

Southern Sudan Agricultural and Environmental Sciences Higher Education Needs Assessment Project

Symposia Accomplishments

Juba, Southern Sudan

Nov 9 - 19, 2008



USAID
FROM THE AMERICAN PEOPLE



**Catholic University
of Sudan**

Project Goal

Original:

Assess the human resource needs of the Southern Sudan in agriculture and natural resource management and develop a curriculum and strategy for sequencing the development of a Faculty of Agriculture and Environmental Sciences within the Catholic University of Sudan to meet these needs.



Modified Project Goal

Modified after stakeholders consultations:

Assess the human resource needs of the Southern Sudan in agriculture and natural resource management and develop model higher education curricula for use by the Catholic University of Sudan and other tertiary educational institutions in meeting these needs. Broader considerations extend to rebuilding agricultural education in other post-conflict situations.



Modified Project Deliverables

- Agricultural and NRM human resource needs assessment
- Model agricultural and NRM curricula in response to identified needs (emphasis on B.Sc. curricula)



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Project Activities

Nov. 9:

- Professors Bertelsen and Dillaha arrive in Juba
- Planning with Father Mike Schultheis, Acting Vice-Chancellor Catholic University of Sudan (CUofS)
- Meetings with:
 - Bishop Rudolph Deng, Bishop of Wau and President of Sudan Catholic Bishops Conference
 - Brother Bruno Dada, Coordinator of Academic Affairs CUofS and University of Juba adjunct faculty member



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Project Activities

Nov. 10:

- Project planning (Professors Bertelsen, Dillaha, and Schultheis)



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Project Activities

Nov. 11 Meetings:

- Lee Bonyai, commercial farmer and wholesale produce distributor
- Mr. Timothy Thwol Onak Yor, Director General for Forestry, Ministry of Forestry and Agriculture (MOFA)
- Mr. John Chuol Dhol, Director General for Agriculture and Extension Services, MOFA
- Dr. Josephine Yanga, Under Secretary for Higher Education, Ministry of Education, Science & Technology (MOEST)



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Project Activities

Nov. 12:

- Meeting with Tracy O’Heir, CRS Country Director
- Project planning and coordination

Nov. 13:

- Site visit to Torit, Eastern Equatorial State
- Assessment of local agriculture and local produce sold at Torit market
- Meeting with Geoffrey Jiago, Director of Planning, Eastern Equatoria State and Ferdinand Olang Ameny, UNDP Development Planning Specialist,



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Project Activities

Nov. 14:

- Meet with Peter Malnak, USAID Principal Officer, Juba
- Meet with students at CUofS and guest lecture on global environmental issues and environmental management
- Meeting with Professor Onesimo Yabang Lo-lujo, Deputy Principal, University of Juba and other faculty members

Nov. 15:

- Symposium preparation



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Project Activities

External participants

- **Prof. Victor Loku Kwajok, Deputy Vice Chancellor, University of Bahr-al-Ghazal (Wau and Khartoum)**
- **Dr. Lino Libo Ador, Dean Faculty of Veterinary Sciences, Upper Nile University, Malakal**
- **Prof. Daniel N. Mugendi, Deputy Vice Chancellor (Finance Planning and Development), Kenyatta University**
- **Prof. S. G. Kiama, Associate Dean, Faculty of Veterinary Medicine, University of Nairobi**
- **Dr. Peter Wyeth, Agricultural Economist, Washington State University**
- **Prof. Alice Pell, Animal Scientist and Vice Provost for International Relations, Cornell University**
- **Prof. Thomas Broyles, Undergraduate Coordinator of Agricultural and Extension Education, Virginia Tech**



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Symposium

Part I (Day 1)

- GOSS Ministry Perspectives (MOAF, MOEST)
- Sudan Universities' Perspectives
- Private Sector Perspective
- NGO/International Organization Perspective

Part II (Day 2)

- International Higher Education Models and Perspectives (Kenya, Ethiopia, Uganda, Ghana, Central America)

Part III (Days 2 & 3)

- Group Discussions and Development of:
 - **SWOT analysis of agriculture and natural resources**
 - **Targeted stakeholders for surveys**
 - **Design of draft survey instrum**



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Methodology

1. Train local team members for data collection
2. Identify potential employers of graduates with agricultural, natural resource management (NRM), and environmental management training
 - GOSS (focus at state level)
 - NGOs
 - Universities and training centers
 - Donors/Foreign assistance organizations
 - Private sectorand key supervisors and professionals to interview.



Methodology

3. Identify human resource needs of identified employers.
 - Disciplinary needs, estimated level of training, how many, and when needed

Examples:

- **GOSS Ministry of Agriculture and Forestry**
 - Extension specialists at certificate, diploma, & B.S. level.
 - Expertise: general agriculture, animal science, veterinary science, forestry, etc.



Methodology

4. **Assessment of knowledge and skills required for the identified agricultural and environmental science human resource needs**

Examples:

GOSS Ministry of Agriculture and Forestry

- **General agricultural extension specialists, B.S. level**

Soil fertility management, rainfed staple crop production, vegetable production, extension education, water management, livestock management, draft animals and plowing, etc.



Methodology

5. Organize required knowledge & skills to identify commonalities and facilitate curriculum development.

General Agricultural Extension Specialist

Skill	Level of Mastery		
	High	Medium	Limited
Tractor maintenance		X	
Power unit and pump maintenance			X
Interpretation of soil tests and fertilizer recommendations	X		
Sorghum and millet production	X		
Post-harvest storage and processing of cereals			
Livestock health		X	
Poultry production	X		
Forage management		X	
Seed selection		X	
Integrated pest management	X		
Etc.			



Symposium Outcomes

- 1. Identified potential Sudanese university partners.**
- 2. Sudan agriculture and natural resource SWOT analysis.**
- 3. Identification of potential employers and professionals for needs assessment and data collection strategies**



GOSS Ministry Example

- MOAF DGs, State agriculture and forestry Directors, key staff members identified by DGs and universities, Ministry of Education DG for agricultural vocational teachers, NGO and development agency personnel detailed to Ministries.
- Need to review Ministry of Manpower Development and Public Service classified position descriptions initially.
- Data collection at supervisor level (e.g., Forest Officer for Ranger position)
- Key states: Three “Greater Regions” headquartered in Juba, Wau, Malakal plus some of the states with fewer MOAF resources (e.g., Unity, Warrap, Eastern Equatoria, Northern Bhar-al-Gazal States)



Symposium Outcomes

4. Needs assessment survey data categories



Needs Assessment Survey Data

Emphasis on recent university graduates

Employer, person interviewed, contact information

A.Position title

1)When needed

2)How many needed at each time

3)Required level of training (certificate, diploma, B.S., M.S., Ph.D.)

4)Required skills/knowledge

- **Skill/knowledge**

- **Technical skills**

- **Managerial/organizations skills**

- **.....**

- **Level of mastery (high, medium, low)**

5)How important is practical training/experience during the educational program? (very, somewhat, not important)



Next Steps

- **Detailed list of employers/supervisors and employees (professionals) to be interviewed.**
- **Development and testing of alternative data collection instruments.**
- **Data collection (temporary local hire(s))**
- **Data analysis of human resource needs and draft curricula**
- **Stakeholder review and feedback**
- **Draft human resource needs report and draft curricula**
- **March 2009 Symposium – Presentation of findings to stakeholders**
- **Final report (June 2009)**



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Questions or comments?

