

Critical Capacities and Research for Integrating Nutrition in Agriculture

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Outline

1. An Explicit Capacity Framework
2. The niche(s) for nutrition-in-agriculture
3. The distinctiveness of interventions in agriculture
 - Household level
 - Policy level
4. Institutional and Individual Capacities for Integrating Nutrition in Agriculture
5. Bringing it All Together
6. A Roadmap for a Regional Capacity Initiative?

“We cannot solve today’s problems by
using the same way of thinking
that created them”

Albert Einstein

What Kind of Problems Are We Dealing With?



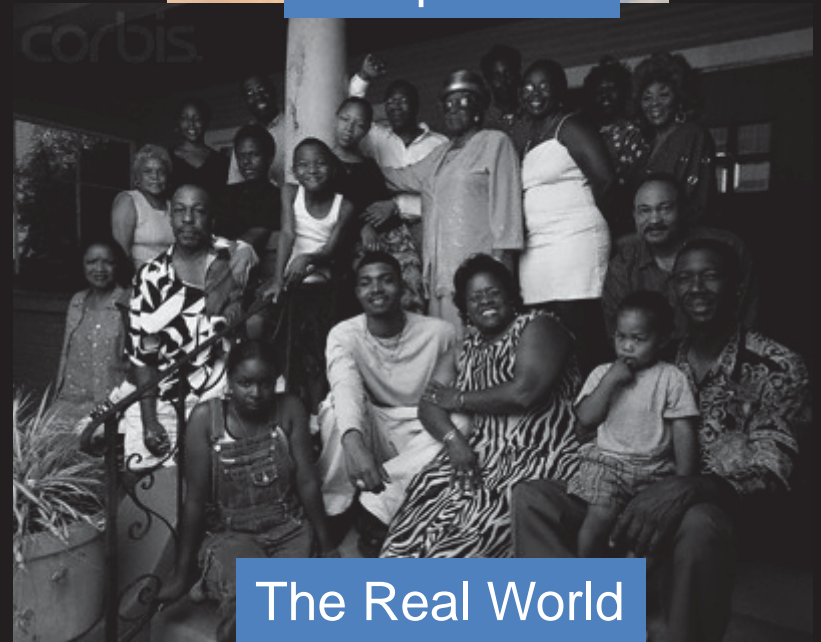
Simple



Complicated



Complex



The Real World

Institutional and Individual Capacities: An Example from One Country

MOA

Country CAADP Project Team

Component Leads/ Working Groups

Food
Security
& Nutrition

Agric
Prod
Enhance-
ment

Support to
Commercial
Agric

Land &
Water
Mgt

Inputs &
Markets

Coordination



Liaisons

A Framework for “Capacity Building”

(from Potter and Brough, 2004)

“...currently, different stakeholders – let us say a national government and a development partner (donor agency) – may both agree that there is a lack of ‘capacity’ and agree that investment in ‘capacity building’ should take place.

...but they may have entirely different understandings of what is meant by the expression, about how the lack of capacity manifests itself (for example ‘lack of time’, ‘not enough power’ or ‘insufficient know-how’), or about how it impacts the programme under consideration.

Consequently, they may have totally different ideas about the remedial action to be taken or the investments that are needed to rectify the problem.”

A Generic Capacity Framework: What Precisely is Needed???

Christopher Potter and Richard Brough

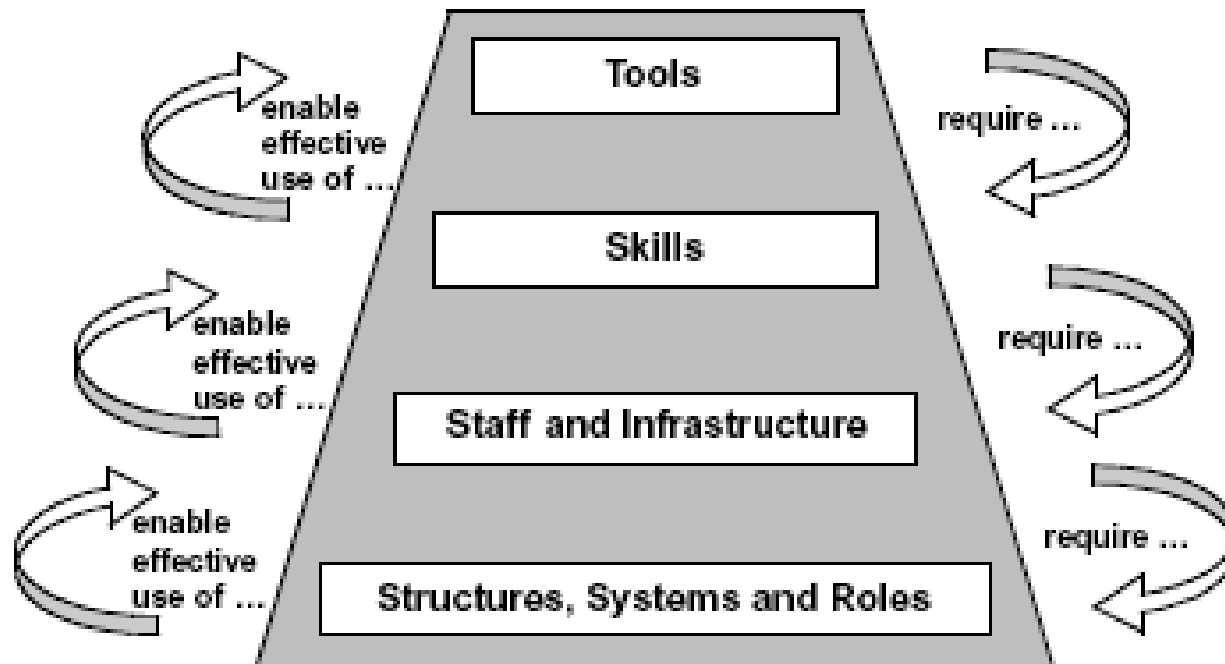


Figure 1. Capacity pyramid

A Generic Capacity Framework

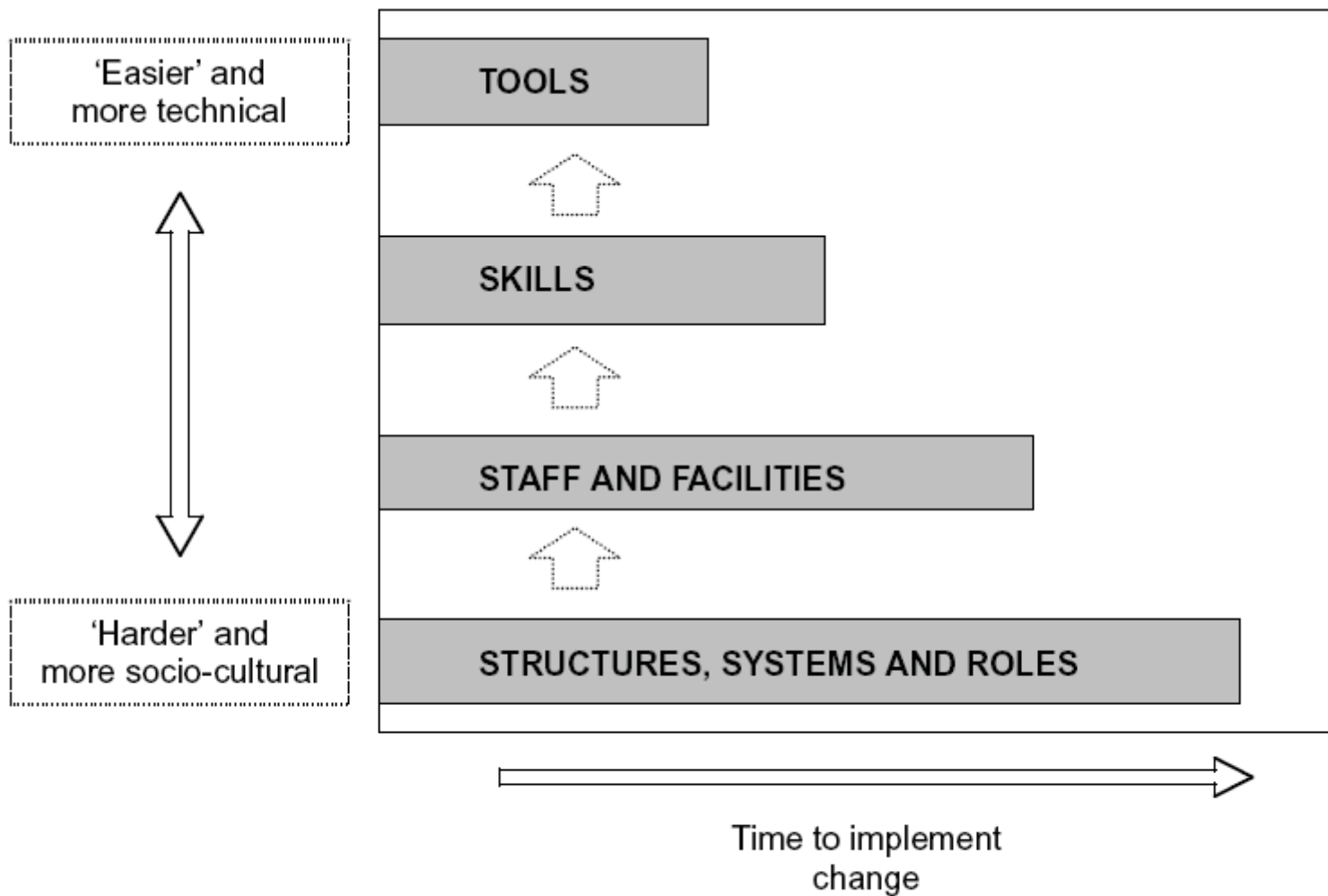
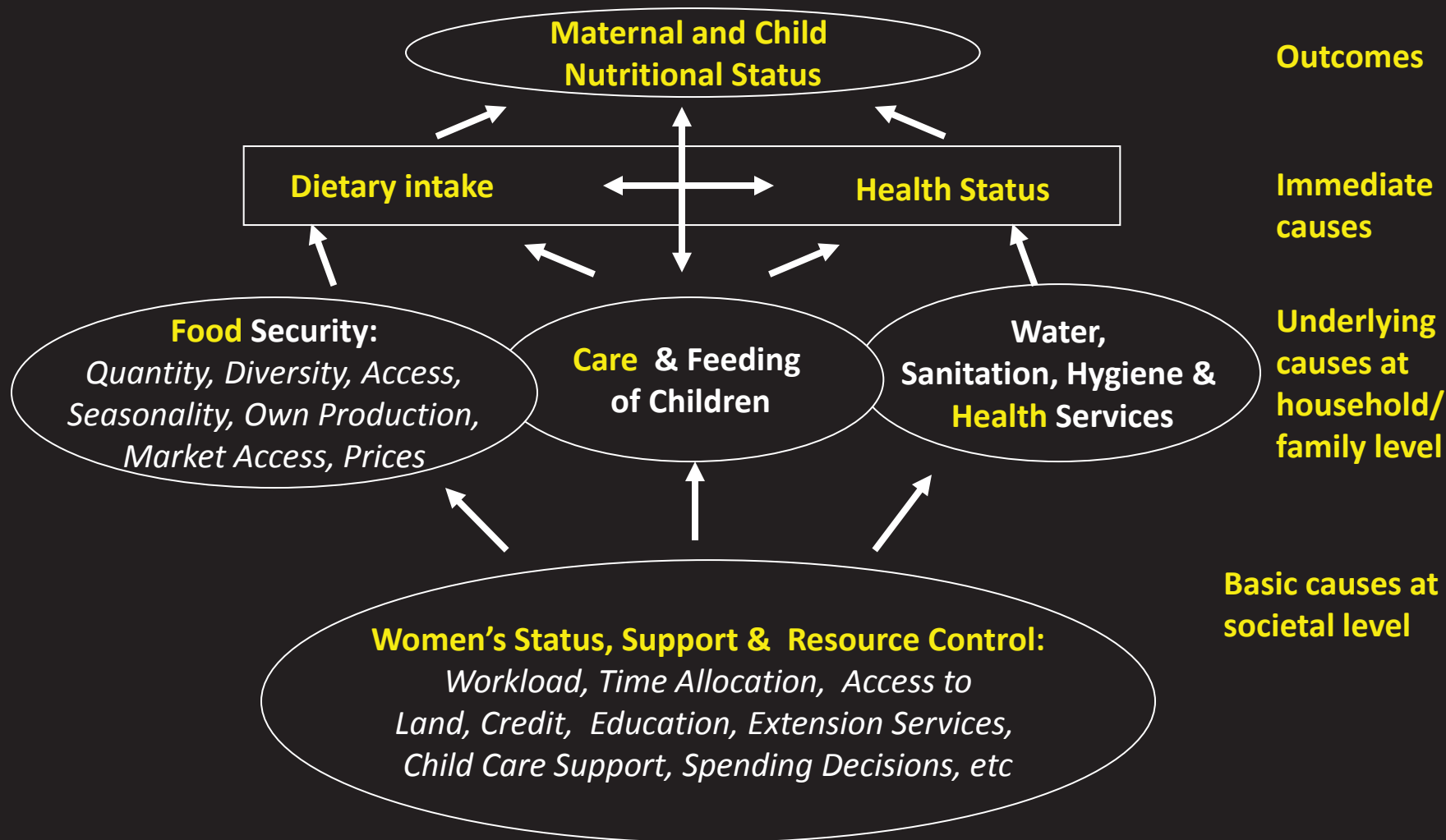


Figure 4. Complexity/time dimensions of capacity building

The Causal Framework for Nutrition



The Niche(s) for Agriculture

Ag Sector's Primary Responsibility, esp Vuln Grps

Primary Responsibility for Health, Education, Comm .Development, etc



Due Diligence by the Ag Sector esp for smallholders & Vulnerable hhs

Household-Level Nutrition Interventions in Health vs Agriculture

	Nutrition in Public Health	Nutrition in Agriculture
Interventions	<ul style="list-style-type: none">- Technical or Beh/Social- Largely Standardized	<ul style="list-style-type: none">-Beh, Social, Livelihood- Tailored/ contextual

Household-Level Interventions for
Nutrition-in-Agriculture
A Closer Look

Beyond Household-Level Interventions

Policy-Level Actions for Nutrition-Sensitive Agriculture:

1. The Agriculture domain is diverse and contextual:

Diversity and contextuality in:

- Horticultural crops
- Grains, roots and tubers
- Livestock, large and small
- Fisheries
- Cash crops, etc



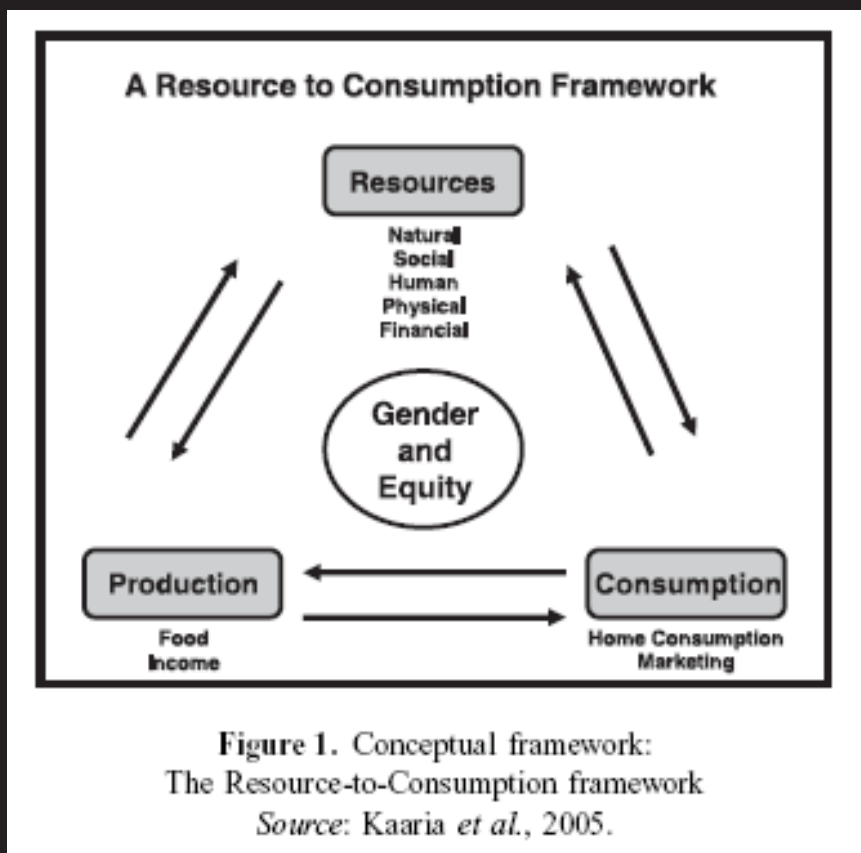
Diversity and contextuality in:

- soils, weather, water, pests...
- markets for land, labor, inputs, credit...
- social , cultural, historical conditions

- How do we “nutritionalize” agriculture projects in light of this diversity?
- What individual and institutional capacities are needed, and at what levels?

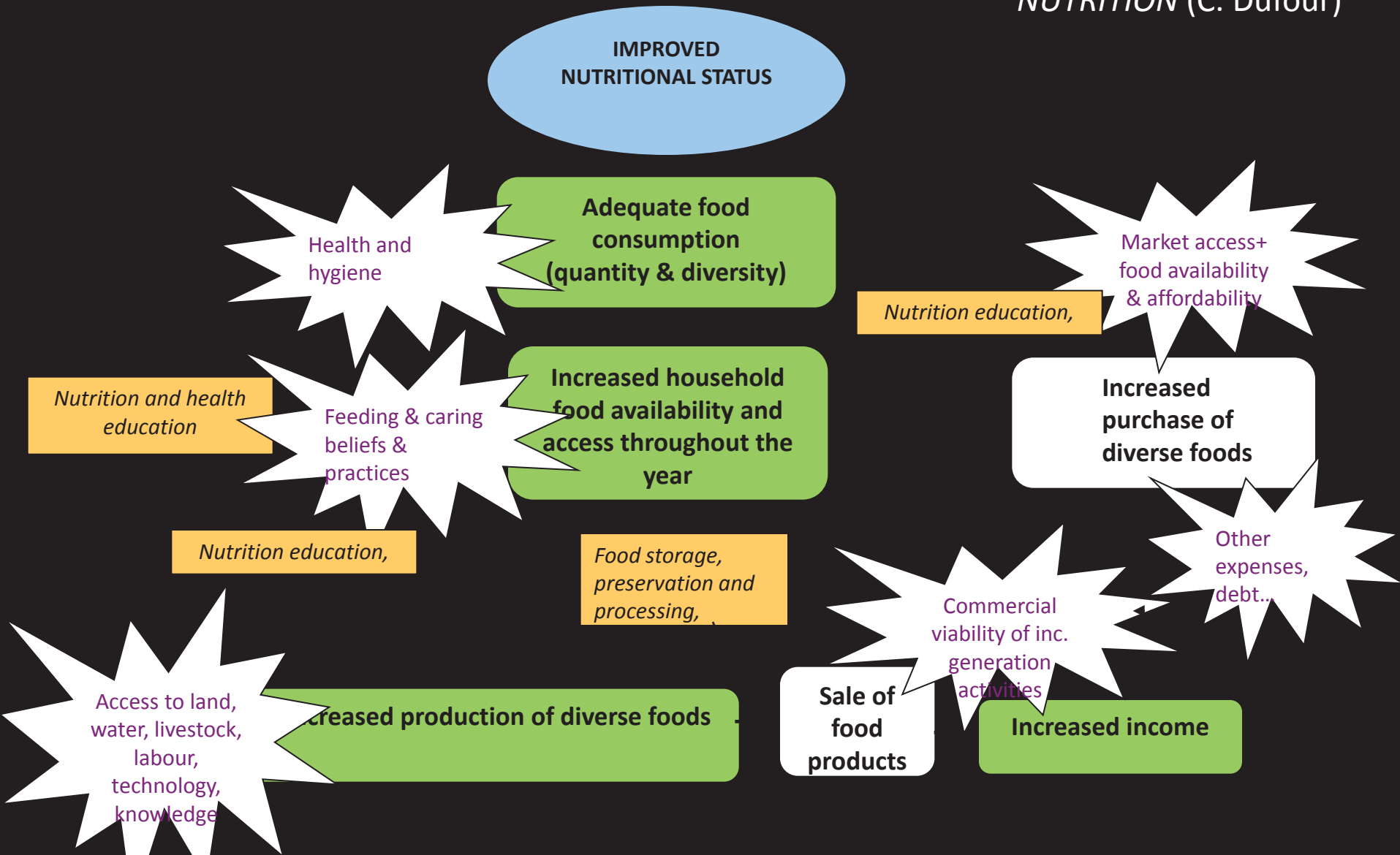
Household-Level Nutrition-in-Agriculture: Some Special Considerations

2. Household agricultural practices are complex:
Integrated Production-Consumption-Resource-Risk Management Decisions



3. “Magic Bullet Evidence” Does Not and Cannot Exist: Causal Ag-Nutr Chains are Long, Complex and Indirect

HOW FOOD SECURITY
PROJECTS CAN IMPACT ON
NUTRITION (C. Dufour)



ASSET BASE /CONTEXT: Water; Land ; Livestock ; Agricultural inputs; Access to credit; Education /Knowledge ; Labour / employment opportunities; Access to markets ; Social networks; Security; etc.

Household-Level Nutrition-in-Agriculture

3. “Magic Bullet Evidence” Does Not and Cannot Exist: Causal Ag-Nutr Chains are Long, Complex and Indirect

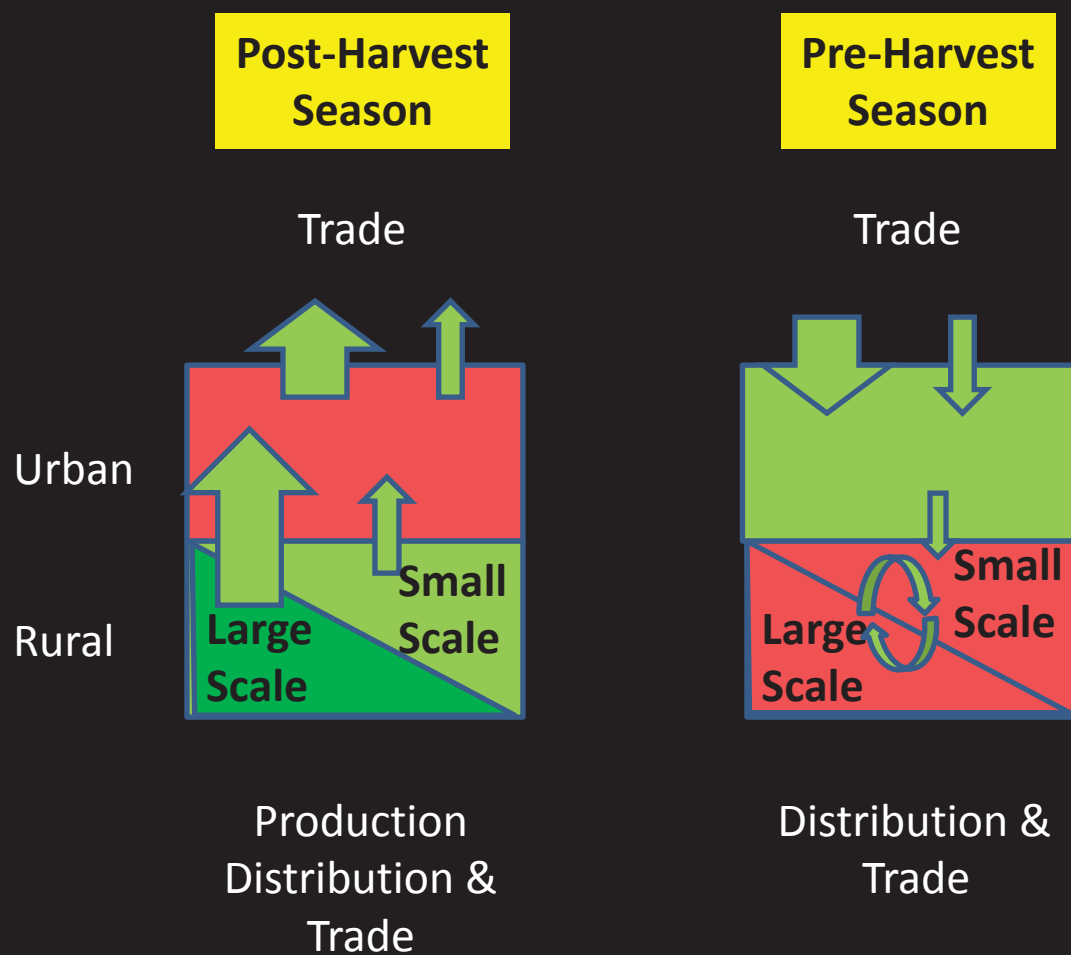
Table 1.1 Summary of reviews of the impact of agricultural interventions on nutrition

Review	Period covered	Studies	Interventions	Nutritional impact
Berti et al. (2003)	1985-2001	30	All agriculture: home gardens, animal husbandry, cash cropping, irrigation, land reforms, credit and extension, duck-fish promotion	Mixed results
World Bank (2007)	1985-2007	52	All agriculture: agricultural commercialisation, horticulture, animal source food, and mixed interventions	Mixed results
Ruel (2001)	1995-1999	14	Interventions designed to increase production and intake of micronutrient-rich food through: home gardens, animal husbandry, aquaculture and nutrition education	Some evidence of impact on vitamin A intake but evidence is scant and studies are poorly designed
Leroy and Frongillo (2007)	Not specified (but oldest study is 1987 and most recent is 2003)	14	Animal interventions: aquaculture, dairy production and poultry production	Some evidence of impact but few studies available and often poorly conducted
Kawarazuka (2010)	Not specified (but oldest study is from 2000 and most recent is in 2009)	23	Aquaculture and small-fisheries	Few studies available and very little evidence of impact

Beyond Household-Level Interventions:
Policy-Level Actions for Nutrition-Sensitive Agriculture

Beyond Household-Level Interventions: Policy-Level Actions for Nutrition-Sensitive Agriculture

Markets and Food Policy



Beyond Household-Level Interventions

Policy-Level Actions for Nutrition-Sensitive Agriculture:

3. Food, Agriculture and Economic Policies can have potent effects, but in different ways for different groups:

- Trade
- Subsidies
- Market development
- Wages
- Land policies



- Consumers: urban/ rural, market integrated or not
- Producers: large/small, net producer/consumer
- Landless, HIV-affected or female-headed households
- Seasonal availability, access, price
- Grains vs vegetables vs animals vs fish

- How do we “nutritionalize” these policies?
- What individual and institutional capacities are needed?

Diversity -- Contextuality -- Complexity -- Long Causal Chains --Evidence Gaps

These Special Considerations Force Us to Rely Upon...

**For HH-level
Interventions:**

Local/ contextual
Iterative,
Participatory,
Learning by Doing
Approaches

For policies:

State-of-the-art
knowledge, skills,
guidance and tools for
ex ante food policy
analysis, real-time
monitoring and regular
evaluation

For HH Interventions and Policies:

1. Sound principles (rather than “evidence”) re. the nature of ag-nutr linkages
2. Integrative assessment and analysis (food, health, care, gender, etc)
3. Contextual knowledge and assessment (local to national levels)
4. Experience (local, national and regional)

Institutional and Individual Capacities for Integrating Nutrition in Agriculture

Institutional and Individual Capacities: An Example from One Country

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Country CAADP Project Team

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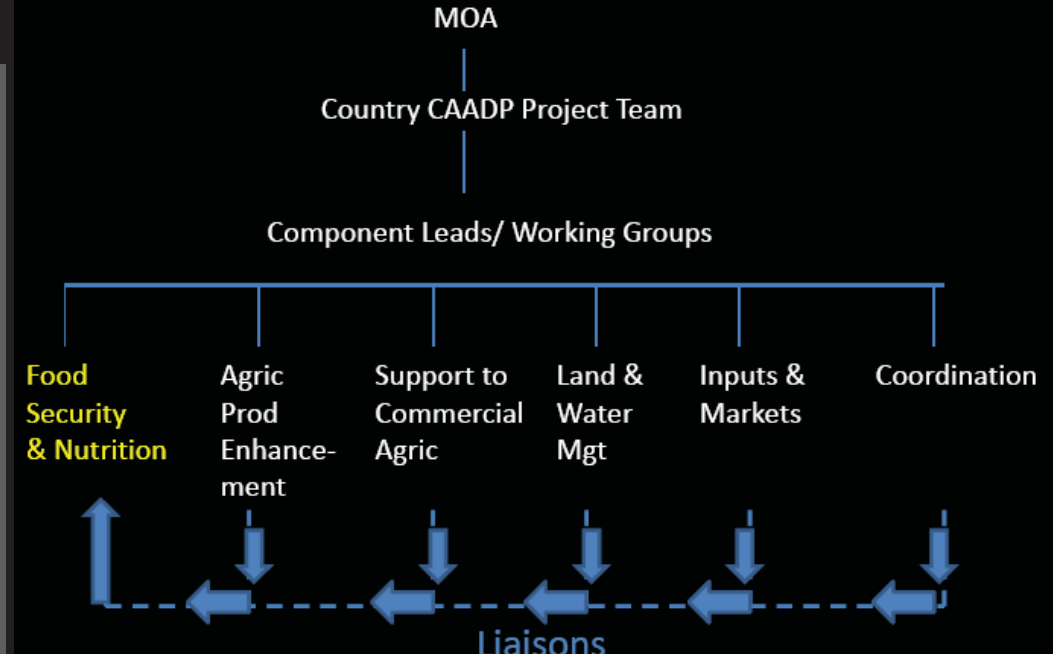
Coordination



Liaisons

Capacity-Related Questions

1. Who should lead the Fd Sec/ Nutr Component?
2. Do they have the capacity?
3. What kind of capacities do they need?
4. How can they access it?
5. Can they succeed on good will alone?
6. If not, what authority, mandate etc. is needed to ensure the other teams will implement nutrition-sensitive policies and programs?
7. What kind of capacities or assistance do each of the other Components/ WGs need?



8. How should this articulate with the national multisectoral coordinating committee?
9. How will each of these Working Groups articulate with the traditional MOA structures? (planning, operations, M&E, finance, etc)

Bringing it All Together

Functional Capacities (for individuals and institutions)

1. Operational Capacities (hard skills)

- Assessment and analysis (national to local)
- Access to knowledge and experience (global, national, regional)
- Plan and design policies and programs (collaboratively)
- Prepare costed investment plans based on Results Frameworks
- Implement & manage policies and programs (collaboratively)
- Monitor, Evaluate and Adjust (national, project-level, local) (collaboratively)

Functional Capacities (for individuals and institutions)

2. Strategic Capacities (soft skills / people skills)

- Collaborative leadership – visioning, strategic planning, consensus-seeking
- Advocacy, strategic communications, media engagement
- Commitment-building, coalition-building, relationship management –
- Conflict management
- Resource mobilization
- Anticipate and respond to recurring challenges and opportunities
- Strategic oversight and management of the national nutrition agenda



Within MOA
And
Multisectorially

Functional Capacities (for individuals and institutions)

3. Research Capacities (hard skills)

- Formative, operations and evaluative research (qualitative and quantitative)
- Community trials of food security and nutrition intervention models among smallholders
- Innovative and effective models for integration and scaling up

Research and Training: Paradigm Shift Needed

- **The Conventional (discipline-based) Approach**
 - Nutritional sciences: chemistry, biochemistry, genetics, cell biology, metabolism, physiology, food composition, dietary assessment etc.
- **The Problem/ Program/ Policy Oriented Approach**
 - Operational capacities for HH and Policy Interventions
 - Strategic capacities
 - Formative, operations, evaluative research
 - Integration and Scaling Up

The Capacity for Capacity Building

*** Out of the Box Thinking Needed ***

- Operational capacities – pre-service and in-service
 - Strategic capacities – pre-service and in-service
 - Research capacities – pre-service and in-service
 - At national, project and community levels
-
- What orgs can strengthen each?
 - national, regional, beyond
 - NGOs, Management Training Centers, Private Sector, Universities?
 - What modalities are appropriate?
 - Short-term, On-the-Job, twinning, coaching, interning, counterparts, etc
 - Regional Communities of Practice
 - Curricular reform at universities
 - Incentivized
 - Collaboration in curriculum development (practitioners & academics)

A Roadmap?

Organize a regional and country-specific capacity assessment
(similar to the WAHO/UNICEF/HKI assessment re. public health nutrition)

1. Identify high level champions from the region and beyond
2. Seek govt and donor interest and endorsement early
3. Consult functional frameworks and checklists (annexes here) in designing the assessment
Identify local, national, regional or global institutions currently or potentially able to lead or support each function
4. Distinguish short, medium and long-term needs and options
5. Quantify the human and institutional resource needs and gaps
6. Create strong mechanisms for accountability and sustainability
7. Seek support as a region, to capture synergies, complementarities and lobbying power

Merci!

Extra slides

A Further Checklist: Nine Individual and Institutional Capacities

1. **Performance capacity:** *Are the tools, money, equipment, consumables, etc. available to do the job?*
2. **Personal capacity:** *Are the staff sufficiently knowledgeable, skilled and confident to perform properly? Do they need training, experience, or motivation? Are they deficient in technical skills, managerial skills, interpersonal skills, gender-sensitivity skills, or specific role-related skills?*
3. **Workload capacity:** *Are there enough staff with broad enough skills to cope with the workload? Are job descriptions practicable? Is skill mix appropriate?*
4. **Supervisory capacity:** *Are there reporting and monitoring systems in place? Are there clear lines of accountability? Can supervisors physically monitor the staff under them? Are there effective incentives and sanctions available?*

Nine Capacities:

A Checklist for Capacity Building

5. **Facility capacity:** *Are training centres big enough, with the right staff in sufficient numbers? Are staff residences and meeting facilities sufficient? Are there enough offices, workshops and warehouses to support the workload?*
6. **Support service capacity:** *Are there laboratories, training institutions, vet services, supply organizations, building services, administrative staff, research facilities, quality control services? (Could be in the public, private or NGO sectors)*
7. **Systems capacity:** *Do the flows of information, money and managerial decisions function in a timely and effective manner? Can purchases be made without lengthy delays for authorization? Are proper filing and information systems in use? Are staff transferred without reference to local managers' wishes? Can private sector services be contracted as required? Is there good communication with the community? Are there sufficient links with NGOs?*
8. **Structural capacity:** *Are there decision-making forums where inter-sectoral discussion may occur and corporate decisions made, records kept and individuals called to account for non-performance?*
9. **Role capacity:** *Have individuals, teams and structure such as committees been given the authority and responsibility to make the decisions essential to effective performance, whether regarding schedules, money, staff appointments, etc?*

Bringing women's and children's nutrition to the forefront of agriculture

USAID'S INFANT & YOUNG CHILD NUTRITION PROJECT

Nutritional Impact Assessment Tool

A TOOL FOR MAXIMIZING THE POSITIVE IMPACTS OF AGRICULTURAL INTERVENTIONS
ON NUTRITIONALLY VULNERABLE AND FOOD INSECURE POPULATIONS

GUIDANCE

September 2011



Participatory, Contextual, Integrated and Iterative Agricultural Change and Local Capacity Building: One Approach (among many)

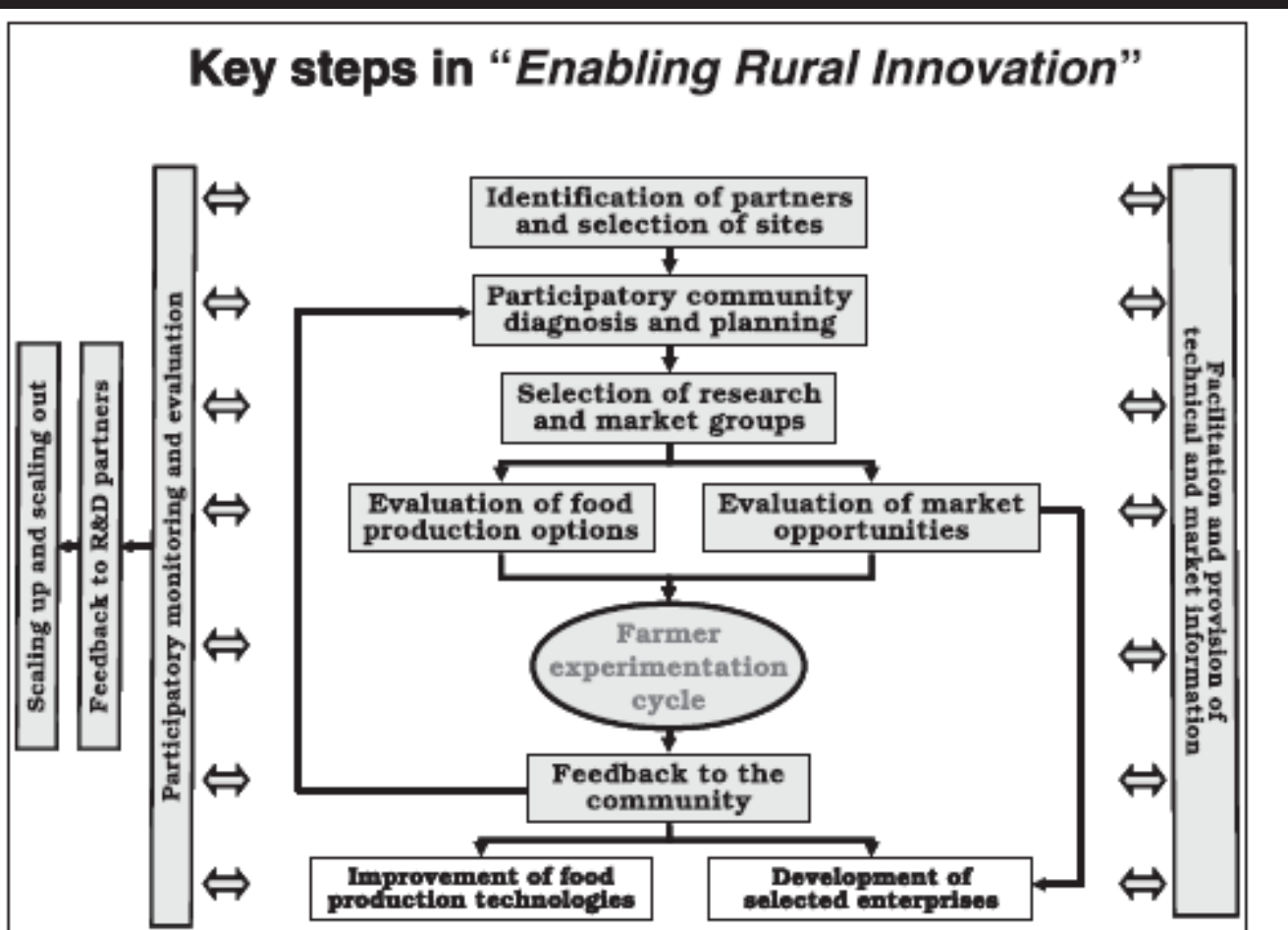


Figure 2. Key steps in Enabling Rural Innovation

Source: Kaaria *et al.*, 2005.

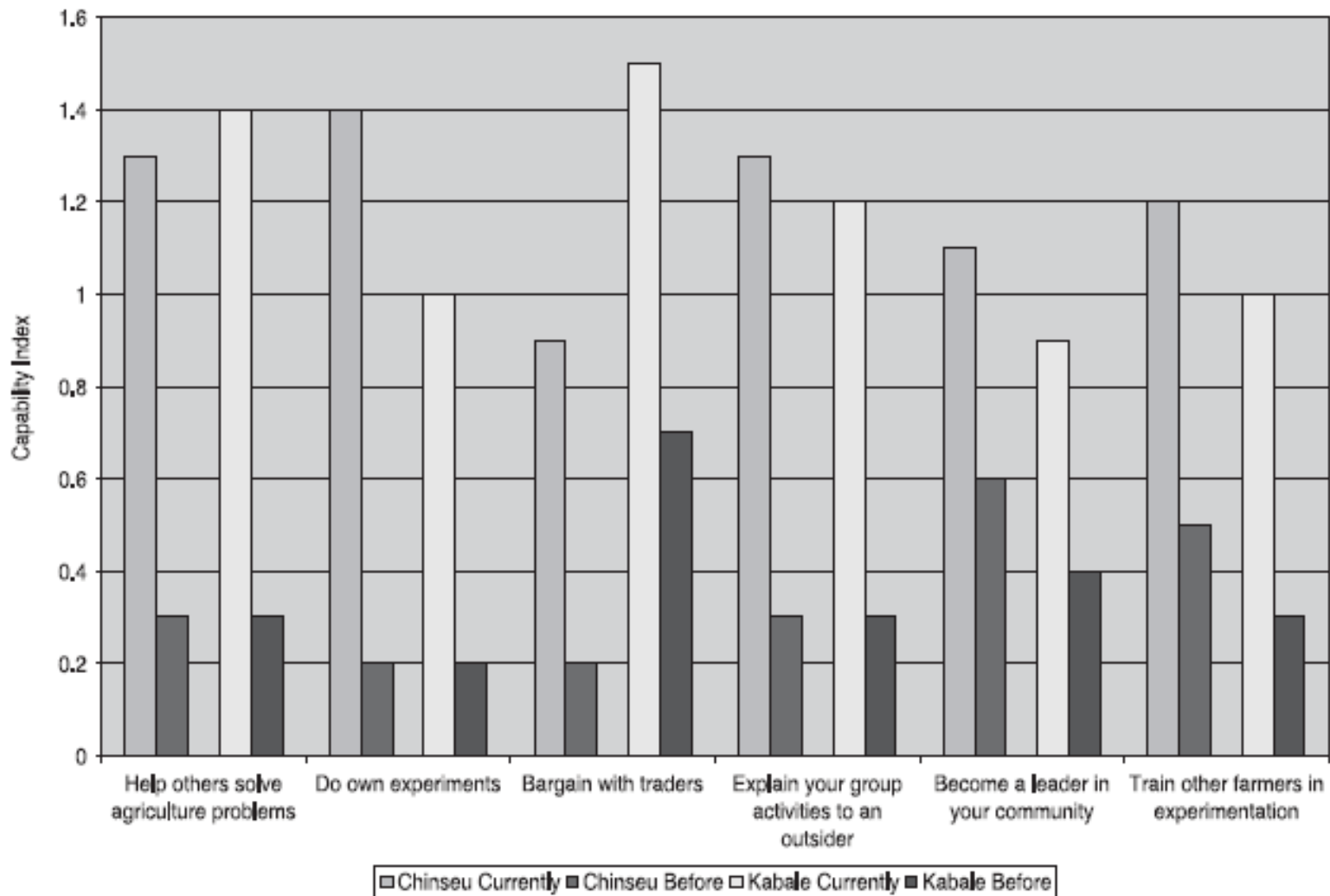


Figure 3. Changes in social and human capital for Kabale and Chinseu

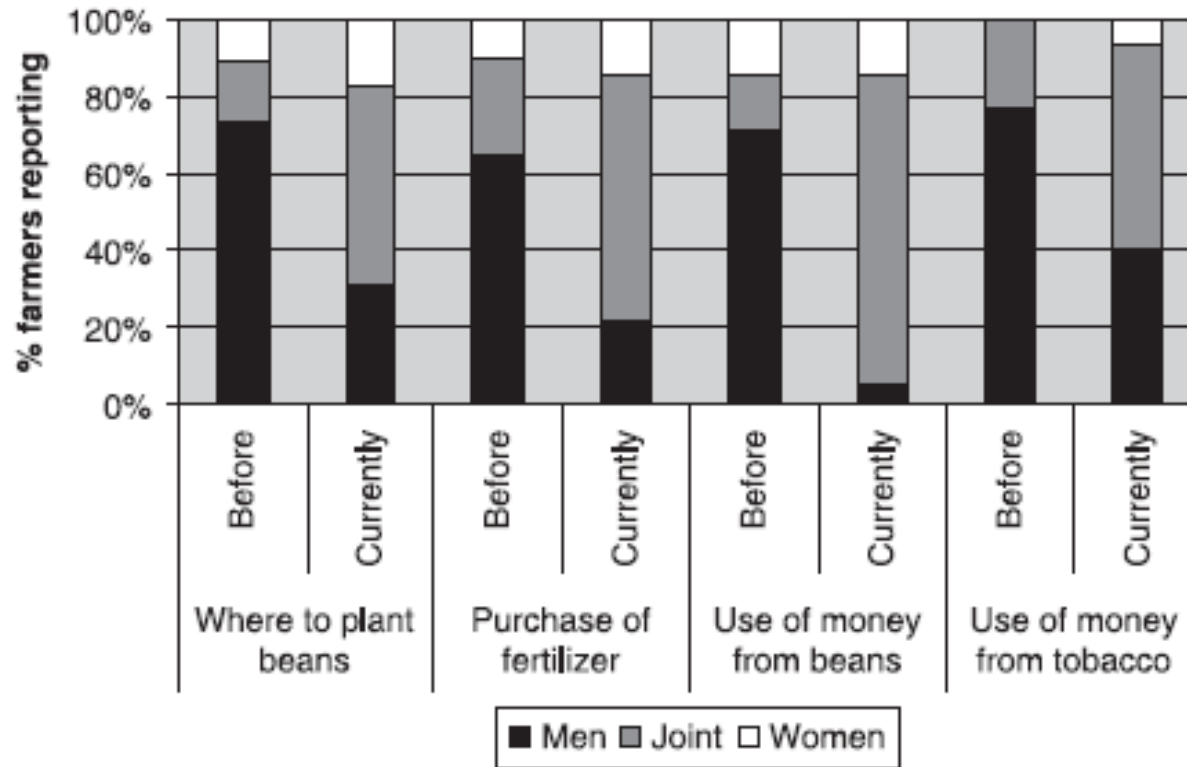


Figure 4. Changes in intra-household decision-making in Chinseu, Malawi

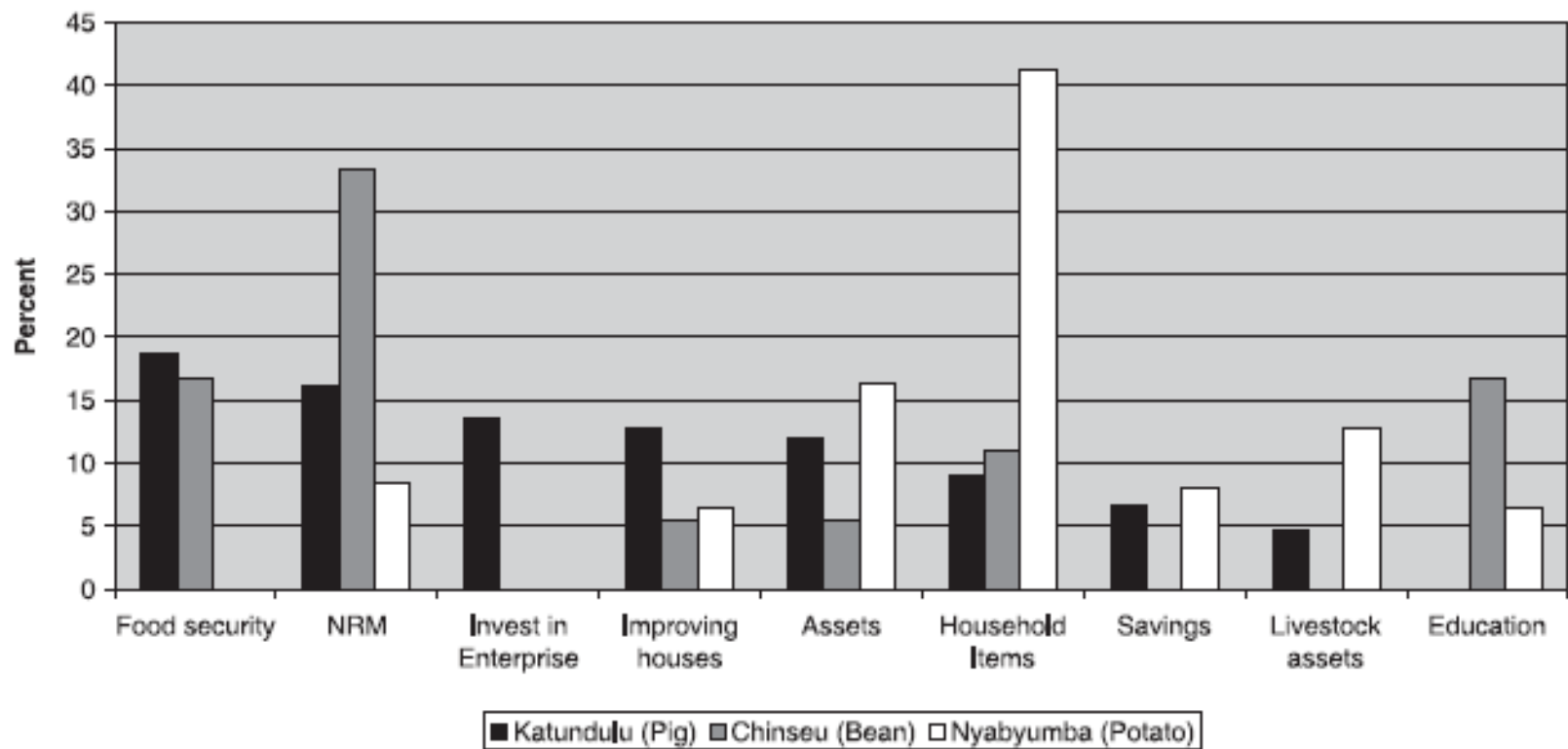


Figure 6. Comparison of priority uses of income from agro-enterprises

The Agriculture Nutrition Advantage (TANA)

The TANA project ran from 2001 through 2004. It aimed to strengthen and expand linkages between nutritionists and agriculturalists through gender sensitive approaches, to reduce hunger and under-nutrition in five African countries including Uganda. A study under the TANA project was directed to assess the extent to which the agriculture and nutrition communities in each country work as partners to reduce malnutrition; to gauge the potential gains from increased collaboration; and to understand the various

Outcomes/Lessons Learnt: At a policy level, the initiative succeeded in securing inclusion of nutrition in the Poverty Eradication Action Plan as a cross-cutting issue; and a national Plan for the Modernisation of Agriculture sub-committee (Food security) was renamed to Food and Nutrition Security with more focus on nutrition than ever before. Despite the successes, researchers of the study also uncovered significant barriers that impeded teamwork and accomplishment of the project's goals. These included: (1) resource allocation and planning processes within the bureaucracy; (2) differing sector mandates and priorities; (3) differing sector worldviews; and (3) capacity constraints for nutritional analysis within sectors (Benson, 2008; The World Bank, 2007).

The Gender Informed Nutrition Agriculture (GINA)

GINA was a community-based approach of linking Agriculture, Nutrition and Gender in 3 districts in Southwest Uganda between 2005 and 2008. GINA's overall goal was to improve nutrition outcomes of children under five years of age. GINA was designed to promote, facilitate and measure uptake of several activities that cross-cut nutrition, agriculture, hygiene and sanitation. These included: backyard and community gardening, growing and consuming nutrient-enriched food crops (OFSP), and increased consumption of home/community-produced animal protein (rabbits), monthly child weighing, and caregiver counseling. There was a strong focus on gender informed activities and gender analysis of the outcomes. Although 80 percent of participants were women, the project recognised and facilitated men and women working together to raise their children, and men were trained and were vigorously involved in growth monitoring and promotion.

Outcomes/Lessons Learnt: Experience from GINA demonstrated that it is possible and productive to incorporate nutrition activities into District Development Plans. Radio programmes proved an effective channel. The formation of Nutrition and Agriculture Groups was very important, and for sustainability, researchers learnt that it is necessary to link these groups to existing programs such as those focused on micro-finance or National Agricultural Advisory Services. A number of challenges were also encountered during GINA implementation: radio programmes proved relatively expensive; project coverage was smaller than planned; the period of implementation and support proved too short to effect lasting behavioural change; the agriculture component met with varied success at the household level due to difficulties in managing diseases of both crops and small stock (OFSP and rabbits); and recruitment of Community Growth Promoters was based on a model of volunteerism which proved unsustainable after funding for other project components ended.

Governance Models Linking Nutrition and Agriculture: Comparisons with other Countries

Several models for nutrition's institutional position within government are seen around the world, which include:

- Ministry of Health
- Ministry of Agriculture
- A cross-sectoral location such as Ministry of Finance and/or Economic Planning, the Office of the Prime Minister or the Office of the President

Consensus among policy specialists is that the institutional “home” for nutrition does not exert a large influence on the development, implementation or success of action for broad nutrition security. Rather, effective leadership is the key element. Therefore, the sector that can most reliably provide capable leadership in the nutritionalisation of agriculture (i.e., can champion food and nutrition issues effectively into action), is the appropriate institutional home.

It appears that Nigeria has no specific policy or strategy ratified for nutrition mainstreaming or nutritionalisation of agriculture. Several capacity gaps were identified in Nigeria that are similar to those identified for Uganda. These include a need to:

- advocate so nutrition is accepted as a National Development Priority and to better ensure that agricultural projects, policies and systems include nutrition outcomes as indicators of success;
- create a coherent cross-sectoral/ministerial policy strategy;
- evolve more innovative structures that guide food and nutrition security;
- design agricultural strategies (e.g., biofortification) that can increase the production of micronutrient rich foods; and
- incorporate effective models that assess nutrition impact of agricultural interventions.

BOX 6.1

Requirements for Effective Nutritionalisation in Uganda

Workshop participants oriented toward six key messages indicating there is a need for:

- the right mix of policies and interventions that can lead to nutrition security for all individuals within a region;
- multi-sectoral approaches and coordination in addressing mother and child malnutrition;
- nutrition education and sensitisation at all levels and in all sectors;
- inclusion of men in gender and health-related issues for improving nutrition outcomes of women and children;
- empowering and more directly involving the community in crafting nutrition interventions;
- greater sustainability and adoption of nutrition programmes within agriculture and all other sectors (“mainstreaming nutrition”); and
- advocates and champions at all levels and in multiple sectors to promote nutrition agendas.

Who Needs What Capacities?

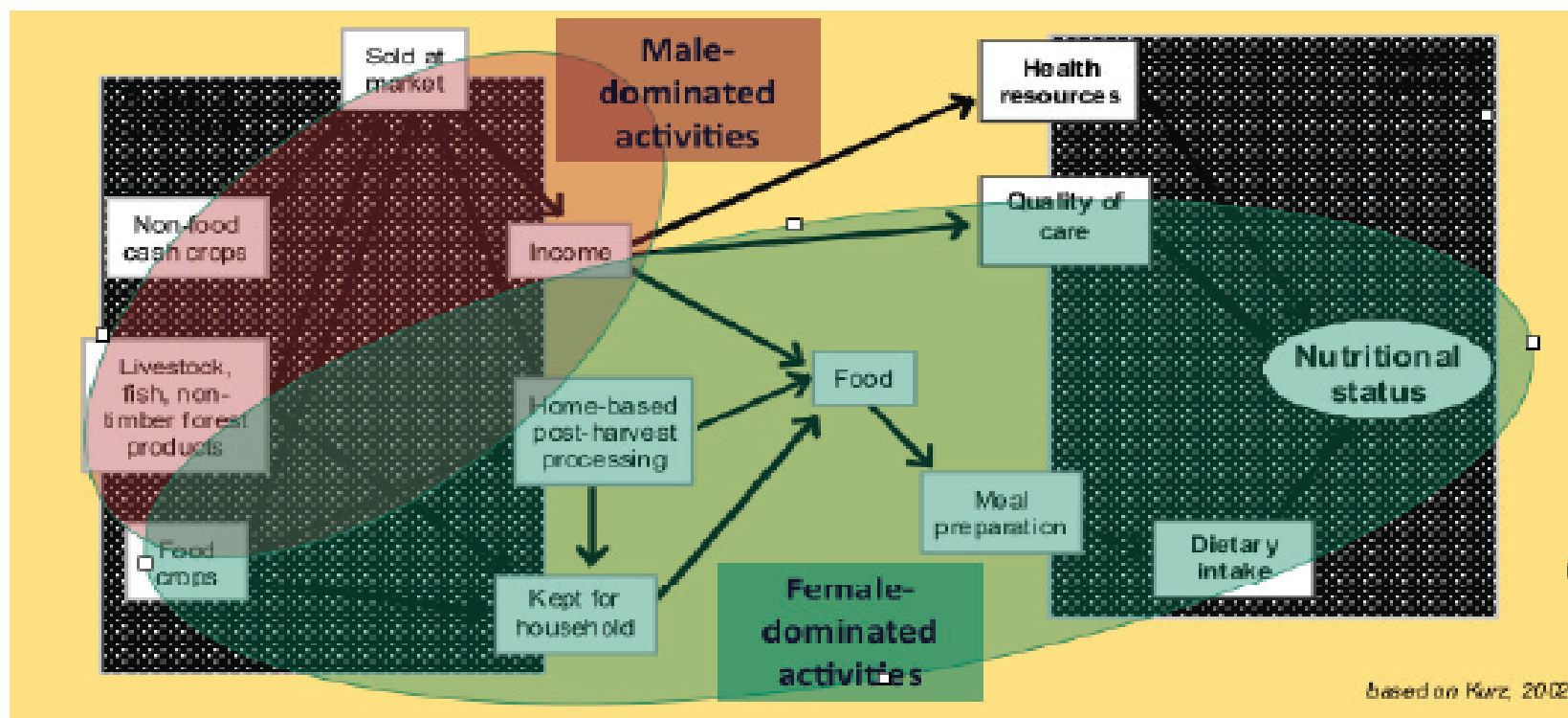
(may apply to Govt, NGOs, Donors)

Level	Function	Nutrition Sensitization	Operational Skills	Strategic Skills	Formative, Operations, Evaluative Research
National	Policy makers	✓			
	Ag Planners		✓	✓	
	Ag Managers		✓	✓	
	Ag M&E		✓		
	Researchers				✓

Household-Level Nutrition-in-Agriculture: Some Special Considerations

2. Household agricultural practices are complex: Gender

Figure 2.8. Simplified model of gendered pathways linking agriculture and nutrition



Adapted from Kurz, 2002 and used with permission from Dr. Todd Benson (2010).