



SEP 26 2004

U.S. AGENCY FOR
INTERNATIONAL
DEVELOPMENT

David W. Richardson
Director of Sponsored Programs
Virginia Polytechnic Institute and State University
1060 Litton-Reaves Hall
Blacksburg, VA 24060

Subject: Leader-with-Associate Cooperative Agreement
No. EPP-A-00-04-00013-00

Dear Mr. Richardson:

Pursuant to the authority contained in the Foreign Assistance Act of 1961, as amended, the U.S. Agency for International Development (USAID) hereby awards to Virginia Tech (hereinafter referred to as the "Recipient"), the sum of \$11,999,406 to provide support for a worldwide program in "Sustainable Agriculture and Natural Resources Management (SANREM) Collaborative Research Support Programs (CRSP)" as described in the Schedule of this award and in Attachment B, entitled "Program Description."

This Leader-with-Associate (Leader) agreement is effective and obligation is made as of the date of this letter and shall apply to expenditures made by the Recipient in furtherance of program objectives during the period beginning with the effective date of September 30, 2004 and ending September 30, 2009. USAID will not be liable for reimbursing the Recipient for any costs in excess of the obligated amount.

This award is made to Virginia Tech, the Leader Agreement Recipient, on condition that the funds will be administered in accordance with the terms and conditions as set forth in Attachment A (the Schedule), Attachment B (the Program Description), and Attachment C (the Standard Provisions), all of which have been agreed to by your organization.

Please sign the original and all enclosed copies of this letter to Acknowledge your receipt of the award, and return the original and all but one copy to the undersigned.

Sincerely yours,

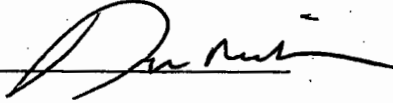
Joseph Schmidt
Agreement Officer
M/OP/EGAT/PEP
Office of Procurement

Attachments:

- A. Schedule
- B. Program Description
- C. Standard Provisions
- D. Sample Associate Award Format

ACKNOWLEDGED: VIRGINIA TECH

BY: David W. Richardson



TITLE: Director, Office of Sponsored Programs

DATE: September 29, 2004

TABLE OF CONTENTS

PAGE

SCHEDULE5

- A.1 PURPOSE OF AGREEMENT.....5
- A.2 PERIOD OF AGREEMENT.....5
- A.3 AMOUNT OF AWARD AND PAYMENT.....5
- A.4 BUDGET.....5
- A.5 REPORTING AND EVALUATION.....6
- A.6 TITLE TO PROPERTY.....7
- A.7 INDIRECT COST RATE7
- A.8 AUTHORIZED GEOGRAPHIC CODE8
- A.9 COST SHARING8
- A.10 SUBSTANTIAL INVOLVEMENT.....9
- A.11 KEY PERSONNEL.....9
- A.12 PROGRAM INCOME.....10
- A.13 SPECIAL PROVISIONS.....10
- A.14 EXECUTIVE ORDER ON TERRORISM FINANCING.....11
- A.15 POST AWARD ADMINISTRATION.....11
- A.16 RESOLUTION OF CONFLICTS.....12
- A.17 UNIVERSITY PARTNERS.....12

PROGRAM DESCRIPTION13

STANDARD PROVISIONS FOR U.S., NONGOVERNMENTAL RECIPIENTS53

- C.1 APPLICABILITY OF 22 CFR PART 226 (APRIL 1998).....53
- C.2 INELIGIBLE COUNTRIES (MAY 1986).....53
- C.3 NONDISCRIMINATION (MAY 1986).....53
- C.4 INVESTMENT PROMOTION (JANUARY 1994).....53
- C.5 REQUIRED CLAUSE FOR GRAY-AREA ACTIVITIES (NOV 2003)53
- C.6 NONLIABILITY (NOVEMBER 1985).....54
- C.7 AMENDMENT (NOVEMBER 1985).....54
- C.8 NOTICES (NOVEMBER 1985).....54
- C.9 SUBAGREEMENTS (JUNE 1999).....55
- C.10 OMB APPROVAL UNDER THE PAPERWORK REDUCTION ACT
(APRIL 1998)55
- C.11 USAID ELIGIBILITY RULES FOR GOODS AND SERVICES
(APRIL 1998)55
- C.12 REGULATIONS GOVERNING EMPLOYEES (AUGUST 1992).....58
- C.13 CONVERSION OF UNITED STATES DOLLARS TO LOCAL CURRENCY
(NOVEMBER 1985)59
- C.14 USE OF POUCH FACILITIES (AUGUST 1992).....59
- C.15 INTERNATIONAL AIR TRAVEL AND TRANSPORTATION
(JUNE 1999)60
- C.16 LOCAL PROCUREMENT (APRIL 1998).....62
- C.17 NEGOTIATED INDIRECT COST RATES -
PEDETERMINED (APRIL 1998).....63
- C.18 PUBLICATIONS AND MEDIA RELEASES (JUNE 1999).....63
- C.19 TITLE TO AND CARE OF PROPERTY (COOPERATING COUNTRY TITLE)..... 64
- C.20 PUBLIC NOTICES (AUGUST 1992).....68
- C.21 COMMUNICATIONS PRODUCTS (OCT 1994).....68
- C.22 PROHIBITION OF ASSISTANCE TO DRUG TRAFFICKERS.....69
- C.23 COST SHARING (MATCHING) (JAN 2002).....69

C.24	DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS (JAN 2004)	70
C.25	DRUG-FREE WORKPLACE (JAN 2004).....	70
ATTACHMENT D "SAMPLE ASSOCIATE AWARD"		72
ATTACHMENT E "PROGRAM ADMINISTRATION AND IMPLEMENTATION"		76

A. GENERAL

- 1. Total Estimated USAID Amount: \$11,999,406
- 2. Total Obligated USAID Amount: \$ 2,100,000
- 3. Cost-Sharing Amount (Non-Federal): \$ 2,917,339
- 4. Activity Title: SANREM CRSP
- 5. USAID Technical Office: EGAT/NRM/LRM
- 6. Tax I.D. Number: 54-6001805
- 7. DUNS No.: 003-137-015
- 8. LOC Number: HHS-66A1P

B. SPECIFIC

- 1. Budget Fiscal Year: 2004
- 2. OP Unit: EGAT/AG
- 3. Fund: DV
- 4. Strategic Objective: 905-901
- 5. Benefiting Geo Area: 000/935
- 6. Distribution: 936-4198
- 7. BGA: 997
- 8. SOC: 252910
- 9. Commit. Doc Type/Number: PR/ EGAT/AG-36/SANREM
- 10. Commitment Title: SANREM CRSP.FY04
- 11. Obligated Amount: \$2,100,000

A SCHEDULE

A.1 PURPOSE OF AGREEMENT

The purpose of this Leader-with-Associate Agreement is to provide support for the worldwide program described in Attachment B to this Agreement entitled "Program Description."

A.2 PERIOD OF AGREEMENT

1. The effective date of this Agreement is 09-30-04. The estimated completion date of this Agreement is 09-30-09.
2. Funds obligated hereunder are available for program expenditures for the estimated period 09-30-04 to 09-30-05.

A.3. AMOUNT OF AWARD AND PAYMENT

1. The total estimated amount of this Award for the period shown in A.2.1 above is \$11,999,406. The estimated amount for Associate Awards through the period of this Award is \$5,000,000.
2. USAID hereby obligates the amount of \$2,100,000 for program expenditures during the period set forth in A.2.2 above and as shown in the Budget below. The recipient will be given written notice by the Agreement Officer if additional funds will be added. USAID is not obligated to reimburse the recipient for the expenditure of amounts in excess of the total obligated amount.
3. Payment shall be made to the Recipient by Letter of Credit in accordance with procedures set forth in 22 CFR 226.
4. Additional funds up to the total amount of the grant shown in A.3.1 above may be obligated by USAID subject to the availability of funds, satisfactory progress of the project, and continued relevance to USAID programs.

A.4 BUDGET

The following is the Agreement Budget for this Leader Award, including local cost financing items, if authorized. Revisions to this budget shall be made in accordance with 22 CFR 226.

I. Summary Budget/Cost Element

<u>Line Items</u>	<u>Amount</u>
Personnel	\$1,281,779
Fringe Benefits	414,823
Travel	278,255
Supplies	17,136
Other Direct Costs	9,168,730
Indirect Charges	838,683

Total USAID Amount	\$ 11,999,406
Total Recipient's Amount	11,999,406
Cost Share Amount	2,917,339
Total Program Amount	<u>\$19,916,745</u>

A.5 REPORTING AND EVALUATION

1. Financial Reporting

The Recipient shall submit an original and one copy. Financial Reports shall be in keeping with 22 CFR 226.52.

Recipient shall list each country included in the program and the total amount expended for each country under the award for the reporting period in the "Remarks" block on the "Financial Status Report" SF 269 or SF-269A, or on a separate sheet of paper with the "Request for Advance or Reimbursement" SF 270. Financial Reports will be required on a quarterly basis. The recipient shall submit these forms in the following manner:

a) The SF 269 shall be submitted to the Cognizant Technical Officer with one copy to the Agreement Officer.

b) The SF 272 and 272a (if necessary) will be submitted via electronic format to the U.S. Department of Health and Human Services (<<http://www.dpm.psc.gov>>). A copy of this form shall also be simultaneously submitted to the Agreement Officer and the Cognizant Technical Officer.

c) In accordance with 22 CFR 226.70-72 the original and two copies of final financial reports shall be submitted as follows: M/FM, the Agreement Officer, and the CTO.

2. Monitoring and Reporting Program Performance

a) Program Reporting

Reporting Requirements for the Leader Cooperative Agreement: The Recipient shall submit an original and two (2) copies of a performance report to the Cognizant Technical Officer in USAID/Washington.

The performance reports are required to be submitted quarterly and shall present the information contained in 22 CFR 226.51(d). In addition, the report shall be included under both the Leader Cooperative Agreement and all Associate Agreements.

b) Any country specific activity implemented through the Leader Agreement shall be incorporated in the Recipient's Annual Implementation Plans. Development and negotiation of a separate program description, budget and reporting requirements for an individual country program shall not be required.

c) Annual Report of activities, including those undertaken in the Leader Award and those undertaken in the Associate Awards shall be submitted, in a standard format agreed to by the CTO.

3. Final Report

The final performance report shall contain the information contained in 22 CFR 226.51(d). The Recipient shall submit a final report that replaces the last semi-annual report and includes: an executive summary of the Recipient's accomplishments in achieving results and impact, conclusions about lessons learned, future challenges and opportunities, an overall description of the Recipient's activities and attainment of results by country or region, an assessment of progress made toward accomplishing the Objective and Expected Results, significance of these activities, important research findings, comments and recommendations, and a fiscal report that describes how the Recipient's funds were used.

The Recipient shall submit an original to the Washington CTO, one copy to the Agreement Officer, and one electronic copy of the final report to the Development Experience Clearinghouse. These documents must be submitted within 90 days of completion and should be sent in original format via email to:

E-mail (the preferred means of submission):
docsubmit@dec.cdie.org

U.S. Postal Service:
Development Experience Clearinghouse
8403 Colesville Road, Suite 210
Silver Spring, MD 20910

Fax Number: (301) 588-7787
<http://www.dec.org>

Please reference web site http://www.dec.org/submit_doc.cfm
or contact one of the following concerning any questions you
may have on the reporting requirements:

Development Experience Clearinghouse
E-mail: docsubmit@dec.cdie.org
Phone: (301) 562-0641

USAID/PPD/DEI
Phone (202) 712-4696

A.6 TITLE TO PROPERTY

Property Title will be vested with the Recipient subject to the requirements of 22 CFR 226.30-37.

A.7 INDIRECT COST RATE

Pending establishment of revised provisional or final indirect cost rates, allowable indirect costs shall be reimbursed on the basis of the following negotiated provisional or predetermined rates and the appropriate bases:

Description	Rate	Base	Location	Period
Organized Research	50.0%	1/	On-Campus	07/01/04-06/30/05
Organized Research	51.0%	1/	On-Campus	07/01/05-06/30/06
Organized Research (A)	27.6%	1/	Off-Campus	07/01/03-06/30/06
Organized Research (B)	26.0%	1/	Off-Campus	07/01/03-06/30/06
Instruction	54.5%	1/	On-Campus	07/01/03-06/30/06
Instruction (A)	35.4%	1/	Off-Campus	07/01/03-06/30/06
Other Spon Act	37.1%	1/	On-Campus	07/01/03-06/30/06
Other Spon Act	23.5%	1/	Off-Campus	07/01/03-06/30/06
Agric Exper Stat	49.6%	1/	On-Campus	07/01/03-06/30/06
Agric Exper Stat(A)	27.7%	1/	Off-Campus	07/01/03-06/30/06
PREDETERMINED				
Regular Faculty	31.25%	1/	All	07/01/04-until amended
Special Research				
Faculty	32.25%	1/	All	07/01/04-until amended
Classified	36.75%	1/	All	07/01/04-until amended
Wages & Part time	8.25%	1/	All	07/01/04-until amended
Graduate Student	2.50%	1/	All	07/01/04-until amended

- (A) Off-Campus Adjacent: Activities performed within the commuting area of Blacksburg, VA.
- (B) Off-Campus Remote: Activities performed outside the commuting area of Blacksburg, VA.

*BASE: Modified total direct costs, consisting of all salaries and wages, fringe benefits, materials, supplies, services, travel and subgrants and subcontracts up to the first \$25,000 of each subgrant or subcontract {regardless of the period covered by the subgrant or subcontract}. Modified total direct costs shall exclude equipment, capital expenditures, charges for patient care, tuition remission, rental costs of off-site facilities, scholarships, and fellowships as well as the portion of each subgrant and subcontract in excess of \$25,000.

A.8 AUTHORIZED GEOGRAPHIC CODE

The authorized geographic code for procurement of goods and services under this agreement are:

000 - The United States of America, any State(s) of the United States, the District of Columbia, and areas of U.S. Associated sovereignty, including commonwealths, territories and possessions.

935 - Any area or country including the cooperating country, but excluding the foreign policy restricted countries.

A.9 COST SHARING

The Recipient agrees to expend an amount not less than \$2,917,339 of the total activity costs. All cost sharing contributions shall meet the criteria as set forth in 22 CFR 226.23. The cost-sharing requirement for CRSPs is 25% of non-exempted USAID funds. The exempted costs are as follows:

- 1. Cost to operate the ME;

2. Funds committed under the terms of a formal CRSP host country sub-agreement, including funds for facilities, host country personnel services, and equipment and commodity purchases by a participating U.S. institution for use by a host country entity or by the U.S. institution in a host country. Funds for these costs may be held apart in reserve by the participating U.S. institution until expended directly to a vendor for the goods and services described. Also, the funds may be passed to the host country for its purchases and use in accordance with the agreement;
3. Costs for training of participants as defined in ADS 253. Provisions for such training normally would be made in the formal sub-agreement; and
4. Hospital and medical costs of U.S. personnel of the CRSP while serving overseas.

A.10 SUBSTANTIAL INVOLVEMENT

The Recipient of this Leader-with-Associate Cooperative Agreement will be generally accountable to the Washington Cognizant Technical Officer (CTO) in the Office of Natural Resources Management for the Leader Cooperative Agreement, except for changes to the Program Description or the approved budget. Such changes, as first reviewed by the Cognizant Technical Officer shall only be approved by the Agreement Officer. USAID's substantial involvement for the purposes of this Agreement shall be limited to:

1. Approval of specified key personnel. The CRSP Director shall be designated the only Key Personnel position for USAID approval.
2. Agency and recipient collaboration or joint participation.

USAID will participate as a member with a voice and vote, but will not have authority to veto in the senior permanent decision making body of a CRSP. USAID will participate in all regular and extraordinary sessions of that body to exercise this role.

Associate awards may provide the following additional substantial involvement provisions as necessary/appropriate for the program:

1. Approval of the recipient's annual implementation plans, including annual monitoring and evaluation plans.
2. Approval of specified key personnel; and
3. Other agency and recipient collaboration or joint participation (in accordance with agency policy guidance).

Missions must spell out the terms of any substantial involvement in the associate instruments. Such substantial involvement must be consistent with the Leader agreement and/or Associate awards, as well as work requirement in accord with the program description for a particular associate award.

A.11 KEY PERSONNEL

The following positions and individuals have been designated as key to the successful completion of the objective of this award. In accordance with the Substantial Involvement clause of this award, these personnel are subject to

the approval of the USAID/Washington Cognizant Technical Officer and the Agreement Officer:

Dr. Theo Dillaha
CRSP Director

A.12 PROGRAM INCOME

The Recipient shall account for Program Income in accordance with 22 CFR 226.24 (or the Standard Provision entitled Program Income for non-U.S. organizations). Program Income earned under this award shall be used to further the non-Federal share of the program.

A. 13 SPECIAL PROVISIONS

(1) Associate Awards:

Specific conditions of the Associate Award process are as follows:

1. USAID Missions or Bureaus must obtain written concurrence from the LWA Technical Officer that the proposed activity is within scope of the Leader Award program description prior to initiating negotiations with the Leader Recipient for an Associate Award.
2. The Associate Award must be issued to the Leader Recipient as a separate assistance agreement from the Leader Award. Sub-grantees and subcontractors are not eligible to receive stand alone Associate Awards through this mechanism.
3. Bureau or Mission officials shall hold discussions and negotiations relevant to the Associate Award with the Leader Recipient only.
4. Missions and Bureau officials shall not direct the Leader Recipient to a specific partner.
5. Associate Awards will include a budget distinct from that of the Leader Agreement. The estimated cost for the Associate Award is distinct from the estimated cost of the Leader Award and therefore has no affect on estimated cost of the Leader Award. ***The estimated cost and/or ceiling cost for Associate Awards are \$5,000,000 that may be issued under this Leader Agreement.***
6. Associate Awards must be awarded prior to the expiration date of this Leader Agreement and must be completed within 5 years of the expiration date of this Leader Agreement.
7. The award number for the Associate Grant/Agreement must be independent of the Leader Award number. Bureaus or missions shall assign their own Associate Award numbers.
8. All Mandatory Standard Provisions contained in the Leader Award shall be applicable to the Associate Award and will be incorporated by reference into the Associate Award document with a citation that references the Leader Award number. The "Required As Applicable" Standard Provisions shall also

automatically apply to Associate Awards. The Assistance Officer may adjust the "Required As Applicable" Standard Provisions from those included in the Leader Agreement to those pertinent to the Associate Award.

9. Associate Awards shall not contain any "buy-in provisions."

10. Any or all of the Substantial Involvement factors contained in the Leader Agreement may be incorporated into the Associate Agreement, however the Agreement Office shall not place additional factors or alter any of the Substantial Involvement factors to be different from those listed in the Leader Agreement and/or Associate awards.

11. Cost-sharing requirements for the Associate Award may vary from the Leader Award cost-sharing requirement, as appropriate.

12. The Mission or Bureau issuing an Associate Award shall be responsible for the administration of its Associate Award.

13. The Leader Recipient is responsible for results obtained under Associate Awards.

14. The Leader Recipient must affirm that the certifications and assurances remain valid or submit new ones.

A.14 EXECUTIVE ORDER ON TERRORISM FINANCING

The Contractor/Recipient is reminded that U.S. Executive Orders and U.S. law prohibits transactions with, and the provision of resources and support to, individuals and organizations associated with terrorism. It is the legal responsibility of the contractor/recipient to ensure compliance with these Executive Orders and laws. This provision must be included in all subcontracts/subawards issued under this Leader-with-Associate Agreement. (A list of these names can be found at the web site of the Office of Foreign Assets Control (OFAC) within the Department of Treasury. The web site is <http://treasury.gov/ofac>.)

A.15 POST AWARD ADMINISTRATION

(a) USAID Cognizant Technical Officer(CTO)

Chris Kosnik
U.S. Agency for International Development
EGAT/NRM/LRM
Room 3.08-126, RRB
1300 Pennsylvania Avenue, N.W.
Washington, DC 20523

(b) USAID Agreement Office:

Joseph Schmidt
U.S. Agency for International Development
Office of Acquisition and Acquisition,
M/OAA/EGAT
Room 7.09-075 RRB

1300 Pennsylvania Avenue, N.W.
Washington, DC 20523

(c) USAID Payment Office

U.S. Agency for International Development
M/FM/CMPD/DCB
Room 7.07 RRB
1300 Pennsylvania Avenue, N.W.
Washington, DC 20523-7700

A.16 RESOLUTION OF CONFLICTS

Conflict between any of the Attachments of this Agreement shall be resolved by applying the following descending order of precedence:

Attachment A - Schedule
Attachment C - Standard Provisions
Attachment B - Program Description

A.17 UNIVERSITY PARTNERS

Iowa State	North Carolina State
Purdue University	Rodale Institute
University of Colorado	Washington State
Winrock International	

B. PROGRAM DESCRIPTION

Stakeholder Empowerment Through Knowledge-Based Sustainable Agriculture and Natural Resource Management Systems

A. Technical Approach

Introduction

Virginia Tech is pleased to lead a strong consortium of U.S. universities, IARCs, NGOs, and private sector organizations in partnership with USAID to help achieve the targeted Strategic Objective (SO) and related Intermediate Results (IR). The Virginia Tech Consortium (VT Consortium) will support the EGAT/NRM/LRM's objective of increasing USAID and its partners' capacity to advance land management practices that provide long-term social, economic and environmental benefits for countries around the world. We will contribute to the achievement of all related Intermediate Results by strategically concentrating our program efforts in areas where land-grant universities offer a comparative advantage in providing cutting-edge research, education, and extension support. By recognizing and embracing our traditional role and the broad-based partnerships and roles other development partners must play to effectively promote sustainable agriculture and natural resource management (SA/NRM), we will maximize our impact as well as that of our partners. Our program, management approach, management structure, and capacity to achieve this impact are described below.

1. Overview of recent trends and critical issues

The research and technical transfer landscape of SA/NRM has changed enormously in the 12 years since SANREM was launched. To maintain relevance, the SANREM CRSP must change to meet new challenges and take advantage of new opportunities. Specifically, SANREM must be re-oriented toward a more appropriate role for a university-led consortium to play in the broad, complex, and multi-front development strategies dominated by large donors, private sector consulting firms and NGOs working in tandem with emerging host country leadership. This new role must recognize the major trends that have shifted the entire landscape. These include:

- SA/NRM-related issues have matured and become mainstreamed internationally. Today, virtually all stakeholders pay at least lip service to some SA/NRM principles and related action plans. Witness, for example, the Johannesburg Summit on Sustainable Development, the Convention to Combat Desertification, the Convention on Climate Change, the Cartagena Protocol, and innumerable lesser conventions and agreements at all levels. As a

consequence, there is much more project and learning activity being undertaken all over the world.

- Although the Internet has greatly increased the potential to widely share new information generated by these activities, it has paradoxically made access to SA/NRM information and knowledge much more problematic. Much of the high quality information and knowledge demanded by stakeholders is lost in the disorganization of the Internet.
- New themes and stakeholder priorities have emerged at the same time that the thematic and disciplinary (holistic) integration of all areas has become the norm for every stakeholder working in SA/NRM. Unfortunately, the much larger number of actors, themes, and communication breakdowns makes this even more difficult.

Related to these mega changes in the SA/NRM landscape, expectations about what SANREM should become and what a land grant university-led consortium must bring to such a project have changed substantially. Sector strategies and EEP reports have helped to identify a number of relevant issues in past phases that must be addressed including the need to:

- Stress the importance of sustainable agriculture as the main driver in determining NRM strategies
- Integrate activities and synthesize lessons learned across intervention sites
- Share information and knowledge more broadly with the development community
- Ensure close coordination with USAID Mission programs through Mission buy-ins in intervention countries
- Open up the CRSP for an influx of new thinking, new partnerships and new strategies
- Integrate SANREM strategy into broader development strategies by building relationships with other development partners in order to achieve long-term sustainability of program outcomes

Despite these necessary changes, care must be taken to retain and build on the positive contributions made by previous phases of SANREM. Key stakeholders recognize that SANREM I & II were products of their times that made very substantial contributions to the science of SA/NRM. Among these contributions was strong validation for the general landscape orientation of much of the work. In addition, SANREM provided support for issues such as biodiversity, production and livelihoods as inter-related and cross-cutting themes that must be addressed within a range of general areas of inquiry. Recent trends in these areas of inquiry are discussed below followed by a listing of emerging critical issues where SANREM can play supportive and leadership roles and brief descriptions of where we plan to place our priorities.

Emerging and Critical Issues in Inquiry Areas

Technology Integration

The integration of new technologies into the research and technology transfer systems potentially offers much to further the development of SA/NRM systems. Below we discuss three such tools: biotechnology, geospatial information and spatial analysis tools, and other decision support tools.

Biotechnology is one of the most promising tools for the development of sustainable agriculture systems. The term should be interpreted broadly to encompass a wide range of biology-based tools and procedures ranging from the analysis of gene characteristics to the development of genetically modified organisms (GMOs) with novel characteristics. The development and use of GMOs are by far the most controversial aspect of biotechnology with serious food safety, environmental and market issues. Although GMOs are widely used in some developed countries, if they are to improve the livelihoods of poor people in developing countries, research must address "orphan crops" such as teff, pearl millet, sorghum, eggplant and pigeon pea. Traits of particular interest to the poor include resistance to production stresses such as drought, salinity, disease and pests, as well as nutritional enhancement (FAO, 2004).

However, before GMOs can be considered for widespread use in developing countries, decision makers and civil society must be educated about their potential benefits, costs, and risks. Biotechnologies that do not involve GMOs offer a more immediate and non-controversial potential for increasing food and fiber in a safe and sustainable manner. For example, genomics and molecular marking techniques are being used to identify varieties of banana with desirable characteristics. Clones may then be used to rapidly build up a breeding stock of the improved varieties. This process holds out much promise to control the fungal disease "black sigatoka" that has devastated smallholder banana farms throughout Central America.

Emerging critical biotechnology issues where SANREM can contribute include:

- Disseminating emerging science-based biotechnology and biosafety information related to food, environmental safety and market access and its consequences for SA/NRM
- Non-GMO biotechnologies and their potential to increase food security and SA/NRM
- Review of GMO technologies and issues for orphan crops benefiting the poor in developing countries

SANREM Priorities. We do not see any comparative advantage for SANREM to develop new biotechnology products or procedures. Instead, the project will liaise closely with projects such as the Agricultural Biotechnology Support Program II and the Program in Biosafety Systems. We will also coordinate closely with our IARC partners and their very significant efforts in these areas. The principal emerging issue where SANREM has a comparative advantage and will produce significant

impact is in the area of biosafety outreach, particularly as it relates to the environment. The project will use its "honest broker" university status to organize, analyze, and disseminate unbiased scientific information and knowledge to inform the debate.

Geospatial information and spatial analysis tools, such as remote sensing and GIS have become indispensable data management and analysis tools in developed countries. Recent advances in computer hardware, the user-friendliness of new spatial analysis software, declines in the cost of hardware and software, and increasing access to the Internet and its data sources have made spatial analysis tools more practical for decision support in developing countries. Where spatial data are lacking, cheap and accurate Geographic Positioning Systems (GPS) tools may be used to collect what is needed. The use of such tools as well as support for emerging data and software standards is already being broadly promoted by projects such as the USAID's Geographic Information for Sustainable Development (GISD) and the Natural Resources Database (NRD), a public domain GIS developed for use in developing countries.

Emerging critical geospatial information and spatial analysis issues where we may contribute include:

- Use of GIS and spatial analysis tools to assist water associations in allocating scarce water resources for irrigation in Central Asia and Africa
- Promoting newly accessible GIS, remote sensing, and GPS technologies for improving SA/NRM at different landscape scales
- Fostering communication and coordination among projects, promotion of the development of software and data (including resolution) standards, and sharing of digital data to promote SA/NRM at different landscape scales
- Innovative strategies to integrate remotely sensed socioeconomic and biophysical data to promote SA/NRM technology transfer

Priorities. Given SANREM's mandate to assist scaling up, interdisciplinary research in this latter issue is of particular interest. In addition, we will make extensive use of these tools and data sources in our site intervention areas and will conform to all appropriate standards to facilitate collaboration with related projects.

Unlike geospatial tools, no consistent standards have emerged for **other decision support tools and systems (DSS)**. Literally hundreds of such tools and models (e.g., simulation, optimizing, expert) are available and, within the limits of their individual objectives and data requirements, offer great potential for understanding and improving SA/NRM in developing countries.

Emerging priority issues in DSS where we can contribute include making priority DSS tools and models accessible to decision makers at different landscape scales through training and outreach

Priorities. SANREM does not need to develop more DSS tools. Rather, given the large and confusing number of existing tools and the broad array of potential uses, the project should concentrate on identifying and applying appropriate tools in our activity interventions and supporting outreach and training efforts to inform and add value to existing DSS resources.

Governance

The principal governance issue has been, and continues to be, resource access and control. The adoption of SA/NRM technologies requires that the right institution offer the proper incentives for local investment (Meinzen-Dick and Di Gregorio, 2004). Property rights, however, are a function of power relations and negotiations between different groups claiming rights. Various individuals, groups, and the state make claims to different bundles of resource rights according to applicable treaties, statutory, customary, religious or organizationally-defined laws or rule systems (which are often contradictory). The dynamics of this legal pluralism has enormous implications for the adoption of SA/NRM technologies throughout the world.

For over a decade central governments have been decentralizing responsibility and, on occasion, authority to the local level and direct resource users (Ribot, 2002). Devolution has increased the opportunities for more active local participation in resource management decision making; however, it has not necessarily secured local access and control over those resources. Indeed, there is often considerable conflict over control of those resources. For individuals or groups to assert and sustain their claim to a particular bundle of rights, collective action is necessary. Building social capital and bridging relationships between groups and across institutions has been central to forging consensus within rural civil society.

Governments, donors, and NGOs have been quite active in creating or adapting these civil society organizations to develop networks and communities of practice for SA/NRM (Dietz et al, 2003; Moore, forthcoming; Ribot, 2002; USAID/AFR/SD, 2003). A number of lessons have been learned and need to be communicated.

Emerging critical issues in governance where SANREM can contribute include:

- The establishment of enabling environments for the growth of civil society organizations (CSOs) and their development of co-management agreements in the context of decentralization
- Identifying factors that foster sustainable (beyond project cycle) collective action
- Developing mechanisms whereby rural CSOs can be scaled up into larger federations for more extensive impact on NRM

Priorities. SANREM is well-placed to address all of these issues separately or in combination with other program initiatives. Initially, we will be most effective by providing the academic hub for gathering, organizing, analyzing, and disseminating related knowledge and lessons learned to our education networks and communities.

Economic Policy and Enterprise Development

Internal and external forces are driving developing countries to come to grips with a wide range of inter-related domestic and global issues impacted by economic policy and enterprise development. On the development assistance front, a new initiative from the U.S. government in the form of the Millennium Challenge program is providing a powerful incentive to "encourage economic freedom" through policy reform directed particularly at enterprise development. Meanwhile, the World Trade Organization (WTO), through its concluding Doha Round of negotiations, holds out at least the hope of reducing developed country agricultural subsidies that have greatly restricted agricultural imports and reduced economic growth in developing countries. Internally, civil society in many parts of the world is finding its voice and demanding transparency and change that will foster economic growth.

The promotion of agricultural enterprises to service niche markets is a strategy that holds much promise for developing countries. In particular, organic agriculture offers a system for improving ecosystem services (e.g., maintaining or improving soil fertility, improving water conservation and quality, preserving natural and agrobiodiversity) while at the same time, providing price premiums that result in improved household incomes, food security and secondary generation of local employment. However, before they can take advantage of the benefits of export-oriented organic markets, developing countries face with a bewildering array of national, regional and international standards as well as high certification costs. Because it is knowledge intensive, producer training for niche and specialty crops is a time-consuming and costly investment at the local level. The market information needs for efficient production and distribution are large. Even where farmers are well versed in the production technologies associated with organic farming, the costs of international certification may prevent expansion beyond small local markets.

Emerging critical issues where SANREM can contribute include:

- Fostering enabling policies and broad-based training strategies to provide essential market and business development services (BDS) in support of upstream and downstream microenterprises that facilitate sustainable agriculture
- Optimal strategies for broad-based provision of market information including prices, standards, and risk. Optimal provision of related technical agricultural training related to targeted niche crops and value added products

- Enabling policies and training to support targeted eco-friendly industries (e.g. eco-tourism, non-timber forest products, product certification)
- Fostering policies, markets, BDS, and training support for niche markets offering the highest potential for supporting food security and SA/NRM goals. Developing strategies for maintaining 'first mover' economic advantages as the market matures and the niche supply significantly increases.
- Developing "alternative agriculture" income strategies consistent with SA/NRM in the coca growing regions of South America and poppy regions of Asia
- Emerging economies in the former Soviet Union, policy reform and implications for SA/NRM
- SA/NRM implications of "Relief to Development" (R2D) strategies

Priorities. SANREM has a strategic interest in all of these areas but is best placed to examine policy and enterprise development strategies for niche markets, particularly organic crop production and certification. In so doing we will liaise closely with regional IARCs and CG initiatives (e.g., the CPWF, IRRI for rice-based niche market systems, ICRISAT, IITA, ICRAF for dry, humid, and agroforestry niche markets in Africa, respectively) and private sector partners (World Cocoa Foundation for agroforestry niche systems) to develop coordinated programs. We will especially examine gender issues related to niche market development since these issues and impacts are not well understood.

Social and Institutional Capacity Building

The main attention of the international community working on SA/NRM has turned to the issue of technology transfer with the aim of overcoming technology and practice barriers to adoption. It is now recognized that the optimal technology transfer strategy is inextricably bound to the technology itself. There is no "silver bullet" technology transfer methodology; different technologies require different transfer methodologies. The type of message to be used at community-level will depend on its complexity. Simple messages can be propagated through the media; more complex ones may need personal contact or even long-term interaction such as farmer field schools. Experience shows that messages found useful and intelligible and which communities feel they 'own', gain a momentum of their own accord and this ensures their passage from farmer to farmer, community to community. The targeting of messages to women has been shown to be particularly important for dissemination, especially in the African context, where they play such an important role in farming. However this also applies in other contexts where their role may not be so obvious. The inclusion of women as professional farmers is vitally important especially for the percolation of information throughout the community (Harris et al 2003).

Training has been of considerable importance in preparing the human capital necessary for organizational leadership. Training in conflict

resolution and consensus building has been particularly valuable for empowering local groups, as has training in transparent financial management, NRM laws, lobbying and new technologies. The demand for such knowledge is large and growing rapidly. Institutions and related networks within civil society that have the potential to positively impact SA/NRM are multiplying as never before.

Emerging critical issues where SANREM can intervene include:

- Efficacy, efficiency, and gender equity implications of new technology transfer and capacity building methodologies
- The implications of strategies investing in local (potentially unstable long-term) NGOs as key technology transfer agents
- The optimal use of sophisticated information and communications technologies (ICT) for different targeted populations (e.g., illiterate, women, extension workers, etc.)
- Optimal strategies for civil society leadership training
- Strategies for accessing and making available local knowledge bases
- Optimal local university strategies and curricula for impacting SA/NRM

Priorities. SANREM will address all of these issues separately or in combination with other program initiatives. The primary audiences for these knowledge and technology transfer efforts will be NGOs, administrative/political, university, private sector personnel involved in higher-level resource management. By improving curricula and training the trainers, the secondary audience, including landowners and farm/enterprise organizations, will be indirectly impacted. A significant proportion of the SANREM knowledge base including publications, fact sheets, pictorial booklets, etc. will be dedicated to addressing these issues. ICT tools will include web-based and distance-learning programs including degree and certificate programs.

Biodiversity Conservation and Environmental Services

A new definition of sustainable agriculture must evolve that recognizes its essential role in maintaining biodiversity and producing environmental services as well as producing food and fiber. Some innovative approaches leading to this re-definition are already well-known (e.g., eco-agriculture, permaculture, wildlife farming). The need here is to determine how to adapt them to a wide range of environmental settings and scale them up. New approaches will need to be developed. All approaches must link environmental management with the economic concerns of the local population under conditions of good governance.

Successful implementation requires planning and implementation at multiple scales. Biotechnology has assisted in habitat restoration or adaptation through the use of genetic markers to characterize area-wide populations. Approaches to field and farm management based on eco-agriculture (Scherr and McNeely, 2002) and analog forestry

(Sennanayake, 1987) offer not only the opportunity for raising rural incomes but also restoring biodiversity. While these approaches and many others have been established in a variety of environmental niches around the world, the mechanisms by which they can be scaled up to impact global markets have yet to be determined. Certification systems and fair trade initiatives have something to offer in this regard, but the policies and system mechanisms need to be developed. The growing value of Non-Timber Forest Products (NTFP) for energy, food, feed, medicinal, and cosmetic products poses both a threat to these resources and a potential opportunity for income generation. The poor and women are disproportionately involved in these productive activities (Shively, 2004).

Payments for environmental services may come in a variety of forms, from direct payments to individuals for services or labor (food for work) to tradable allowance regimes (Pagiola and Platais, 2003; Rose, 2002). Land use practices providing carbon sequestration or improved watershed services may be identified with individual actions for which land holders could be paid directly as individuals or through local government or user groups. Alternatively, certain environmental services (e.g., habitat conservation) might be best provided through community-based management of common property resources. Resource size and complexity affects the potential successful implementation of the various alternatives. Transactions costs, validation of service performance, and formal market development are major concerns.

Critical emerging issues where SANREM can intervene include:

- Effective scaling-up strategies for successful small-scale biodiversity enhancement projects
- Poverty alleviation, gender and environmental management in biodiversity hotspots
- Use of biotechnology to protect biodiversity and improve environmental services
- New strategies to monetize non-market biodiversity benefits
- New strategies to promote inter-administrative district cooperation in protecting wide-area and multipurpose habitat
- Implementing alternative incentive systems to support provision of environmental services (e.g., carbon sequestration payments, NTFPs)
- Efficacy of emerging eco-agriculture strategies (e.g., co-management, forest islands and gardens, agroforestry)
- International biodiversity conventions and their impact on international trade and poverty

Priorities. No other inquiry area is so information rich and knowledge poor. SANREM's essential role is to use its comparative advantage to organize, synthesize, disseminate, and determine gaps in the knowledge base relating to this broad category. Specific research needs are wide-ranging. We will work closely with our IARC (especially, ICRAF and ILRI) and NGO (Winrock, Rodale) partners and the private sector to

develop, test, and scale up environmental service payment strategies. Ongoing SANREM efforts to support and extract lessons learned from the NASA Carbon Sequestration Project in West Africa should continue.

Globalization, Vulnerability, and Risk

The consequences of globalization are pervasive for the environment as well as for societies and economies. Two areas are particularly relevant: trade and health.

Trade

Export-oriented production by smallholders can create competition among developing countries that is detrimental to the environment if there is a "race to the bottom". Countries are beginning to recognize that such competition is also damaging for them economically. For example, in recognition of current supply-demand imbalances in the robusta coffee market, Vietnam and Indonesia are currently negotiating a bilateral agreement to voluntarily reduce robusta area in both countries. The problems with commodity agreements are well known but as long as countries are pursuing the same (mature) export markets, the problems will remain.

Intra-regional trade can be an important vehicle for economic growth. It is common that developing country tariffs are quite high for goods they trade among themselves, which constrains the growth in developing regional trade. The explosion of free trade agreements and special preferences such as the Africa Growth and Opportunity Act has very important implications for trade and development policy, especially for the least developed countries. The SA/NRM implications of such agreements need critical examinations. Similarly, in Asia, China has become a huge economic center of gravity, and economists are aware that China's import/export policies will be an important driver of land use change in Asia in years to come.

Emerging critical trade issues where SANREM can intervene include:

- The consequences of export-oriented agricultural trade on SA/NRM: a race to the bottom?
- Developed country tariff policies and consequences for developing country SA/NRM
- Consequences of China's emergence as a trading giant on SA/NRM in neighboring countries
- International market development for environmental services and the role of universities in developing and monitoring compliance regimes
- The price and income risk consequences of open economies on resource poor farmers: implications for SA/NRM

Priorities. As a university-based project, SANREM is uniquely placed to conduct wide-ranging research programs in all of these policy

areas. We will begin by building the necessary knowledge base and issuing related program RFAs for sub-awards.

Health

The global HIV/AIDS epidemic has emerged as a new challenge to food security and environmental stewardship. The scourge of HIV/AIDS is increasing exponentially. It is estimated that 42 million cases existed worldwide at the end of 2002, with 95% of these in developing countries (Rosengrant and Cline, 2003). Although the highest percentage of the population living with HIV/AIDS is still in sub-Saharan Africa, parts of Asia, especially Central Asia and India, have rapidly increasing caseloads. The African scenario demonstrates how strongly this syndrome affects agriculture and natural resource management. A recent FAO study in Zambia showed that HIV/AIDS has a very negative impact on gender-based differences in access to land, water, labor, technology, and credit.

AIDS has been responsible for an exponential rise in both female-headed and orphan-headed households, and in both cases those headed by females have significantly lower access to resources than the comparable male-headed ones. This is partly because of women's reduced access to human resources as well as lower educational levels, which are being prolonged in the next generation when girls are taken out of school to help with agricultural chores.

Malnutrition exacerbates the onset of AIDS among the HIV positive. Despite the depletion of forests and their declaration as preservation zones, the poorest households (i.e., those most affected by the AIDS epidemic) are forced to ignore the law and continue to plunder (Barany et al., 2003). Agricultural production is lower in AIDS-affected households and especially in female-headed ones. Moreover, the generation gap resulting from adult deaths negatively affects the passing-on of knowledge concerning traditional local production practices to the younger generation. This means orphan-headed households have a particularly strong need for technical training with respect to SA/NRM.

Emerging critical health issues where SANREM can contribute include:

- The SA/NRM and gender consequences of the global HIV/AIDS epidemic

Priorities. SANREM is well-placed to build on the information and knowledge bases surrounding this issue and lead related inquiries, either separately or in combination with other interventions. In so doing, we will work closely with the NGO community in the HIV/AIDS impacted areas.

2. VT Consortium Response: Program Vision and Overview

In response to recent trends and the wide-ranging critical issues presented above, the VT Consortium will guide the SANREM CRSP in becoming the recognized national and international *education* leader in SA/NRM by focusing on *knowledge-- its discovery, organization, and dissemination*. By so doing we concentrate our efforts on the traditional strengths and comparative advantage of the land grant university system. We are in the knowledge business; we educate the leaders of tomorrow through our classroom, extension and outreach programs with today's knowledge, generated through leading-edge research organized to build tomorrow's insights and advances. By implementing this vision, we empower stakeholders including our development partners in both the U.S. and throughout the world.

This vision highlights our role in the SA/NRM development milieu. Other actors are much better suited to do broad-based, on-the-ground interventions and to plan and execute multi-dimensional development strategies. As a university-based consortium, we are best placed to help extract the knowledge learned from these interventions and strategies, help place it in its proper development context, organize it into the universal knowledge base, and disseminate it through our vast education systems, partnerships, and networks.

Under the VT Consortium, the SANREM CRSP will build on work and knowledge gained from the previous SANREM CRSP phases as well as the more general body of knowledge created around the world. Our program efforts will be organized through a novel landscape systems approach as described below.

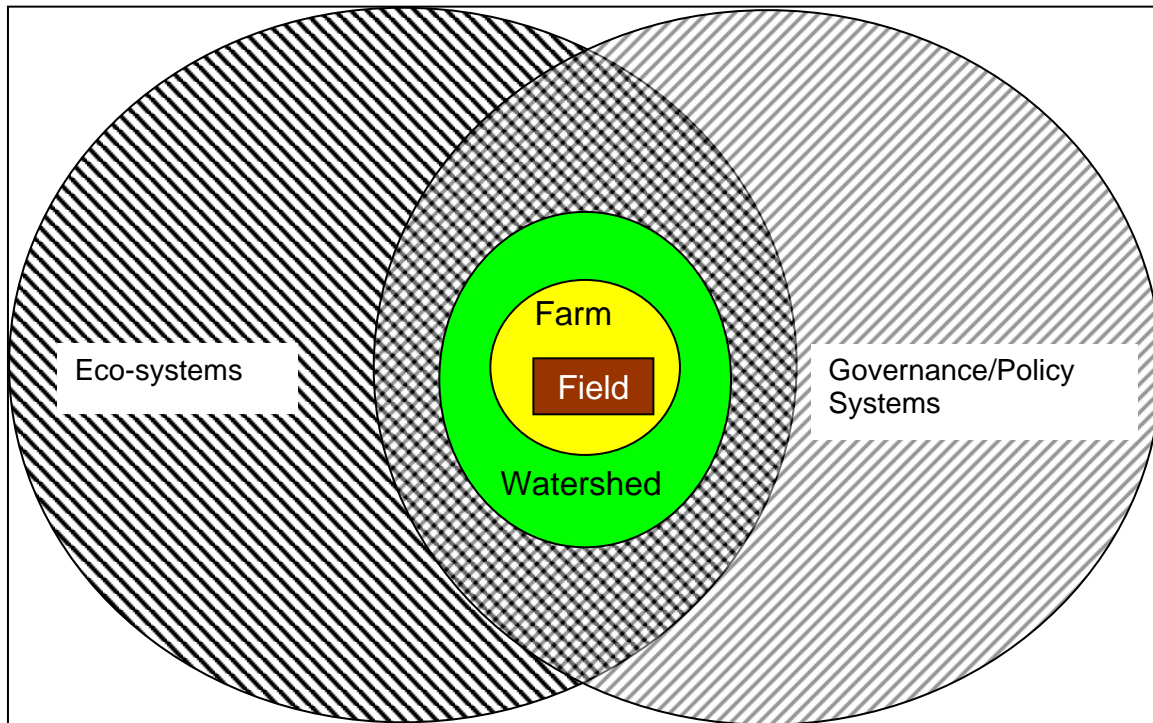


Figure 1: Nested Landscape Systems

SANREM III Landscape Approach. Figure 1 illustrates our view of the landscape complexity confronting SA/NRM researchers and stakeholders. Five landscape systems intersect and interact to impact SA/NRM. The systems are differentiated by the type of decision maker and the predominant incentives they face. The extent to which decision makers and incentives are different has very important implications for many aspects of SA/NRM including the appropriate types of technologies and practices and optimal technology transfer strategies. The systems and primary characteristics are:

Field/production unit-based systems which comprise the most basic systems. The trend to move away from the level of the farmer's field as a level of analysis in SA/NRM research notwithstanding, field-level production systems remain extremely important. The decision maker is the field or unit manager who in many cases is distinct from the farm or household head. In West Africa for example, the same "exploitation" usually has a number of different parcels allocated by the head of household to its members. Wives, sons, and others often manage with great autonomy their different parcels and their respective outputs may be destined to satisfy completely different household needs. Thus, profit may be a motive but very often incentives are production related. On the same farm one may find that "cereal self-sufficiency" might be the primary decision driver for one manager while another may wish to maximize production of another crop subject to some minimum labor availability. Long-term planning horizons and implications of their decisions are less important at this level since their tenure or usufruct rights may be very tenuous. Field managers are often less well-educated than household heads and improved technologies, practices, and decision support tools may need to be less sophisticated. Gender considerations, particularly access to resources such as extension services, are often paramount in these systems. Scaling out of improved technologies follows an arithmetic progression: manager by manager. Consequently, mass extension

Figure 1: Stylized map of overlapping landscape system domains.

Farm/enterprise-based systems may include a number of fields or unit systems with activities under the same overall management control (although the manager may delegate responsibility to field/unit managers. The driving management incentive is achievement or maintenance of household livelihood. This may be achieved through a number of other (non-farm) strategies such as micro-enterprise development and more complex decision making to allocate household resources among different agricultural field/unit strategies. More complex strategies include the management of complementary and competing animal, crop, and agro-forestry systems. Decision support tools need to be more complex since strategies are more long term. Resource allocations within households are often gender issues and revolve around related power relationships. Scaling out is again an arithmetic exercise but often economies of scale in technology

transfer may be facilitated by working through producer groups, farmer field schools and farmer-to-farmer strategies.

Farms/enterprises exist within one or more *watershed-based systems*, delimited by well-defined hydrologic boundaries that comprise complex social and biophysical interactions well beyond the decision-making control of individual heads of households. Incentives to manage watersheds are provided primarily by local recognition of the need to mitigate negative externalities caused by these dynamic interactions (e.g., silting of stream, gully erosion control, etc). Effective social organization and consensus building/conflict resolution are preconditions for effective decision-making. Essential system goals include planning and adaptively managing toward a shared watershed vision. Complex tools are often required to assist the planning process. Buy-in from disadvantaged groups and conflict resolution and leadership training are paramount. Long-term support and community confidence in local NGOs, government, and technical service providers is necessary. Unfortunately, watershed boundaries are virtually never coterminous with local government boundaries necessitating the creation of new "watershed management" organizations in order to proceed. However, the scaling out of new practices in watershed management can be geometric - practices building up horizontal scaling of micro-catchments to large watersheds to still larger watersheds.

Intersecting all of these systems is a virtually limitless number of *ecological systems* required for individual species or system preservation. The resulting biodiversity system is the most complex and problematic since it often deals with unknown technical parameters and non-market social values or undervalued environmental services. Complicating these factors even more is extreme diversity of critical geographic sizes or ranges for species ecologies. Some may be very small, sufficiently contained within a single field while others may require vast expanses of land extending over continents and oceans. As a consequence, decision makers in all systems with very diverse incentives may play crucial roles in biodiversity preservation and a multitude of strategies may need to be brought into play. Market forces and legal systems are the predominant determinants of long-term system viability although socio-cultural strictures may be very effective (e.g., sacred forests and mountains in West Africa and Asia, respectively). Scaling up strategies are species or system dependent. Decision support tools are varied and include detailed species inventories, sophisticated tools, and related policy studies. Ultimately, unless markets provide protection, the decisions and policies of governments determine which ecologies are priorities and how they will be preserved. Nevertheless, localities are becoming much more involved through community-based, buffer corridor planning and co-management activities.

The government or political administrative levels are the *governance and policy systems* that provide the enabling environment for the effective functioning of the other landscape systems. Foremost among the components of this environment are policies that affect the

markets for related goods and services. However, the consequences of governmental, social, as well as economic policy on SA/NRM are pervasive. Because the consequences of decisions are so important, training for decision makers and civil society at the various levels is extremely important and decision support tools and policy analyses may be very sophisticated. Incentives are driven by the interests of the powerful at each level.

The VT Consortium proposes to use the above landscape typology because it allows us to identify and target key decision makers with interventions, build a nested and integrated knowledge base, and identify useful and measurable performance indicators. In addition, it offers three main organization and management advantages. These are:

- It helps us organize our program management and related interventions around a coherent set of principles for doing embedded systems work related to the targeted areas of inquiry. We will be better able to organize, integrate, and disseminate previous and newly acquired knowledge related to our systems.
- It takes full advantage of the expertise of individual researchers in our present and future partner institutions. By organizing around systems rather than institutions, we recognize and use the fact that relevant expertise in a specific landscape system is spread around the university system - it does not reside in just a few institutions. As a result, we will be better able to build the multidisciplinary and inter-institutional teams necessary to work effectively.
- It facilitates finding SANREM partners in the Missions and obtaining Mission buy-ins and Associate Awards that will advance both the SANREM and Mission's priority programs. Missions will seldom have a broad "sustainable agriculture and natural resource management" SO that would be an obvious and natural fit for a broad project like SANREM. Instead, they generally target their SOs and IR interventions to specific systems. Thus, it's much more likely that our nested landscape systems structure will allow us to "fit in" and add value to a strategic framework that includes a specific agricultural production SO (field-based), a rural livelihoods/micro-enterprise SO (farm/enterprise); a watershed management or "ridge to reef" SO; a biodiversity SO; or a governance/policy SO. Our structure will permit us to readily identify and contribute to the Missions' specific performance indicators while also contributing to our broader, more systemic knowledge seeking and management approach. We will nest these system-level lessons learned and indicators into the holistic knowledge base.

Quick Startup Plan

The VT Consortium is structured to facilitate a rapid and efficient startup toward the new directions of the SANREM CRSP. The essential components and sequencing of the startup are as follows:

1. Project mobilization including ME staffing and quartering shall occur virtually immediately after the cooperative agreement award since all proposed ME staff are current internal Virginia Tech employees.
2. The ME shall prepare and issue invitations during the two weeks after grant signing to previous phase SANREM PIs as well as the broader university community soliciting high impact, short-term proposals that bridge to the previous SANREM phases. The concise five-page proposals shall describe follow-on activities (12-18 months) that add value to previous accomplishments of the CRSP and may include related technology transfer activities, policy or impact studies. Former SANREM PIs will be especially targeted since they are best placed to suggest potentially high value and feasible follow-ons. A proposal to fund continuing SANREM support for the carbon sequestration research work in West Africa, funded principally by NASA (with previous SANREM support), is one example of a project that might be supported through this program. Proposals shall be reviewed and recommended for funding by the Technical Committee (TC) within the first two months.
3. An initial Technical Committee (TC) meeting shall be convened within 45 days after signing the award. Subgrants to initial partner institutions shall be issued during this period. The TC will be composed of the System Coordinators representing consortium university members, a range of disciplines (social and biophysical), and the sustainable agriculture and NRM systems. Terms shall be for two years, with a possibility of renewal. The responsibilities of the TC will be to provide the ME with technical advice concerning the landscape system, the technical merit of proposed interventions, and implications for program implementation.
4. The TC shall immediately take up the business of assisting the ME in preparing an RFA(s) to fund up to 20 planning grants averaging about \$50,000 each during the first year. The RFA(s) shall be issued during the first quarter of the first year with a due date 30 days later. The planning grants must provide a "level playing field" for the university community to competitively generate a broad array of ideas and options for a rich and relevant long-term core program. In consultation with USAID, proposals will be sought for cross-thematic and landscape areas. Illustrative examples of RFA topics are presented in the previous areas of inquiry section. Proposals may also address comparative analyses of technologies, tools, applications across sites; and scaling up and technology transfer at the regional level.

Planning grants proposals shall involve:

- a. a 10-15 page proposal covering activities of 6-9 months
- b. a multidisciplinary, inter-institutional team
- c. specification of a SA/NRM problem related to the RFA
- d. a justification for site or sites

- e. a plan for developing institutional partners in a host country
 - f. a plan for partnering with local NGOs
 - g. a partnership with at least one IARC
 - h. a monitoring and evaluation plan following the TOP framework (described below)
 - i. an areas of inquiry orientation (technology integration, governance, economic policy and enterprise development, social and institutional capacity building, biodiversity, system linkages, and globalization)
 - j. addressing cross-cutting issues (gender, knowledge management, scale, impact sustainability)
5. A three-person External Evaluation Panel (EEP) shall convene to evaluate and make funding recommendations related to the planning grant proposals one month after the due date. The EEP shall be composed of three SA and NRM experts from non-consortium universities representing both the social and biophysical sciences. The EEP shall meet as needed to review competitive planning grant and long-term proposals (discussed below) and perform program evaluations. Long-term project proposal selection shall also involve four additional non-consortium university members.

Planning Grant Proposal review procedures shall involve:

- EEP recusals with replacement where appropriate to avoid conflicts of interest
 - a formal evaluation grid with specified point totals and space for comments. The evaluation forms will be returned to the submitting PI upon request at the end of the competition.
 - a quick turn-around
 - selecting up to 3 proposals in each RFA area
6. The planning grants shall ultimately be the source of the project's long-term sub-award core program activities (3-4 years) that will be awarded based on a second stage of competition. At the end of year 1 the planning grant award winners must submit long-term proposals that shall be evaluated by the EEP and other external experts following the rules given below. Based on the recommendation of the evaluation panel and with USAID concurrence, the successful 5-6 long-term projects shall be approved for funding and subsequently launched in Year 2.

Long term project proposals must be required to have the following elements:

- a. a plan for participant training (host country and U.S.);
- b. a multidisciplinary research team;
- c. a plan for the utilization of participatory processes;

- d. an approach that works at or toward a landscape scale;
- e. involvement of multiple institutions both in the U.S. and developing countries;
- f. host country NGO involvement;
- g. a partnership with at least one IARC;
- h. contributions to curriculum development in host country universities;
- i. a monitoring and evaluation plan;
- j. an areas of inquiry orientation (technology integration, governance, economic policy and enterprise development, social and institutional capacity building, biodiversity, system linkages, and globalization); and
- k. address cross-cutting issues (gender, knowledge management, scale, impact sustainability).

7. An initial Board of Directors meeting shall be convened within three months of project award to review established policies and discuss new policy initiatives.

Additional startup activities

In addition to bridging to previous SANREM activities and building a high quality, competitive long-term research program, the VT Consortium shall immediately launch three other activities:

1. Begin construction of the project knowledge management system with direct links to the Systems Coordinators, the SARE knowledge base, and the INFOMINE Scholarly Internet Resource Collections. The knowledge management strategy and system is described in Section B. Systems Coordinators shall play key knowledge gathering and coordination roles for themes relevant to their respective systems. The Coordinators responsibilities shall include:
 - a. Field-based systems. The Coordinator will serve as the point person for all work and relevant information/knowledge related soil fertility, soil/water interactions, soil erosion, and crop production. The Coordinator will liaise with commodity CRSPS and relevant IARCS.
 - b. Farm/enterprise-based systems. The Coordinator will serve as point person for all farm-level systems work including integrated crop and animal systems, agroforestry systems and related microenterprise systems. The Coordinator will liaise with the system CRSPS (IPM, Global Livestock, Pond Dynamics) and related IARCS (ICRAF, CIFOR).
 - c. Watershed-based systems. The Coordinator will serve as point person for all watershed, 'ridge to reef' and water-related work including water association and irrigation association support. The Coordinator will liaise with all relevant water and watershed projects and IARC programs (e.g., IWMI, CPWF).

- d. Ecology-based systems. The Coordinator will serve as coordinator for all biodiversity, environmental assessments, eco-tourism, biotechnology and biosafety work. The Coordinator will liaise with Agriculture Biotechnology Support Program (ABSP II), Program in Biosafety Systems (PBS), and related IARC work.
 - e. Governance/political systems. Coordinator will serve as point person for all policy, market, and governance-related work. The Coordinator will liaise with BASIS CRSP, IFPRI and others as appropriate.
2. Initiate the SANREM Technical Assistance Program. Limited funds that may roll-over from year to year shall be set aside in the budget to provide demand-driven SA/NRM technical assistance in response to the Missions. The ME must publicize the program as well as the broad-based VT Consortium capacity to respond to technical needs in the SA/NRM area.
 3. Initiate Associate Awards collaboration with the Missions (see Section B).

3. Program Impact

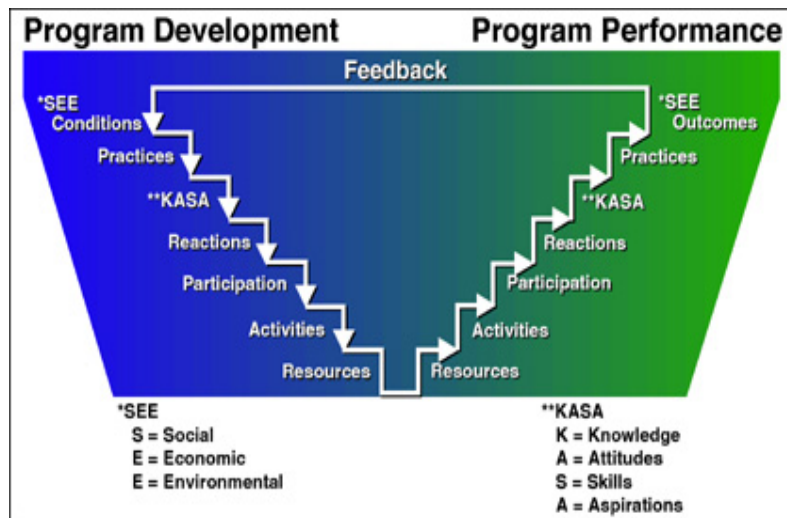
Assessment methodology

Impact assessment is integral to the VT Consortium's *empowerment through knowledge* approach to SA/NRM. In order to assure consistency and comprehensiveness, a standardized assessment system shall be integrated into each SANREM CRSP program and project. This shall accomplish three purposes: (1) provide feedback to US and local partners concerning what works, what doesn't, and what needs to be done; (2) provide comparative information to draw conclusions across sites and circumstances increasing global knowledge transfer; and (3) provide indicators demonstrating impacts and progress toward the Land Resources Management Team Intermediate Results.

Project assessment and reporting shall be structured by the Targeting Outcomes of Programs (TOP) framework (<http://citnews.unl.edu/TOP/english/index.html>). This framework will guide the development of research proposals, reporting of activities, and help structure the SANREM III web-based Knowledge System. The seven-level framework will also be adapted to the systems structure of SANREM III to aggregate and facilitate comparisons between project interventions and results.

The diagram of the TOP hierarchy (Figure 2) describes the process of program (or project, activity) development and assessment. The descending levels on the left sequence and describe program development steps, while corresponding ascending steps on the right depict intervention performance.

Figure 2: The TOP Seven-Level Hierarchy



In the figure, the analysis of the Social, Economic and Environmental (SEE, or correspondingly, nature, wealth and power) level provides the starting point and an initial impact orientation for program development. The SEE initial conditions describe the problem situation with regard to the three key general elements and will look for long-term impact in terms of such indicators as biodiversity and landscape health, the state of women, children, and other disadvantaged groups, poverty levels and food security, and governance and resource access. Descending one level, current practices are analyzed at the ecosystem, governance, watershed, farm or field-based system levels through Knowledge, Attitudes, Skills, and Aspirations (KASA) assessments. This step will often provide some form of quantitative baseline (*ex ante*) data that, at the corresponding performance stage (*ex post*), will provide the basis for assessing intermediate change or impact. It is not expected that every research project will collect primary data at this step since often sufficient secondary data is be available from previous research or key informants to make this initial KASA assessment.

The KASA results are analyzed in the next step in conjunction with broad-based participation of stakeholders. The resulting specific description of constraints leads to plans for collaborative activities to address priority problem areas. In the last program development step, resources are committed and employed in the planned intervention.

The performance assessment begins immediately upon program initiation following the ascending TOP steps. The efficiency of resource inputs in generating activity outputs is the initial performance measure. Participation levels and reactions of stakeholders are additional and subsequent performance measures that are usually captured by activity monitoring systems. The KASA provides intermediate performance indicators of activity results. If knowledge, attitudes, skills and aspirations have been modified sufficiently by the intervention,

practices change and the ultimate impact on SEE is brought about. It is often desirable to specifically examine impact through formal economic impact assessments at the SEE level. The indicated changes in economic surplus provide a broad-based measure of changes in social welfare that extend well beyond simple practice adoption rates and income measures. The use of the TOP framework will facilitate VT Consortium work in this area.

The TOP system will be adapted to suit each specific project activity. Activities will choose which steps to concentrate on, depending on the type of activity and its intervention level. Some activities, such as the planning grants, will work only on the program development side of the TOP, emphasizing the last four steps while planning to fill any holes in KASA data after a successful long-term proposal bid. Long-term sub-awards will build on the program development of the planning grants by filling any KASA holes and then concentrating on performance steps. In this way, the TOP framework will provide structure that can be used for conceptualizing different levels of project development and assessment. Using this framework will permit the program to carry out standardized assessments of all project activities and align indicators consistently to assess SANREM III impacts and the processes leading to them.

Illustrative targets and indicators based on the TOP hierarchy:

Indicators at the SEE, practices, and KASA levels are used to identify outcome objectives as well as measure long-term impact. These indicators must also serve for planning data needs and collection procedures. Indicators at the practices level target overt stakeholder actions. Implied changes in practices can be measured relatively soon after specific project interventions occur by examining changes in KASA variables. For ultimate performance impact at the SEE level however, long-term practice adoption rates are the minimum data required.

Listed below are key targets, illustrative indicators of impact, and benchmarks of progress that the SANREM CRSP and USAID can use in assessing the extent to which project activities will contribute to the EGAT/NRM/LRM goals. We have also indicated where appropriate which landscape systems will provide the critical data for the indicators. In general the VT Consortium project elements and IRs align as follows:

1. Scientific knowledge and land resource management IR: field, farm, and watershed-based systems
2. Improved knowledge management IR: overall project implementation and management
3. Reformed and strengthened governance and policies IR: ecosystems and governance systems
4. Sustainable resource-based enterprises IR: watershed and governance systems

Specific targets, illustrative indicators (and relevant landscape systems), and benchmarks are as follows:

Target: increased scientific knowledge and technical innovations in sound land resource management as indicated by:

- improved approaches to soil, water, and crop management (field, farm)
- increased number of hectares under improved management (watershed, ecosystem)
- increased agriculture, fisheries and forestry production and income (farm, watershed)
- increased biodiversity and environmental services provided (watershed, ecosystem)
- greater understanding and use improved soil and water management technologies (field, farm, watershed)
- improved seed varieties disseminated (farm, watershed)
- improved nutrition (farm)

Benchmarks Year 1: landscape systems knowledge bases developed, gaps determined; Missions with SOs and programs where SANREM can add value identified and approached; carbon sequestration potentials of improved pasture management determined.

Years 2-5: Specific benchmarks to be determined by selected sub-award projects and Associate Awards.

Target: improved knowledge management and communication leading to behavioral changes in adaptation and adoption of new technologies and practices as indicated by:

- linkages with USAID/IFPRI's Strategic Analytic and Knowledge Support System (SAKSS) for Africa and adapting it for other regions
- linkages with SARE and INFOMINE developed
- development of a web-based SA/NRM knowledge system
- development of a listserv newsletter for SA/NRM apprising recipients of new producer technologies and methodologies in the field and relevant IARC and national system developments
- number of graduate students trained
- number of publications and technical communications
- number of NGO staff and government extension agents trained in innovative and empowering technology transfer methodologies
- increased participation of women and disadvantaged minorities in all activities in order to facilitate communication within local communities

Benchmarks Year 1: landscape systems knowledge bases developed; linkages with SAKSS, SARE and INFOMINE established; SA/NRM web-site up and running; listserv newsletter functioning on a quarterly basis; five graduate students begin training; at least 5 articles published.

Years 2-5 Specific benchmarks to be determined by selected sub-award and Associate Award projects.

Target: reformed and strengthened governance, policies, and local institutions as indicated by:

- increased capacity and willingness of communities to collaborate in managing watersheds and other cross-boundary landscapes (watershed, ecosystem, governance)
- strong grass-roots groups able to conduct their own initiatives (watershed, governance)
- improved synergy between civil society and local and national governments (governance)
- active and successful national associations and federations (governance)
- improved tenure laws/policies that will encourage sustainable management of natural resources (governance)
- strengthened capacity of project participants, especially CBOs and governments to make informed decisions on how best to utilize participatory and empowering strategies at the country-level (governance)
- increased sensitivity of local governing units to gender issues and to those of disadvantaged minorities (watershed, governance)
- improved transparency, accountability, predictability and participation in local governance (watershed, governance)

Benchmarks Year 1: governance, ecosystem and watershed landscape systems knowledge bases developed; Missions with SOs and programs where SANREM can add value identified and approached; linkages with national associations and federations in targeted countries established.

Years 2-5 Specific benchmarks to be determined by selected sub-award and Associate Award projects.

Target: sustainable resource-based local enterprises functioning in national, regional, and global markets as indicated by:

- Increased numbers of organic farms and non-farm enterprises in intervention areas (watershed, governance)
- Increased numbers of producer groups marketing together (watershed, governance)
- Increased numbers of certification programs and certified producers (governance)
- Increased volume and value of agro-forestry and NTFP products marketed (watershed, governance)
- Strengthened farm-to-market linkages (governance)
- Increased incomes from sustainable agriculture (farm)
- Increased value-added products from SA/NRM (farm, governance)

Benchmarks Year 1: Missions with SOs and programs where SANREM can add value identified and approached; farm/enterprise system-level knowledge base developed; farmers trained in organic crop production and marketing.

Years 2-5 Specific benchmarks to be determined by selected sub-awards and Associate Award projects.

4. Training and Institutional Capacity Development

Building on the Land Grant university tradition, the VT Consortium shall implement an innovative training and institutional capacity building program to address the range of training needs associated with SA/NRM technology generation and transfer. Our strategy will: (1) develop appropriate training programs; (2) assure that research and training benefits both the U.S. and host countries; and (3) target especially women participants.

Integrated research, education, and outreach programs will animate all SA/NRM activities. All long-term projects will be required to develop a plan for participant learning and education that supports the research objectives necessary to achieve USAID objectives. During the competitive proposal evaluation process, emphasis will be placed on identifying training programs that are *innovative and cost-effective*. The use of new tools in information and communications technology (ICT), especially distance-delivered and on-line university level courses, will be encouraged. A combination of short and long-term (degree) training for host-country researchers, extension and other front-line personnel will be used to promote more effective technology generation and transfer. Training will focus on meeting critical needs and gaps that complement and support host-country efforts.

Our program shall ensure sustainability by providing the next generation of scientists and development practitioners with essential SA/NRM knowledge and skills. Maximum sustainability shall be ensured by working with host country establishments of higher education on curricula development for courses on SA/NRM-related subjects that will include the newly gained knowledge necessary for the improvement of the particular landscape systems. Host country participants trained in the U.S. will contribute to building their own institutions through course and curriculum development, where necessary along with U.S. university faculty. Furthermore, U.S. institutions will support host-country institutions in improving internet access so as to enable them to make use of the project's web-based knowledge system. This multi-pronged approach will guarantee maximum impact and sustainability of our training programs.

Long Term Training

SANREM III shall use degree training to strengthen the technical skills of researchers and teachers from host country universities, NARS, and relevant ministries. While developing a global knowledge base in US universities, Virginia Tech shall address specific host country SA/NRM questions, opportunities, and constraints.

Initial long term graduate training shall focus on building the knowledge management systems under the supervision of the System Coordinators. Subsequent long-term training will be linked to specific long-term sub-award projects targeting key host country issues. In order to ensure sustainability and expand program impact to the maximum, emphasis shall be laid on networking developing-country educational establishments with their national research systems (NARS) and regional IARCs and developing capacity for them to undertake further knowledge production and dissemination.

The program shall facilitate and support collaborative research and extension programs through enrollment of researchers in targeted degree programs. We will lay the groundwork for a new model for training the next generations of scientists, teachers and extension educators. Our approach includes:

- Curriculum development at host country universities
- Sandwich degree programs: By ensuring the research component is carried out within the host countries, degree training will be less expensive and scientists will be taken out of their systems for shorter periods
- On-line degree training: Enrolling students in Consortium graduate degree programs such as Virginia Tech's on-line Master of Science in Extension degree program

Short-Term Training

Short-term training programs will be demand-driven, linked to long-term program goals and shall target professionals at different levels. Illustrative programs include:

- State-of-the-art research and research methodologies in priority disciplines
- Innovative new bio-friendly technologies
- Sustainable agricultural practices
- Cutting-edge approaches to technology transfer and communication principles for behavior change
- Niche marketing and certification programs
- Governance and policy issues

The ability to develop relevant and innovative short-term training methods will be a key criterion in the evaluation of proposals for long-term projects. Short-term training shall take place in-country or within the region wherever possible, otherwise collaborating partners will be trained in the US. Potential recipients of short-term training shall include university or institute researchers, government policy makers, extension and NGO workers, community leaders, and local government representatives. Both long-term and short-term training will make use of specific course modules developed by U.S. university partners. The development of intensive stand-alone modules will be encouraged so that participants will be able to benefit from any one module, or any combination of modules on different subject areas and in different locations.

While the details of individual programs will be unique to the proposals submitted, some core principles can be outlined. Module content must be directly and practically relevant to the needs of host-country researchers, extension workers and/or teachers. Teaching methods should in addition be transferable to the host-country students so that they gain not merely knowledge but also effective skills for transmitting knowledge to their own trainees upon return.

B. Management Approach

Virginia Tech will ensure a quality SANREM CRSP program through the Office of International Research, Education, and Development (OIRE), which will serve as the Management Entity (ME) on behalf of the university.

OIRE is the university-wide office under the Office of the Provost that manages donor-funded international research, education, and development projects on behalf of the university. Virginia Tech's proposed management approach and ME structure, shall ensure effective, well-coordinated, accountable management, with clear lines of communication. The Director of OIRE will serve as Administrative PI to ensure financial and institutional accountability in accordance with standard university procedures and USAID requirements.

1. ME Responsibilities

a) Financial Management. As the SANREM CRSP ME, OIRE/Virginia Tech will be responsible for overall management of the Cooperative Agreement including:

- Fiscal responsibility and accountability for all funds received and disbursed
- Accurate and timely financial reporting
- Issuance and oversight of sub-awards to US consortium partners and host-country consortium institutions,
- Providing financial training on proper invoicing and reporting, as well as USAID policies and procedures
- Periodic on-site audits of records and receipts of sub-awardees
- Preparation of the annual budget for USAID approval
- Issuance and administration of Associate Awards

b) Program Management. OIRE/Virginia Tech will be responsible for overall management and reporting for the technical program including:

- Coordinating research teams for maximum impact
- Coordinating capacity-building activities, including degree and non-degree training programs
- Issuance of RFAs for competitive sub-awards
- Providing assistance to Missions for planning Associate Awards
- Assisting consortium partner institutions that provide services to USAID missions through Associate Awards
- Rapid response to USAID Mission technical assistance requests
- Monitoring and evaluation of all activities
- Developing memoranda of understanding with host country institutions including IARCs, NARS and NGOs
- Facilitating external review panel evaluations of competitive sub-awards proposals
- Allocating support to sub-awardees based on assessments of progress toward meeting research program benchmarks and sub-award management performance

- Hosting technical committee meetings, board meetings, and facilitating external evaluation of the SANREM CRSP at regular intervals.
 - Preparing an annual workplan and submitting it for USAID approval.
 - Facilitating visas for official travel to the U.S. and other countries by host country nationals including registration in TrainNet and/or SEVIS.
- c) **Communication.** The ME will serve as the hub for a diversified communication structure. The Program Director will be the primary contact for the USAID CTO of the SANREM CRSP, consortium partners, and other collaborating institutions. The ME shall facilitate communication with CRSP research groups and the broader SA/NRM scientific audience by:
- Building and maintaining a comprehensive, web-based SA/NRM knowledge base;
 - Publishing annual research reports, research briefs, and other short communications;
 - Facilitating publication of research results in refereed articles and books;
 - Liaising regularly with SARE, Infomine, and other SA/NRM knowledge system partners;
 - Developing and circulating an electronic newsletter on SA/NRM research, conferences, publications, etc.;
 - Requiring all research programs to have U.S. and host country counterparts to ensure frequent and substantive international communication among researchers;
 - Requiring all SANREM programs to have a stakeholder communication plans that target beneficiaries in project planning, implementation and assessment;
 - Establishing relationships and maintaining communications with USAID missions in countries hosting CRSP activities or having SA/NRM-related SOs;
 - Encouraging periodic regional meetings and workshops at the various SANREM CRSP sites to promote sharing of research results and lessons learned; and
 - Devoting a full-time Communications Specialist/Publications Editor to support the project's communications objectives.

2. Integrating SANREM Programs into Mission Strategic Frameworks

Within our landscape systems approach designed to facilitate Mission interaction and involvement. Virginia Tech has assigned program coordination responsibility to individual researchers at our main university partner institutions. In their coordination role, the Systems Coordinators are assigned a small core budget for the first two years of the project to organize and rapidly initiate startup activities in their systems areas that have the potential to build long-term Mission interest and support. In the spirit of encouraging entrepreneurship and creativity in building and sustaining long-term

programs with Missions, coordination programs which have not produced sufficient interest and "business" will be phased out through our partnership sunset understanding and replaced with other coordinators and institutions as required.

Involving Other Universities and Development Partners. Systems Coordinators will also assist the ME in preparing RFAs to fund up to 20 planning (seed) grants early in Year 1 as the major part of the core (sub-award) program. Priority will be given to those proposals that employ innovative ideas to involve local public and private sector partners in developing countries and the IARC community, and those seeking to refine and/or scale-up innovative approaches. Planning grant recipients shall prepare larger-scale full proposals to fund long-term project activities (3-4 years) beginning in Year 2. A transparent, "level-playing field" process (see Section C below) will be put in place to select the limited number of large-scale proposals that will carry forward the main SANREM III core activities.

In their coordination capacity, Systems Coordinators and other partners shall work with the ME to seek out opportunities to add value to ongoing Mission and Bureau SA/NRM activities. A limited amount of technical assistance funding to support Mission goals and needs assessments is set aside in the budget to support activities which may result in Associate Award proposals specifically designed to complement Mission objectives and SANREM goals.

A separate budget will set aside for years 1 and 2 and awarded competitively to follow-on, high impact activities that bridge from the previous SANREM phase activities. A separate RFA shall be issued early in Year 1 to solicit these activities. A transparent evaluation process led by the TC shall select the successful proposals with support for interventions lasting a maximum of 18 months.

SANREM Associate Awards.

Each year the ME and Technical Committee representatives will establish consortium teams to conduct Mission SA/NRM needs appraisals or, where relevant, provide more targeted technical assistance to USAID missions. Other local stakeholders will be contacted to explore opportunities and specific roles that the SANREM CRSP partners could play to address immediate SA/NRM problems in the field. On the basis of these visits, scopes of work will be developed and the ME/Technical Committee will establish implementation teams to respond to USAID Mission requests.

In these cases, the ME will facilitate the necessary contractual arrangements with the resulting program reporting routed through the relevant Systems Coordinator to the ME. In other cases, the Mission and ME/Coordinators may identify program opportunities and the Mission may ask the ME to organize a competed RFA. In this case, the ME and Coordinators shall prepare the RFA, distribute it widely and use

standard project evaluation processes to determine the outcome. A wide array of possibilities between these two alternatives exists. For example, where it makes strategic sense, SANREM may offer to match Mission funding in order to implement a given activity.

3. Management of Sub-Awards for Immediate Critical Research Issues (Consortium Awards)

Sub-Awards to VT Consortium partners shall be issued immediately after signing the prime award agreement. Sub-Awards shall cover costs associated with thematic coordination including: post-doc or graduate student support, logistics, equipment, related travel and materials and supplies. In addition, the awards shall cover costs under the responsibility of each partner associated with the immediate research issues identified in this proposal.

Virginia Tech has partnered carefully to ensure broad and deep initial coverage of all thematic landscape system areas, areas of inquiry, and critical issues. Although coordination responsibilities have been assigned to outstanding individual scientists, they will receive strong support from their institutional bases.

Field-level systems will be coordinated by *North Carolina State and North Carolina A&T*, partners in the Center for Environmental Farming Systems (CEFS), a national and internationally recognized leader in providing sustainable agriculture education and training. Their work will be supported by the *Rodale Institute*, an NGO specialized in regenerative agriculture linking healthy soil to healthy food and healthy people. Farm/enterprise-level Systems will be led by *Washington State University*, well known internationally for its enterprise systems level work, and supported by the *World Cocoa Foundation*. Watershed-level Systems will be led by *Virginia Tech* and supported by the *CGIAR Challenge Program on Water and Food (CPWF)* and the *University of Colorado*, which brings outstanding irrigation technical support and direct scientific liaison ties to the International Water Management Institute. Ecology-level Systems will be led by *Iowa State University*, home of the Biosafety Institute for Genetically Modified Agricultural Products-BIGMAP. The Governance/Political-level Systems will be led by *Purdue University*, internationally recognized leaders in policy analysis.

Broad-based technology transfer support to all systems will be provided by *Winrock International*, and cross-cutting technical agricultural and NRM support by the *International Center for Research in Agroforestry (ICRAF)*, *International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)*, the *International Institute of Tropical Agriculture (IITA)*, the *International Livestock Research Institute (ILRI)*, the *International Rice Research Institute (IRRI)* and the *World Vegetable Center (AVRDC)*. Finally, key domestic U.S. linkages to the *Sustainable Agricultural Research and Extension (SARE)* program of USDA and *INFOMINE: Scholarly Internet Resource Collections* will facilitate domestic-international flows of information and

knowledge, and sustainable and accessible contributions to the universal SA/NRM knowledge base.

4. Planning, Reporting, and Analysis

The VT Consortium shall conduct planning, reporting, and analysis strategy that ensures the horizontal integration and flow of knowledge and information among interventions, and the vertical integration among the nested thematic levels to the ME, USAID, and SANREM stakeholders. All VT Consortium startup, sub-award and Associate Award activities shall be proposal- and workplan-driven with specific budgets and associated performance indicators. Planning will be done collaboratively with host-country and US counterpart PIs. Proposals will follow the TOP framework (Section I.C). This formal specification, sequencing, and assigning of responsibilities for tasks allows for a rigorous *a priori* review of scientific, managerial, financial and programmatic merit by the ME, TC or EEP as the case may require. These critical reviews lay the foundation for *ex post* performance monitoring and subsequent adjustments in project implementation.

Each activity work plan or proposal shall be evaluated first according to its alignment with performance indicators of SANREM CRSP, USAID/EGAT/LRM and Mission objectives. The performance indicators of activities chosen to go forward shall be incorporated into the program-wide M&E system. Workplans and budgets for each activity will be submitted to the TC for final review in a uniform format through an electronic interface.

Program management and project information and knowledge flows will be channeled through the web-based SANREM CRSP Knowledge Base System as illustrated in Figure 3. Project interventions generate thematic knowledge and project-level information which is entered onto the web-based knowledge system. Both System Coordinators and the ME synthesize and integrate new information generating lessons learned as it becomes available. The integrated knowledge passes simultaneously back to the intervention levels, up to the ME, and is also shared with other System Coordinators. In this manner we ensure cross-site and cross-thematic integration. This project system will provide a needed project monitoring tool while producing the annual progress reports and related information for USAID and making the knowledge base accessible to all stakeholders.

Information and knowledge dissemination plan. As a university-led consortium, our goal is to help generate and understand SA/NRM-related information patterns and make this knowledge available and accessible to our wide-ranging stakeholders within the U.S. and abroad. Today those working in knowledge dissemination have at their disposal an extensive range of online tools, including state-of-the-art knowledge-based systems, experiential and distance learning technologies. Virginia Tech is a recognized leader in these efforts providing, for example, management for the "Global Seminar" encompassing universities in over 20 countries including the US. The Global Seminar provides videoconferences and live Internet-based telecasts, creating a virtual classroom over multiple schools and continents.

To the extent that knowledge enters formally into the knowledge base via scholarly publications and communications and is organized and disseminated through educational programs, it becomes a sustainable high-impact contribution to development. The VT Consortium will make such a contribution via its project website, providing information and knowledge on SA/NRM approaches and assessment technologies designed to

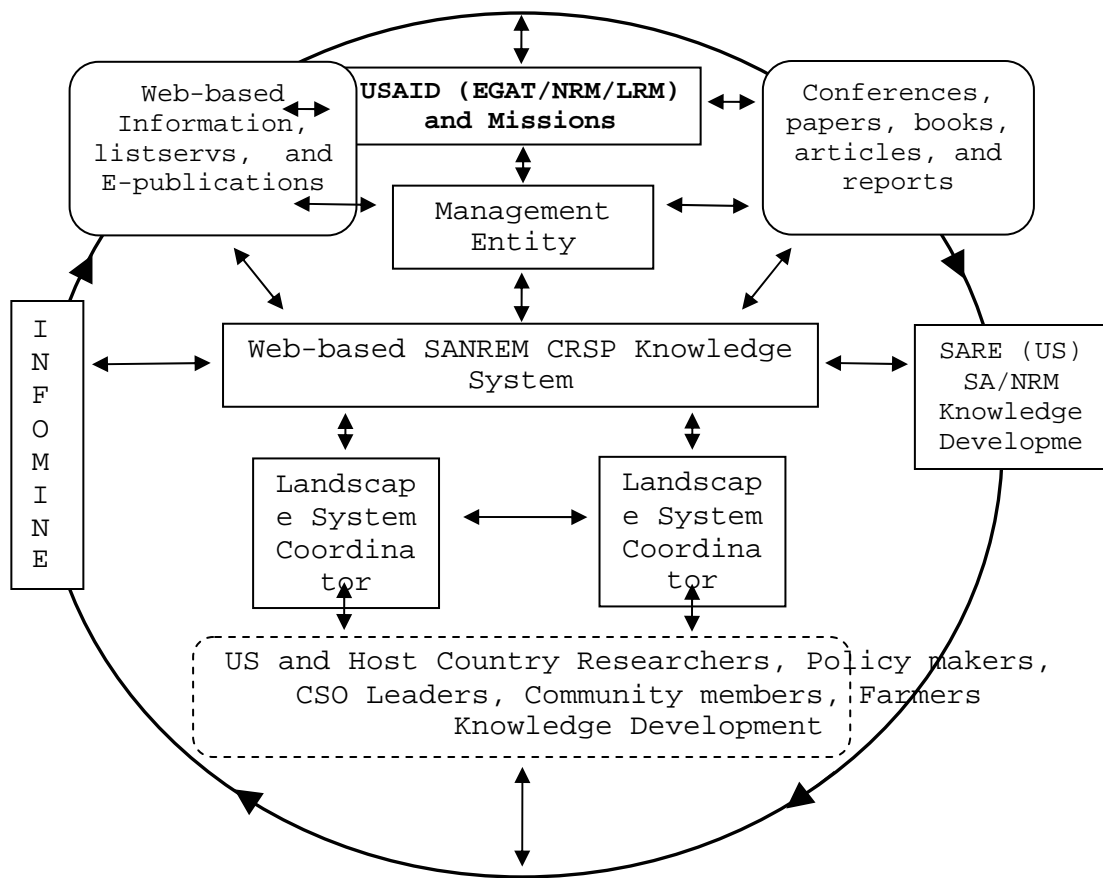


Figure 3: SANREM CRSP Knowledge Management System

empower stakeholders to make appropriate SA/NRM decisions.

The SANREM website will coordinate and support activities of other SA/NRM information and knowledge providers including the efforts of other ongoing USAID projects (e.g., Frame, Geo-IT, DEC) and the knowledge-based systems developed and maintained by international agriculture-related organizations (e.g., the IARC systems, SAKSS, World Bank's AKIS system, and the different sites of the FAO). The SANREM website will also provide a comprehensive guide to all aspects of the program - from goals setting and collaborative partnership development through post-implementation project outcomes assessment. It will coordinate and support information flows among SANREM stakeholders and relevant US government sustainable agriculture programs including SARE (<http://www.sare.org>). It will also actively support the university librarian-supported work to catalog and cross-reference serious and scholarly Internet sites (i.e., INFOMINE led by the University of California-Riverside -<http://infomine.ucr.edu/>).

In addition to the web-based knowledge system and related SANREM communications, the project will work to ensure host country sustainability by building and supporting networks among host country universities and their respective NARS. One area where SANREM universities have a particular comparative advantage is in assisting curriculum development to ensure newly gained knowledge related to SA/NRM is incorporated into the local educational systems that will train the new generation of scientists and entrepreneurs.

Integrating cross-cutting gender elements. UN statistics indicate that approximately 80% of economically active women in sub-Saharan African and at least half in Southern and South East/East Asia work in agriculture (United Nations 1991). They have traditionally been the preservers of biodiversity through their specialized knowledge about genetic resources making them essential [custodians of agro-biodiversity](#) (Momsen 2004: 150-2). Gender is important in part because men and women very often have different interests and women's lesser power position constrains their mobility, access to land, political participation, and income generation potential. Men often refuse to take on anything considered "women's work", leaving rural women with a double burden of reproductive and productive work that overloads their workdays and puts a strain on their ability to effectively manage natural resources (Shively, 2004). However, when women are equipped with technical information enabling them to make an income through sustainable farming, they can have a profound impact on NRM.

For that reason, we have a Gender Equity Coordinator in the Management Entity to assist in incorporating gender considerations across all program activities. Gender issues will count heavily in selection of long-term research projects, and they shall be highlighted in our training programs. Special efforts shall be made to assure women's

participation in both long and short term training and other activities.

5. Watershed System SA/NRM Research at Virginia Tech

Virginia Tech shall provide expertise, resources and technical support to coordinate the watershed-based system components of the proposed SANREM CRSP. Virginia Tech faculty has internationally recognized experts in scientifically-based watershed management methods that protect water/land resources and enhance environmental services. The range of specific expertise includes agricultural engineering, soil and water conservation, environmental engineering, irrigation, water resources management, fisheries and wildlife, forest hydrology, riparian zone restoration, water resources monitoring and modeling, natural resources economics, rural sociology, land use management, geospatial analysis, soil science, entomology, environmental statistics, conflict resolutions, ecosystem restoration, rural development, and watershed planning and management.

C. Management/Organizational Structure and Capacity

1. Organizational Features Promoting Effectiveness and efficiency

Effective program management. The Management Entity structure is designed to distribute responsibilities and levels of effort broadly among personnel with complementary expertise. The structure shall permit all ME tasks to be accomplished efficiently within a necessary system of checks and balances. There are clear lines of authority and communication built into the management structure to facilitate routine interaction and provide flexibility for communicating outside the standard lines when more efficient. Important communications will pass through established routes from local scientists to the Host Country Coordinators, to U.S. Program Leaders (Systems Coordinators), to the ME, and finally to USAID. There will be a Program Leader for each SANREM thematic program who will be the focal point to facilitate coordination of communications between scientists from multiple institutions and disciplines in each program. The initial Program Leaders, faculty employed by the main university partners, have been chosen by the VT Consortium based on their systems knowledge and expertise. These Coordinators may be replaced after the two-year startup period as required to respond to new program directions and priorities. New Coordinators will be chosen by the institutions associated with the new thematic programs. The Coordinators will work with Host Country Coordinators to provide on-the-ground program support for regional interventions.

The organizational structure proposed for the SANREM CRSP shall encourage close collaboration between the ME, collaborating scientists, and USAID in planning and revising programs. Program Leaders will have a direct link to the ME and will collaborate closely with all U.S., international, and host country partners. Host Country Coordinators will work closely with all partners in planning,

implementing, and reporting. Responsibility and ownership of each thematic program will be shared between host country and U.S. researchers. The TOP framework described in the Technical Approach calls for participatory development of regional programs that involve all relevant stakeholders. Regional programs will be planned and linked to global thematic programs with involvement of the Technical Committee (TC) and ME, once all long-term programs have been competitively selected. The RFAs for the programs shall specify this linkage.

ME effectiveness shall be enhanced by close interactions with the TC, EEP, Board of Directors, and CTO. The TC will work closely with the ME, EEP, and USAID as it coordinates the various programs to develop annual workplans that reflect the changing needs of USAID and assessments of program productivity. Once the annual workplan is approved, research teams in the various programs will have the freedom to carry out their activities within the scope of their plans and budgets. The Board shall assist the ME in designing consistent and fair policies and procedures.

1. Infrastructure

OIRED will provide office space for the ME, team members, conference rooms for hosting CRSP meetings and workshops, and computer support to facilitate operations for ME members in the office and on the road. OIRED faculty members shall have access to the Internet to provide efficient Internet access in virtually every country. When necessary, communications support will be provided by the CRSP to assist host-country sub-awardees in accessing the Internet and providing documents electronically, thereby minimizing the use of more costly, less efficient forms of communication. A web-based reporting and management system shall be developed and implemented.

2. Capacity to Meet Reporting and Accountability Requirements

Financial accounting for the SANREM CRSP shall be managed by the OIRED Associate Business Manager and backstopped by the OIRED Business Manager. In cooperation with the Program Coordination Assistant, the University Office of Sponsored Programs shall submit the contractually required financial reports. The Program Director and the OIRED Director (Administrative PI) shall provide oversight for all financial matters.

3. Procedures for Ensuring a Transparent Solicitation Process for Sub-Awards

Virginia Tech's vision for the SANREM CRSP will be structured and managed through a competitive process that encourages the broadest possible participation among U.S. universities, international agricultural research centers, USAID Missions, NGOs, private sector entities, public agencies, and other institutions. To accomplish this broad participation, 90 percent of the resources for the five-year

funding period will be allocated competitively for SANREM thematic programs.

4. Ensuring ME Functionality

Responsibilities of the members of the core management team are transferable when primary team members are unable to do them. When the Program Director is traveling or otherwise unavailable to perform his duties, the Associate Program Director will stand in. The Program Coordination Assistant will be backstopped by the OIRED Business Manager and the Associate Business Manager. The Director of OIRED shall provide oversight to ensure the functioning of the core management team.

5. Ensuring ME Sustainability During the Performance Period

In the event of a vacancy in the core management team, the OIRED Director will appoint an interim replacement under university emergency hire procedures until a search can be conducted. In the event that a leader of a regional or global theme program leaves the program, the ME will work with the institutions involved to ensure that a new leader is chosen expeditiously. If necessary, an interim Program Leader will be named. Whenever changes occur in key personnel, the OIRED Director (Administrative PI) will immediately advise USAID and seek approval for replacement consistent with the cooperative agreement.

6. Participation of Developing Country Stakeholders in Development and Implementation of Research and Extension Activities

All research activities will be designed around collaborative pairings of U.S. and host country colleagues that will include the solicitation of input from an array of host country stakeholders. One reason for allocating competitive planning grants prior to launching full-fledged programs, (in addition to leveling the playing field among all institutions), is to facilitate the required inclusion of relevant host country and other international partners in proposals and resulting programs. The ME will not consider proposals that do not include developing country partners. Once a proposal has been selected for funding, the participatory process, a cornerstone of the TOP framework, will ensure host country involvement. Participatory appraisals will bring U.S., host country, and IARC scientists together with a broad array of stakeholders (e.g. local producers, extension personnel, NGOs, input suppliers, government officials, marketing agents, USAID mission representatives) to obtain their views on local SANREM research and training priorities.

Once programs are established within regions, in-country planning and review meetings will bring U.S. and host country participants together at least annually. These meetings will bring together the U.S.-based Program Leader, host country program coordinator, and participating U.S., host country, IARC scientists, NGO representatives, and other

relevant participants for the purpose of developing workplans and reviewing the results of previous completed and on-going research. The TC will always have at least one member from a host country collaborating institution. Midway through program implementation, the EEP will visit program sites to determine whether the needs of the stakeholders are being met.

Roles and Relationship of the ME to U.S. and host country coordination. The ME will serve as the coordinating body that facilitates the relationships between host country entities and USAID, the EEP, the Board, and the TC. The ME will assist the host country institutions in developing memoranda of understanding between those host country institutions and the SANREM CRSP ME itself. The ME will relay all USAID requirements and regulations to the appropriate members of the consortium. The ME, in collaboration with USAID/EGAT/LRM, will assist Program Leaders in developing contacts and relationships with USAID Missions for the purpose of developing Associate Awards. The ME will assist the EEP in planning program reviews, including visits to host countries and U.S. and international institutions. The ME will work directly with Program Leaders to provide the backup they require to carry out their duties and fulfill reporting responsibilities. If the ME needs to communicate directly with a Host Country Coordinator, it will keep Program Leaders informed of all communications.

Local Host Country Coordinators will be responsible for collaborations with NGOs, NARS, universities, the private sector, and other stakeholders within a region. All host country stakeholders are important for meeting the SANREM CRSP objectives and will be kept informed of SANREM CRSP progress by their Host Country Coordinators.

7. Involvement of IARCs

IARCs are housed in specific regions serving regional and global mandates. At all levels of planning and implementation, relevant IARC involvement will be an integral part of the regional programs of the SANREM CRSP. It is expected that all submissions for the thematic programs will involve IARCs in addition to NGOs, host country institutions, and, where appropriate, the private sector. IARCs will also be invited when developing programs for Associate Awards.

8. Core Management Team Member Roles

The Program Director will have the same authority and responsibility typically ascribed to other CRSP Directors. He will represent the ME in all forums and will be a member of the CRSP Council. He will be the primary contact person for the CTO and will manage the project on a day-to-day basis. His responsibilities will include (but are not limited to) the following:

- manage technical, administrative, and budgetary matters regarding the CRSP

- coordinate the efforts of the core management team
- lead and coordinate preparation of the annual work-plan and budget
- report program accomplishments and expenditures to USAID through annual reports and other required reports
- represent the ME in CRSP Council meetings
- develop and implement monitoring and evaluation procedures to assure that the overall performance of the CRSP meets program objectives
- monitor programs and use of funds by participating institutions that are assigned responsibility through sub-awards
- liaise with consortium partners and external SANREM CRSP collaborators
- facilitate equipment purchase approval through the CTO and the USAID Contracts Office
- provide leadership in seeking and negotiating supplemental financial resources, such as USAID Mission "buy-ins" through Associate Awards
- coordinate rapid deployment of technical assistance requested by USAID Missions
- participate as a non-voting member at Board and TC meetings
- implement Board policies and recommendations
- represent the CRSP to USAID/Washington and internationally
- lead and coordinate the publication of newsletters, annual reports, workshop proceedings, and other materials

Associate Program Director. The Associate Program Director will provide back-up and assistance to the PD in the fulfillment of all ME responsibilities including but not limited to the following:

- coordinate implementation of research programs with U.S., host country, and IARC institutions
- coordinate degree and non-degree training programs in the U.S. and other sites
- prepare SANREM fact sheets and technical bulletins
- manage the M&E system
- maintain records on all training, workshops, CRSP publications and "buy-ins"
- facilitate Memoranda of Understanding with host country institutions, and gain approval of MOUs by Virginia Tech officials
- contribute updates to the SANREM CRSP website
- represent the PD as needed at CRSP Council and other meetings
- technically edit the annual report
- prepare minutes of the Board and TC meetings
- update the *SANREM CRSP Policy and Procedures Manual* after each Board meeting and post the updated version on the SANREM CRSP website

Administrative Principal Investigator.

The OIRED Director, who is also the University's Associate Provost for International Affairs, shall serve as the Administrative Principal Investigator, as he does for all donor-funded projects led by the office. The Director will ensure that appropriate CG Centers are involved in the implementation and liaise with USAID Missions for the Associate Awards program.

Responsibilities

- provide administrative and financial oversight of the SANREM CRSP, monitoring conformance with university and USAID procedures;
- supervise the core management team;
- serve as a scientific resource for the program, including service to the TC and Board; and
- approve international travel of Virginia Tech faculty and staff.

Gender Equity Coordinator. The Gender Equity Coordinator shall work across all program sites to ensure that gender equity is an integral part of planning, implementation and impact. She will provide input on gender implications of all SANREM CRSP interventions. She will be an integral part of the ME and participate in all planning processes, and be a voting member of the TC. The Gender Equity Coordinator will be responsible for ensuring that gender considerations are properly integrated into all research and training activities, and that a high level of gender scholarship is maintained in SANREM development and technology transfer.

Coordinator for Policy and Economic Impact Assessment. The Policy and Economic Impact Assessment Coordinator shall work with all systems programs to coordinate economic impact assessments and the reporting of related economic information.

Program Coordination Assistant. The Program Coordination Assistant shall assist the ME in all aspects of program support ensuring smooth operations of the SANREM CRSP Project.

Communications Specialist/Editor. The Communications Specialist shall be responsible for implementing a communications strategy that targets the scientific community, international community and the general public.

Responsibilities

- develop and maintain electronic communication linkages to all SANREM CRSP institutions and partners;
- coordinate technical development of the SANREM knowledge management system;
- maintain the SANREM CRSP web site; and
- produce and edit annual reports brochures, newsletters, news releases and other publications

Other ME Member Roles

OIRED/Virginia Tech shall devote significant faculty and staff time as needed to support the core management team. Other OIRED staff shall assist by processing orders for supplies and equipment, preparing correspondence, and helping organize and run meetings hosted by the ME.

STANDARD PROVISIONS FOR U.S., NONGOVERNMENTAL RECIPIENTS

C.1 APPLICABILITY OF 22 CFR PART 226 (APRIL 1998)

(a) All provisions of 22 CFR Part 226 and all Standard Provisions attached to this agreement are applicable to the recipient and to subrecipients which meet the definition of "Recipient" in Part 226, unless a section specifically excludes a subrecipient from coverage. The recipient shall assure that subrecipients have copies of all the attached standard provisions.

(b) For any subawards made with entities which fall outside of the definition of "Recipient" (such as Non-US organizations) the Recipient shall include the applicable "Standard Provisions for Non-US Nongovernmental Grantees" except for the "Accounting, Audit and Records" Standard Provision. Recipients are required to ensure compliance with subrecipient monitoring procedures in accordance with OMB Circular A-133 and shall insert an appropriate provision on accounting, audit and records.

C.2 INELIGIBLE COUNTRIES (MAY 1986)

Unless otherwise approved by the USAID Agreement Officer, funds will only be expended for assistance to countries eligible for assistance under the Foreign Assistance Act of 1961, as amended, or under acts appropriating funds for foreign assistance.

C.3 NONDISCRIMINATION (MAY 1986)

No U.S. citizen or legal resident shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity funded by this award on the basis of race, color, national origin, age, handicap, or sex.

C.4 INVESTMENT PROMOTION (JANUARY 1994)

No funds or other support provided hereunder may be used in a project or activity reasonably likely to involve the relocation or expansion outside of the United States of an enterprise located in the United States if non-U.S. production in such relocation or expansion replaces some or all of the production of, and reduces the number of employees at, said enterprise in the United States. No funds or other support provided hereunder may be used in a project or activity the purpose of which is the establishment or development in a foreign country of any export processing zone or designated area where the labor, environmental, tax, tariff, and safety laws of the country would not apply, without the prior written approval of USAID. No funds or other support provided hereunder may be used in a project or activity which contributes to the violation of internationally recognized rights of workers in the recipient country, including those in any designated zone or area in that country.

C.5 REQUIRED CLAUSE FOR GRAY-AREA ACTIVITIES (NOV 2003)

For gray-area activities or investment-related activities where specific activities are not identified at the time of obligation but could be for

investment-related activities, the following clause, or a substantive alternative, is required for grants and cooperative agreements to private entities, public international organizations and foreign governments; interagency obligating agreements; and contracts:

"Investment Promotion

"(a) Except as specifically set forth in the [Grant] or otherwise authorized by USAID in writing, no funds or other support provided hereunder may be used for any activity that involves investment promotion in a foreign country.

"(b) In the event the [Grantee] is requested or wishes to provide assistance in the above area or requires clarification from USAID as to whether the activity would be consistent with the limitation set forth above, the [Grantee] must notify the [Agreement Officer] and provide a detailed description of the proposed activity. The [Grantee] must not proceed with the activity until advised by USAID that it may do so.

"(c) The [Grantee] must ensure that its employees and subcontractors and sub-recipients providing investment promotion services hereunder are made aware of the restrictions set forth in this clause and must include this clause in all subcontracts and other sub-agreements entered into hereunder."

*The clause is not required for a permitted activity, but an Operating Unit may include such a clause at its discretion. The Agreement Officer or Contracting Officer is authorized to use a substantive alternative clause or to insert the clause's substance in implementation letters or comparable subsidiary documents.

C.6 NONLIABILITY (NOVEMBER 1985)

USAID does not assume liability for any third party claims for damages arising out of this award.

C.7 AMENDMENT (NOVEMBER 1985)

The award may be amended by formal modifications to the basic award document or by means of an exchange of letters between the Agreement Officer and an appropriate official of the recipient.

C.8 NOTICES (NOVEMBER 1985)

Any notice given by USAID or the recipient shall be sufficient only if in writing and delivered in person, mailed, or cabled as follows:

To the USAID Agreement Officer, at the address specified in the award.

To recipient, at recipient's address shown in the award or to such other address designated within the award Notices shall be effective when delivered in accordance with this provision, or on the effective date of the notice, whichever is later.

C.9 SUBAGREEMENTS (JUNE 1999)

Subrecipients, subawardees, and contractors have no relationship with USAID under the terms of this agreement. All required USAID approvals must be directed through the recipient to USAID.

C.10 OMB APPROVAL UNDER THE PAPERWORK REDUCTION ACT (APRIL 1998)

Information collection requirements imposed by this grant are covered by OMB approval number 0412-0510; the current expiration date is 11/30/2000. Identification of the Standard Provision containing the requirement and an estimate of the public reporting burden (including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information) are set forth below.

Standard Provision -----	Burden Estimate -----
Air Travel and Transportation	1 (hour)
Ocean Shipment of Goods	.5
Patent Rights	.5
Publications	.5
Negotiated Indirect Cost Rates - (Predetermined and Provisional)	1
Voluntary Population Planning	.5
Protection of the Individual as a Research Subject	

22 CFR 226 -----	Burden Estimate -----
22 CFR 226.40-.49 Procurement of Goods and Services	1
22 CFR 226.30 - .36 Property Standards	1.5

Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Procurement, Policy Division (M/OP/P) U.S. Agency for International Development, Washington, DC 20523-7801 and to the Office of Management and Budget, Paperwork Reduction Project (0412-0510), Washington, DC 20503.

C.11 USAID ELIGIBILITY RULES FOR GOODS AND SERVICES (APRIL 1998)

(a) Ineligible and Restricted Goods and Services: USAID's policy on ineligible and restricted goods and services is contained in ADS Chapter 312.

(1) Ineligible Goods and Services. Under no circumstances shall the recipient procure any of the following under this award:

- (i) Military equipment,
- (ii) Surveillance equipment,

(iii) Commodities and services for support of police or other law enforcement activities,

(iv) Abortion equipment and services,

(v) Luxury goods and gambling equipment, or

(vi) Weather modification equipment.

(2) Ineligible Suppliers. Funds provided under this award shall not be used to procure any goods or services furnished by any firms or individuals whose name appears on the "Lists of Parties Excluded from Federal Procurement and Nonprocurement Programs." USAID will provide the recipient with a copy of these lists upon request.

(3) Restricted Goods. The recipient shall not procure any of the following goods and services without the prior approval of the Agreement Officer:

(i) Agricultural commodities,

(ii) Motor vehicles,

(iii) Pharmaceuticals,

(iv) Pesticides,

(v) Used equipment,

(vi) U.S. Government-owned excess property, or

(vii) Fertilizer

Prior approval will be deemed to have been met when:

(i) the item is of US source/origin;

(ii) the item has been identified and incorporated in the program description or schedule of the award (initial or revisions), or amendments to the award; and

(iii) the costs related to the item are incorporated in the approved budget of the award.

Where the item has not been incorporated into the award as described above, a separate written authorization from the Agreement Officer must be provided before the item is procured.

(b) Source and Nationality: The eligibility rules for goods and services based on source and nationality are divided into two categories. One applies when the total procurement element during the life of the award is over \$250,000, and the other applies when the total procurement element during the life of the award is not over \$250,000, or the award is funded under the Development Fund for Africa (DFA) regardless of the amount. The total procurement element includes procurement of all goods (e.g., equipment, materials, supplies) and services. Guidance on the eligibility of specific goods or services may be obtained from the Agreement Officer. USAID policies

and definitions on source, origin and nationality are contained in 22 CFR Part 228, Rules on Source, Origin and Nationality for Commodities and Services Financed by the Agency for International Development, which is incorporated into this Award in its entirety.

(1) For DFA funded awards or when the total procurement element during the life of this award is valued at \$250,000 or less, the following rules apply:

(i) The authorized source for procurement of all goods and services to be reimbursed under the award is USAID Geographic Code 935, "Special Free World," and such goods and services must meet the source, origin and nationality requirements set forth in 22 CFR Part 228 in accordance with the following order of preference:

- (A) The United States (USAID Geographic Code 000),
- (B) The Cooperating Country,
- (C) USAID Geographic Code 941, and
- (D) USAID Geographic Code 935

(ii) Application of order of preference: When the recipient procures goods and services from other than U.S. sources, under the order of preference in paragraph (b)(1)(i) above, the recipient shall document its files to justify each such instance. The documentation shall set forth the circumstances surrounding the procurement and shall be based on one or more of the following reasons, which will be set forth in the grantee's documentation:

(A) The procurement was of an emergency nature, which would not allow for the delay attendant to soliciting U.S. sources,

(B) The price differential for procurement from U.S. sources exceeded by 50% or more the delivered price from the non-U.S. source,

(C) Compelling local political considerations precluded consideration of U.S. sources,

(D) The goods or services were not available from U.S. sources, or

(E) Procurement of locally available goods and services, as opposed to procurement of U.S. goods and services, would best promote the objectives of the Foreign Assistance program under the award.

(2) When the total procurement element exceeds \$250,000 (unless funded by DFA), the following applies: Except as may be specifically approved or directed in advance by the Agreement Officer, all goods and services financed with U.S. dollars, which will be reimbursed under this award must meet the source, origin and nationality requirements set forth in 22 CFR Part 228 for the authorized geographic code specified in the schedule of this award. If none is specified, the authorized source is Code 000, the United States.

(c) Printed or Audio-Visual Teaching Materials: If the effective use of printed or audio-visual teaching materials depends upon their being in the local language and if such materials are intended for technical assistance

projects or activities financed by USAID in whole or in part and if other funds including U.S.-owned or U.S.-controlled local currencies are not readily available to finance the procurement of such materials, local language versions may be procured from the following sources, in order of preference:

- (1) The United States (USAID Geographic Code 000),
- (2) The Cooperating Country,
- (3) "Selected Free World" countries (USAID Geographic Code 941), and
- (4) "Special Free World" countries (USAID Geographic Code 899).

(d) If USAID determines that the recipient has procured any of these goods or services under this award contrary to the requirements of this provision, and has received payment for such purposes, the Agreement Officer may require the recipient to refund the entire amount of the purchase.

This provision must be included in all subagreements which include procurement of goods or services which total over \$5,000.

C.12 REGULATIONS GOVERNING EMPLOYEES (AUGUST 1992)

(a) The recipient's employees shall maintain private status and may not rely on local U.S. Government offices or facilities for support while under this grant.

(b) The sale of personal property or automobiles by recipient employees and their dependents in the foreign country to which they are assigned shall be subject to the same limitations and prohibitions which apply to direct-hire USAID personnel employed by the Mission, including the rules contained in 22 CFR Part 136, except as this may conflict with host government regulations.

(c) Other than work to be performed under this award for which an employee is assigned by the recipient, no employee of the recipient shall engage directly or indirectly, either in the individual's own name or in the name or through an agency of another person, in any business, profession, or occupation in the foreign countries to which the individual is assigned, nor shall the individual make loans or investments to or in any business, profession or occupation in the foreign countries to which the individual is assigned.

(d) The recipient's employees, while in a foreign country, are expected to show respect for its conventions, customs, and institutions, to abide by its applicable laws and regulations, and not to interfere in its internal political affairs.

(e) In the event the conduct of any recipient employee is not in accordance with the preceding paragraphs, the recipient's chief of party shall consult with the USAID Mission Director and the employee involved and shall recommend to the recipient a course of action with regard to such employee.

(f) The parties recognize the rights of the U.S. Ambassador to direct the removal from a country of any U.S. citizen or the discharge from this grant award of any third country national when, in the discretion of the Ambassador, the interests of the United States so require.

(g) If it is determined, either under (e) or (f) above, that the services of such employee should be terminated, the recipient shall use its best efforts to cause the return of such employee to the United States, or point of origin, as appropriate.

C.13 CONVERSION OF UNITED STATES DOLLARS TO LOCAL CURRENCY (NOV 1985)

Upon arrival in the Cooperating Country, and from time to time as appropriate, the recipient's chief of party shall consult with the Mission Director who shall provide, in writing, the procedure the recipient and its employees shall follow in the conversion of United States dollars to local currency. This may include, but is not limited to, the conversion of currency through the cognizant United States Disbursing Officer or Mission Controller, as appropriate.

C.14 USE OF POUCH FACILITIES (AUGUST 1992)

(a) Use of diplomatic pouch is controlled by the Department of State. The Department of State has authorized the use of pouch facilities for USAID recipients and their employees as a general policy, as detailed in items (1) through (6) below. However, the final decision regarding use of pouch facilities rest with the Embassy or USAID Mission. In consideration of the use of pouch facilities, the recipient and its employees agree to indemnify and hold harmless, the Department of State and USAID for loss or damage occurring in pouch transmission:

(1) Recipients and their employees are authorized use of the pouch for transmission and receipt of up to a maximum of .9 kgs per shipment of correspondence and documents needed in the administration of assistance programs.

(2) U.S. citizen employees are authorized use of the pouch for personal mail up to a maximum of .45 kgs per shipment (but see (a)(3) below).

(3) Merchandise, parcels, magazines, or newspapers are not considered to be personal mail for purposes of this standard provision and are not authorized to be sent or received by pouch.

(4) Official and personal mail pursuant to a.1. and 2. above sent by pouch should be addressed as follows:

Name of individual or organization (followed by letter symbol "G") City
Name of post (USAID/_____) Agency for International Development Washington,
D.C. 20523-0001

(5) Mail sent via the diplomatic pouch may not be in violation of U.S. Postal laws and may not contain material ineligible for pouch transmission.

(6) Recipient personnel are NOT authorized use of military postal facilities (APO/FPO). This is an Adjutant General's decision based on

existing laws and regulations governing military postal facilities and is being enforced worldwide.

(b) The recipient shall be responsible for advising its employees of this authorization, these guidelines, and limitations on use of pouch facilities.

(c) Specific additional guidance on grantee use of pouch facilities in accordance with this standard provision is available from the Post Communication Center at the Embassy or USAID Mission.

C.15 INTERNATIONAL AIR TRAVEL AND TRANSPORTATION (JUNE 1999)

(a) PRIOR BUDGET APPROVAL

In accordance with OMB Cost Principles, direct charges for foreign travel costs are allowable only when each foreign trip has received prior budget approval. Such approval will be deemed to have been met when:

(1) the trip is identified. Identification is accomplished by providing the following information: the number of trips, the number of individuals per trip, and the destination country(s).

(2) the information noted at (a)(1) above is incorporated in: the proposal, the program description or schedule of the award, the implementation plan (initial or revisions), or amendments to the award; and

(3) the costs related to the travel are incorporated in the approved budget of the award.

The Agreement Officer may approve travel which has not been incorporated in writing as required by paragraph (a)(2). In such case, a copy of the Agreement Officer's approval must be included in the agreement file.

(b) NOTIFICATION

(1) As long as prior budget approval has been met in accordance with paragraph (a) above, a separate Notification will not be necessary unless:

(i) the primary purpose of the trip is to work with USAID Mission personnel, or

(ii) the recipient expects significant administrative or substantive programmatic support from the Mission. Neither the USAID Mission nor the Embassy will require Country Clearance of employees or contractors of USAID Recipients.

(2) Where notification is required in accordance with paragraph (1)(i) or (ii) above, the recipient will observe the following standards:

(i) Send a written notice to the cognizant USAID Technical Office in the Mission. If the recipient's primary point of contact is a Technical Officer in USAID/W, the recipient may send the notice to that person. It will be the responsibility of the USAID/W Technical Officer to forward the notice to the field.

(ii) The notice should be sent as far in advance as possible, but at least 14 calendar days in advance of the proposed travel. This notice may be sent by fax or e-mail. The recipient should retain proof that notification was made.

(iii) The notification shall contain the following information: the award number, the cognizant Technical Officer, the traveler's name (if known), date of arrival, and the purpose of the trip.

(iv) The USAID Mission will respond only if travel has been denied. It will be the responsibility of the Technical Officer in the Mission to contact the recipient within 5 working days of having received the notice if the travel is denied. If the recipient has not received a response within the time frame, the recipient will be considered to have met these standards for notification, and may travel.

(v) If a subrecipient is required to issue a Notification, as per this section, the subrecipient may contact the USAID Technical Officer directly, or the prime may contact USAID on the subrecipient's behalf.

(c) SECURITY ISSUES

Recipients are encouraged to obtain the latest Department of State Travel Advisory Notices before traveling. These Notices are available to the general public and may be obtained directly from the State Department, or via Internet. Where security is a concern in a specific region, recipients may choose to notify the US Embassy of their presence when they have entered the country. This may be especially important for long-term posting.

(d) USE OF U.S.-OWNED LOCAL CURRENCY

Travel to certain countries shall, at USAID's option, be funded from U.S.-owned local currency. When USAID intends to exercise this option, USAID will either issue a U.S. Government S.F. 1169, Transportation Request (GTR) which the grantee may exchange for tickets, or issue the tickets directly. Use of such U.S.-owned currencies will constitute a dollar charge to this grant.

(e) THE FLY AMERICA ACT

The Fly America Act (49 U.S.C. 40118) requires that all air travel and shipments under this award must be made on U.S. flag air carriers to the extent service by such carriers is available. The Administrator of General Services Administration (GSA) is authorized to issue regulations for purposes of implementation. Those regulations may be found at 41 CFR part 301, and are hereby incorporated by reference into this award.

(f) COST PRINCIPLES

The recipient will be reimbursed for travel and the reasonable cost of subsistence, post differentials and other allowances paid to employees in international travel status in accordance with the recipient's applicable cost principles and established policies and practices which are uniformly applied to federally financed and other activities of the grantee. If the recipient does not have written established policies regarding travel costs, the standard for determining the reasonableness of reimbursement for overseas allowance will be the Standardized Regulations (Government Civilians, Foreign Areas), published by the U.S. Department of State, as from time to time

amended. The most current subsistence, post differentials, and other allowances may be obtained from the Agreement Officer.

(g) SUBAWARDS.

This provision will be included in all subawards and contracts which require international air travel and transportation under this award.

C.16 LOCAL PROCUREMENT (APRIL 1998)

(a) Financing local procurement involves the use of appropriated funds to finance the procurement of goods and services supplied by local businesses, dealers or producers, with payment normally being in the currency of the cooperating country.

(b) Locally financed procurements must be covered by source and nationality waivers as set forth in 22 CFR 228, Subpart F, except as provided for in mandatory standard provision, "USAID Eligibility Rules for Goods and Services," or when one of the following exceptions applies:

(1) Locally available commodities of U.S. origin, which are otherwise eligible for financing, if the value of the transaction is estimated not to exceed \$100,000 exclusive of transportation costs.

(2) Commodities of geographic code 935 origin if the value of the transaction does not exceed the local currency equivalent of \$5,000.

(3) Professional Services Contracts estimated not to exceed \$250,000.

(4) Construction Services Contracts estimated not to exceed \$5,000,000.

(5) Commodities and services available only in the local economy (no specific per transaction value applies to this category). This category includes the following items:

(i) Utilities including fuel for heating and cooking, waste disposal and trash collection;

(ii) Communications - telephone, telex, fax, postal and courier services;

(iii) Rental costs for housing and office space;

(iv) Petroleum, oils and lubricants for operating vehicles and equipment;

(v) Newspapers, periodicals and books published in the cooperating country;

(vi) Other commodities and services and related expenses that, by their nature or as a practical matter, can only be acquired, performed, or incurred in the cooperating country, e.g., vehicle maintenance, hotel accommodations, etc.

(c) The coverage on ineligible and restricted goods and services in the mandatory standard provision entitled, "USAID Eligible Services," also apply to local procurement.

(d) This provision will be included in all subagreements where local procurement of goods or services is a supported element.

**C.17 NEGOTIATED INDIRECT COST RATES - PREDETERMINED
(APRIL 1998)**

(a) The allowable indirect costs shall be determined by applying the predetermined indirect cost rates to the bases specified in the schedule of this award.

(b) Within the earlier of 30 days after receipt of the A-133 audit report or nine months after the end of the audit period, the recipient shall submit to the cognizant agency for audit the required OMB Circular A-133 audit report, proposed predetermined indirect cost rates, and supporting cost data. If USAID is the cognizant agency or no cognizant agency has been designated, the recipient shall submit four copies of the audit report, the proposed predetermined indirect cost rates, and supporting cost data to the Overhead, Special Costs, and Closeout Branch, Office of Procurement, USAID, Washington DC 20523-7802. The proposed rates shall be based on the recipient's actual cost experience during that fiscal year. Negotiations of predetermined indirect cost rates shall begin soon after receipt of the recipient's proposal.

(c) Allowability of costs and acceptability of cost allocation methods shall be determined in accordance with the applicable cost principles.

(d) The results of each negotiation shall be set forth in an indirect cost rate agreement signed by both parties. Such agreement is automatically incorporated into this award and shall specify (1) the agreed upon predetermined rates, (2) the bases to which the rates apply, (3) the fiscal year for which the rates apply, and (4) the specific items treated as direct costs. The indirect cost rate agreement shall not change any monetary ceiling, award obligation, or specific cost allowance or disallowance provided for in this award.

(e) Pending establishment of predetermined indirect costs rates for any fiscal year, the recipient shall be reimbursed either at the rates fixed for the previous fiscal year or at billing rates acceptable to the USAID Agreement Officer, subject to appropriate adjustment when the final rates for the fiscal year or other period are established.

C.18 PUBLICATIONS AND MEDIA RELEASES (JUNE 1999)

(a) USAID shall be prominently acknowledged in all publications, videos or other information/media products funded or partially funded through this award, and the product shall state that the views expressed by the author(s) do not necessarily reflect those of USAID. Acknowledgements should identify the sponsoring USAID Office and Bureau or Mission as well as the U.S. Agency for International Development substantially as follows:

"This [publication, video or other information/media product (specify)] was made possible through support provided by the Office of _____ Bureau for _____, U.S. Agency for International Development, under the terms of Award No. _____. The opinions expressed herein are those of the author(s) and do not necessarily reflect the views of the U.S. Agency for International Development."

(b) Unless the recipient is instructed otherwise by the Cognizant Technical Officer, publications, videos or other information/media products funded under this award and intended for general readership or other general use will be marked with the USAID logo and/or U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT appearing either at the top or at the bottom of the front cover or, if more suitable, on the first inside title page for printed products, and in equivalent appropriate location in videos or other information/media products. Logos and markings of co-sponsors or authorizing institutions should be similarly located and of similar size and appearance.

(c) The recipient shall provide the USAID Cognizant Technical Officer one copy of all published works developed under the award with lists of other written work produced under the award. In addition, the recipient shall submit one electronic or one hard copy of final documents (electronic copies are preferred) to PPC/CDIE/DIO at the following address:

USAID Development Experience Clearinghouse (DEC)
ATTN: Document Acquisitions
1611 Kent Street, Suite 200
Arlington, VA 22209-2111
Internet e-mail address: docsubmit@dec.cdie.org
Homepage: <http://www.dec.org>

Electronic documents may be submitted on 3.5" diskettes or as e-mail attachments, and should consist of only one electronic file that comprises the complete and final equivalent of the paper copy; otherwise, a hard copy should be sent. Acceptable software formats for electronic documents include Microsoft Word, WordPerfect, Microsoft Excel and Portable Document Format (PDF). Each document submitted to PPC/CDIE/DIO should include the following information: 1) descriptive title; 2) author(s) name; 3) award number; 4) sponsoring USAID office; 5) date of publication; 6) software name and version (if electronic document is sent).

(d) In the event award funds are used to underwrite the cost of publishing, in lieu of the publisher assuming this cost as is the normal practice, any profits or royalties up to the amount of such cost shall be credited to the award unless the schedule of the award has identified the profits or royalties as program income.

(e) Except as otherwise provided in the terms and conditions of the award, the author or the recipient is free to copyright any books, publications, or other copyrightable materials developed in the course of or under this award, but USAID reserves a royalty-free nonexclusive and irrevocable right to reproduce, publish, or otherwise use, and to authorize others to use the work for Government purposes.

C.19 TITLE TO AND CARE OF PROPERTY (COOPERATING COUNTRY TITLE)

(a) Except as modified by the schedule of this grant, title to all equipment, materials and supplies, the cost of which is reimbursable to the recipient by USAID or by the cooperating country, shall at all times be in the name of the cooperating country or such public or private agency as the cooperating country may designate, unless title to specified types or classes of equipment is reserved to USAID under provisions set forth in the schedule of this award. All such property shall be under the custody and control of recipient until the owner of title directs otherwise or completion of work under this award or its termination, at which time custody and control shall be turned over to the owner of title or disposed of in accordance with its instructions. All performance guarantees and warranties obtained from suppliers shall be taken in the name of the title owner.

(b) The recipient shall maintain and administer in accordance with sound business practice a program for the maintenance, repair, protection, and preservation of Government property so as to assure its full availability and usefulness for the performance of this grant. The recipient shall take all reasonable steps to comply with all appropriate directions or instructions which the Agreement Officer may prescribe as reasonably necessary for the protection of the Government property.

(c) The recipient shall prepare and establish a program, to be approved by the appropriate USAID Mission, for the receipt, use, maintenance, protection, custody and care of equipment, materials and supplies for which it has custodial responsibility, including the establishment of reasonable controls to enforce such program. The recipient shall be guided by the following requirements:

(1) Property Control: The property control system shall include but not be limited to the following:

(i) Identification of each item of cooperating country property acquired or furnished under the award by a serially controlled identification number and by description of item. Each item must be clearly marked "Property of (insert name of cooperating country)."

(ii) The price of each item of property acquired or furnished under this award.

(iii) The location of each item of property acquired or furnished under this award.

(iv) A record of any usable components which are permanently removed from items of cooperating country property as a result of modification or otherwise.

(v) A record of disposition of each item acquired or furnished under the award.

(vi) Date of order and receipt of any item acquired or furnished under the award.

(vii) The official property control records shall be kept in such condition that at any stage of completion of the work under this award, the status of property acquired or furnished under this award may be readily

ascertained. A report of current status of all items of property acquired or furnished under the award shall be submitted yearly concurrently with the annual report.

(2) Maintenance Program: The recipient's maintenance program shall be consistent with sound business practice, the terms of the award, and provide for:

(i) disclosure of need for and the performance of preventive maintenance,

(ii) disclosure and reporting of need for capital type rehabilitation, and

(iii) recording of work accomplished under the program:

(A) Preventive maintenance - Preventive maintenance is maintenance generally performed on a regularly scheduled basis to prevent the occurrence of defects and to detect and correct minor defects before they result in serious consequences.

(B) Records of maintenance - The recipient's maintenance program shall provide for records sufficient to disclose the maintenance actions performed and efficiencies discovered as a result of inspections.

(C) A report of status of maintenance of cooperating country property shall be submitted annually concurrently with the annual report.

(d) Risk of Loss:

(1) The recipient shall not be liable for any loss of or damage to the cooperating country property, or for expenses incidental to such loss or damage except that the recipient shall be responsible for any such loss or damage (including expenses incidental thereto):

(i) Which results from willful misconduct or lack of good faith on the part of any of the recipient's directors or officers, or on the part of any of its managers, superintendents, or other equivalent representatives, who have supervision or direction of all or substantially all of the recipient's business, or all or substantially all of the recipient's operation at any one plant, laboratory, or separate location in which this award is being performed;

(ii) Which results from a failure on the part of the recipient, due to the willful misconduct or lack of good faith on the part of any of its directors, officers, or other representatives mentioned in (i) above:

(A) to maintain and administer, in accordance with sound business practice, the program for maintenance, repair, protection, and preservation of cooperating country property as required by (i) above, or

(B) to take all reasonable steps to comply with any appropriate written directions of the Agreement Officer under (b) above;

(iii) For which the recipient is otherwise responsible under the express terms designated in the schedule of this award;

(vi) Which results from a risk expressly required to be insured under some other provision of this award, but only to the extent of the insurance so required to be procured and maintained, or to the extent of insurance actually procured and maintained, whichever is greater; or

(v) Which results from a risk which is in fact covered by insurance or for which the grantee is otherwise reimbursed, but only to the extent of such insurance or reimbursement;

(vi) Provided, that, if more than one of the above exceptions shall be applicable in any case, the recipient's liability under any one exception shall not be limited by any other exception.

(2) The recipient shall not be reimbursed for, and shall not include as an item of overhead, the cost of insurance, or any provision for a reserve, covering the risk of loss of or damage to the cooperating country property, except to the extent that USAID may have required the recipient to carry such insurance under any other provision of this award.

(3) Upon the happening of loss or destruction of or damage to the cooperating country property, the recipient shall notify the Agreement Officer thereof, shall take all reasonable steps to protect the cooperating country property from further damage, separate the damaged and undamaged cooperating country property, put all the cooperating country property in the best possible order, and furnish to the Agreement Officer a statement of:

(i) The lost, destroyed, or damaged cooperating country property;

(ii) The time and origin of the loss, destruction, or damage;

(iii) All known interests in commingled property of which the cooperating country property is a part; and

(iv) The insurance, if any, covering any part of or interest in such commingled property.

(4) The recipient shall make repairs and renovations of the damaged cooperating country property or take such other action as the Agreement Officer directs.

(5) In the event the recipient is indemnified, reimbursed, or otherwise compensated for any loss or destruction of or damage to the cooperating country property, it shall use the proceeds to repair, renovate or replace the cooperating country property involved, or shall credit such proceeds against the cost of the work covered by the award, or shall otherwise reimburse USAID, as directed by the Agreement Officer. The recipient shall do nothing to prejudice USAID's right to recover against third parties for any such loss, destruction, or damage, and upon the request of the Agreement Officer, shall, at the Government's expense, furnish to USAID all reasonable assistance and cooperation (including assistance in the prosecution of suits and the execution of instruments or assignments in favor of the Government) in obtaining recovery.

(e) Access: USAID, and any persons designated by it, shall at all reasonable times have access to the premises wherein any cooperating country property is located, for the purpose of inspecting the cooperating country property.

(f) Final Accounting and Disposition of Cooperating Country Property: Within 90 days after completion of this award, or at such other date as may be fixed by the Agreement Officer, the recipient shall submit to the Agreement Officer an inventory schedule covering all items of equipment, materials and supplies under the recipient's custody, title to which is in the cooperating country or public or private agency designated by the cooperating country, which have not been consumed in the performance of this award. The recipient shall also indicate what disposition has been made of such property.

(g) Communications: All communications issued pursuant to this provision shall be in writing.

C.20 PUBLIC NOTICES (AUGUST 1992)

It is USAID's policy to inform the public as fully as possible of its programs and activities. The recipient is encouraged to give public notice of the receipt of this award and, from time to time, to announce progress and accomplishments. Press releases or other public notices should include a statement substantially as follows:

"The U.S. Agency for International Development administers the U.S. foreign assistance program providing economic and humanitarian assistance in more than 80 countries worldwide."

The recipient may call on USAID's Office of External Affairs for advice regarding public notices. The recipient is requested to provide copies of notices or announcements to the cognizant technical officer and to USAID's Office of External Affairs as far in advance of release as possible.

C.21 COMMUNICATIONS PRODUCTS (OCT 1994)

(a) Definition - Communications products are any printed material (other than non-color photocopy material), photographic services or video production services.

(b) Standards - USAID has established standards for communications products. These standards must be followed unless otherwise specifically provided in the agreement or approved in writing by the agreement officer. A copy of the standards for USAID-financed publications and video productions is attached.

(c) Communications products which meet any of the following criteria are not eligible for USAID financing under this agreement unless specifically authorized in the agreement schedule or in writing by the Agreement Officer:

(1) Any communication products costing over \$25,000, including the costs of both preparation and execution. For example, in the case of a publication, the costs will include research, writing and other editorial services (including any associated overhead), design, layout and production costs.

(2) Any communication products that will be sent directly to, or is likely to be seen by, a Member of Congress or Congressional staffer.

(3) Any publication that will have more than 50 percent of its copies distributed in the United States (excluding copies provided to PPC/CDIE and other USAID/W offices for internal use).

C.22 PROHIBITION OF ASSISTANCE TO DRUG TRAFFICKERS (JUNE 1999)

(a) USAID reserves the right to terminate assistance to, or take other appropriate measures with respect to, any participant approved by USAID who is found to have been convicted of a narcotics offense or to have been engaged in drug trafficking as defined in 22 CFR Part 140.

(b) (1) For any loan over \$1000 made under this agreement, the recipient shall insert a clause in the loan agreement stating that the loan is subject to immediate cancellation, acceleration, recall or refund by the recipient if the borrower or a key individual of a borrower is found to have been convicted of a narcotics offense or to have been engaged in drug trafficking as defined in 22 CFR Part 40.

(2) Upon notice by USAID of a determination under section (1) and at USAID's option, the recipient agrees to immediately cancel, accelerate or recall the loan, including refund in full of the outstanding balance. USAID reserves the right to have the loan refund returned to USAID.

(c)(1) The recipient agrees not to disburse, or sign documents committing the recipient to disburse, funds to a subrecipient designated by USAID ("Designated Subrecipient") until advised by USAID that:

(i) any United States Government review of the Designated Subrecipient and its key individuals has been completed;

(ii) any related certifications have been obtained; and

(iii) the assistance to the Designated Subrecipient has been approved. Designation means that the subrecipient has been unilaterally selected by USAID as the subrecipient. USAID approval of a subrecipient, selected by another party, or

(2) The recipient shall insert the following clause, or its substance, in its agreement with the Designated Subrecipient:

"The recipient reserves the right to terminate this [Agreement/ Contract] or take other appropriate measures if the [Subrecipient] or a key individual of the [Subrecipient] is found to have been convicted of a narcotic offense or to have been engaged in drug trafficking as defined in 22 CFR Part 140."

C.23 COST SHARING (MATCHING) (JAN 2002)

(a) If at the end of any funding period, the recipient has expended an amount of non-Federal funds less than the agreed upon amount or percentage of total expenditures, the Agreement Officer may apply the difference to reduce the amount of USAID incremental funding in the following funding period. If the award has expired or has been terminated, the Agreement Officer may require the recipient to refund the difference to USAID.

(b) The source, origin and nationality requirements and the restricted goods provision established in the Standard Provision entitled "USAID Eligibility Rules for Goods and Services" do not apply to cost sharing (matching) expenditures.

C.24 DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS (JANUARY 2004)

(1) The recipient agrees to notify the Agreement Officer immediately upon learning that it or any of its principals:

(a) Are presently excluded or disqualified from covered transactions by any Federal department or agency;

(b) Have been convicted within the preceding three-years period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, receiving stolen property, making false claims, or obstruction of justice; commission of any other offense indicating a lack of business integrity or business honesty that seriously and directly affects your present responsibility;

(c) Are presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b); and

(d) Have had one or more public transactions (Federal, State, or local) terminated for cause or default within the preceding three years.

(2) The recipient agrees that, unless authorized by the Agreement Officer, it will not knowingly enter into any subagreements or contracts under this grant with a person or entity that is included on the Excluded Parties List System (<http://epls.arnet.gov>). The recipient further agrees to include the following provision in any subagreements or contracts entered into under this award:

**DEBARMENT, SUSPENSION, INELIGIBILITY, AND VOLUNTARY EXCLUSION
(DECEMBER 2003)**

The recipient/contractor certifies that neither it nor its principals is presently excluded or disqualified from participation in this transaction by any Federal department or agency.

(3) The policies and procedures applicable to debarment, suspension, and ineligibility under USAID-financed transactions are set forth in 22 CFR Part 208.

C.25 DRUG-FREE WORKPLACE (JANUARY 2004)

(1) The recipient agrees that it will publish a drug-free workplace statement and provide a copy to each employee who will be engaged in the performance of any Federal award. The statement must: (a) Tell the employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in its workplace; (b) Specify the actions the recipient will take against employees for violating that prohibition; and (c) Let each employee know that, as a condition of employment under any award, he or she: (1) Must abide by the terms of the statement, and (2) Must notify you in writing if he or she is convicted for a violation of a criminal drug statute occurring in the workplace, and must do so no more than five calendar days after the conviction.

(2) The recipient agrees that it will establish an ongoing drug-free awareness program to inform employees about: (a) The dangers of drug abuse in the workplace; (b) Your policy of maintaining a drug-free workplace; (c) Any available drug counseling, rehabilitation and employee assistance programs; and; (d) The penalties that you may impose upon them for drug abuse violations occurring in the workplace.

(3) Without the Agreement Officer's expressed written approval, the policy statement and program must be in place as soon as possible, no later than the 30 days after the effective date of this award, or the completion date of this award, whichever occurs first.

(4) The recipient agrees to immediately notify the Agreement Officer if an employee is convicted of a drug violation in the workplace. The notification must be in writing, identify the employee's position title, the number of each award on which the employee worked. The notification must be sent to the Agreement Officer within ten calendar days after the recipient learns of the conviction.

(5) Within 30 calendar days of learning about an employee's conviction, the recipient must either: (a) Take appropriate personnel action against the employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973 (29 USC 794), as amended, or (b) Require the employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for these purposes by a Federal, State or local health, law enforcement, or other appropriate agency.

(6) The policies and procedures applicable to violations of these requirements are set forth in 22 CFR Part 210.

ATTACHMENT D

SAMPLE ASSOCIATE AWARD FORMAT

A. Purpose of Agreement

The purpose of this Agreement is to provide support for the program described in Attachment 2 to this Agreement entitled "Program Description."

B. Period of Agreement

1. The effective date of this Agreement is _____. The estimated completion date of this Agreement is _____.

[Note - For incrementally funded agreements or where pre-award expenses are authorized add the following sentence:]

2. Funds obligated hereunder are available for program expenditures for the estimated period _____ to _____ as shown in the Agreement budget below.

C. Amount of Award and Payment

[Note - For fully funded agreements use the following:]

1. USAID hereby obligates the amount of \$ _____ for purposes of this Agreement.

2. Payment shall be made to the Recipient by _____ (Note - state method) in accordance with procedures set forth in_____. [Note - for U.S. Organizations cite 22 CFR 226; for Non-US Organizations reference attached Standard Provisions. Agreement Officer must select a method of payment in accordance with the applicability requirements set forth in 22 CFR 226; i.e., letter of credit, advance payment, or reimbursement.]

- or -

[For incrementally funded awards use the following in lieu of the above:]

1. The total estimated amount of this Award for the period shown in B.1 above is \$ _____.

2. USAID hereby obligates the amount of \$ _____ for program expenditures during the period set forth in B.2. above and as shown in the Budget below. The recipient will be given written notice by the Agreement Officer if additional funds will be added. USAID is not obligated to reimburse the recipient for the expenditure of amounts in excess of the total obligated amount.

3. Payment shall be made to the Recipient by _____(Note - state method) in accordance with procedures set forth in_____. [Note - for U.S. Organizations cite 22 CFR 226; for Non-US Organizations reference attached

Standard Provisions. Agreement Officer must select a method of payment in accordance with the applicability requirements set forth in 22 CFR 226; i.e., letter of credit, advance payment, or reimbursement.]

4. Additional funds up to the total amount of the grant shown in C.1 above may be obligated by USAID subject to the availability of funds, satisfactory progress of the project, and continued relevance to USAID programs.

D. Budget

[Note - the items included in the Budget, including local cost financing items, should relate to the results, activities or functions described in Attachment 2 - Program summary, not to specific cost items (such as salaries or travel) except for those listed at items 4-6 below. However, at the discretion of the Agreement Officer, an alternative budget may be appropriate.]

The following is the Agreement Budget, including local cost financing items, if authorized. Revisions to this budget shall be made in accordance with _____. [Note - For U.S. Organizations cite 22 CFR 226.25; for Non-US refer to Standard Provision entitled "Revision of Grant Budget."]

Total*	From**__to**__	From**__to**__	From**__to**__
Cost Element	\$U.S. Local Currency	\$U.S. Local Currency	\$U.S. Local Currency
1.			
2.			
3.			
4. Training			
5. Procurement			
6. Indirect Costs overhead			
7. Total	\$_____	_____	_____

* Use all three columns for incrementally funded grants, otherwise use only this column.

** Insert effective and expiration dates of grant or obligation/funding dates.

E. Reporting and Evaluation

1. Financial Reporting

The Recipient shall submit ____ (an original and two copies of _____) [Note - Agreement Officer to determine type of report, frequency of reporting periods and address]. Financial Reports shall be in keeping with _____[Note - for US Organizations add: 22 CFR 226.52; for Non-US refer to appropriate Standard Provision]. For U.S. Organizations under Letter of Credit the following language shall be used:

"In accordance with 22 CFR 226.52 the SF 269 and 272 will be required on a quarterly basis. The recipient shall submit these forms in the following manner:

1) The SF 272 and 272a (if necessary) will be submitted via electronic format to the U.S. Department of Health and Human Services ([HYPERLINK http://www.dpm.psc.gov](http://www.dpm.psc.gov)) <http://www.dpm.psc.gov> . A copy of this form shall also be simultaneously submitted to the Agreement Officer [NOTE: if Agreement Officer desires a copy] and the Cognizant Technical Officer.

2) The SF 269 or 269a (as appropriate) shall be submitted to the Cognizant Technical officer with one copy to the Agreement Officer [NOTE: if Agreement Officer desires]

* 3) **In accordance with 22 CFR 226.70 - 72 [Note: for Non-US organizations refer to appropriate Standard Provision] the original and two copies of final financial reports shall be submitted as follows: M/FM, the Agreement Officer (if requested) and the CTO. The electronic version of the final SF 272 or 272a shall be submitted to HHS in accordance with paragraph (1) above.**

2. Program Reporting

The Recipient shall submit ____ [Note - specify number of copies, not to exceed the original and two copies] of a performance report to ____ [Note - specify name and title of Cognizant Technical Officer and the Agreement Officer, if desired, along with address]. The performance reports are required to be submitted ____ [Note - state frequency, not to exceed quarterly] and shall contain the following information _____ [Note - state reporting requirements, as related to the Program Description].

3. Final Report

The Recipient shall submit the original and one copy to ____ [Note - specify name and title of Cognizant Technical Officer and the Agreement Officer, if desired, along with address] and one copy to USAID Development Experience Clearinghouse, ATTN: Document Acquisitions, 1611 N. Kent Street, Suite 200, Arlington, VA 22209-2111 (or e-mail: [HYPERLINK mailto:docsubmit@dec.cdie.org](mailto:docsubmit@dec.cdie.org) docsubmit@dec.cdie.org). (NOTE - Agreement Officer to verify ADS 540 for detailed information on which categories of development experience documents should or should not be submitted to CDIE and appropriate format for electronic transmission.)

The final performance report shall contain the following information _____ [Note - state reporting requirements, as related to the Program Description].

F. Special Provisions

[Note - Use this paragraph to delete inapplicable Standard Provisions or to add provisions of special applicability as authorized. Included should be waivers, including authorized local cost financing, and any alterations to

the Standard Provisions or 22 CFR 226 which have been approved as deviations for the specific award.]

G. Indirect Cost Rate

[Note - Establish the applicable indirect cost rate(s), base(s) on which they apply, and the Grantee's accounting period(s) they cover, as provided in the appropriate Standard Provision. If an Indirect Cost Rate Agreement has been executed by USAID or a cognizant Federal agency, such rate(s) are required to be incorporated herein if such costs are covered by the grant. The most current overhead information should be obtained from the Overhead and Special Costs and Contract Close-Out Branch (M/OP/PS/OCC).]

H. Title to Property

[Note - Specify to whom title will vest for property, by category if appropriate.]

I. Authorized Geographic Code

[Note - For awards having a procurement element greater than \$250,000, add the following:]

The authorized geographic code for procurement of goods and services under this grant is _____.

J. Cost Sharing

[Note - For awards with a cost-share element add the following:]

The Recipient agrees to expend an amount not less than _____ [Note - put in percentage] of the total activity costs.

K. Program Income

[For awards with US or Non-US Organizations which may generate Program Income add the following:]

The Recipient shall account for Program Income in accordance with 22 CFR 226.24 (or the Standard Provision entitled Program Income for non-U.S. organizations).

Program Income earned under this award shall be applied and used as follows: [Note - Agreement Officers in consultation with the Technical Officer must decide how Program Income will be applied: 1) added to the Project; 2) used to finance the non-Federal share; or 3) deducted from the total Federal share. All three may be picked as long as a descending order (i.e. "excess amounts may be applied to another alternative") is established in accordance with 22 CFR 226.24. Agreement Officers are encouraged to be as specific as possible in detailing the appropriate types of activities Program Income may be applied for when using the additive option as described at 226.24(b)(1).

ATTACHMENT E

PROGRAM ADMINISTRATION AND IMPLEMENTATION

A. Administrative Structure

This Leader with Associates (LWA) cooperative agreement/grant document identifies a description of the scheduled activities under the cooperative agreement/grant, participating institutions initially involved in the Agreement, the total authorized level of funding for the Sustainable Agriculture and Natural Resources Management (SANREM) Collaborative Research Support Program (CRSP), and includes the Standard Provisions and other documents as guiding authorities for CRSP operation. The CRSP Guidelines, revised in 2000 awaiting approval, provides implementation guidelines for CRSP programs.

B. Program Implementation

For each participating institution, a Project Proposal/Work plan, Sub-agreement, and sub/Sub-agreements and Memoranda of Understanding (MOU) are the instruments used to formally engage in CRSP activities through the Management Entity or with host country institutions.

1. Project Proposal

The project proposal, once accepted for funding becomes the project document that outlines the objectives, schedule, plan of work and budget. It identifies the responsible individuals as the principal investigator and co-investigators at the same participating institution or at other U.S. institutions, as well as investigators from host country (HC) institutions. Involvement of investigators from other than the participating institutions is effected through MOU's or sub/sub-agreements between the participating institution and the involved institutions. The ME may be a signatory to the agreement, as may be deemed by the participating institution. Additional institutions and individuals are expected to result from the competition for sub-awards.

2. Sub-agreements

The sub-agreement between the ME and the participating U.S. institution obligates funds and passes authority and responsibility from the Management Entity to the U.S. institution. Appendices to the Sub-agreement include the five-year project proposal and budget, the full Grant document including the project schedule, workplans, budgets, and applicable USAID Standard Provisions. These appendices are binding in as much as they are appended to and made part of the sub-agreement signed by the appropriate contract officials at the U.S. participating institution and the Management Entity. Responsibility and implementation of the award shall rest solely with the ME institution.

3. Memorandum of Understanding (MOU) or of Agreement (MOA)

The MOU/MOA is a formal commitment between the U.S. lead institution and a HC institution to engage in collaborative research and training. It designates

the related administrative procedures under the CRSP Grant, recognizing the collaborative research program and its goals; procedures for establishing a research/training relationship; specifications of responsibilities of the U.S. lead institution, duration of the component within the CRSP and communication requirements. The ME commits no funds directly to the MOU/MOA, only the authorization to do so subsequently under a contractual agreement between the U.S. and host country institutions.

4. Sub/sub-agreements

To formally execute the MOU/MOA, a sub/sub-agreement between the U.S. lead institution and collaborating U.S. and/or HC institutions represents the contractual arrangement that defines their relationship in the SANREM CRSP. Each HC and/or U.S. collaborating institution must have a sub/sub-agreement with a U.S. Lead Institution. These sub/sub-agreements describe procedures for both the transfer and accounting of CRSP USAID funds to be spent for purposes described in the five-year project proposal and in subsequent annual project work-plans and budgets. Collaborating U.S. and HC Institutions, when they receive support from the Lead U.S. Participating Institutions are obliged to conform to the rules and regulations referred to in the CRSP Grant and Sub-agreement, including applicable Standard Provisions, the CRSP Guidelines (2000) and other documents referenced. An important function of the sub/sub-agreements is to identify commitments of CRSP resources to HC institutions whether as advance of funds for deposit in HC accounts, equipment purchased in the U.S. for use in the HC, training in the U.S. for HC participants, or any other resources committed by the U.S. lead institution to support participation in a component and Regional Project. Monetary commitments included in sub/sub-agreements can be exempted from the base budget for purposes of calculating U.S. institutional cost-sharing amount as required in the LWA cooperative agreement.

Sub-agreements must be executed in accordance with the commitments of both parties and procedures adopted in the MOU to which HC officials will have already subscribed. No standard format for the sub-agreements has been established. Each participating U.S. institution is permitted to use their established procedures for such transactions, provided the format identifies those cost items to be exempt from cost sharing.

As collaborating U.S. and H.C. institutions are bound by the terms of the prime CRSP Cooperative agreement/Grant and the ME's sub-agreement to the lead U.S. institution, copies of applicable documents must be provided to the ME and must be available upon request to USAID along with the sub/sub-agreement(s), for compliance and reference purposes.

5. Procedures for Change in Project Plans

USAID approval is required whenever there is a major change to the approved project's target constraints, research goals and objectives, and/or budget, as presented in the five-year work plan in the project proposal. These include the following:

- i. The addition of new research goals not included in the approved Five-Year Workplan.
- ii. Any substantive changes in research goals, objectives and project activities, such as changes which might compromise the approved objectives of the SANREM CRSP.

- iii. Elimination, addition or substitution of U.S. or Host Country collaborating institutions except those which are added as a result of the sub-award competition described in the approved proposal.

The process for approval of a change is:

- i. a brief proposal, covering the following points is to be submitted to the ME by the U.S. Principal Investigator (PI):
 - (1) Description of the proposed change;
 - (2) Reasons for the proposed change;
 - (3) Implications of proposed change;
 - Component objectives and anticipated outputs
 - Component leadership
 - Budget
- ii. Where there are technical implications, the ME will forward the proposal and relevant comments to the Technical Committee (TC).
- iii. The TC will review the package and make a recommendation to the BOD.
- iv. The BOD will review the proposal as well as all previous comments and make a recommendation to the ME.
- v. The ME will request approval from the USAID Agreement Officer through the designated CTO.
- vi. The ME will notify the PI in writing whether or not the proposed change is approved.

Minor changes may be made at the discretion of the PI(s) but such changes should be fully described and justified in the annual project work plans and annual reports for the project year in which the change took place (e.g., changes in research approach, addition of personnel, or new students who will receive CRSP support, etc.).

U.S. lead institutions may have their own internal policies and procedures regarding changes in projects. If these policies and procedures differ to the extent that it conflicts with the CRSP guidelines, the ME shall be contacted.

6. Change in Lead or Participating Institutions

The lead U.S. institution (ME) is competitively selected by USAID on the basis of the quality of research proposals submitted by a scientist affiliated with that institution. The institutional support, expertise and capacity in specific areas of science and the ability to conduct collaborative research in support of approved objectives are also evaluated in the selection process. Each CRSP U.S. participating institution is responsible for implementing activities that contribute to the overall goals and objectives of the SANREM CRSP.

A participating U.S. or HC institution may be replaced or placed on inactive status because:

- (a) The component has achieved the research and training goals of the approved Five-Year Work plan for which it was responsible;
- (b) The institution no longer has the staff and resources to maintain its participation;
- (c) The performance of the institution has fallen below an acceptable standard; or
- (d) Decreased USAID/W support for the CRSP requires elimination of program components (projects, activities, and/or institutions).

The process of replacing a lead or participating U.S. institution involves the ME, EEP, TC and BOD acting in accordance with the established review procedures. The BOD and ME work with an institutional representative (IR) of the affected institution to bring about the appropriate action and the ME works with the USAID/W Cognizant Technical Officer throughout the process.

7. Change in Principal Investigator(s)

When a principal investigator, either U.S. or H.C. terminates his/her role with the CRSP, the ME must be notified in advance whenever possible. By the next annual meeting of the TC and the BOD, the representative from the Lead Institution is expected to notify the ME of (a) its interest in continuing its involvement in the SANREM CRSP and (b) its proposal for designating a new PI. The ME will then consult with the IR of either the U.S. or the HC. If necessary, an interim PI would be identified to continue the project until a replacement is identified.

The BOD and TC reviews this information and works with the ME and CTO to determine if the project should continue. If not, the ME may initiate procedures to identify a suitable replacement PI, and possibly a replacement U.S. participating institution.

8. Procedure to Compete Sub-Awards for New Projects or Activities

Competition for sub-awards will be conducted according to the procedure described under "Quick Startup Plan" and "Additional Startup Activities" in the attached, approved, program description.

MANAGEMENT

Management Entity

The SANREM CRSP is a program of the U.S. Agency for International Development implemented by Virginia Tech as the Management Entity (ME). The ME is ultimately responsible for the conduct of the cooperative agreement. The Director of OIRED, Virginia Tech and/or the President of Virginia Tech accepts and signs on behalf of VA Tech for USAID/W funds, with that acceptance subsequently ratified by the VA Tech Board of Regents.

Virginia Tech has organized and designated the Management Entity's office as its functional arm. The ME which handles all of the day-to-day management of the CRSP, is staffed by a Program Director, Deputy Director, Administrative Officer, a Secretary and additional support staff, as necessary. This team, representing research management expertise as well as strong financial administrative competence, works closely with the University to ensure the Cooperative Agreement is administered within the rules and regulations of Virginia Tech, the CRSP Guidelines, and with federal regulations put forth by USAID/W.

The responsibilities of the ME include, but are not limited to:

1. Receiving and administering USAID/W cooperative agreement funds and for monitoring and accounting for all expenditures to USAID;

2. Developing sub-agreements with participating U.S. universities for approved projects;
3. Implementing research programs in coordination with U.S. and HC Institutions;
4. Accounting to USAID/W for program accomplishments and expenditures, including the required U.S. match, through annual reports;
5. Obtaining the necessary USAID/W clearances for international travel by CRSP personnel and the required approvals for equipment purchases;
6. Developing and implementing review and evaluation procedures to assure the CRSP's overall performance meets stated objectives;
7. Coordinating and facilitating meetings of the BOD, TC and EEP;
8. Providing leadership in the enhancement of leveraging financial resources other than the core grant;
9. Designating appropriate institutions for implementation of all Associate Awards;
10. Representing the CRSP on the CRSP Council and assisting the BOD and TC Chairs in their participation in Council activities; and
11. Issuing RFAs for competitive sub-awards.

While the ME has the authority to make the final decisions relative to program assignments, budget allocations and authorization, the ME carefully considers the advice and guidance of the various CRSP advisory and evaluation groups, i.e., the BOD, TC and EEP. The roles of these advisory groups are included in the CRSP Guidelines under the heading, "Organization of Participating Institutions."

ADVISORY GROUPS

Board of Directors

The Board of Directors (BOD) will provide policy-level oversight to the ME in conformance with the CRSP Guidelines. The Board will be composed of eight high-level administrators of consortium partners, serving on a rotating basis, and non-voting ex officio members of the ME. The USAID CTO will serve as an *ex-officio*, voting member of the Board. The BOD Chair is elected, by a simple majority by the BOD members for a one-year term. VA Tech Management, as the ME, has permanent membership on the BOD.

The responsibilities of the BOD include, but are not limited to:

1. Providing the ME with advice on program policy issues;

2. Evaluating the Global Plan, content and balance of the program, and the adequacy of funding and resources through review and approval of annual budgets and work plans;
3. Reviewing the progress/accomplishments of the CRSP through reports from the annual TC review or 3-year major reviews by the EEP;
4. Approving additions/deletions/modifications to components of the CRSP; and
5. Approving nominations for the EEP to be submitted to USAID/W.

The BOD meets at least once annually. Other meetings may be called by the BOD Chair or the ME, when deemed necessary. Meeting options include conference telephone calls or other electronic communication. Participation by at least 50 percent of the BOD members is considered a quorum for transaction of business and a simple majority of members present is required for decisions by the BOD. BOD members receive no compensation for their services on the BOD, but expenses for participating in the meetings are reimbursed.

Technical Committee (TC)

The TC for the CRSP will be comprised of the System Coordinator representing consortium university members, a range of disciplines (social and biophysical), and the sustainable agriculture and NRM systems. Terms will be for two years, with a possibility of renewal. TC membership will also include the CTO, a member from a host-country consortium institution, an IARC representative, a gender specialist and an external member from one of the following: the private sector; an NGO; a relevant U.S. Federal Agency; or a non-participating U.S. university. The Program Director, Associate Program Director, and OIRED Director will participate in TC meetings as non-voting members. The responsibilities of the TC will be to provide the ME with technical advice concerning the landscape system, the technical merit of proposed interventions, and implications for program implementation.

If additional members with appropriate expertise are desirable, the ME, in consultation with the BOD will appoint additional individuals as invited external advisors to the TC.

The TC Chair will be elected by a simple majority by TC members for a one-year term beginning with the initial meeting. The retiring TC Chair will be responsible for seeking nominations for Chair from among remaining members. The elections will be conducted either by E-mail or a brief conference call (two-four weeks) prior to the first TC meeting of the year.

The responsibilities of the TC include, but are not limited to:

1. Monitoring the technical research of the CRSP and proposing modifications therein.
2. Reviewing the annual work plans and budgets and recommending technical and/or budget adjustments.
3. Reviewing the recommendations of the EEP and recommending adjustments, if appropriate.
4. Reviewing the annual reports relative to the technical progress being made.
5. Making recommendations to the BOD for program actions and budgets.

The TC will meet physically only once a year (first meeting) and hold a telephone conference call or electronic conferencing later in the year to discuss the review of the annual progress reports. Additional meetings, when deemed necessary, may be called for by the TC Chair or the ME. Participation by at least 50 percent of the TC members is considered a quorum for transaction of business and a simple majority of members present is required for decisions by the TC. TC members receive no compensation for their services on the TC, but expenses for participating in the meetings are reimbursed. External members may also receive an honorarium.

External Evaluation Panel

EEP members are nominated by the ME, approved by USAID/W and appointed by the ME to review the progress, funding, plans and status/prospects of the CRSP. Nominations for EEP members are solicited from CRSP personnel, TC and BOD members as well as current EEP members. When a slate of candidates is prepared, the ME contacts each of them to determine their willingness to be nominated. A list of the people who accept is submitted to the BOD for ranking and approval. The approved names are submitted to the USAID/W Cognizant Technical Officer for processing through the appropriate offices. The EEP consists of up to five members appointed for terms of up to five years.

The EEP Chair is elected, by a simple majority, from and by the EEP members and confirmed by USAID/W. The term of office normally consists of the time remaining in the member's appointment to the EEP.

The responsibilities of the EEP include, but are not limited to:

1. Reviewing the progress of the CRSP's research program on an annual basis, either through a review of the work plans and annual reports or a combination of a paper review and selected site visits;
2. Making recommendations to the ME relative to program direction; and
3. Completing an intensive review at the end of the third year of implementation, two years prior to the termination of the Grant.

Meetings of the EEP are held as necessary to assist both AID and the ME to assess program progress and direction. Meeting options include conference telephone calls, email, instant messaging, or other electronic communication. Information from all meetings is incorporated as needed into the official report of the EEP along with their recommendations. A simple majority of the members present is required for all EEP decisions. Members of the EEP will be reimbursed for expenses incurred as a result of their participation in reviews or meetings and may also receive an *honorarium*. The EEP reports are submitted to USAID through the ME. The ME also submits to USAID a written response to each EEP recommendation within 30 days of receiving the report.

Review Panel for Sub-award Competition

A review panel will be established for the purpose of having an expert review of competitive pre-proposals and proposals for new activities As described in the attached, approved program description, "Quick Startup Plan," Paragraph 5. Members may include external members of the TC. The ME will appoint additional member(s) who are experts in the subject matter of the pre-

proposal and proposals being solicited. Selection of additional members will have the concurrence of the chair of the BOD.

The responsibilities of the Review Panel include, but are not limited to:

1. Reviewing and evaluating pre-proposals/proposals received in response to an RFP distributed by the CRSP for its relative scientific merit in meeting the performance requested in the RFP.
2. Making recommendations, in writing, to the ME on the acceptance or rejection of pre-proposals/proposals.

Meetings of the Review Panel are held to discuss the merits of pre-proposals/proposals at the request of the ME. Meeting options include face-to-face, telephone conference calls, email, and other electronic means. Members of the Review Panel will be reimbursed for travel expenses incurred for their participation in meetings.