nematologist and relies heavily on Jim Cheatle for advice on soil matters. She is stationed at Mt. Makulu and serves as Chief Agricultural Research Officer in the MAWD Department of Research. She also was acting as Deputy Director for Research until September when Madame Chungu returns from leave. Jim Cheatle attended our meetings.

She reported that traditional agriculture is slash and burn. She hopes to develop alternatives and feels strongly that new technologies should not be promoted until probabilities for success are high. After our first meeting she and Cheatle identified a potential program area in which they would like us to participate.

Zambia plans to develop a new research station at Mutanda in the Northwest Province with World Bank funds. The soils at Mutanda are Paleustults. Hari Eswaran reports that these soils are very important as they have good productive potential and are widely distributed through Angola, northwest Zambia and southern Zaire. Van Wambeke has a soil survey report for the area. Eswaran has told the AID mission that he feels the station should be supported as a regional center because of the distribution and importance of the soils. Unfortunately I failed to ask who the prime contractor would be for development of this station. I will attempt to overcome this deficiency in the near future.

Dr. Patel proposes that TropSoils station two scientists at Mutanda, one to work on lime and phosphorus management and one to develop nitrogen management practices. She also suggests that we will need to station a third person at Mt. Makulu to provide analytic services and to act as liason with MAWD. Zambia would support the program with labor and equipment. The proposed schedule is to begin experiments in the fall of 1986 with arrival of summer rains.

It was emphasized that Mutanda is remote and primitive. There is, however, a government station in Mutanda, so some infrastructure exists. Mutanda is near the copperbelt and the town of Solwezi has basic shopping and support available.

Dr. Patel also reported that current soil and crop production programs are not focused. She suggests that we hold a workshop to provide a common base of understanding among programs and to develop specific research plans. She would like to see CPAC and the Alley Cropping Program of IITA represented at the workshop.

I informed Dr. Patel that her proposal was more ambitious than Trop Soils current level of support. She believes that AID will provide substantial support to Zambia in the future and she is prepared to help direct some of that support towards soil research.

Dr. Patel indicated that she would prepare a document that indicates MAWD intent to pursue further deliberations with Trop Soils concerning the proposed programs. We parted with an understanding that I would report to appropriate Trop Soils authorities and inform her of our intent as soon as possible.

I also discussed possibilities for involvement of Texas A and M in the more arid portions of Zambia. The discussion was less detailed as there

Ref:
MNCI

Original Retyped to Improve Quality of Reproduction

To Acting Assistant Director (Research)
Hulungushi House,
P.O.Box 50291,
LUSAKA.

Tropsoils.

There have been further developments since our discussions with Dr. Thurman Grove. I therefore write to provide you with these notes as a brief summary.

1. Dr. Thurman Grove
Dr. Grove was acting on behalf of the Tropsoils leader. Dr. C.B. McCants.

Three universities are involved in Tropsoils.

Their names and areas of special interest are shown below:

- | | | | |
|----|----------------------|---|--------------------|
| 1. | North Carolina State | - | Humid Tropics |
| 2. | Texas A & M | - | Semi arid tropics |
| 3. | Cornell University | - | Acid savanna lands |

All three universities have staff with considerable research experience in the third world, notably South America. Reviews of aspects of the work are found in the booklets issued to us.

- A. Tropsoils
- B. Phosphorus response on oxisols and ultisols
- C. Crop response to liming of ultisols and oxisols
- D. The influence of subsoil acidity on crop yield potential
- E. Nitrogen fertility in oxisols and ultisols of the humid tropics
- F. Potassium fertility in oxisols and ultisols of the humid tropics.

Items B through F on Cornell publications and report work on acid savanna soils (oxisols and ultisols). Dr. Grove introduced the notion that 'Tropsoils' was seeking a location for extending their activities to acid savanna lands in Africa. Zambia is a

possible choice.

From our point of view the prior experience of the Tropsoils group offers considerable potential for agro-technology transfer based upon findings elsewhere. The skilled scientists of this group have with 14 years of work been able to demonstrate promising arable agricultural systems in Brazils cerrado where deep well drained acid soils in some respects similar to those of our northern provinces are found. We mentioned the following as priority areas of study.

- i. Amelioration of acidity by liming and other means plus associated phosphate fertilization.
- ii. Management of Nitrogen with emphasis upon organic approaches

Our interest in research tailored towards the identification of packages for specific kinds of farming systems was made clear. For all projects there would necessarily be approval granted through our research committees and all the usual clearances completed before publication of materials.

While there would be possibilities of integrating Tropsoils within the existing SPRT framework based at Kasama the motion of a second site based at Mutanda, Nr. Solwezi was discussed. From our point of view such a development would mean a useful new base for soils based research and introduce a healthy competitive element in our work. This site is closer to major services in the Coppebelt towns than is the case for Kasama. Dr. Grove pointed out that Mutanda might be the preferred site.

In terms of staffing Dr. Grove envisaged an initial provision of one professional officer with two post-graduates in association. Our preference for three staff plus post-graduates was stated. These would be a professional soils agronomist, a senior field technician with mechanical repair experience and a soil scientist based at Mt. Makulu. The latter would have a research component in the workload but would be especially responsible for data provision in terms of soil and plant analysis plus data processing for the project. An additional role would be to provide back stopping for the project. The field technician would be responsible for all on/off station trials plus the maintenance and repair of project equipment.

All staff would be expected to undertake training roles in association with local staff. Mention was made of the fact that approved post-graduates would be on site for 2 rainfed cropping seasons. Where one post-graduate was associated with a project initiated for 3 years or more our view that the project must be followed through by a successor was stated.

(continued)

Our own difficult position with regard to resources was emphasized. Notably that means for providing recurrent and capital funding would have to be found. This must necessarily cover the heavy costs of agricultural machinery, vehicle purchase and operation costs, plus housing. In terms of the latter element the possibility of rapid provision by purchase of mobile units at a cost of about US 30.000 was mentioned. The possibility of seeking additional assistance through U.S. AID to cover some portion of the heavy expenditure was discussed. At this time such an approach might be useful.

Finally it was agreed that if agreement could be reached the attempt should be made to bring staff on site by September 1986 with a view to commencing operations through the 86/87 cropping season.

Our idea of organizing a workshop for the purpose of identifying our national research priorities in soils work was discussed. Dr. Grove pointed out that the Tropsoils' group might be able to assist with the funding of this workshop to include expenses of soils and ARPT staff in Zambia plus certain established professionals from IITA and South America. Tropsoils would also provide three or four of their own professional staff.

2. Dr. Armand Van Wambeke.

He informed me that he was noting for Dr. D. Lathwell, project leader of the Cornell team. His particular objective at this time is to examine physical conditions and to determine whether these are suitable.

Dr. Van Wambeke also pointed out that Tropsoils was seeking not only an acid savanna site for the Cornell team but also a semi-arid site for the Texas A & M team. There are obvious advantages to placing acid savanna and semi-acid work in one country.

That broad stretch of valley land of the Gwembe and the middle Zambezi including the lower Lwangwa was introduced. That portion of Western Zambia associated with Kalahari sand soils was excluded at the request of Dr. Van Wambeke. Mention was made of possibilities for work on lighter soils at Lusito or Chiawn and on heavier soils at Marumba.

Dr. Van Wambeke is very satisfied that our acid savanna areas met physical requirements and is reasonably satisfied with those areas of the Zambezi Valley suggested for semi-acid research.

In conducting his visit Dr. Van Wambeke had a short meeting with US to discuss the issue of Tropsoils in Zambia and encouraging.

3. Dr. S. Buol

Dr. S. Buol is a member of the North Carolina team. He will report back to them.

He mentioned that North Carolina might be interested to engage in research activity in Zambia. There was a general discussion about facilities and the economic infrastructure. Concluding Dr. Buol a small start with perhaps two post-graduates on site.

4. Concluding notes.

All persons have been informed of our interest to discuss those matters in greater depth.

Dr. Grove has been given our address together with telex and telephone numbers.

All three persons have been asked to liane and to inform the undersigned how they might wish to explore those issues further as soon as possible.

R.J. Cheatle,
for/ACTING CHIEF AGRICULTURAL RESEARCH OFFICER.

cc. Acting Assistant Director (Research)
cc. File
cc. Self
cc. McCants
cc. Lathwell
cc. Grove
cc. Van Wambeke
cc. Buol

RJC/AT.
CBM:mbs

MOCR/101/13/5

02.10/85

MEMO TO ASSISTANT DIRECTOR (RESEARCH)

REFERENCE: POSSIBLE CONTRIBUTION FROM THE AMERICAN TROPSOILS GROUP.

You will recall our conversations with Dr. Thurman Grove and others about a possible input to our soils agronomy research programme from Tropsoils. A copy of my note report to you of the 30th July is attached. This records a bit of the background and our position at that time.

When I was in the U.K. Dr. Grove telephoned me to advise that he had taken back your letter and reported to his director and colleagues. Dr. Grove advised me that the tropsoils group were interested to discuss in depth and shape out the framework for a possible memorandum of understanding. It was stated that we could expect formal notice of this in the mail soon. Dr Grove advised me that he had been asked to co-ordinate this process.

The possibility of a visit by Dr. Grove during the latter part of this year or very early next was discussed as a necessary next step in the identification process.

The possibility of liason with the Zamare group was introduced. It was also suggested that I brief William F. Cook, the Agricultural Development Officer at U.S.-AID and Jim Ragin of Zamare. This has been done.

The notion of a workshop for the purpose of identifying research priorities was re-introduced and it is agreed that the resulting document would be a most valuable tool. Dr. Grove pointed out that funding for tropsoils personnel could probably be found for this purpose.

Dr. Grove noted that within the framework of existing programmes funding for one professional and some logistical support was already available but to proceed along the lines indicated by us with a team of three officers would require that additional funding be found. Additional salaries, together with capital provisions for housing and agricultural machinery are regarded as salient areas to be funded.

We must now await renewed contact from Dr. Grove.

Jim Ragin and I visited U.S.-AID two days ago where we were welcomed by William F. Cook. He gave me an opportunity to brief him on all events to date.

It was pointed out that soils agronomy problems particularly in relation to acidity and other aspects of plant nutrition were one of our major constraints to agricultural development in the high rainfall areas. That there were also important soil related problems to be resolved in our semi-arid areas. Knowing of the valuable work and achievements of the Tropsoils group in Brazil and elsewhere in similar

environments it was felt that they might be able to apply their expertise to assist us overcome some of these soils problems. Also that the three universities, TEXAS, CORNELL and NORTH CAROLINA might be able to assist us in the training field.

In responding Mr. Cook pointed out that agricultural development was a major area for which project assistance could be made. That solutions to soils problems constraining development must be found.

Therefore he raised no objections to discussions with Tropsoils personnel and would assist Dr.T. Grove, their representative, wherever possible so that he could attend in Zambia for this purpose.

The issue of the soils workshop was discussed. It was pointed out that our interest was to bring together a group of soil scientists of international repute with our own soils personnel for a period of about five days, possibly in early 1986. That a major objective of the workshop would be to compose a major planning document that would identify in some detail our soils research priorities and as such be of considerable utility.

Mention was made of the fact that while Tropsoils might be able to fund their own representatives funds were not available to bring in key scientists from other major institutions or to fund attendance by local personnel. Mr. Cook was asked whether funds could be provided for this. He stated that with a formal request on the table he would be prepared to consider release of funds from PL 480 for this purpose. This is a commodity support programme where items requested are brought in and sold. The proceeds are deposited locally. A portion of such funds might be used for the operational costs of the workshop and also be applied as airfares for international scientists. It was suggested that we prepare a budget and present a formal request.

Mr. Cook made known his view that representatives ought to come from:-

The international Institute of Tropical Agriculture

The FAO

The EEC

The Overseas Development Administration of the U.K.

The World Bank

The African Development Bank.

Mr. Cook also stated that he would like us to ask each individual agency to fund a representative themselves in the first instance. Thereafter funds might be applied to assist in the cases where funding was not available where particular representation or a particular scientist was required.

Would you like me to prepare a draft document for the proposed workshop along the lines indicated?

R.J.Cheatle

cc. W.F.Cook
J.Ragin
T. Grove
C. McCants
D. Lathwell

J.Mutello
C.Kalima

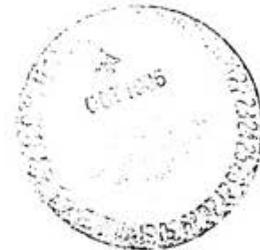


New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University

Department of Agronomy
Bradfield and Emerson Halls, Ithaca, N. Y. 14853

October 9, 1985

Dr. B. Patel, Chief Agricultural Research Officer
Zambia Ministry of Agriculture and Water Development
Mt. Makulu Research Station
Private Bag 7
Chilanga
Zambia



Dear Dr. Patel:

I'm writing to confirm and reiterate the interests of Cornell University and Trop Soils in collaborative soil management research with Zambia MAWD. Following my fruitful visit to Lusaka during late July, I returned to Cornell and communicated the results of meetings with you and other members of the Zambian agricultural research community. I'm pleased to report that the Cornell Trop Soils Program and the Trop Soils Management Entity are very enthusiastic about collaboration with Zambia.

A partnership between Cornell-Trop Soils and Zambia seems especially appropriate. Agricultural production on the extensive savanna lands of northern Zambia suffers limitations from soil acidity and inadequate soil supply of phosphorus and nitrogen. Cornell-Trop Soils has interest and expertise in management of highly weathered Oxisols and Ultisols such as those which occur under Zambian savannas. During the past sixteen years we've accumulated considerable expertise while conducting research on highly weathered soils in South America, the Caribbean, and West Africa. Technologies that resulted from these programs are likely transferrable to Zambia after a period of adaptive research to match them to local conditions.

From our previous discussions and from Mr. R. James Cheate's memorandum of 30 July 1985 (MMCR/101/13/9) we understand that your priority research needs are in amelioration of soil acidity, phosphate fertilization, and nitrogen management, especially organic sources. We note your interest in developing management packages for specific farming systems. We feel that basic information on lime and phosphate management is generally applicable across many farming systems and that our

approaches to total management of nitrogen allows for adaptation to many farming systems. Consequently, management packages can be developed using the specific adaptive research as a base. We further understand that you prefer we base our field studies at Mutanda beginning in late 1986 with two professional staff in the field and an additional senior soil scientist at Mt. Makulu. Your priorities and preferences are compatible with our objectives; but we emphasize that we are flexible and open to alternate suggestions that may arise in future deliberations.

It appears that we are in agreement as to the nature of a collaborative program. If you concur, I suggest we proceed to plan the details of such a program. USAID/Lusaka should be involved in the planning process and a positive statement of their interest is essential before we begin the planning process. Enclosed find a copy of a letter to them which reports the status of our interactions to date and which identifies program needs for which they may provide assistance.

If you and USAID/Lusaka concur, then I suggest we have a meeting in Lusaka in January or February 1986 to plan details of the program and to develop terms for a memorandum of understanding among Trop-Soils, Cornell, and Zambia MAWD. If you concur, please inform me of convenient dates.

We had also discussed the desirability of conducting a workshop in Zambia on management of highly weathered soils. This workshop would serve to establish communications and coordination among soil researchers in Zambia and it would serve as a planning tool to identify national soil-research priorities. We encourage such workshop and have resources to coordinate the workshop and to send Cornell participants. However, additional resources are required to support participants from Brazil, IITA, and Zambia. I have identified these needs in my letter to AID/Lusaka. I suggest that details of a workshop be discussed at the planning meeting in early 1986.

We had briefly discussed Texas A&M University which is also a participant in Trop Soils. Their interests and expertise are primarily in soils of semi-arid zones. They wish to investigate possibilities for collaboration in Zambia. There are no concrete proposals for their involvement at this time; however, we solicit your advice concerning programs and locations that might be suitable for such collaboration. If you see a possibility for a collaborative program in the semi-arid regions, I'm sure that Professor Frank Calhoun, Texas Trop Soils Program Coordinator, would be willing to attend the planning meeting in early 1986.

(continued)

Lastly, I wish to inform you that Walter Bowen will join staff on 1 January 1986 as Senior Research Associate in the program. Mr. Bowen has recently returned from two years at Pesquisa Agropecuária dos Cerrados in Brazil and is currently writing his doctoral dissertation on the use of green manures as a nitrogen source for highly weathered savanna soils. Mr. Bowen is our candidate for the senior soil scientist position in Zambia. He will be involved in the planning process and will act as our coordinator for the workshop.

I look forward to future collaboration and await your response.

Sincerely,

Thurman L. Grove
Cornell-Trop Soils

TLG:vaw



REPUBLIC OF ZAMBIA

DEPARTMENT OF AGRICULTURE

RESEARCH BRANCH
MOUNT MAKULU RESEARCH STATION
PRIVATE BAG 7
CHILANGA

20th November, 1985.

Cornell University,
Department of Agronomy,
Bradfield Hall,
Ithaca, New York 14853,
U.S.A.

Attention: Dr. Thurman Grove.

Reference : Planning Mission and Soil Review Workshop.

Thank you for your letter that confirms your interest in exploring possible ways to assist in our agricultural development programme with respect to acid soils and semi-arid environments.

It is clear that an initial mission to discuss and identify the way forward is necessary for both Dr. Calhoun and yourself.

The matter has been discussed with senior officers including Dr. Patel, the Chief Agricultural Research Officer. Through her office authorisation for your visit has been channelled. It is hoped that you will both be able to visit in early January 1986. Please advise your arrival date and other details as soon as possible.

The initial expectation would be:

1. Advisory participation on your part to enable us to discuss an optimum approach to a review of soils work. We find it necessary to identify our objectives more clearly, their priorities and as a consequence to rationalise functional role provision and other aspects of structural organisation.

2. To explore possibilities of assistance from the Tropsoils group in the review process whether this be a workshop approach or some other form.

3. To explore possibilities of further collaboration effort after the review process within the overall context of our soils research programme especially in relation to low activity acid soil systems and the soils of our 'semi-arid' environments.

We look forward to seeing you again.

Jim Chestle
J.J. Chestle,
National Co-ordinator (Soils Research).

c.c. Chief Agricultural Research Officer.

c.c. W. Cooke (USAID).

c.c. Dr. F. Calhoun.

RJC/AT.

20th November, 1985.

Prof. F. Calhoun,
Texas A & N.,

The copy of a letter attached makes clear that we would like to see you here early in 1986. Hope you can make it. You might wish to contact Thurman Grove who is aware of some of the problems and possibilities here.

Kind regards.

R.J. Cheatle,
National Co-ordinator (Soils Research)
for/CHIEF AGRICULTURAL RESEARCH OFFICER.

C.C. CARO

C.C. Cooke (USAID)

C.C. T. Grove.

RJC/AT.

NORGES LANDBRUKSHOGSKOLE
INSTITUTT FOR JORDKULTUR

Boks 28, 1432 Ås-NLH
 Tlf.: Sentralbord (02) 94 90 60. Eksped. tlf. 94 84 85/87. Tel.adr. Agriuniv. Ås

Dr. D.J. Lathwell
 Coordinator Trop Soils
 Dept. of Agronomy
 Cornell University
 Ithaca NY 14853
 U S A



Deres ref.	Vår ref. (bes oppgitt ved svar)	Dato
Saksbehandler:	503/85 BRS/TG	31.10.85

Dear Dr. Lathwell,

Let me first of all introduce myself to you. I am Bal Ram Singh, Associate Professor and Coordinator, International Post graduate Program in Soil Science, Agricultural University of Norway. Infact I got an opportunity of meeting one of your colleagues Dr. T. Grove in Zambia and had also a telephonic talk with him while I was in USA. Through discussion with him I came to know that you are planning to start a research and development project in Zambia. In that connection I would like to inform you on our university's program in the Nothern Province of Zambia and explore the possibility of some scientific cooperation in solving enormous problems for food production in Zambia. Enclosed herewith is a brief write up on our research project in zambia which will give you some information on the objectives and research approaches of this program. We are still in establishing stage and hence the research activities are subject to change or formulated differently as we gain experience. Since your university has a considerable and longer experience in the field of agricultural development, sharing your views on some of our research projects will be of emense help to us. Furthermore, exchanging ideas through correspondance or personal meeting may be of mutual interest.

I am likely to reach Zambia in the end of Jan. 1986 to take over the position of a senior soil scientist in the Soil Productivity Research Program (SPRP) and will be very glad to have discussion with you or

Department of Soil Fertility and Management Agricultural University of Norway

Vennligst adresser posten til instituttet, ikke enkeltpersoner

your colleagues when you come to Zambia. My address in Zambia will be as follows.

Dr. Bal Ram Singh
Misamfu Regional Research Station
P.O. Box 410055
Kasama, Zambia
(Telex PC05-ZA-64070)

I would be grateful if you could send me a copy of Cornell Int. Agric. Bull. 35 as well as reprints of other articles on the similar subjects. I would also request you to put my name on your mailing list. Please give my regards to Dr. Grove.

With best regards
Yours sincerely

B. R. Singh
Bal Ram Singh
Associate Professor

C.E. NORADINAH, box 3, 1432 A's
✓ c.e. Dr. C.B McCants Director Management Entity
C RSP, North Carolina State University Raleigh N.C.
27695-7619 U.S.A



New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University
Department of Agronomy
Bradfield and Emerson Halls, Ithaca, N. Y. 14853
Telephone: 607-256-2287

December 18, 1985

Mr. R. James Cheatle
Mount Makulu Central Research Station
Private Bag 7
Chilanga, Zambia

Reference: MMCR/101/13/10, Planning Mission and Soil Review Workshop

Dear Jim:

Thank you for your letter of 20 November. We are pleased that MAWD wishes to pursue further deliberations with TropSoils concerning potential collaboration in a soil research program. As I indicated during our recent telephone conversations endorsement of our collaboration by USAID/Lusaka is essential. Such endorsement is yet lacking, but hopefully will be forthcoming at the appropriate time.

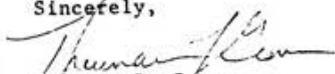
Per your request, I plan to visit Zambia to discuss matters identified in your letter of 20 November, i.e. advisory participation in review of Zambia soils work and possibilities for future collaboration. Circumstances preclude a visit in January. I propose instead the week of 9 February. ~~I still plan to visit 9 February unless you inform me that this date is inconvenient.~~

Dr. Calhoun of Texas A&M University will not accompany me. Dr. Calhoun will be leaving Texas to accept a position at Ohio State University. Consequently, leadership of the Texas-TropSoils project is in transition. I suggest that action on a program for the semi-arid zone be deferred until such transition is accomplished.

Please advise me of the suitability of the proposed dates. I will telex my itinerary when available. I look forward to seeing you in February.

Best regards.

Sincerely,


Thurman L. Grove
TropSoils

TLC:vaw

cc: C. McCants
D. Lathwell
E. Oyer

W. Cooke, USAID
J. Nicholaides, U. Illinois
B. Patel, MAWD



New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University

Department of Agronomy
Bradfield and Emerson Halls, Ithaca, N. Y. 14853
(607-256-2287)

October 4, 1985

Mr. John Nicholaides, Director
International Agriculture
University of Illinois
Urbana, IL 61801

Dear John:

Our telephone conversation of 27 September was enjoyable. We're pleased that Illinois is interested in collaborating with Cornell and TropSoils in Zambia. It is our intent to pursue deliberations with the Zambian Ministry of Agriculture and with USAID/Lusaka concerning collaboration on soils research in Zambia. If communications and interest proceed in a timely manner, we will travel to Zambia in January or February to plan details of the program. We'll try to schedule so that we overlap with your visit to Zambia. Please keep us informed of your travel plans.

Enclosed please find copies of a report on my trip to Zambia and letters to the Zambian Ministry and USAID/Lusaka. We'll keep you informed of our activities and intentions. We look forward to a mutually beneficial partnership.

Best regards.

Sincerely,

A handwritten signature in cursive script that reads "Thurman".

Thurman L. Grove
Cornell-TropSoils

TLG:LH
ENC

University of Illinois
at Urbana-Champaign

Office of
International Agriculture
College of Agriculture

113 Mumford Hall
1301 West Gregory Drive
Urbana
Illinois 61801
USA

Reference 32.

217 333-6
Telex: 206

November 26, 1985

Dr. Thurman L. Grove
Department of Agronomy
Cornell University
Bradfield and Emerson Halls
Ithaca, New York 14853

Dear Thurman:

It has been very good to talk with you on several occasions regarding the potential collaborations of our group in Zambia.

Indeed, I am interested in the possible collaboration of Cornell-TropSoils and Illinois-ZAMARE in Zambia. It should be pointed out that this program is, however, not just Illinois, but includes substantial important components and on-site staff members of the University of Maryland - Eastern Shore and Southern Illinois University - Carbondale. Both of these universities will be represented on the executive visit and this may be a good time for us to talk about this. By means of copies of our correspondence to each other and your attachments of your trip report and letters to Zambian officials, I am informing Dean Mortimer Neufville of the University of Maryland - Eastern Shore and Dr. Howard Olson, Director of International Agriculture at the SIU-C and three of my staff directors very closely involved with our ZAMARE project (Dr. Earl Kellogg, Mr. Tom McCowen, Dr. John Santas) of the potential.

Thurman, I don't know any way other than a very direct approach to make this second and most important point. The three universities have worked long and diligently to establish a very successful program. The Zambians are very proud people and very good people, but they are also very sensitive. For this reason, and based on the experience of the past, I want to underscore that this proposed activity must only have the involvement of capable and extremely tactful scientists. The Zambians have "asked" other AID programs to leave when less-than-tactful or less-than-capable people have been sent there. If this program can be worked with Cornell and, if need be, the carefully selected input of several other TropSoils scientists based at North Carolina State and other institutions, I think this proposed blend has some real possibilities.



I am hopeful that we will be able to establish a good tie-in between TropSoils and the ZAMARE project. I was delighted to see that Buddy Bowen is your candidate for the senior soil scientist position in Zambia. He is excellent and will be a big benefit to the program. Congratulations on this decision.

Hope to see you in Zambia in February.

Sincerely,



John J. Nicholaides, III
Associate Dean
and Director

JJN:dt

cc: Dr. Earl Kellogg
Dr. Charles McCants
Mr. Tom McCowen
Dr. Mort Neufville
Dr. Howard Olson
Dr. Ed Oyer
Dr. John Santas

UNITED STATES OF AMERICA
AGENCY FOR INTERNATIONAL DEVELOPMENT
P.O. Box 32481 LUSAKA ZAMBIA

TEL: 218668, 211314, 215741.
TELEX: 40810

KATUNJILA ROAD
PLOT No. 2385

November 25, 1985

Dr. Thurman L. Grove
Cornell/Trop Soils
New York State College of
Agriculture & Life Sciences
Department of Agronomy
Bradfield & Emerson Halls
Ithaca, New York 14853

Dear Dr. Grove:

Your letter of October 11, 1985, to the Mission Director pertaining to a proposed soils research program in Zambia by Trop Soils has been passed on to me. I apologise for the delay in responding, but since I am new at post, I needed time to look into some of the problems relating to soils in Zambia.

I have had recent discussions with the University of Illinois team who are working to implement the Agricultural Development, Research and Extension Project. The team members were unanimous in stating that more research in soils needs to be done. Some of the team members indicated that in many cases they were doing field trials on soils which they did not know the soil characteristics because they could not get a soils analysis done. This has been somewhat frustrating, especially when I see that there are at least sixteen expatriates working in MAWD with specialities in soils ranging from soils surveyors, soils scientist, to soils microbiologists. This is above, and in addition to, the Zambian soils technicians and specialists. The team explained this by saying that most of the expatriates working in soils put their focus of the research requirements on the projects supported by their donor agencies. Therefore they do not have time to do soil analysis and research for other donor support projects. However one of the expatriate soil scientist who is supported by NORAD and working at the national level is attempting to bring about a restructuring of the soils unit at Mt. Makulu Research Station that would be able to provide soil analysis support across the board to the various donor teams. Up until this point in time, it is my impression that the work in soils has been fragmented. We hope that in the near future some of the problems that we have experienced in this respect will be solved.

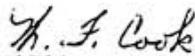


In regards to your proposal, it is doubtful that USAID/Zambia will have funds that could be made available in support of your proposal any time in the near future. It is regrettable, but in view of the great economic crisis existing in Zambia, it is becoming necessary that more and more of our economic assistance is channelled through non-project type assistance. We may find ourselves fortunate just to maintain our project assistance at its present level. Also the Zambian resources, both economically and manpower, are already stretched so thin that the GRZ is finding it difficult to meet current obligations resulting from various donor input. In addition to the above, when we start thinking in terms of bringing project expatriate staff into the country, housing is a very serious constraint.

I wish that we could respond in a more positive manner to your proposal, however these are circumstances under which we are trying to operate and provide assistance. Much more assistance is needed than all of the donors together can provide. It is anticipated that it most likely will require several years before Zambia's absorptive capacity can be increased to the point of absorbing much greater amounts of technical assistance, and be able to provide adequately trained counterparts to work along with technical advisors.

We appreciate your interest in Zambia and hope that somehow you will be able to work something out so that the Trop Soils Group can at least provide some of the assistance that is needed.

Sincerely,



Willie F. Cook

Agricultural Development Officer



New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University

Department of Agronomy
Bradfield and Emerson Halls, Ithaca, N. Y. 14853
Telephone: 607-256-5459

607-256-2287

Reference 34

February 14, 1986

Mr. R. James Cheatle
Ministry of Agriculture and Water Development
Mt. Makulu Central Research Station
Private Bag 7
Chilanga
Zambia

Re: MAWD, Cornell, Tropsoils Collaboration

Dear Jim:

I trust you received my cable notifying you of the cancellation of my trip to Zambia. USAID/Lusaka denied clearance for my visit. They apparently feel that collaboration between MAWD and Tropsoils is inappropriate at this time. We at Cornell were disappointed at this decision as we feel that there was considerable potential for a mutually beneficial relationship.

Cornell and Tropsoils maintain their interests in collaboration with MAWD. If future circumstances should allow AID/Lusaka to view collaboration favorably, we would welcome an opportunity to revive discussions concerning a cooperative program. In the meantime I hope that we can maintain communications.

We thank you for your considerable efforts in trying to establish this program. I wish you the best of luck and send my fondest personal regards.

Sincerely,

Thurman L. Grove
Cornell-Tropsoils

cc: D. J. Lathwell
E. B. Oyer
C. B. McCants
B. Patel
W. F. Cooke
K. A. Prussner
C. Martin
J. Malcolm
J. Nicholaides

Agronomy Department
Cornell University
Ithaca, NY 14853
U.S.A.

April 24, 1986

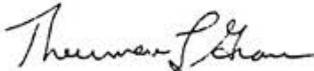
Dr. B.K. Patel, CARO
Mt. Makulu Central Research Station
PB 7
CHILANGA
ZAMBIA

Dear Dr. Patel:

Enclosed please find the report of my recommendations for soil management research within Phase II of the ZAMARE-GRZ program. I appreciate the opportunities to visit with your agricultural research programs and to comment on plans for future research. I hope that you find my recommendations useful. If you desire elaboration or clarification, I am at your disposal.

I thank ZAMARE for support of my expenses and I thank Cornell University for support of my time.

Sincerely,



Thurman L. Grove, Ph.D.
Cornell TROPSOILS

CC: W. Cook, ADO
USAID/Zambia, Lusaka

J. F. Ragin
ZAMARE, LUSAKA

J. Nicholaides,
University of Illinois at Urbana Champaign
URBANA
Illinois 61801
U.S.A.

E. Oyer
Cornell University
Ithaca, NY 14853
U.S.A.

RECOMMENDATIONS FOR SOIL MANAGEMENT
RESEARCH WITHIN PHASE II OF THE ZAMARE
GRZ PROJECT, DRAFT EXIT REPORT OF THE
CONSULTANCY OF DR. THURMAN L. GROVE,
14 - 25 APRIL 1986

INTRODUCTION

On 2 April 1986 Dr. John Nicolaides of the University of Illinois requested that I travel to Zambia for a two-week consultancy with ZAMARE to prepare recommendations for including a soils research component in Phase II of the ZAMARE program. I arrived in Zambia on 14 April to perform this consultancy. Recommendations are based upon visits to experimental sites, observations of large and small farms, and numerous discussions with a diversity of personnel from MAWD and donor programs. My past experience includes involvement with Cornell's TROPSOILS project on management of highly weathered soils of the savannas of Latin America.

The majority of this work was in the savannas of Brazil. The highly weathered soils and climatic conditions of Zambia appear similar to those of Brazilian savannas. Consequently recommendations largely represent extrapolations of successful research conducted in Brazil during the past sixteen years.

The commodity research programs and the soil survey of Zambia are generally high quality programs that seem to be making good progress. The full benefits of these programs can only be realised once they are linked by correlations between soil test and soil management practices. Such linkage is presently difficult as commodity programs include little research on soil management and soil test is generally lacking

from commodity research programs. Consequently, I propose addition of basic soil research and soil test projects in support of commodity research. This research is particularly important as new varieties of commodities are introduced. While there is limited information on soil management requirements for traditional varieties, soil management requirements for new varieties are generally lacking.

The major soil constraint in Zambia appears to be soil acidity and resultant aluminium toxicity in the subsoil particularly in the highly weathered soils of northern Zambia. Soils are also extremely deficient in phosphorus. Once acidity and phosphorus limitations are removed nitrogen management is required to realize the yield potential of amended soils. Recommendations for research emphasize these major constraints. Anticipated additional constraints include potassium deficiency, potassium induced magnesium deficiency following potassium fertilization, and trace element limitations. These additional problems are common on highly weathered soils, but are easily identified and corrected once a soil test capacity is available. Water limitations is also potential, but should be reduced by proper management of soil acidity.

The following discussion outlines research project management of major soil constraints. A recommendation for laboratory support and soil test project is also presented. I believe these projects are most effectively conducted in support of commodity research programs. Discussions are primarily conceptual and attempt to provide rationales for the recommended projects. Detailed experimental plans are required for implementation.

Project: Management of Soil Acidity and Phosphorus;

The soils of Zambia, especially those of the Northern and Northwestern provinces, are old and highly weathered. They are characterized by acidity, low cation retention capacity, and limited reserves of plant nutrients. Aluminium is frequently the dominant cation especially in the subsoil. Aluminium toxicity prevents proliferation of roots in the subsoil and thus limits utilization of nutrients and water contained therein. Unavailability of subsoil water diminishes the ability of plants to withstand drought and yield is reduced. Amelioration of soil acidity with lime raises pH, increases cation retention capacity, supplies calcium (and magnesium if dolomitic), and precipitates aluminium. Roots proliferate in the amended soil and plants benefit from increased nutrient and water supply. Effects of liming highly weathered soils typically persist for many years and liming can thus be considered as capital investment in land improvement.

Development of liming recommendations requires determination of yield response curves that are soil and crop specific, evaluation of materials and application techniques to minimize time required for calcium to move into subsoils, and correlation of soil test values with lime requirements. Yield response curves should be determined in field experiments for each commodity over a spectrum of highly to moderately acidic soil types. On the most highly acidic soils (perhaps two soil types), in which subsoil aluminium concentration is high, additional variables should include materials (gypsum and lime) and application technique (surface broadcast and incorporation). Downward leaching of calcium with gypsiferous materials is frequently more rapid than with carbonaceous lime and incorporation of lime hastens reactions with the soil.

Correlation of experimental results with soil test values are essential for extrapolation of liming recommendations to other locations. Soil test determinations on field experiments should include pH and exchangeable aluminium, calcium, and magnesium. Soil test may be simplified for use on farmers' fields and may be generalized across crops and soils, but simplification can only result from evaluation of comprehensive soil test results in field experiments.

Soils of Zambia typically have limited capacity for phosphorus. Yield response experiments within Zambia generally employed relatively low levels of applied phosphorus and I suspect have only estimated the lower portions of yield response curves. Highly weathered soils typically adsorb large quantities of phosphorus upon initial application and this adsorptive capacity must be fulfilled before additional phosphorus is readily available for plant growth. The adsorbed phosphorus is not lost, but overtime becomes available to subsequent crops. In experiments in Brazil nearly seventy percent of applied phosphorus was recovered by crop over ten years. Large applications of phosphorus can thus be considered as capital investments in land improvement.

Phosphorus recommendations are based upon yield response curves that are crop and soil specific. Correlation with soil test values permit extrapolation of recommendations to other locations. Yield response experiments should include sufficiently high rates (at least 1000 kg P₂O₅ per hectare) to establish full range yield response curves. Field experiments to determine yield response curves should be conducted for each commodity over the same spectrum of soils used in lime experiments.

On a subset of soils additional variables might include placement and material. Soil test should include available P and clay content. Supplemental laboratory studies to determine adsorption and desorption isotherms of soils used in field experiments would enhance understanding of soil phosphorus reactions and improve extrapolation across soils.

Project: Nitrogen Management:

Nitrogen must be supplied to realize the yield potential of soils that have been improved by addition of lime and phosphorus. Nitrogen can be supplied either as fertilizer or in organic sources such as animal manures, crop residues, or legume green manures. Fundamental crop requirements are estimated by fertilizer yield response curves that are soil specific. Management practices for organic sources of nitrogen are determined by relating nitrogen supply by the organic source to the yield response curve. Utilization of organic sources of nitrogen provides management alternatives to use of fertilizer nitrogen which typically accounts for a majority of fertilizer costs.

Evaluation of organic sources of nitrogen has traditionally required large scale field experiments. Cornell University has developed a screening technique in which large numbers of organic sources can be screened for nitrogen supplying capacity on small field plots. In this technique

organic sources are incorporated into the soil and the magnitude of nitrogen mineralization are monitored in fallow plots. Correlations between this technique and crop uptake have been excellent.

Field experiments to determine yield response curves should be conducted for each commodity across a spectrum of soils. Green manures should be evaluated to provide management options.

Project: Soil Test and Laboratory Support:

A capability for soil and plant tissue analyses is fundamental to crop research and extension advisory services. Control of experimental conditions in field trials is assured through tissue and soil analysis. Tissue analysis is a diagnostic tool for identifying soil constraints in farmers' fields. Extrapolation of management practices from experimental plots to farmers fields is based upon soil test. Practically everyone that I've interviewed within MAWD and donor programs has mentioned severe difficulties in securing soil and tissue analyses.

The analytical laboratory at Mt. Makulu is reasonably well equipped. However, its primary function appears to be support of the soil survey. Soil test apparently receives lesser priority. Operation of the laboratory for multiple purposes may be impractical. Standardized laboratory procedures for soil survey are often inappropriate for soil test analyses. Priority conflicts seem inevitable and difficult to resolve when the laboratory serves multiple masters. Management of either a soil test or soil survey laboratory is a full time occupation. The two laboratory functions could share instrumentation, particularly the more costly items such as atomic absorption spectrophotometers, provided a mechanism were established to manage priorities and use. However, I feel that the laboratories would function most effectively, if the two laboratory functions were separated as much as practically possible.

Direction of a soil test laboratory and development of a soil test - field correlation program require the full-time efforts of a soil scientist with broad skills in soil chemistry and agronomy. Provision of such personnel and supporting staff, equipment, and supplies would make a significant contribution to the Zambian agricultural and research communities.

Personnel and Financial Requirements:

In the foregoing discussion recommendations are presented for two research projects in support of commodity research teams and for soil test and laboratory support for commodity research teams, adaptive research teams, and extension advisory services. Each of the three projects requires services of one expatriate soil scientists and Zambia technical support staff. Financial support for each of the research projects is similar and an estimated budget for either project is appended. The laboratory support project budget includes estimated expenses for equipping a laboratory. Estimates of equipment, supplies, maintenance, and operating expenses have been made with advice of MAWD personnel.

RESEARCH PROJECT BUDGET ESTIMATE

Category	Year				
	1	2	3	4	5
Senior Staff Salary	\$55,000	\$57,500	\$60,000	\$62,500	\$65,000
Post differential (20%)	7,000	7,500	8,000	8,500	9,000
Relocation allowances	20,000	-	10,000	-	10,000
Supplies & Maintenance	10,000	10,000	10,000	10,000	10,000
Equipment	15,000	15,000	5,000	5,000	5,000
Vehicle	15,000	-	-	-	-
International Travel	7,000	2,000	7,000	2,000	2,000
Misc. direct costs	5,000	5,000	5,000	5,000	5,000
Backstepping	<u>8,000</u>	<u>8,000</u>	<u>8,000</u>	<u>8,000</u>	<u>8,000</u>
Total direct costs	132,000	116,000	105,000	95,000	100,000
Indirect costs (30%)	40,000	34,900	31,500	28,500	30,000
Technical support (K7 per \$1)	<u>10,000</u>	<u>10,000</u>	<u>10,000</u>	<u>10,000</u>	<u>10,000</u>
Total	182,000	160,900	146,500	132,000	140,000

SOIL TEST - LABORATORY SUPPORT PROJECT BUDGET ESTIMATE

Category	Year				
	1	2	3	4	5
Senior Staff Salary	\$35,000	\$37,500	\$40,000	\$42,000	\$45,000
Post differential (20%)	7,000	7,500	8,000	8,500	9,000
Relocation allowances	20,000	-	10,000	-	10,000
Supplies & Maintenance	200,000	200,000	200,000	200,000	200,000
Equipment	250,000	10,000	10,000	10,000	10,000
International Travel	7,000	2,000	7,000	2,000	2,000
Misc. Direct Costs	5,000	5,000	5,000	5,000	5,000
Backstopping	<u>8,000</u>	<u>8,000</u>	<u>8,000</u>	<u>8,000</u>	<u>8,000</u>
Total direct costs	532,000	270,000	280,000	270,000	270,000
Indirect Costs (30%)	160,000	81,000	86,000	83,000	87,000
Technical Support	10,000	10,000	10,000	10,000	10,000
(K7 per Bl	-----	-----	-----	-----	-----
Total	702,000	361,000	376,000	363,000	357,000

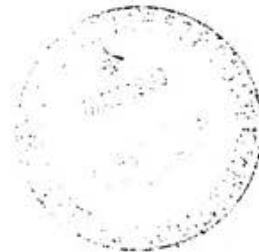
Agronomy Department
Cornell University
Ithaca, NY 14853
U.S.A.

Dr. B.K. Patel, CARO
Mt. Makulu Research Station
PB7,
CHILANGA
Zambia

Dear Dr. Patel:

In my exit report I recommended that Phase II of ZAMARE include two soil research projects in support of Commodity Research Teams. Each project requires the services of an ex-patriot soil scientist. Cornell is willing to provide soil scientist to conduct the project on nitrogen management. Collaboration with Cornell University would augment the ZAMARE program as Cornell has financial support within its TROPISOILS project for such research on acidic soils of African savannas. Cornell is also willing to provide a soil scientist to begin experiments during the 1986-87 cropping season. Dr. Walter T. Bowen of the Cornell - TROPISOILS staff will be available for reassignment during the third quarter of 1986. I propose that Dr. Bowen would make rapid and significant contributions to ZAMARE, if his initial post were Mbala.

Appropriate soil management for new varieties of maize, sunflower, and soyabeans have not been determined on the highly weathered oxisols of the Northern Province. Field experiments with new varieties should provide concrete results within a few years as the ZANCAN experience with wheat at Mbala provides an excellent foundation for designing experiments with other commodities. Once Phase II of ZAMARE is implemented, Dr. Bowen could be reassigned, as appropriate within ZAMARE's management plan, to accommodate additional soil research staff and to initiate similar experiments on additional soil types. We anticipate that over the longer term Dr. Bowen would concentrate his efforts on nitrogen management across soil types while additional staff would specialize in management of soil acidity and phosphorus.



Major limitations to establishment of field experiments during the 1986-87 cropping season would likely be land preparation and housing. I understand that the International Red Locust staff will soon vacate Mbala, thereby freeing housing. Mr. Aulach and Mr. Little of ZAMCAN have indicated their willingness to collaborate and presumably can assist with land preparation. Mr. Proud, the ZAMCAN team leader, is out of Lusaka and I have not been able to discuss this matter with him. Mr. Ragin of ZAMARE has agreed to act as Cornell's representative in establishing a collaborative agreement with ZAMCAN. Mr. Ragin has also agreed to act as intermediary in developing a memorandum-of-understanding between GRZ and Cornell - TROPSOILS. I feel that mutual benefit would result to all parties from collaboration among GRZ, Cornell - TROPSOILS and ZAMCAN and that such collaboration would facilitate transition and integration of Cornell - TROPSOILS into future ZAMARE Phase II activities.

I solicit your comments and advice on this proposal. Cornell TROPSOILS is prepared to enter collaboration at your earliest convenience.

Sincerely,



Thurman L. Grove
Cornell-TROPSOILS

CC: W. Cook, ADO
USAID/ZAMBIA
LUSAKA

J. Ragin, ZAMARE

J. Nicholaides
University of Illinois

C.B. McCants,
TROPSOILS

E.B. Oyer,
CORNELL INTERNATIONAL AGRICULTURE



New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University
Department of Agronomy
Bradfield and Emerson Halls, Ithaca, N. Y. 14853

July 15, 1986

MEMORANDUM

TO: Dr. Douglas J. Lathwell
FROM: Thurman L. Grove *Thurman L. Grove*
RE: TROPSOILS Initiative in Zambia.

Upon completion of my visit to Zambia 14-25 April 1986, I submitted to Dr. B. K. Patel, Chief Agricultural Research Officer, Zambia Department of Agriculture, a draft exit report in which I recommended including soils research in the proposed ZAMARE Phase II project. In a separate letter I proposed that Cornell-TROPSOILS post Walter Bowen to Mbala to begin field experiments during the 1986-87 cropping season. On 25 April I hand delivered the report and letter to Dr. Patel and discussed their contents with her. Dr. Patel endorsed the proposal to post Bowen in Mbala during the 1986-87 cropping season. She also informed me that Bowen would be relocated for subsequent cropping seasons as TROPSOILS would be stationed in Mutanda once ZAMARE Phase II began.

On 25 April I also delivered copies of the report and letter to Mr. Willie Cooke, ADO, USAID/Lusaka. Mr. Cooke informed me that he would defer his decision on TROPSOILS collaboration in Zambia until he was comfortable that there was an appropriate soils research component in the ZAMARE Phase II plan. I left Zambia with the understanding that Mr. Cooke would likely endorse posting Bowen to Mbala if the Phase II planning team recommended soils research during their visit in late April/early May.

On 2 July I telephoned Mr. Cooke to inquire about the status of Phase II plans. Mr. Cooke communicated the following:

- The Phase II planning team identified a critical need for soils research;
- the PID has been submitted to Washington;

- Dr. Hunter has been retained as a consultant to review the Zambia soils laboratory and is expected in late July;
- there will probably be no ZAMARE Phase II, if Congress cuts the AID budget.

In light of the uncertainty about ZAMARE's future, Mr. Cooke feels that he can't endorse TROPISOILS collaboration at this time. He expects that Congress will act during the last quarter of 1986 and he will then be in a better position to make a decision.

A decision in the last quarter of 1986 would be too late for us to mobilize and establish experiments during the 1986-87 cropping season.

TLG:LH

cc: E. B. Oyer, CU International Agriculture

~~E. B. McCants~~, TROPISOILS

W. T. Bowen

J. Malcolm, USAID/S&T/AGR/RNR



New York State College of Agriculture and Life Sciences
a Statutory College of the State University
Cornell University
Department of Agronomy
Bradfield and Emerson Halls, Ithaca, N. Y. 14853

July 17, 1986

Dr. B. K. Patel, CARO
Mt. Makulu Research Station
PB 7
Chilanga
ZAMBIA

Dear Dr. Patel:

Recent communications with Mr. Cooke, USAID/Lusaka, indicate that GRZ-Cornell/Tropsoils collaboration is not possible at this time. We maintain interest in collaboration and would, if circumstances change, welcome an opportunity to renew deliberations.

It was nice meeting you again during my visit in April.

Best regards.

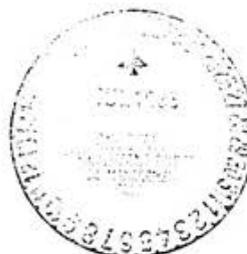
Sincerely,

A handwritten signature in cursive script that reads "Thurman L. Grove".

Thurman L. Grove
Cornell/Tropsoils

TLG:LH

cc: D. J. Lathwell, CU Agronomy
E. B. Oyer, CU International Agriculture
J. Malcolm USAID/S&T/AGR/RNR
C. Martin, USAID/AFR/TR
J. J. Nicholaides, III, U. Ill. International Agriculture
W. Cooke, USAID/Lusaka
~~W. B. McCants~~, TROPISOILS



From: Sanchez, f
Cameroon Trip Rep
January 21-29, 19

YAOUNDE

USAID Mission

After the seminar finished, I flew to Yaounde at the invitation of Mr. William H. Judy, agriculture development officer of USAID. I gave a two hour seminar at USAID which was attended by about ten people from the agriculture, program and education offices. Bill Judy asked me to talk about soil management in the humid tropics and report to USAID the results of IBSRAM seminar, as well as how USAID Missions could link to Tropsoil activities. I described Tropsoils activities and interest to be involved in the humid tropical parts of Africa as well as in the acid savannas and semi-arid tropics. Apparently Cameroon does not have truly acid savannas but certainly have semi-arid tropics and humid tropics.

USAID/Yaounde has an impressive agricultural portfolio averaging \$20 million a year. The major projects include the National Cereals Project which is contracted through IITA and the Dschang University Center. A brochure and an updated list of projects was given.

I expressed the NCSU philosophy that the most successful projects are those that have international staff on site. USAID is expecting a proposal from IRA to implement the IBSRAM network in Cameroon. The current budget constraints, however, did not make them openly optimistic but I believe the Mission is sincerely interested in hearing more about it.

Nkolbisson.

After the seminar I was picked by Dr. Bindzi who drove up from Yaounde, had a drink at his house, lunch and then visited the Nkolbisson Station which is the headquarters of IRA and the National Center for Soils (CNS). I was impressed by a large laboratory building with excellent layout on some

basic equipment but very little work apparently going on. Also CNS has an impressive cartographic unit and it looks like a suitable base for having a major research program. There are about 13 soil scientists working there, all of them Cameroonians except one FAO expert.

The Nkolbisson Station gave me a very similar impression to the EMBRAPA-UEPAE station in Manaus prior to our involvement there. I believe similar opportunities and constraints occur. Being located only about 10 km away from Yaounde, it provides an attractive setting. Yaounde is a pleasant capital city of about 400,000 people, with rolling landscape and in a way a small, African version of Brasilia. The climate is a bit cooler than Douala because of higher elevation (700 m), the topography is rolling and the soils are quite acid, probably classified as clayey Ultisols. Bush fallow shifting cultivation is the predominant system and one can only see the remnants of the tropical rainforest in the hills.

It would seem to me that Nkolbisson might be a very suitable station for Tropsoils involvement in the humid tropics of Africa. Cameroon is clearly ahead of many other countries in its level of development. There is gasoline, there is a dynamic research institution (IRA). There is a critical mass of soil scientists, although in great need of further training, but they are there. The country is reasonably bilingual at the working level, this helps the visitor, but should not be construed as being able to work there without fluency in French. Part of Cameroon's success is due to a government policy that stresses education and agriculture. Cameroon is self-sufficient in oil but is not basing its economy on oil exports, being rather conservative about it. The Cameroonians plan to present the IBSRAM proposal with a technical assistance component that would involve an international soil scientist stationed at Nkolbisson. This would be submitted for external funding.



North Carolina State University

School of Agriculture and

Management Entity
Soil Management CRSP
Box 7113, Raleigh 27695-7113
(919) 737-3922

May 23, 1986

Dr. J. P. Ekebil
Ministere de L' Enseignement Superieur
et de la Recherche Scientifique
Institut de la Recherche Agronomique
B.P. 2123
Yaounde, Cameroon

Dear Dr. Ekebil:

Dr. Pedro Sanchez has briefed me on his recent trip to Cameroon and the discussions with you and officials within USAID. He also has provided me a copy of your recent letter to him in which you express continued interest in the potential for a soil management program involving TropSoils and IRA.

TropSoils, as Dr. Sanchez probably explained, is a collaborative research program whose goal is to develop and adapt improved soil management practices that will increase food production in developing countries in the tropics. We already have information and experiences that are applicable to the soils related production problems in three agroecological zones within your country, semi-arid, humid, and acid savannahs.

The U.S. universities that could participate in a TropSoils program in Cameroon are Texas A&M, N.C. State and Cornell. Texas A&M currently has work underway in Niger and Mali. A native of Cameroon will be completing his doctorate degree in Soil Science at Texas A&M very soon and could be available to assist in the conduct of a collaborative program in your country. Some funding can be provided by TropSoils for such a program, but additional support would be needed.

If you feel that TropSoils can be of assistance in addressing the soil management problems in Cameroon, and there is an interest in examining further the potential for a collaborative program, then I suggest you discuss the subject with the local USAID mission and advise me on the outcome of these deliberations. We are prepared to follow through with such additional actions as may be appropriate.

I look forward to receiving your response to this inquiry.

Sincerely,

C. B. McCants

C. B. McCants
Director

CBM/cc

cc: Dr. Lloyd Hossner
Dr. Douglas Lathwell
Dr. John Malcolm
Dr. Pedro Sanchez

96120311E
NCSU SOILS RAL

8050732 EST 0812 OCT/10/1986

20311 TDS IBJ NG

OCT. 10. 1986

ATT: DR. TONY JUO

WOULD LIKE TO DISCUSS SEVERAL TROPISOILS ISSUES WITH YOUR.

DO YOU PLAN TO ATTEND ASA MEETINGS IN NEW ORLEANS AND IF SO.
EXPECTED DATE OF ARRIVAL. PLEASE REPLY THIS TELEX NUMBER --
579369.

REGARDS.

CHARLIE MCCANTS
TROPISOILS
I520311 TDS IBJ NG

001.1 MINS



OCTOBER 31, 1986

ATT: DR. TONY JUO, IITA, IBADAN

LOOK FORWARD TO MEETING WITH YOU DURING ASA MEETINGS IN NEW ORLEANS. WILL BE IN MARRIOTT HOTEL.

REGRDS

CHARLES MCCANTS

OCTOBER 31, 1986

ATT: DR. TONY JUO, IITA, IBADAN

LOOK FORWARD TO MEETING WITH YOU DURING ASA MEETINGS IN NEW ORLEANS. WILL BE IN MARRIOTT HOTEL.

REGRDS

CHARLES MCCANTS

MEMORANDUM TO: File
FROM: C. B. McCants
DATE: December 4, 1986
SUBJECT: Discussion with Dr. Tony Juc Reference Cameroon

Meeting resulted from my telex to him requesting that we discuss potential for TropSoils in Cameroon. It was held in my hotel room in New Orleans.

He feels that focus of program should be on soils as a non-renewal natural resource and concentrate on basic information, not technological packages that compete with U.S. commodities. Local leaders are responsible for adopting basic information to meet specific needs.

The subsahelian region, he says, is a bottomless pit; impossible to improve; politically unstable (words of others - not his).

There is some potential for improvement in eastern and southern Africa, e.g., more humid regions. Work at Brasilia and Yurimaguas is applicable.

IITA is leader of a 23-person team in Cameroon that is involved in a special AID-funded Cereal project focusing on maize, rice, sorghum, millet, cassava and farming systems. First five years has been completed; intended for 15 years. Headquarters is at Yaounde. The weakest component is soil management. The program is farming systems oriented.

He feels there would be a good reception to an overture from TropSoils. The key person is Dr. Jack Ekebil, national director of IRA, a University of California graduate. The IITA work is under his supervision. He is easy to work with.

Tony is very interested in working with TropSoils. I need to write the director of IITA, Dr. L.D. Stifel for approval; the purpose would be to enhance IITA's input into resource management.

IITA is working only in subsahelian Africa and focus on four crops plus resource management and economics.

Tony suggested I talk with Bill Judy, who is attending the ASA meetings.

MEMORANDUM TO: File
FROM: C. B. McCants
DATE: December 4, 1986
SUBJECT: Discussion with Dr. William Judy Reference Work
in Cameroon

I met with him, briefly, following the business meeting of Section A-6 of ASA. He was told of the interest of TropSoils in exploring the potential for work in Cameroon.

His reaction was cautiously positive, commented on the favorable response to the Sanchez seminar and the need for more soil management into the mission-funded National Cereals Project. A recent review of the project pointed out that soil management was one of its major weaknesses.

He encouraged me to consider the matter further and to contact him in Yaounde when I'm ready to propose specific actions.

MEMORANDUM TO: File
FROM: C. B. McCants
DATE: February 4, 1987
SUBJECT: Follow-up to December discussion

I called him to determine if there appears to be a continuing interest in TropSoils collaboration in Cameroon. He said there is, providing that it focuses on applied oriented practices and particularly those dealing with improvements in making fertilizer recommendations. A recent review of the IFDC program revealed the absence of much evidence to guide the on-farm use of fertilizers. They're also interested in improving the laboratory for making soil analysis.

A visitation date of late March or early April was discussed and appeared to be generally favorable.

MEMORANDUM TO: File
FROM: C. B. McCants
DATE: March 3, 1987
SUBJECT: Telephone Call to Dr. William Judy

I made the call as a follow-up to previous communications.

The visit dates of April 4-11 are satisfactory.

Points of importance to mission for TropSoils collaboration:

- (1) Provide advice on establishing a soils laboratory to support the National Cereals Project.
- (2) Set up interpretations for soil analytical data relative to land forms.
- (3) Come with information in pocket, e.g., using data from other studies. Connect with IITA and other work.
- (4) Develop means for beefing up soil fertility work in the country.

He requested that I send cable outlining details, cable can be used for obtaining country clearance.



North Carolina State University

School of Agriculture and Life Sciences

Management Entity
Soil Management CRSP
Box 7113, Raleigh 27695-7113
(919) 737-3922

February 27, 1987

Dr. L. D. Stifel, IITA
c/o Miss Maureen Larkin
L. W. Lambour & Co. Ltd.
Carolyn House
26 Dingwall Road
Croydon, London CR9 3EE
England, U. K.

Dear Dr. Stifel:

Dr. Tony Juo, a member of your staff has made valuable contributions to the Soil Management Collaborative Research Support Program, (TropSoils), both in a formal and informal capacity. He was an official member of the team which reviewed the TropSoils program in Peru in 1984. We have contacted him several times prior to and subsequent to that event for consultation and advice on issues pertaining to research on Tropical soils. His advice has been freely given and is highly regarded.

We are currently exploring the possibility for establishing a program in Cameroon. I discussed this with Dr. Juo at the ASA meetings in New Orleans in December and he advised me that IITA has an on-going activity in Cameroon with which there may be a potential for TropSoils to collaborate.

I would like for Dr. Juo to accompany me to Cameroon to discuss the opportunities for a TropSoils program with IRA and USAID officials, and thus request your approval. If necessary, TropSoils can pay for the transportation and per diem costs associated with this trip. The tentative date is the first week in April and Dr. Juo has indicated that he is available, subject to your concurrence.

I trust that we will receive your support and hope that future developments will lead to more collaborative relationships between IITA and TropSoils.

Thanks for your consideration of this request.

Sincerely,

C. B. McCants
Director

CBM:ms

cc:Dr. Tony Juo

RCA MAR 20 0854z
NCSU SOILS RAL

31417 TROPIS NG

20/03/87

TLX 2790

ATTN: DR. MCCANTS, DIRECTOR TROPISOIL PROGRAM USA

=====

IITA MANAGEMENT AGREES TO DR JUO'S PARTICIPATION IN TROPISOIL
MISSION TO CAMEROON APRIL 4 TO 12 X TRANSPORTATION AND PER
DIEM COSTS TO BE PAID BY TROPISOILS X WISHING YOU A SUCCESSFUL
VISIT X REGARDS X

DUNSTAN SPENCER/RCMP/IITA IBADAN
31417 TROPIS NGz
NCSU SOILS RAL

HOW WELL RECD

z
NCSU SOILS RAL

RESPOND TO TLX 31417, 31159, 26247 OR 20311 TDS IBA NGROUTE
ATTN IITA BOX 015+

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NCSU SOILS RAL

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MAR 20 1987
MAR 20 1987

961314174
NCSU SOILS RAL

8185788 EST 1415 MAR/10/1987

31417 TROPIB NG

MARCH 10, 1987

ATT: DR. TONY JUO

MCCANTS OF MANAGEMENT ENTITY, HOSSNER OF TEXAS A & M AND
BOWEN OF CORNELL WILL ARRIVE YAOUNDE APRIL 4 AND DEPART
APRIL 11. HOPE YOU CAN JOIN US AND PROVIDE ASSISTANCE
IN EXPLORING POTENTIAL FOR COLLABORATIVE SOIL MANAGE-
MENT RESEARCH IN CAMEROON. REGRET THAT CIRCUMSTANCES
WILL PREVENT ME FROM VISITING IITA DURING THIS TRIP.

REGARDS,

C.B. MCCANTS
±
31417 TROPIB NG
.....
001.3 MINS

MAR 11 1987

RCA MAR 13 1137Z
NCSU SOILS RAL
31417 TROPIS NG

13/03/87

TLX 2646

ATTN: TROPISOIL PROGRAM NCSU, RALEIH NORTH CAROLINA USA
=====

RECEIVED YOUR TELEX MESSAGE. EYE WILL JOIN YOUR TEAM IN YAOUNDE
ON APRIL 4 AS SCHEDULED. REGARDS

A.S.R. JUD/IITA IBADAN
31417 TROPIS NG
+++
NCSU SOILS RAL

~~RESPOND TO TLX 31417 74150 21317 ON 03/03/87 FOR NG 030726Z~~
~~03/03/87~~



University of Hawaii at Manoa

College of Tropical Agriculture and Human Resources
TROP SOIL Project • Soil Management CRSP
Department of Agronomy and Soil Science
2500 Dole Street • Krauss Hall 22 • Honolulu, Hawaii 96822
Telephone: (808) 948-8858 • Cable Address: UNIHAW

January 5, 1987

Ms. JoAnne Hale
Office of Agriculture & Rural Development
USAID/AGR Box 4
APO San Francisco 96356-5000

Dear JoAnne:

Dr. McCants and I have discussed the matter of Indonesia TropSoils program review and we both agree with the Mission's desire to hold the review in Indonesia.

As I indicated to you on the phone, all TropSoils projects are being asked to take substantial budget cuts. I am enclosing a copy of a table prepared by the Office of the Management Entity summarizing the requested and projected budgets for all components of the Soil Management CRSP. You can see that the Indonesia component is being asked to take a disproportionately large cut. This reflects the Management Entity's perception of the value of the Indonesia program to the overall goal of the Soil Management CRSP.

The Management Entity has the difficult and unenviable task of allocating resources in a way that benefits AID programs. However, if the local Mission believe, as I do, that priorities have been misplaced, I encourage it to take action to reverse the budget erosion of the Indonesia program. The signals we get from our teams in Sitiung is that critical assessments of the project by individuals like Mr. Charles Greenleaf support the contention that the project is accomplishing what the CRSP was intended to do. The low priority given to the Indonesia TropSoils program indicates that the Management Entity is unaware of Mr. Greenleaf's or the Mission's impression of the Indonesia Soil Management CRSP.

I hope the Mission will take early action to rectify this situation so that the Management Entity can present a more favorable budget to the group when it meets in Indonesia in February. I have discussed this matter with Dr. McCants when I met with him in Ithaca, New York just before Christmas.

AN EQUAL OPPORTUNITY EMPLOYER

Ms. JoAnne Hale
January 5, 1987
Page 2

We appreciate very much the support we have received from the Mission and we intend to continue to conduct the Indonesia TropSoils program in a manner deserving of that support.

Sincerely,



Goro Uehara
Principal Investigator

GU:ss
enclosure
cc R. Cobb
S. El-Swaify
C.B. McCants
R. Smith
M. Sudjadi/I.P. Widjaja-Adhi
G. Y. Tsuji



(continued)

Requested and Projected Budgets
All Components
1986-1987

Component	<u>Oct. 1-Dec. 31</u>		<u>Jan. 1-Sept. 30</u>		<u>Oct. 1-Sept. 30</u>	
	Req. ¹	Proj. ²	Req.	Proj.	Req.	Proj.
			\$1000			
Cornell	87	97	258	237	345	334
Hawaii	161	164	484	335	645	499
NCSU	221	262	663	508	884	770
TAMU	147	163	442	380	589	543
ME	122	85	365	348	487	433
Total	738	771	2212	1808	2950	2579

=====
¹Requested

²Projected



University of Hawaii at Manoa

College of Tropical Agriculture and Human Resources
Hawaii Institute of Tropical Agriculture and Human Resources
Gilmore Hall 202 • 3050 Maile Way
Honolulu, Hawaii 96822

Office of the Director

January 15, 1987

Dr. Charles B. McCants
Soil Management CRSP
N. C. State University
Box 7113
Raleigh, NC 27695-7113

Dear Charlie:

Upon my return from the TROPISOILS Board of Directors Meeting and also after receiving Dr. Goro Uehara's report of the Program Coordinator's Meeting, I discussed the projected budgets for all Soil Management CRSP components prepared by the Management Entity with our College Administration (Dean and Director). I have attached a copy of our analysis of the obligated and projected distribution of funds and several comparisons of monthly rates among the CRSP components. Needless to say, we are somewhat displeased with this projection. As a Board Member of Tropsoils, I feel obligated to present this reaction to you and ask you to consider taking steps to correct the disproportionate distribution of allocated funds among TROPISOILS components.

We have reread the discussion notes and minutes from previous BOD meetings and also detailed notes and communications on the current status of TROPISOILS prepared by Dr. Ada Demb before leaving the Board. Nowhere in these documents and records of previous discussion and decisions of the BOD do we find any indication of program deficiency or lack of performance in the Hawaii program to explain or justify your projected distribution of funds. In fact, the results of the most recent EEP review of the Soils Management CRSP provide a recommendation that the Hawaii program be continued at the same level, with no indication of the desirability of a disproportionate cut of the Hawaii program with respect to the other components.

The projected distribution of funds will clearly weaken and drastically reduce the Hawaii component activities. I know this is also true for the North Carolina State program, but the Hawaii component will be taking a larger percentage cut relative to all other TROPISOILS components.

AN EQUAL OPPORTUNITY EMPLOYER

(continued)

Distribution of Funds to TROP SOILS
Components, Dollars x 1000

	<u>Obligated Monthly</u> <u>Rate 1/87 - 4/87</u>	<u>Projected Monthly</u> <u>Rate 5/87 - 9/89</u>	<u>%</u> <u>Change</u>
Cornell	26.3	27.5	+ 4.6%
Hawaii	37.1	26.1	-29.6%
NCSU	56.4	37.3	-33.9%
TAMU	42.2	32.3	-23.5%
ME	38.9	25.8	-33.7%
Contingency	0	4.7	—
	<hr/> 200.9	<hr/> 153.7	

	<u>Requested Monthly</u> <u>Rate 10/86 - 12/86</u>	<u>Projected Monthly</u> <u>Rate 5/87 - 9/89</u>	<u>%</u> <u>Change</u>
Cornell	29.0	27.5	- 5.2%
Hawaii	53.7	26.1	-51.4%
NCSU	73.7	37.3	-49.4%
TAMU	49.0	32.3	-34.1%
ME	40.7	25.8	-36.6%
Contingency	—	4.7	—
	<hr/> 246.1	<hr/> 153.7	

Percentage Change From Requested
Monthly Rate (10/86 - 12/86) to
Obligated Monthly Rate (1/87 - 4/87)

Cornell	- 9.3%
Hawaii	-30.9%
NCSU	-23.5%
TAMU	-13.9%
ME	- 4.4%

Percentage of Total Allocation to TROPSOILS Components

	<u>10/1/86 - 12/31/86</u>	<u>1/1/87 - 4/26/87</u>	<u>1/1/87 - 9/30/89</u>
	<u>%</u>	<u>%</u>	<u>%</u>
Cornell	11.8	13.1	17.6
Hawaii	21.8	18.5	17.6
NCSU	29.9	28.1	25.5
TAMU	19.9	21.0	21.6
ME	16.5	19.4	17.6



North Carolina State University

School of Agriculture and

Management Entity
Soil Management CRSP
Box 7113, Raleigh 27695-7113
(919) 737-3922

January 30, 1987

Dr. M. Ray Smith
Department of Agriculture Equipment
and Mechanization
University of Hawaii
Honolulu, HI 96822

Dear Ray:

I have received your January 15 letter regarding the proposed TropSoils budget. The following background and facts are submitted for your information.

1. Initially, the Soil Management CRSP operated under a block grant funding procedure; the various components were allocated a predetermined amount and percentage of available funds. In 1985, the Management Entity recommended, with EEP support, and the Board approved shifting the management format to a project oriented basis; requests, evaluations and funding would be by projects. The procedure became fully operational with the 1986-1987 program year.
2. Utilizing the information in "TropSoils Program Plan, 1984-1989," the Management Entity prepared a "Project Statement" for each project in the Plan and submitted it to the respective Program Coordinator for review and revision. The Statements, as approved by Dr. Uehara for the University of Hawaii, are included in "Projects and Budgets for the Soil Management CRSP, 1986-1987," referred to hereafter as "P and B, 1986-1987."
3. Each Program Coordinator was requested to submit a detailed budget worksheet for each Project Statement, including salary and related information, with the understanding that it would be held in confidence. An example of one such worksheet from the University of Hawaii, with salary information blanked out, is attached. A summary of the requested budget, by object category, is given for each Project Statement in "P and B, 1986-1987."
4. After reviewing all the requests, program operations and projected funding for 1986-1987, the procedures described on Page 1 of "P and B, 1986-1987" were

adopted. A basic decision was that currently filled positions would be given priority over vacant positions.

5. The primary reason why the University of Hawaii appears to have received a disproportionate reduction in funding is that its budget proposal included requests for a large number of vacant positions for the research projects. In addition, its backstopping request did not provide the personnel details requested, even though several special attempts were made to secure it, since I assumed that persons were currently employed in the positions. These facts are shown by the following data, part of which are given on Page 33 of "P and B, 1986-1987" and the remainder calculated from information in the Detailed Work Sheets provided by Dr. Uehara.

Funds Requested, 1986-1987

Personnel Costs		\$535,000
Current employees	258,000	
Vacant positions	134,000	
Backstopping	143,000	
Non-Personnel Costs		110,000
Total		\$645,000

6. Even though the necessary personnel details were not provided, the Management Entity did include \$86,000 for backstopping. In addition, funding for a vacant GRA position (\$15,000), plus funding for non-personnel costs in excess of that requested, was provided. These facts are shown in the following table and reported on Page 33 of "P and B, 1986-1987."

Funds Projected, 1986-1987

Personnel Costs	\$359,000
Non-Personnel Costs	140,000
Total	\$499,000

7. When we received the notification in November of a reduction in funding, revisions in the previously developed projected allocations for 1986-1987 were necessary. The current allocations for the University of Hawaii are projected as follows:

October 1 - December 31	\$164,000 ¹
January 1 - April 27	144,000
April 28 - September 30	151,000
Total	\$459,000

(continued)

¹An additional \$130,000 was formally obligated and \$100,000 tentatively obligated for the October 1 - December 31 period. Thus the total allocations for the 1986-1987 budget year will be approximately \$689,000.

8. Projections beyond 1987 are highly speculative and are for general planning purposes only. Actual allocations will vary depending on program priorities, progress on individual projects and available funds. Attempts to compare funding between university components beyond 1987 is not considered to be productive.
9. While there is no a priori right of any University to a given percentage of the budget, the 17% projected for the University of Hawaii for January 1987 - September 1989 in the December 30 memorandum to the Board is consistent with the University of Hawaii's historical relative expenditure rate as given by the following data.

Total Billings By Components of SM-CRSP
September 1981 - October 1986¹

<u>Component</u>	<u>Total</u>	<u>%</u>
Cornell	780,910	7
Hawaii	2,004,295	18
NCSU	4,599,587	41
TAMU	2,718,406	24
Mgmt. Ent.	1,177,545	10
Total	11,280,743	100

¹This is the latest date for which billings have been submitted by all universities.

10. In response to other points in your letter:
 - a. The EEP report in April 1986 assumed level funding and I do not interpret it as recommending any special considerations be given to the University of Hawaii. The appearance of a disproportionate cut is due to the requests for a large number of vacant positions which were not funded, as previously discussed.
 - b. Funding for the expert systems project, referred to on Page 2 of your letter, is provided at the full amount requested (see Page 55-56 of "P and B, 1986-1987"), contrary to what you apparently have assumed.

c. Substantial funding for soil-phosphorus modeling is still provided, though after five years, no definitive results from this activity have been presented.

d. The program at Sitiung has received good reviews and Carol Colfer's leadership, influence and productivity were unquestionably outstanding. However, in assessing the program at Sitiung, the major impact of North Carolina State University must be included due to the input of on-site senior scientist Dr. Mike Wade, graduate students Dan Gill and Karim Makarim and back-up campus faculty, Dr. Kamprath and Dr. Cassel.

e. I talked with Ada Demb many times on a range of concerns about the University of Hawaii program. However, I did not feel it necessary nor desirable to formalize them in writing. Her response was always one of support and defense of the questioned activities. I have talked also with Goro on several occasions about (a) lack of any meaningful research program output by Dr. Thompson, during his time with the program (b) lack of University of Hawaii graduate students in the field program (only two in five years), (c) failure to utilize funds on a timely basis, (d) questionable qualifications of Dr. Guyton for the needs of the program in Indonesia and (e) the low productivity of the program.

f. The CRSP is structured around major inputs by campus based faculty. To date, there have been only two University of Hawaii faculty with any apparent input into the program, Dr. Uehara and Dr. Yost.

g. The decision to provide a relative increase in funding to Cornell University was made by the Management Entity based on the following primary considerations: (1) a shift in its operations from Brazil to Africa, (2) high campus-based faculty input into the program, currently numbering seven, (3) quality of its work (4) capability to conduct and manage a larger program and (5) low backstopping costs resulting from substantial campus administrative support.

My conclusion is (a) that the relative proportion of the funds allocated and projected for the University of Hawaii is consistent with its historical expenditure pattern, program performance and management potential and (b) the amount allocated and projected should enable it to conduct a productive program that focuses on high priority issues within its area of expertise.

I'll be pleased to discuss the budget and program with you and Goro at any level of detail you desire after the EEP review is complete and to work with you all to maximize the outputs consistent with available resources.

Since your letter pertains to a matter involving the Board of Directors, I'm sending them a copy of my response.

Sincerely,

C. B. McCants
Director

CBM:ja

cc: Dr. Goro Uehara
Dr. E. B. Oyer
Dr. R. H. Miller
Dr. E.C.A. Runge
Dr. J. L. Malcolm



Cornell University

New York State College of
Agriculture and Life Sciences

International Agriculture
Program

OI
3E
M:
P:
Iti

Reference 52.

February 25, 1987

Dr. C. B. McCants, Director
Soil Management CRSP
Box 7113
North Carolina State University
Raleigh, NC 27695-7113

Dear Charlie,

Although belatedly, I write for the record that in polling the BOD regarding budget allocations as outlined in your January letter. As I reported on the phone, Miller, Oyer and Runge voted approval of the budgets as presented. Smith voted negative seeking more information which I believe is contained in your letter to him of January 30, 1987.

I apologize for this delay in responding.

Sincerely,

Edwin B. Oyer
Director

EBO:cj

FEB 27 1987

Telephone:
607/255-3035

Telex:
659020 INTAG CORNELL

Cable:
CUINTAG, Ithaca, NY

Funds Budgeted by AID, Funds Allocated by the Management Entity
and Billings Submitted for the University of Hawaii
September 25, 1981 - December 31, 1986

Period (inclusive)	Budget in Grant ^{1/}	Allocation ^{2/}	Billing ^{3/}	<u>Billing</u> Allocation
	dols	dols	dols	%
Sept 81-Sept 82	412,213	378,857	25,120	7
Sept 81-Sept 83	1,071,600	922,725	228,442	25
Sept 81-Sept 84	1,783,800	1,214,836	660,115	54
Sept 81-Sept 85	2,496,000	1,619,782	1,261,833	78
Sept 81-Sept 86	3,120,000	1,944,000	1,790,078	92
Sept 81-Dec 86	3,120,000	2,238,000	2,406,984	108

^{1/} Accumulative

^{2/} Accumulative

^{3/} Accumulative

Minutes

Meeting of the Executive Committee of the
Board of Directors and the Technical Committee
for the
Soil Management CRSP
Texas A & M University, June 5 and 6, 1984

An agenda, copy attached, was developed in consultation with Dr. Ada Demb and transmitted to all participants prior to the meeting along with information on many of the topics. There was some modification in the order and detail in which the topics were considered, but in general the agenda reflects the substantive issues that were discussed.

The joint meeting with the Technical Committee and the Board meeting were chaired by Dr. Demb and the Technical Committee meeting by Dr. Calhoun.

Dr. Runge welcomed the group to the TAMU campus and to the Crop and Soil Science Department which hosted the meetings. Following his review of the international activities within that Department, Dr. Edna Koenig described the international dimensions of the University and Dr. Bloodworth discussed some of his work in Saudi Arabia.

Each Principal Investigator presented a concise and comprehensive overview of their respective program--emphasizing achievements to date, current status and constraints. Ample time was provided for discussion. These presentations were quite informative and useful to the Board, in acquiring a fuller understanding of the scope of the program and the present situation.

The Management Entity reported on the following topics:

- Information gleaned from a recent meeting of CRSP directors with AID/S&T and BIFAD indicates that both organizations are satisfied with the CRSP concept, operations and achievements. Projections are that funding for the next several FY's will be at about the current level. Substantial discussion occurred on the subject of "buy ins" to individual CRSP programs by local missions. The conclusion, expressed by Mr. Casteel of the AID Grants and Contract Office, is that such support should be made through a direct contract between the USAID mission and the University--rather than through the CRSP amendment process. The reasons relate to some of the unique organizational and operational characteristics of the CRSP, local mission funding policies and a number of legal technicalities. Mr. Casteel's interpretation is that the Management Entity cannot become a contractor for "buy-in" sources of funding. It is recognized that as a result of CRSP activities, interest and subjects of local importance will be developed by local missions. Financial support to pursue these interests, however, must come through direct contractual relationships with a university.

- * All programs of the Soil Management CRSP are now fully operational. No particular difficulties are currently posed or anticipated.
- * The forthcoming triennial review and program extension proposal development, represent major events which will require considerable attention to detail. The review process is not well defined by AID and we have no experience to guide us. Considerable reliance is placed on the precedence set by other CRSP reviews.
- * Current emphasis in AID/W is on networking and ribboning of projects. Ribboning is defined as activities which have a common theme that crosses country and regional boundaries. Networks are linked by ribbons.
- * There is still a perception that the SM-CRSP is four separate programs rather than a unified one. The Management Entity and PI's are working diligently to alleviate the problem.
- * The SM-CRSP and INTSORMIL have completed the legal arrangements for a collaborative program in Mali. It will be conducted under the leadership of Texas A & M University. There will be no senior scientists on site; instead we'll rely on collaborating country personnel to handle most of the fiscal and programmatic details.
- * A review of the program in Indonesia was conducted in March by Dr. John Coulter of the EEP, accompanied by Dr. Goro Vehara, Dr. John Nicholaides and the ME Director. The results were positive and constructive.
- * A major review of the program in Peru was conducted by Dr. Coulter and Dr. Hildebrand of the EEP along with Dr. Malcolm of AID/W, Dr. Juo of IITA and the ME Director. It involved a visit to the NCSU campus and the primary research site at Yurimaguas, Peru. Preliminary reports have been favorable and useful.
- * The current budget situation was reviewed and the following details highlighted. (1) AID/W continues to advise us to operate on the assumption that the funding authorized in the Grant will be provided in full within the five year period. (2) Current allocations from AID are approximately \$400,000 less than the authorized funding for the specific period covered. (3) Due to delayed initiation of some programs, the SM-CRSP has a substantial balance in all components except NCSU. (4) There is a need to examine the overall budget structure, and projected expenditures and take such action as necessary to insure the most effective use of the resources. The program will be evaluated on the basis of our achievements rather than the amount of money in the pipeline.

Mr. Neil Caudle, recently appointed International Programs Editor at NCSU, was introduced. Major financial support for this position is provided by the SM-CRSP. He expressed some views regarding means of giving increased visibility to the programs and achievements and indicated that during the

course of the meetings he would visit with each individual to soil and exchange views. In later discussions with Mr. Caudle and other decision was made that he would prepare a report on SM-CRSP activities for the use in the triennial review. It will be oriented toward the audience with a keen sense of concern about the world food problem and the ability to comprehend sufficient technical information to understand the role that soil management can play in improving the situation. Individual PI's will be the resource base.

Discussions on the triennial review centered primarily on the dates, duration, and relationship of it to a meeting of the full Board of Directors. There was consensus that (a) the review should be held in early November (b) the review should be preceded by a meeting of the full Board and (c) the Management Entity should proceed to work out the details.

The importance of involving collaborating country administrators and scientists in all phases of the program was discussed and recognized. There was consensus that there should be a meeting of the full Board at least once a year, with the U. S. University representatives perhaps meeting more frequently. Specific determinations will be based on need and budget considerations.

The acronym TropSoils has become associated with the SM-CRSP, by general usage. However, there are many on-going activities which relate to the SM-CRSP objectives are funded in part or in whole from other sources. The Management Entity recommended that "TropSoils" be adopted as the official acronym for those activities funded by the Soil Management CRSP and other closely related activities funded from other sources. The ensuing discussion centered primarily on the problem of what should be properly referred to as a TropSoils activity, since each University is involved in many and diverse international programs, many of which relate to the SM-CRSP. All participants recognized that a strict definition would be impractical and difficult to achieve. The Management Entity recommended that TropSoils include all programs funded in part or in whole from the SM-CRSP and all relevant programs funded primarily from other sources that involve substantial participation by personnel who have major responsibilities in SM-CRSP programs. The consensus was that we would use TropSoils as the official acronym for the SM-CRSP and leave it to the individual university to determine what additional activities to include under the umbrella.

The relatively low level of funding for Cornell University was acknowledged and the reasons reviewed. It is the result of shifting its responsibility for a support role in the humid tropics to a lead role for the acid savannas, without any change in funding. The Management Entity recommended that there be an increase in the funding for the acid savannas program and also a broadening of the base of operations to include countries other than Brazil. Following a lengthy discussion, the Board requested that the Management Entity make an analysis of projected expenditures of all components in the SM-CRSP and present this information and an analysis at the next meeting of the Board.

We have been advised by AID/W that in planning for the three year extension of the SM-CRSP, to assume an annual budget of \$3 million. Guidelines for apportioning this amount among the four components were discussed at length. The conclusion was that the PI's and the ME should work together to develop a program perceived to meet the essential objectives of the SM-CRSP without attempting to fit it initially into a fixed budget structure. Adjustments will be made later, if necessary, to prioritize activities to fit the funding level.

The ME called attention to the fact that we have only three permanent members on the EEP, the fewest number for any CRSP. It recommended that Dr. Tony Juo, Soil Scientist, IITA, who participated in the Peru program review and is actively involved in tropical soils research, be appointed a permanent member of the EEP. In the ensuing discussion, several participants expressed the opinion that selecting an addition to the Panel should involve consideration of a slate of nominees rather than a single one. At the request of the ME, the subject was tabled for consideration at a later date. When deemed useful, the ME will continue the practice of appointing as ad hoc members to the Panel to reviewing specific programs, persons who have on-going research related to that activity and are recognized professionals in their area of work.

The appropriate dimensions for training within the SM-CRSP was discussed. Involvement of graduate students poses no problem so long as their research contributes to the CRSP objectives. The consensus was that training of other types, conducted either in the U. S. or in collaborating countries, would also be appropriate if it is directed toward developing research capability or research accomplishments. Training to enhance the dissemination of research information is considered not to be an appropriate activity for the SM-CRSP.

Various issues related to the posting of graduate students overseas were identified by the ME, notably a concern about the minimum level of training for overseas assignment and the large differences in stipend and support provided to graduate students by different universities. There was agreement that posting overseas should generally be limited to Ph.D. candidates but that it should be permitted for those working on M.S. degrees. Rather than the degree program in which the student is enrolled, the criteria should focus more on maturity, experience and capability to work as an independent investigator in isolated and sometimes harsh conditions. The consensus was that no attempt should be made to standardize the salary and support provided a graduate student, but rather, these decisions be left with the individual university. The subjects should be brought up at future Board meetings, when difficulties arise in implementing these policies.

In a follow-up letter relative to the Board meeting, Dr. Oyer made the following suggestions to the ME:

- Arrange for Board members from collaborating institutions "to present information on the structure (anatomy) and function (physiology) of their organization." The reasoning is that we could be trying to assist and work with organizations without fully understanding their situation, point of view and priorities.

- Give more attention to "assisting, especially foreign students the understanding of how experiments compose projects and make up programs---how to design and implement the several. The objective would be to assist in the development of effective research management, so that individual projects contribute in a unified manner to a broader goal.
- Recognize that many well trained graduate students are assigned major administrative duties on return to their country and give them some guidance in actions that may reduce the "inflexibility of the fiscal system (so as not to) condemn research to mediocrity." This action would be in response to a fact that, for developing countries, the graduate students of today frequently are assigned major administrative positions quite soon and that good management can have a creative or stifling effect.

The ME, Executive Committee and Technical Committee thank the TAMU administration and faculty for the detailed arrangements made and excellent facilities provided for the meetings and to Dr. Runge for the evening social event.

Participants were:

A. Executive Committee, Board of Directors

Dr. Ada Demb, University of Hawaii, Chairwoman
Dr. Robert Miller, North Carolina State University
Dr. Edwin Oyer, Cornell University
Dr. Ed Runge, Texas A & M University

B. Technical Committee

Dr. Frank Calhoun, Texas A & M University, Chairman
Dr. Douglas Lathwell, Cornell University
Dr. Pedro Sanchez, North Carolina State University
Dr. Goro Vehara, University of Hawaii

C. Management Entity

Dr. Charles McCants
Mr. Neil Caudle

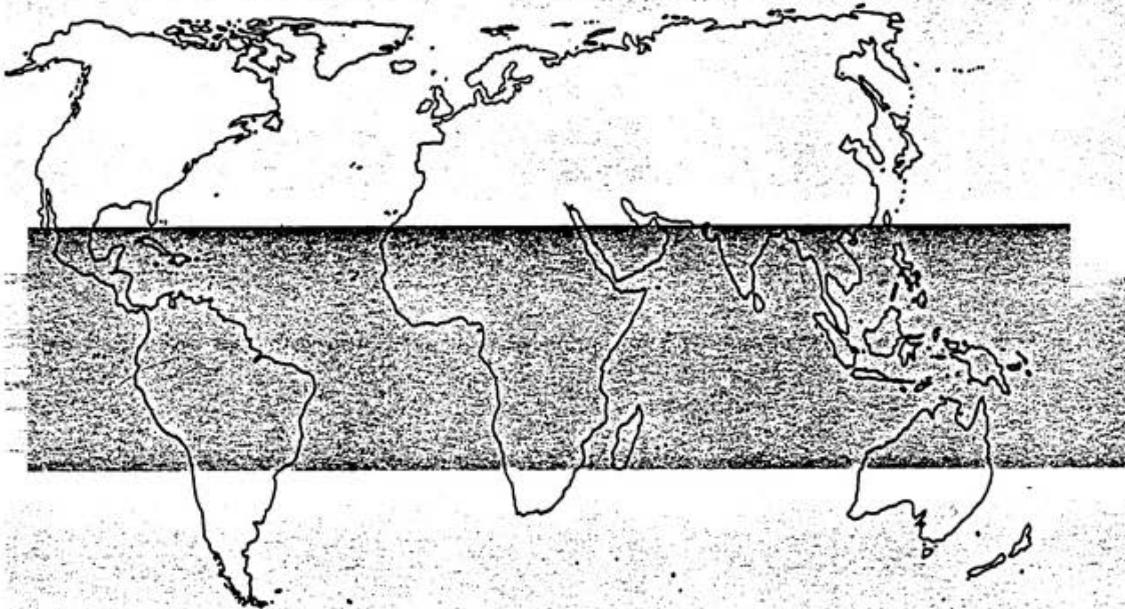
Reference 55.

Copy of the Program
Plan is available
from the Management
Entity

TROPISOILS

PROGRAM PLAN

1984-1989



From: "Projects and
Budgets For the Soil
Management CRSP
1986-1987"

PROCEDURES

Project Statements

A project statement was drafted by the Management Entity from the information in the project outlines in "TropSoils Program Plan, 1984-1989". These drafts were transmitted to the appropriate Program Coordinator with a request that they be submitted to the persons listed as the Project Leader for review and revision. This procedure was followed, generally, although there are indications that for a number of projects, the Program Coordinator performed the review and revision actions.

Requested Budgets

Each Program Coordinator was requested to develop, in collaboration with the Project Leader, a detailed budget for each project. A form was provided to assist in the process. The response is reported under the "Requested" column associated with each project budget.

Projected Available Funds

The agreements between the Management Entity and AID specify that the four subgrants will be funded from the original grant through December 31, 1986. Thereafter, they will be funded from the new grant. The Management Entity will be funded from the new grant beginning on October 1, 1986.

The unencumbered balance on October 1 of original grant funds was estimated to be \$950,000. These are distributed among several subgrantee accounts and the Management Entity. Approximately \$200,000 of this amount is needed to fund expenditures in excess of allocations by the University of Hawaii.

The current base budget for the Soil Management CRSP is \$200,900 per month. Thus for the new grant, funding for the nine-month period, January 1 - September 30, would be \$1,808,000. This figure was used in developing the projected allocation of funds to the various projects for this period.

Caution: Of the \$1,808,000 projected, only \$780,000 has been allocated to the Management Entity by AID. The remainder is subject to adjustments arising from Congressional action on the FY 87 budget.

Projected Allocation of Funds

A. October 1 - December 31

1. Personnel

All requests for personnel positions that were filled on October 1 were funded for this time period.

Requests for vacant positions were selectively funded. Those funded are a graduate student at the University of Hawaii and a senior scientist and partial support for a program coordinator at Texas A & M University. Positions not funded are: half-time technician at Texas A & M University and a senior scientist and three graduate students at the University of Hawaii.

2. Non-Personnel

The requests for non-personnel objects, were funded in full for this time period.

The remaining balance of the equipment requests was funded in full and added to the previously calculated amount.

B. January 1 - September 30

1. Personnel

All requests for personnel positions that were filled on October 1 were funded for this time period, except for a technician and three graduate student positions at North Carolina State University.

Requests for vacant positions were selectively funded. Those included are a graduate student at the University of Hawaii and a senior scientist and partial support for a program coordinator at Texas A & M University. Positions not funded are: half-time technician at Texas A & M University, a graduate student at North Carolina State University, and a senior scientist and three graduate students at the University of Hawaii.

2. Non-Personnel

The equipment was subtracted from the total non-personnel request, since all equipment

requests were funded in the October 1 31 period. The balance was prorated time period (75% of the program year) and the resulting product was reduced by 25 percent.

3. Management Entity

The projected size of the External Evaluation Panel was reduced from four to three and the total budget reduced approximately 25%.

The non-personnel funding for the Management Office and the Board of Directors was reduced 25% from the amount requested.

There are no funds in this budget for contingencies.

4. Supplementary Funding

The projected budget for each project was calculated by the formula described above and the totals determined. The difference between the "Projected Amount of Funding" and these totals was distributed among the various projects on the basis of a perceived priority. Thus, the figures in the "Total" column for a given project are frequently higher than the number arising from the formula calculation.

No supplements were added to the Management Entity budgets.



University of Hawaii at Manoa

College of Tropical Agriculture and Human Resources
 TROPSOIL Project • Soil Management CRSP
 Department of Agronomy and Soil Science
 2500 Dole Street • Krauss Hall 22 • Honolulu, Hawaii 96822
 Telephone: (808) 948-8858 • Cable Address: UNIHAW

October 21, 1986

Dr. C. B. McCants
 Director, Management Entity
 Soil Management CRSP
 N. C. State University
 P. O. Box 7113
 Raleigh, North Carolina 27695-7113

Dear Charlie:

Per your telephone conversation with Gordon on October 16, 1986, I am attaching our current best estimate of projected expenditures for the last quarter of the calendar year. This reflects the additional funding that we will require to continue our current level of activities in Indonesia. The total figure is slightly different from what Gordon provided to you after we discussed our procurement needs yesterday.

Line item costs for October are higher due to expenditure for (1) post differential and educational allowances; (2) equipment items for the soil physical properties and conservation projects; (3) supplies for field and laboratory activities. Domestic travel costs in November related to costs to support local participation in an on-site workshop in Sitiung. Travel funds for November and December were set aside for our participation in the ASA meeting in New Orleans and for Dr. Smith's attendance at the TropSoils Board of Directors meeting.

The overhead rate was averaged out at 30%. The on-campus rate is 42% and 22% for off-campus research.

We look forward to your favorable response. If there are any questions regarding our projected expenses, please call me or Gordon at your convenience.

Sincerely yours,

Goro Uehara
 Project Coordinator



GU:ss

cc: S. El-Swaify
 G. Y. Tsuji
 S. Sakumoto

AN EQUAL OPPORTUNITY EMPLOYER



University of Hawaii at Manoa

College of Tropical Agriculture and Human Resources
TROP SOIL Project • Soil Management CRSP
Department of Agronomy and Soil Science
2500 Dole Street • Krauss Hall 22 • Honolulu, Hawaii 96822
Telephone: (808) 948-8858 • Cable Address: UNIHAW

TROP SOILS PROJECT
BUDGET FORECAST
OCT./NOV./DEC. 1986

BUDGET CATEGORY	OCT. 1986	NOV. 1986	DEC. 1986	TOTAL
SALARIES	\$25,000.00	\$25,000.00	\$25,000.00	\$75,000.00
FRINGE BENEFITS	\$5,000.00	\$5,000.00	\$5,000.00	\$15,000.00
SUPPLIES	\$7,500.00	\$3,500.00	\$3,500.00	\$14,500.00
EQUIPMENT	\$15,013.00	\$4,800.00	\$0.00	\$19,813.00
TRAVEL-DOMESTIC:				\$0.00
INDONESIA	\$1,500.00	\$3,000.00	\$750.00	\$5,250.00
U.S.	\$0.00	\$1,200.00	\$3,000.00	\$4,200.00
TRAVEL-INTERN.	\$3,000.00	\$0.00	\$0.00	\$3,000.00
FREIGHT	\$0.00	\$5,000.00	\$0.00	\$5,000.00
POST DIFFERENTIAL	\$15,000.00	\$4,000.00	\$4,000.00	\$23,000.00
TOTAL DIRECT COSTS	\$72,013.00	\$51,500.00	\$41,250.00	\$164,763.00
INDIRECT COSTS	\$17,100.00	\$14,010.00	\$12,375.00	\$43,485.00
TOTAL	\$89,113.00	\$65,510.00	\$53,625.00	\$208,248.00

AN EQUAL OPPORTUNITY EMPLOYER



North Carolina State University

School of Agriculture and

Management Entity
Soil Management CRSP
Box 7113, Raleigh 27695-7113
(919) 737-3922

November 6, 1986

Dr. Goro Uehara
Department of Agronomy
and Soil Science
University of Hawaii
Honolulu, HI 96822

Dear Goro:

This reply is to your October 21 letter regarding funding for the University of Hawaii component of the Soil Management CRSP.

Your projected budget requirement for October, November and December is substantially higher than was expected based on (a) our telephone discussions and (b) the budget worksheets submitted earlier for each project. For example, the projected costs in your October 21 letter for salaries, fringe benefits, postdifferential and overhead for November and December are \$48,280 per month. The projected costs for positions reported to be filled (including the three for backstopping) for the same two months is only \$33,300 per month. Assuming all positions requested, including the Colfer position, five vacant graduate student positions plus three for backstopping, the cost would be \$44,600 per month.

I bring this to your attention, because it is clear that funds provided after January 1 will be substantially less than the \$53,625 monthly estimate for December that is given in your October 21 letter. The current projected budget for your program for January 1, 1987-September 30, 1987 is \$335,000, down \$79,000 from the estimate given in the September 29 letter and attachments. This reduction was necessitated by a decision of AID regarding the use of new grant funds carried forward to January. Of the \$335,000, \$28,000 is earmarked for nonsalary support of the extrapolation activities for Project 211. Thus, the projected funds for general support is \$307,000 or \$34,100 per month for the nine month period.

An amendment to Subgrant SM-CRSP-02 is being processed which will increase the obligated funding \$130,000. This is all of the remaining funds available to the Management Entity.

I have requested the other three subgrantees to provide a balance of \$25,000 each in their account at the end of December which can be reallocated and would provide the total of \$205,000 that you estimate will be needed. Based on the information available, I anticipate we will be able to accomplish this objective. However, you should take actions to insure that expenses are kept to those that are essential.

Please contact me if you wish to discuss this matter further.

Sincerely,



C. B. McCants
Director

CBM/ev



North Carolina State University

School of Agriculture and

Management Entity
Soil Management CRSP
Box 7113, Raleigh 27695-7113
(919) 737-3922

March 3, 1987

Dr. Goro Uehara
Department of Agronomy and Soil Science
University of Hawaii
Honolulu, HI 96822

Dear Goro:

The February 25, 1987 voucher from Mr. Sakima shows that billings from the University of Hawaii will be substantially in excess of funds allocated through Amendment 7. In a letter of November 8 to you, I advised you that all funds had been allocated to the subgrantees and that only \$130,000 of the \$208,000 you requested could be provided. However, it was pointed out that I would request each subgrantee to retain a positive balance of \$25,000 in the final billing (total of \$75,000) which could then be reallocated to your account. The total of these two processes would nearly equal the \$208,000. The response is disappointing in that the total reversions will be substantially less than requested.

I feel the Management Entity made a commitment to you to provide the additional \$75,000; and, thus it should be fulfilled. However, the funds will have to be in the form of "old", e.g. original grant and "new", e.g. recent grant, sources. What I propose follows: (a) that all reverted funds from the subgrantees accounts be added to your account, (b) that the difference between \$75,000 and the total of the reverted funds be added to the account under the new subgrant. I'm not sure how these funds can be used to pay expenses incurred prior to December 31, 1986, but perhaps your business office can resolve this matter.

I regret the occurrence of this situation and trust that the action taken here will be of assistance to you.

Sincerely,

A handwritten signature in cursive script that reads "Charlie".

C. B. McCants
Director

CBM:mbs

CC: Dr. Ray Smith

Campus-Based Personnel Who Have Served As Leaders
of Active SM-CRSP Funded Projects, 1981-1986

Cornell University	University of Hawaii	N.C. State University	Texas A&M University
Bouldin, D.R.	Uehara, Goro	Buol, S.W.	Calhoun, F.G.
Bryant, R.B.	Yost, Russell	Cassel, D.K.	Hallmark, C.T.
Duxbury, J.M.		Cox, F.R.	Hossner, L.R.
Lathwell, D.G.		Davey, C.B.	Onken, A.B.
McBride, M.B.		Kamprath, E.J.	Wendt, C.W.
Reid, W.S.		McCollum, R.E.	Wilding, L.P.
Riha, S.J.		Nicholaides, J.J.	
		Sanchez, P.A.	

Funds Requested by Each Component and Obligated by the
Management Entity, October 1, 1986-September 30, 1987

Component	Requested \$1000	Obligated \$1000	Obligated Requested %
Cornell	345	253	73
Hawaii	645	665	103
NC State	884	703	79
Texas A&M	589	513	87
Mgt. Entity	487	392	80
<hr/>			
Total	2950	2526	86

Funds Allocated to Each Component
October 1, 1986-September 30, 1987

Component	Allocation, x \$1000			% of Total
	10/1/86- 12/31/86	1/1/87- 9/30/87	10/1/86- 9/30/87	
Cornell	0	253	253	10
Hawaii	369	296	665	26
NC State	262	441	703	28
Texas A&M	162	351	513	20
Mgt. Entity	71	321	392	15
Contingency	0	27	27	1
Total	864	1689	2553	100



North Carolina State University

School of Agriculture and

Management Entity
Soil Management CRSP
Box 7113, Raleigh 27695-7113
(919) 737-3922

September 29, 1986

Dr. Goro Uehara
Department of Agronomy and Soil Science
University of Hawaii
Honolulu, HI 96822

Subject: Funding for the Soil Management CRSP .

Dear Dr. Uehara:

Following is the current status of the above subject:

- A three-month extension, to December 31, 1986, will be made to the initial grant, (number 1083).
- Unexpended 1083 funds can be used during the extension but not beyond December 31, 1986.
- All current subgrants will continue to be funded from 1083 through December 31, 1986.
- A new grant, number 1618, which extends the program three years, authorizes funding of \$9,000,000 and obligates \$870,000 to February 11, 1986 becomes effective on September 24, 1986.
- The Management Entity will be funded under 1618 beginning September 25, 1986.
- New subgrants will be developed and will become effective on January 1, 1987.
- On January 1, 1987, all operations will be funded under 1618.

The critical issues are:

- No carry forward of 1083 funds beyond December 31, 1986.
- No commitment by AID on the amount of obligated funding beyond February 11, 1987.

- Current expenditures by the Soil Management CRSP is averaging \$250-275,000/month. The 1618 grant provides funds at the rate of \$193,000/month and for only 4.5 months.
- The inability to use 1083 funds beyond December 31, 1986 prevents the ME from buffering to the extent that had been planned, the anticipated changes in level of funding.

A budget for the 1986-1987 program year beginning October 1, 1986 for the Soil Management CRSP activities you are coordinating is enclosed. The base of reference used by the ME in developing it was the budget information you provided recently and the special conditions applied by AID on the use of the funds.

An important fact to remember is that the budget from 1618 monies is based on an assumed level of funding from February 11 to September 30, 1987. Significant deviations by AID from this assumption will be reflected in the actual allocation of 1618 funds.

Please give me your comments on any aspect of this funding arrangement by October 10. Thereafter, it will be submitted to the Board of Directors for evaluation. Any deviation from the budget given herein for 1618 funds that may arise from Board or other actions, will be implemented when the new subgrant is issued.

An amendment is being processed which will extend the termination date of Subgrant Number SM-CRSP-02 to December 31, 1986 and increase the obligated funding to \$2,108,000.

The enclosed budget reflects the following actions by the ME.

1. Personnel

- 1.1. Funding for the Colfer position is placed in a contingency category due to a need to establish the priority of that activity in relation to others. This approach is being taken throughout TropSoils when a position, including a GRA, becomes vacant. Such action is considered essential to address present and forthcoming budget issues. A decision will be made on this position following the EEP review currently scheduled for February. In the meantime, funds are provided in the 1083 budget for short-term consultants to be employed to support the program. For example, you have stated that there are economists on the University of Hawaii faculty that are available to initiate work in response

(continued)

to Dick Cobb's request last May. Perhaps this work can be initiated during the next months.

- 1.2. Funding for the graduate student associated with each project will commence when the person is employed. Please arrange for the ME to be informed when this occurs.

2. Non-Personnel

- 2.1. The requested funding for "Backstopping," Project 212, was not accompanied by the necessary details on specific positions to be funded and associated salaries, benefits and overhead. The request of \$150,000 is considered high in relation to the size and characteristics of the program.
- 2.2. The budget for Project 212 was based on a prorated rate of \$100,000/yr for the first three months and \$80,000/yr for the remaining nine months.

In view of the current availability of funds and uncertainty of the future, I recommend that all equipment for the 1986-1987 program year be purchased prior to December 31. Any travel that could be moved to this time period would likewise be advisable.

Please call me for discussion on any details in this communication on which you would like clarification.

Sincerely,

C. B. McCants
Director

CBM:ja

cc: Dr. M. R. Smith
Dr. Gordon Tsuji



North Carolina State University

School of Agriculture and Life Sciences

Management Entity
Soil Management CRSP
Box 7113, Raleigh 27695-7113
(919) 737-3922

MEMORANDUM TO: Board of Directors

FROM: C. B. McCants
C. B. McCants

DATE: December 30, 1986

SUBJECT: Recommended Budget Projections and Allocations
January 1, 1987 - September 30, 1989

The Board, during its meeting on November 21, 1986, requested the Management Entity to review its budget recommendations in light of information received during the meeting of an impending reduction in funding and subsequent discussions with the AID administration. Enclosed are the revised recommendations which are submitted for your consideration and action.

The philosophy taken in developing a projection of total funds that may be available is (a) that further reductions in funding from AID should be anticipated and (b) that a conservative estimate of future funding should be used so that major revisions in programs are made now and thus minimize the need for later reductions. The assumption is that it is easier to expand a program if funding is higher than projected than it is to decrease one if funding is less than expected.

The formula used for projecting total funds uses the current base rate of \$200,900 per month to which a 13.5 percent reduction was made from April 27 to September 30, 1987, an additional 10 percent reduction for FY 88 and an additional 10 percent reduction for FY 89.

The allocation to each component is based on an analysis of programs and budget details submitted by each Program Coordinator for FY 87 and other considerations, such as historical funding, expenditure pattern and program performance.

A resume of the calculations and projections is given in the accompanying table.

Subgrants have been initiated for each university component which includes the respective budget information given in the

enclosed table. Any changes in projections or allocations which result from Board action can be implemented by amendments to the subgrants.

I would like to have a record of the Board's formal action on these recommendations. A written reply from the Chairman by January 30 will be appreciated.

CEM:ja

Enclosure

cc: Program Coordinators

FUNDING RECOMMENDATIONS

January 1, 1987 - September 30, 1989

A. Projected Funds Available

January 1, 1987-April 26, 1987 (\$200,900/mo)	\$ 780,000
April 27, 1987-September 30, 1987 (.865 x \$200,900/mo = \$173,800/mo)	890,000
October 1, 1987-September 30, 1988 (.90 x \$173,800/mo = \$156,400/mo)	1,877,000
October 1, 1988-September 30, 1989 (.90 x \$156,400/mo = \$140,800/mo)	<u>1,690,000</u>
Total	\$5,237,000

B. Obligated and Projected Funding

Component	<u>Obligated</u>	<u>Projected</u>
	1-1-87 to 4-26-87	1-1-87 to 9-30-89
	Dollars x 1000	
Cornell	102	900
Hawaii	144	900
NCSU	219	1,300
TAMU	164	1,100
ME	151	900
Contingency	0	137
Total	780	5,237



Cornell University

New York State College of
Agriculture and Life Sciences

International Agriculture
Program

O
3
M
P
II

Reference 63

February 25, 1987

Dr. C. B. McCants, Director
Soil Management CRSP
Box 7113
North Carolina State University
Raleigh, NC 27695-7113

Dear Charlie,

Although belatedly, I write for the record that in polling the BOD regarding budget allocations as outlined in your January letter. As I reported on the phone, Miller, Oyer and Runge voted approval of the budgets as presented. Smith voted negative seeking more information which I believe is contained in your letter to him of January 30, 1987.

I apologize for this delay in responding.

Sincerely,

Edwin B. Oyer
Director

EBO:cj

FEB 27 1987

Telephone:
607/255-3035

Telex:
559020 INTAG CORNELL

Cable:
CUINTAG, Ithaca, NY

Allocated and Projected Budgets, All Components
October 1, 1986 - September 30, 1989

Component	Allocated 10/1/86- 9/30/87	Projected 10/1/87- 9/30/89	Allocated + Projected 10/1/86- 9/30/89	Allocated + Projected % of Total
	x \$1000	x \$1000	x \$1000	
Cornell	253	647	900	15
Hawaii	665	604	1269	21
NC State	703	859	1562	26
Texas A&M	513	749	1262	21
Mgt. Entity	392	508	900	15
Contingency	27	110	137	2
Total	2553	3477	6030	100



North Carolina State University
Research Administration

Office of the Vice Chancellor
for Research

October 6, 1986

Box 7003
Raleigh, N.C. 27695-7003
(919)737-2117

Dr. Goro Uehara
Department of Agronomy & Soil Science
University of Hawaii
Honolulu, HI 96822

Dear Dr. Uehara:

Subject: Subgrant SM-CRSP-02 under Grant No. DAN-1311-G-SS-1083-00, Amendment No. 6

In accordance with the authority provided by the Agency for International Development to North Carolina State University as the Management Entity for the Soil Management CRSP, this amendment is to revise the referenced subgrant as specified below.

Title page:

Expiration Date

Delete: September 24, 1986
Add: December 31, 1986

Funds Obligated

Delete: \$1,944,000
Add: \$2,108,000

These funds are for support of subgrant activities through December 31, 1986.

Please arrange for an authorized official to sign all copies. Return the original and two copies.

Sincerely,

F. D. Hart
Vice Chancellor for Research

Approved:

Title: LAWRENCE S. SAKIMA
Director-Contracts & Grants

Date: NOV 28 1986



North Carolina State University
Research Administration

Office of the Vice Chancellor
for Research

November 3, 1986

Box 7003
Raleigh, N.C. 27695-7003
(919)737-2117

Dr. Goro Uehara
Department of Agronomy & Soil Science
University of Hawaii
Honolulu, HI 96822

Dear Dr. Uehara:

Subject: Subgrant SM-CRSP-02 under Grant No. DAN-1311-G-SS-1083-00, Amendment No. 7

In accordance with the authority provided by the Agency for International Development to North Carolina State University as the Management Entity for the Soil Management CRSP, this amendment is to revise the referenced subgrant as specified below.

Funds Obligated

Delete: \$2,108,000
Add: \$2,238,000

These funds are for support of subgrant activities through December 31, 1986.

Please arrange for an authorized official to sign all copies. Return the original and two copies.

Sincerely,

F. D. Hart
Vice Chancellor for Research

Approved:

Title: LAWRENCE S. SAKIMA
Director, Contracts & Grants

Date: DEC 1 1986



North Carolina State University

School of Agriculture and

Management Entity
Soil Management CRSP
Box 7113, Raleigh 27695-7113
(919) 737-3922

November 6, 1986

Dr. Goro Uehara
Department of Agronomy
and Soil Science
University of Hawaii
Honolulu, HI 96822

Dear Goro:

This reply is to your October 21 letter regarding funding for the University of Hawaii component of the Soil Management CRSP.

Your projected budget requirement for October, November and December is substantially higher than was expected based on (a) our telephone discussions and (b) the budget worksheets submitted earlier for each project. For example, the projected costs in your October 21 letter for salaries, fringe benefits, postdifferential and overhead for November and December are \$48,280 per month. The projected costs for positions reported to be filled (including the three for backstopping) for the same two months is only \$33,300 per month. Assuming all positions requested, including the Colfer position, five vacant graduate student positions plus three for backstopping, the cost would be \$44,600 per month.

I bring this to your attention, because it is clear that funds provided after January 1 will be substantially less than the \$53,625 monthly estimate for December that is given in your October 21 letter. The current projected budget for your program for January 1, 1987-September 30, 1987 is \$335,000, down \$79,000 from the estimate given in the September 29 letter and attachments. This reduction was necessitated by a decision of AID regarding the use of new grant funds carried forward to January. Of the \$335,000, \$28,000 is earmarked for nonsalary support of the extrapolation activities for Project 211. Thus, the projected funds for general support is \$307,000 or \$34,100 per month for the nine month period.

An amendment to Subgrant SM-CRSP-02 is being processed which will increase the obligated funding \$130,000. This is all of the remaining funds available to the Management Entity.

I have requested the other three subgrantees to provide a balance of \$25,000 each in their account at the end of December which can be reallocated and would provide the total of \$205,000 that you estimate will be needed. Based on the information available, I anticipate we will be able to accomplish this objective. However, you should take actions to insure that expenses are kept to those that are essential.

Please contact me if you wish to discuss this matter further.

Sincerely,



C. B. McCants
Director

CBM/ev