Feeding the World in 2050: How Human and Institutional Capacity Development Can Support Agricultural Innovation Systems

Speakers
Deborah Rubin, Cultural Practice
Rob Bertram, USAID Bureau for Food Security
Susan Owens, USAID Bureau for Food Security
Mark Varner, APLU
Andy Gilboy, Associates for Global Change
Anne-Claire Hervey, APLU

November 17, 2014
Upcoming Agrilinks Events:

- **Agrilinks Online Event** | *AgExchange: Feeding the World in 2050: How HICD Can Support Agricultural Innovation Systems* | November 18\(^{th}\)-20\(^{th}\)

- **Ag Sector Council Seminar** | *Nutritional Anthropology* | December 17\(^{th}\)
Questions and Discussion
Dr. Deborah Rubin is the director of Cultural Practice, LLC and a senior social science development analyst working at the intersection of agricultural sector programming and gender integration. She leads the Digest Project, which manages a web-based knowledge-management platform (www.crsps.net) that provides information on USAID-supported agricultural research programs. Her work on gender and agricultural value-chain operations led to the publication of “Promoting Gender Equitable Opportunities in Agricultural Value Chains: A Handbook.” She participated in the recently concluded Bill and Melinda Gates Foundation-funded IFPRI-ILRI Gender, Agriculture, and Assets Project, where she investigated pathways to reduce gender disparities in access to and control over productive agricultural assets. Additionally, she conducted long term field work in East Africa where she gained in-depth knowledge of the lives of rural men and women.
Robert Bertram
USAID, Bureau for Food Security

Rob Bertram is the Chief Scientist in USAID’s Bureau for Food Security, where he serves as a key adviser on a range of technical and program issues to advance global food security and nutrition. In this role, he leads USAID's evidence-based efforts to advance research, technology and implementation in support of the U.S. Government's global hunger and food security initiative, Feed the Future. Dr. Bertram's academic background in plant breeding and genetics includes degrees from University of California, Davis, the University of Minnesota and the University of Maryland.
Susan Owens
BIFAD Division at USAID Bureau for Food Security

Susan Owens leads the Human and Institutional Capacity Development/Board for International Food and Agriculture Development Division in the USAID Bureau for Food Security Office of Agriculture Research and Policy. Prior to joining USAID, Ms. Owens worked for nearly 10 years at the U.S. Department of Agriculture. She served as the director of the Foreign Agricultural Service (FAS) Trade and Scientific Capacity Building Division, where she brought together government and university partners to resolve issues related to barriers to two-way trade in agriculture. Earlier, Ms. Owens served as the director and deputy director of the Research and Scientific Exchanges Division, overseeing collaborative agricultural research, exchange and scientific capacity building programs with US university and international partners.
Mark Varner is a senior counselor for the Board for International Food and Agriculture Development in the USIAD Bureau for Food Security. Previously, Dr. Varner taught for three decades as a professor and extension dairy scientist at the University of Maryland. In 2012, he was appointed to the rank of Professor Emeritus. Dr. Varner taught all, or part, of five classes on campus and conducted research in dairy cattle reproductive management and lameness of dairy cattle. He was the author or co-author of more than 100 journal articles, book chapters, abstracts for professional meetings, proceedings chapters and newsletter/popular press articles. Dr. Varner has extensive experience with international university partnerships, particularly in the North Caucasus region of Russia. He received his BS degree with Distinction in Animal Sciences from the University of Minnesota, his MS degree in Animal Sciences from Washington State University and his PhD degree in physiology from North Carolina State University.
Andy Gilboy
Associates for Global Change

Andrew Gilboy is a specialist in performance improvement, human resources and Human and Institutional Capacity Development with 40 years of professional experience in international development. He has conducted assessments and designed and delivered sessions tailored to improve institutional performance and build capacity. In the 1990s, Mr. Gilboy helped develop the Best Practices Guides for Results-Oriented Training for USAID, which became the precursor for today’s HICD Practitioner’s Handbook, which laid the foundation for focusing on performance-based solutions for institutions. Mr. Gilboy served as the team leader for a number of impact evaluations concentrating on agriculture and higher education, including the Agriculture Long-Term Training Assessment in 2010, and in 2013, an evaluation of a USAID Global Development Alliance project to improve university and vocational college engineering education in Vietnam. He has worked throughout North and sub-Saharan Africa, and in the Middle East, Eastern Europe, Vietnam and Sri Lanka.
Anne-Claire Hervy
APLU

Anne-Claire Hervy is the associate vice-president for International Development and Programs at the Association of Public and Land-grant Universities. She is also the director of APLU’s Knowledge Center on Higher Education for African Development, which works to gather, analyze and share knowledge about sustainable performance improvement (capacity building) of African higher education institutions and systems, with a particular focus on peer-institution partnerships as a mechanism for achieving institutional performance improvement. Prior to joining APLU, Anne-Claire was the recipient of the congressionally-funded Mickey Leland International Hunger Fellowship from 2007-2009, and carried out her fellowship at the Partnership to Cut Hunger and Poverty in Africa, an advocacy group based in Washington, DC. She holds an MS in International History from the London School of Economics, and an MA in International Relations from American University’s School of International Service.
Susan Owens
Division Chief
Executive Director, BIFAD
USAID/BFS/HICD/BIFAD
Background

• USAID’s policy on human and institutional capacity building (HICD) was approved in 2010.

• The policy expanded the scope of HICD beyond formal participant training to include a wider and on-going range of informal, “non-training” interventions and institutional assessment processes.

• BFS under Feed the Future has invested in a number of capacity development programs around the agricultural innovation cycle. These programs are maturing, we are seeking feedback on best practices in HICD.

• The three reports discussed in today’s panel address different dimensions of human and institutional capacity building (HICD).
Panel Discussion

• Brief overview of the each report

• Offer thoughts about the implications of the reports’ findings more broadly on the direction for USAID future investments into HICD

Lechtenberg, Ayeni, Christy, and Kramer-LeBlanc
March 2014

Hervy & Gilboy
Feb 2014

APLU
Feb 2014
Key Definitions

Human and Institutional Capacity Development (HICD) is defined as “a series of structured and integrated processes designed to remove significant barriers to the achievement of an institution’s goals and objectives” (USAID 2010).

Agricultural Innovation Systems (AIS) [is] “a move away from a more linear interpretation of innovation as a sequence of research, development, and dissemination, to an interpretation that recognizes innovation as a complex web of related individuals and organizations—notably private industry and collective action organizations—all of whom contribute something to the application of new or existing information and knowledge.” (Rajalathi, Janssen, and Pehu 2008)

Performance Improvement (PI) touches many aspects of an organization -- aligning strategy, defining leadership, building talent, creating culture, and influencing markets. Over the years, great organizations have realized the value of human performance improvement. (International Society for Performance Improvement 2014)
Presenters

• Mark Varner, APLU, on behalf of Victor Lechtenberg of Purdue University

  “BIFAD HICD Study”

• Andrew Gilboy, Associates for Global Change

  “Good Practices in Leveraging Long-term Training for Institutional Capacity Strengthening”

• Anne-Claire Hervy, APLU

  “African Higher Education Study”
Thank you

Resources:

- Glossary of key terms and definitions in HICD for the AgExchange, [http://agrilinks.org/agexchange/agexchange-resource/key-definitions-agexchange](http://agrilinks.org/agexchange/agexchange-resource/key-definitions-agexchange)
- Reports discussed in this webinar
Human and Institutional Capacity Development: Role of USAID and Title XII Under Feed the Future Programs

A Report Commissioned by BIFAD

Review Team
Victor Lechtenberg, Purdue University
Albert Ayeni, Rutgers University
Ralph Christy, Cornell University
Carol Kramer-LeBlanc, Consultant

Mark Varner, APLU Facilitator
Resulting Report Has 14 Recommendations – Four Key Categories

• Strengthen Institutional Capacity and Partnerships
• Strengthen Access to US Institutions by Students from FTF countries
• Enhance Collaboration between Developing Country institutions, US Institutions and Public/Private Sector
• Building Developing Country Access to US Technologies
• http://www.aplu.org/document.doc?id=5191
After Report Was Delivered

• BIFAD considered report findings and recommendations.
• Communicated report to USAID Administrator and provided insight into report recommendations
• USAID Administrator responded to BIFAD
Next Steps

• USAID Administrator response highlighted that principle focus of recommendations, deepening support for higher education partnerships, is a high USAID priority

• Current e-consultation with key stakeholders is supported
Implications for Innovation System
(networks that bring new, together with policies & institutions)

• Recommendations
  – *Strengthen Institutional Capacity and Partnerships*
    • USAID should establish long-term Preferred Institution Partners Program
  – *Enhance Collaboration between Developing Country institutions, US Institutions and Public/Private Sector*
    • Broker collaborations across countries and with national governments to develop public-private partnerships
    • Work with country leaders and institutions to strengthen curricula relevant to agriculture and food sectors
Implications for Innovation System
(networks that bring new, together with policies & institutions)

• Recommendations
  – *Building Developing Country Access to US Technologies*
    • Invest in and nurture scientific and education networks
    • Enable US and FTF higher education institutions to develop technologies for smallholder agriculture and SMAEs, with a vision of making food and agricultural production a business that attracts and inspires youth
Background Paper:

Good Practices in Leveraging Long-term Training for Institutional Capacity Strengthening

February 2014

Andrew Gilboy

Anne-Claire Hervy
Themes

- Institutional Capacity Building
- Limits of Training
- Leverage
By the end of this brief presentation, can we begin to answer this question?

If a top-notch group of agricultural scientists have been trained at the finest national and international universities, and they are at national institutions ready and able to find innovative solutions to agricultural challenges in their country, why is that insufficient to meet the goal to “feed the world in 2050?”
Institutional Capacity Building – Classic View

Institution / Organization

TRAINING
Components of an Institution

RAISON D’ETRE

PROCESS

PEOPLE
Institution

Raison d’Etre

PROCESS

PEOPLE
Zone of Competence and High Performance

When more than 3 variables overlap, optimal performance is likely

- **Jobs**
  - Procedures
  - Criteria

- **Organization**
  - Requirements
  - Systems
  - Policies

- **Individual**
  - Knowledge
  - Skills & Attitudes

**LONG-TERM TECHNICAL TRAINING**
### Gilbert’s Behavior Engineering Model

<table>
<thead>
<tr>
<th>Environment</th>
<th>Information</th>
<th>Resources / Tools</th>
<th>Incentives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>Knowledge / Skills</td>
<td>Capacity</td>
<td>Motives</td>
</tr>
</tbody>
</table>

The Institution
# Leveraging Training

<table>
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LONG-TERM TECHNICAL TRAINING
Have we answered our question?

If a top-notch group of agricultural scientists have been trained at the finest national and international universities, and they are at national institutions ready and able to find innovative solutions to agricultural challenges in their country, why is that insufficient to meet the goal to “feed the world in 2050?”
“Pit a good employee against a bad system and the system will win most every time.”

“Geary Rummler: Training Skills Isn’t Enough.”
Rummler, Geary in Training, 1983, 20 (8), page 75-76
African Higher Education: Opportunities for Transformative Change for Sustainable Development

This publication was produced for USAID’s review by the Association of Public and Land-Grant Universities and the Knowledge Center on Higher Education for African Development.
Three Takeaways


2. African higher education lags behind all other regions. The time to invest is now.

3. Investments should focus on institutional transformation, not tweaks at the margin.
What are higher education’s contributions to development?
## Returns to Schooling by Education Level

<table>
<thead>
<tr>
<th>Region</th>
<th>Primary</th>
<th>Secondary</th>
<th>Tertiary</th>
<th>GDP/pc (PPP 2005)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>10.3</td>
<td>6.9</td>
<td>16.8</td>
<td>6,719</td>
<td>74</td>
</tr>
<tr>
<td>Middle East and North Africa</td>
<td>9.4</td>
<td>3.5</td>
<td>8.9</td>
<td>3,645</td>
<td>7</td>
</tr>
<tr>
<td>South Asia</td>
<td>9.6</td>
<td>6.3</td>
<td>18.4</td>
<td>2,626</td>
<td>4</td>
</tr>
<tr>
<td>Eastern and Central Europe</td>
<td>8.3</td>
<td>4.0</td>
<td>10.1</td>
<td>6,630</td>
<td>7</td>
</tr>
<tr>
<td>High Income Economies</td>
<td>4.8</td>
<td>5.3</td>
<td>11.0</td>
<td>31,748</td>
<td>6</td>
</tr>
<tr>
<td>East Asia and Pacific</td>
<td>11.0</td>
<td>6.3</td>
<td>15.4</td>
<td>5,980</td>
<td>6</td>
</tr>
<tr>
<td>Latin America and Caribbean</td>
<td>9.3</td>
<td>6.6</td>
<td>17.6</td>
<td>7,269</td>
<td>20</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>13.4</td>
<td>10.8</td>
<td>21.9</td>
<td>2,531</td>
<td>24</td>
</tr>
</tbody>
</table>

What is the state of higher education in Africa?
Figure 2.3  Change in the Number of Higher Education Students and Expenditure on Higher Education in Two Groups of African Countries, 1991–2006

a. 23 low-income countries

b. 13 middle-income countries

1991 = 100

1991, 2006

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- students
- expenditure
Research and Development Expenditure
2001

Source: www.worldmapper.org
WE'VE HAD COMPLAINTS ABOUT OUR GRADUATES FROM SOMETHING CALLING ITSELF 'THE BUSINESS WORLD'
Percentage of Educational Lending for Higher Education by Major Development Banks, 1960s to 2000s

How can the U.S. best support African Higher Education?
institutional capacity development
institutional transformation
2 key recommendations

1. Concentrate USAID Investments and combine system level interventions with institution-level transformation.

2. Do this through partnerships with peer institutions that are long-term, engage the private sector, and focus on comprehensive institutional performance improvement.
What does it take?

• A flexible partnership, not a contract.
• Being *resident* long-term.
• Expertise in *institutional performance improvement* and change management.

Implement USAID’s HICD framework!
What is iAGRI?

aims to strengthen the training and collaborative research capacities of:

Sokoine University of Agriculture (SUA)

and the

Tanzanian Ministry of Agriculture, Food Security and Cooperatives (MAFC)

with the goal of improving food security and agricultural productivity in Tanzania.
80% Workforce engaged in Agriculture

27% GDP Agriculture

Source: CIA World Factbook
Sokoine University of Agriculture

503 Members of Academic Staff
9000 Students

♂ ♀ = 200 students
2000 Graduates per year
When you consider there are already 14,000 SUA Alumni
That’s over 30,000 SUA alumni by 2022...
What impact could they have?
Thank you for joining us!

Share Feedback
Visit the event page to post comments & questions.

Stay In Touch
Contact Us:
agrilinks@agrilinks.org
OR
Julie MacCartee,
USAID/BFS
jmaccartee@usaid.gov

Upcoming Events
AgExchange
Feeding the World in 2050: How HICD Can Support Agricultural Innovation Systems, November 18th-20th