Nutrition-Sensitive Agriculture: The USAID Agricultural Research Perspective

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Smile! Get GLEE-FUL!!
(Or just GRIN and bear it....)
Learning Agenda: N-Sensitive Agriculture

- Further characterize Ag/Nutrition linkages and pathways
- Consider linkages from Ag Research perspective
- Consider different categories of Ag/Nutrition integration at the PROJECT level
- Hear from you: personal experiences (good and bad) with Ag/Nutrition project integration
- Debate when Ag/Nutrition integration is appropriate? (It may not always be the “strategic” thing to do!!)
The “Basics” of Ag/Nutrition Linkages

- FTF ag projects must have N outcomes
- Income/GDP growth alone not sufficient for nutritional security – need income growth through ag (esp. for children)
- More specifically, need focus on ag activities which empower women
- Ag activities offering diet diversity are crucial (micronutrients for stunting)
- Diet diversity has potential to compromise nutrition/stunting if food safety not addressed!
The FTF Ag Research Portfolio

- US universities (CRSPs/Innovation Labs, int’l ag research centers, USDA, private sector
- 7 Program Areas
- 3 foundational “Pillars”
- Yield, Systems Transformation, ood Safety and Nutrition
- Testament to “Diet Diversity”
Ag/Nutrition Linkages: How do ag research projects integrate Ag and Nutrition?

• Operational research
• Project overlap/collaboration
• True/foundational integration
• The food safety linkage…
Operational Research: Nutrition Innovation Lab (Nepal)

Aflatoxin Cohort Study

- Assess relationship between maternal exposures to aflatoxins in pregnancy with birth outcomes, and stunting
- 1,670 women in 17 Village Development Committees
- Blood and breast milk samples collected for aflatoxin analysis; food consumption surveys
- Preliminary results: 4th Scientific Symposium (July)
- One of the first rigorous prospective studies examining the potential links between contaminated food supplies and nutrition/birth outcomes.
95% of pregnant women had detectable levels

No difference in presence or absence of aflatoxin by geographic location, religion, ethnicity, food storage method

Further analyses on relationship with diet consumed and food consumption patterns in progress
Operational Research: Nutrition Innovation Lab: Bangladesh Multi-Sectoral Research Project

- Understand effects of exposure to 1 or more ASF and/or horticulture interventions on income and nutrition in both beneficiary and non-beneficiary populations in Bangladesh.

- Interventions include:
  - USAID Aquaculture, Income and Nutrition (AIN)
  - USAID CIP-Horticulture
  - FAO/UNICEF IAHBI
  - USAID SHIKHA
  - USAID SPRING
Operational Research: Sub-Project - Interaction of Horticulture/Aquaculture

Evaluate how introduction of new HORT technologies could increase income and improve nutrition/health of AQUACULTURE HH’S participating in study:

– Chimney dryers for solar drying of fish and FFV;
– Solar-powered cool rooms to extend life of fish and FFV;
– Floating gardens placed in smallholder fish ponds
Solar Drying/Floating Gardens/CoolBot
Nutrient-rich foods consumed (taka value/cap/week)

*Is project saturation good for nutrition??*

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<thead>
<tr>
<th></th>
<th>single exposure</th>
<th>multiple exposure</th>
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<tr>
<td>Green leafy veg.</td>
<td>3.2</td>
<td>5.4</td>
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<tr>
<td>Meat</td>
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<td>32.0</td>
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<tr>
<td>Milk</td>
<td>8.4</td>
<td>12.1</td>
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<tr>
<td>Fruits</td>
<td>23.8</td>
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<tr>
<td>Big fish</td>
<td>38.6</td>
<td>49.4</td>
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<tr>
<td>Small fish</td>
<td>9.4</td>
<td>15.2</td>
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“OVERLAPPED” PROGRAMMING FOR AG/NUTRITION LINKAGE
(co-located; cobbled; “forced” collaboration)
Multi-Stakeholder Collaboration Between Public and Private Sector

Horticulture Innovation Lab
IARC (AVRDC)
Medical Dev. Assistance (AMPATH)
Mission-Level Dev. Assistance (KHCP/Fintrac)
Private Sector (MACE Foods)
Linking African Indigenous Vegetables (AIVs) with Health and Nutrition of HIV/AIDS patients and their families in Western Kenya

Stephen Weller and James Simon
Purdue University and Rutgers University
African Indigenous Vegetables (AIVs) in our Project

African Nightshade
(Solanum spp)

Amaranth
(Amaranthus spp.)

Spider plant
(Cleome gynandra)
Why focus on African Indigenous Vegetables (AIVs)?

- Amaranth, Nightshade, Spider Plant, Indigenous Eggplant
- Mainstay in traditional diets
- Easy to grow but low yields
- Not normally cash crops; need market linkage
- Much high levels of micronutrients & minerals as compared to European vegetables
- Health, Nutrition and Medicinal value – *natural bridge linking agriculture and nutrition/health*
AMPATH – An Academic Model Providing Access To Healthcare

- AMPATH (2000-present) – partnership with Moi University School of Medicine, a consortium of U.S. medical schools led by Indiana Univ.
- Promotes a comprehensive approach to HIV/AIDS prevention and control
- Addresses food and income security needs
- Delivers and monitors ARV treatments...
- ARVS + AIVs = improved health and income
AMPATH clinic sites – And USAID sites
HORT IL: PURDUE AIV PROJECT
HORT IL: PURDUE AIV PROJECT, AVRDC
HORT IL: PURDUE AIV PROJECT (HIV outgrowers for MACE Foods)
COLLABORATION: KENYA AIVs (KHCP, Hort IL, AVRDC, Industry, HIV Clinics)
BUILDING AG/N LINKAGES THROUGH FOUNDATIONAL INTEGRATION (CO-DESIGN vs. COBBLING and CO-LOCATION)

- SPRING NUTRITION-SENSITIVE AG PROJECT (BANGLADESH)
  - MAS FRIJOL (GUATEMALA)
  - MALI HORT/N/WASH (AVRDC)
Key “Take-Aways” for Q&A Period

- Will projects building solid Ag/N linkages deliver the best results for nutritional security and stunting?
- We have very little work on “building the evidence base” for advocacy on well-linked ag and N projects – do we need a lot more?
- Ag and N projects that are linked by convenience/cobbling – how effective can they be?
Further Issues for Q/A Period?

• What are some of the best examples of Ag/N linkage building that you have seen in your careers?

• Can aggies and nutritionists co-write PADs and project RFPs? How many in the room have done it?

• Three big issues making it difficult to build Ag/N linkages: Friction between field and central funding, short project cycles, and short rotations of Mission staff – What do we do??

• Are we doing a disservice to our beneficiaries if we focus on diet diversity but don't complement sufficiently with food safety interventions?