Integrated Agricultural Research for Development
IAR4D—Innovation Systems

Innovation Platform (IP) processes
along value chains

Agricultural Innovation Systems (AIS)
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Dakar, Senegal
Integrating or linking IA4RD with innovation

• agricultural research working and learning together (social / institutional learning) with “end-users” and other actors in a value chain

• with other people and organisations (stakeholders) around the value chain whose contribution is needed to make the innovation a success

• ideally it is driven by end-user interests and originates from a joint initiative or common objective
Multi-stakeholder Participatory Processes

Systemic Facilitation \[\rightarrow\] Relationships through Interactions & Learning

Value chain

Product & Process Innovations of economic, social, environmental benefits
IAR4D—Innovation Systems from Principles/Concepts to Practice:

Examples of Innovation Platform (IPs) Framework & Models in the CORAF region
Framework for Multi-stakeholder Innovation Platform Processes

**Why**
- Common Purpose & Objective
- Multi-stakeholder & collective action driven
- Roles and responsibilities of the diverse economic and social actors
- Economic, social & environmental benefits

**Who**
- Producers
- Pastoralists Fisher folks
- Entrepreneurs
- Researchers
- Development practitioners / Extension
- Training institutions
- Policymakers
- Transporters
- Financial / credit institutions
- Media

**What**
- Complex interactions
- Knowledge flows
- Technologies
- Best-bet practice
- New idea
- Existing idea but applied in new ways
- Recognize innovation comes from many sources
- Context specific
- Gender responsive

**How**
- Approaches, Tools & Methods
- Quantitative & Qualitative data and information
- Iterative experiential learning and sharing of know-how
- Organized in new ways
- Roles & responsibilities of the actors agreed

**FACILITATION**
interactions & relationships to enhance performance
Climate Change Adaptation Innovation Platform Model

- Influencing Policy
- Evidence based analysis
- Strengthening capacity

Monitoring Evaluation & Peer Learning

Policy Making

interactions & relationships to improve policy making for climate change adaptation in Africa

FACILITATION
interactions & relationships to enhance performance
Phased IP Process Approach

Phase 1
Understanding problems from systems analysis and market chains approaches
Problems, linkages, interests, ideas
- Local participants: Interest
- R&D Organisations: Leadership
- Private sector: Interest

Phase 2
Systems improvements, value addition and market opportunities
Improving productivity and creating value
- Local participants: Collaboration
- R&D Organisations: Facilitation
- Private sector: Collaboration

Phase 3
Setting in place innovations
- New products
- New technologies
- New institutions
- New marketing outlets
- Local participants: Ownership
- R&D Organisations: Backstopping
- Private sector: Commercial opportunity and farmer support

SSA CP Innovation Platform (IP) Model
SSA CP Project at the KKM PLS in Nigeria: Innovation Platform (IP)

<table>
<thead>
<tr>
<th>Value chain</th>
<th>Sahel Taskforce</th>
<th>NGS Taskforce</th>
<th>Sudan Savannah Taskforces</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Livestock-feed</strong></td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Ram fattening trials</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>dual purpose pearl millet trials</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cereal/legumes livestock</strong></td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Fertilizer trial, soil &amp; water conservation, striga control, double cropping, etc</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Groundnut</strong></td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>rosette disease (GRD) control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source of P fertilizer for groundnut</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seed multiplication system</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fadama rice</strong></td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Variety, weed management, planting date, fertilizer, contour &amp; ridging</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fadama vegetable</strong></td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Tomato trials, Green Pepper, Nematode Control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>12</td>
</tr>
</tbody>
</table>

FARA: 0.9 – 2.0 ton/ha soybean representing 120% increase additional $500 per ha over 150,000 people reached in the KKM PLS in Nigeria
DONATA Project: Innovation Platform (IPTA) along maize value chain in Burkina Faso

IPTA 1: Farmers’ access to hybrid Bondofa & improved OPV Barka and Wari maize varieties and soil fertility enhancement

IPTA 2: Commercialization of hybrid Bondofa & improved OPV Barka and Wari seed & grain maize

IPTA 3: Maize product development and marketing

IPTA 4:

- Knowledge Hub
  Trust and confidence building critical for private sector operators

- Strengthened Capacity
  Monitoring, Evaluation & Peer Learning
DONATA Project: Maize value chain analysis IP in Burkina Faso

From Production to Markets

Maize value chain segmentation

Innovation Platform (IP) entry points

Key IP actor driving IP process

Producer preferred improved maize varieties

Quality seed and maize grain

Product development & marketing

i. Farmer access to and soil fertility enhancement of hybrid bondofa and improved OPV Wari & Barka maize varieties

ii. Hybrid bondofa & improved OPV Wari & Barka seed and grain maize marketing

iii. Maize grit and flour sales

Farmer organization FEPPASI

Farmer entrepreneurs

Processors and mini-markets

FCILITATION interactions and relationships to enhance performance
Setting-up Innovation Platform (IP) in DONATA

- **Technology / best-bet practice scaling-up and out**
  - Determine ecology/area to be covered

- **Stakeholder analysis including roles and responsibilities**
  - Select critical technology / best-bet practice to be promoted along segments of the value chain
  - Determine challenges / opportunities to be addressed
  - Establish platforms on priority segments as entry points of the value chain, and agree on role of actors for each segment
  - Determine ecology/area to be covered

- **Changes on actors behaviour and or Impact**
  - Farmers / Rural Communities
  - Agric-business / Processors
  - Policymakers
  - Advisory service
  - Research

Dissemination Pathways & Participatory Approaches
## Stakeholder analysis of the Maize value chain IP in Burkina Faso

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Key role</th>
<th>IPTA 1 (Seed, fertilizer access)</th>
<th>IPTA 2 (Production of quality seed)</th>
<th>IPTA 3 (Development &amp; marketing)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IPTA Focal Person / Organization</strong></td>
<td>Managing the IPTAs and accounting for funds</td>
<td>INERA</td>
<td>INERA</td>
<td>INERA</td>
</tr>
<tr>
<td><strong>Farmer organization</strong></td>
<td>Promoting seed and grain maize production by FAPPASI extension agents</td>
<td>FNZ / FEPPASI</td>
<td>FNZ / FEPPASI</td>
<td>FNZ / FEPPASI representative</td>
</tr>
<tr>
<td><strong>Agri-businesses</strong></td>
<td>Contracts to supply maize to local markets and national food reserves. Developing maize &amp; millet based products for the local market</td>
<td>ATCB, Association Provinciale des commerçants de céréales</td>
<td>ATCB SONAGESS CICB</td>
<td>ATCB, CTRAPA Djigui Espoir, Association Femme-Enfants plus, Etablissement Sapientia, CERFAS (La Céréalière du Faso)</td>
</tr>
<tr>
<td><strong>Transporters</strong></td>
<td>Facilitating collection and delivery of seed &amp; grain maize and inputs &amp; products</td>
<td>Association des transporteurs de la Sissili</td>
<td>Association des transporteurs de la Sissili</td>
<td>Transporteurs des Ouagadougou</td>
</tr>
<tr>
<td><strong>Public Extension</strong></td>
<td>Improving the technical skills of FEPPASI extension agents Assessing consumer preferences for maize &amp; millet products</td>
<td>DPAH</td>
<td></td>
<td>Anthropologist/Sociologist</td>
</tr>
<tr>
<td><strong>Research</strong></td>
<td>Training of extension agents and champion farmers Assessing nutritional changes in households</td>
<td>INERA</td>
<td>INERA</td>
<td>Nutritionist -- Département de la technologie alimentaire (DTA)/IRSAT, INERA</td>
</tr>
<tr>
<td><strong>Policy</strong></td>
<td>Enhancing trust and confidence building among IPTA actors</td>
<td>Local Government</td>
<td>Local Government</td>
<td>Ligue des consommateurs Direction de la nutrition du Ministère de la santé</td>
</tr>
<tr>
<td><strong>Media</strong></td>
<td>Sensitization and information dissemination among IPTA actors; Promoting the visibility of IPTA along maize value chain</td>
<td>ONG CREDO La RED/Sissili AIB</td>
<td>ONG CREDO La RED/Sissili AIB</td>
<td>National TV, national radio Burkina, Sidwaya (national state daily journal)</td>
</tr>
<tr>
<td><strong>Retail / Consumers</strong></td>
<td>Feedback on perceptions and consumer behavioural changes</td>
<td></td>
<td></td>
<td>Mini-markets / Superette</td>
</tr>
</tbody>
</table>
Key Results of the Maize Value Chain IP in Burkina Faso: From Production to Markets

Product development, marketing & consumption
- 11,579 tons of grain maize produced
- 50 tons grain maize processed into flour

Storage & marketing of quality grain maize
- 2,500 tons commercial grain maize to SONAGES, Poultry Farmers & ATCB @ CFA 150/Kg

Farmer seed entrepreneurs
- 220 tons certified seed maize @ CFA 500/Kg
<table>
<thead>
<tr>
<th>Year</th>
<th>Beneficiary</th>
<th>Average Yield (Tonnes/ha)</th>
<th>Total Production (Tonnes)</th>
<th>Marketing of A grade Grain maize (Tonnes)</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Grain Seed Grain Seed</td>
<td>Grain Seed</td>
<td>Grain Seed</td>
<td>Price</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Grain Seed Price US$ / Kg</td>
<td>Price</td>
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<td></td>
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<td>Grain Seed Grain Seed</td>
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<td>Price</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Grain Seed Price US$ / Kg</td>
<td>Price</td>
</tr>
<tr>
<td>2008</td>
<td>Not available</td>
<td>1.5 – 2.0</td>
<td>-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2009</td>
<td>700 : 530 Male 170 Female</td>
<td>2.5</td>
<td>2</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>2010</td>
<td>6250 : 4687 Male 1563 Female</td>
<td>3.5 – 5.0</td>
<td>2</td>
<td>4357.5</td>
<td>170</td>
</tr>
<tr>
<td>2011</td>
<td>(drought year) 8500 : 5600 Male 2900 Female</td>
<td>3.5 – 4.0</td>
<td>2</td>
<td>11759</td>
<td>220</td>
</tr>
</tbody>
</table>
Information Communication & Knowledge Flows

- Radio, TV
- Field Days & Fairs
- DVDs, CDs, Videos
- Print media
- Web eg. [www.coraf.org/technologie](http://www.coraf.org/technologie) and e-rails
## Skills Gap of Innovation Platform (IP) Actors: evidence base analysis

<table>
<thead>
<tr>
<th>NARIs</th>
<th>Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Skills offered by NARIs</strong></td>
<td><strong>Technical issues:</strong> seed production, fertilizer application, pests &amp; disease management, herbicide application &amp; weed control, pesticide application, planting method, animal drawn equipment, grain and product processing, rapid multiplication of cassava, inputs, communication (e-RAILS)</td>
</tr>
<tr>
<td><strong>Gaps/weaknesses of the NARIs</strong></td>
<td><strong>Product, quality and consumption issues:</strong> product formulation, quality control in Good Hygiene and Manufacturing Practices and the Hazard Analysis Critical Control Point (GHP/GMP, HACCP), enforced quality control of products, traceability &amp; provision of practical guides for processing and preservation, Marketing support to improve product visibility, Trade fairs to boost sales, promotion and advertisement for the consumption of local products, information communication &amp; ICT, tools, contracting for the supply of quality grains suitable for processing <strong>Innovation platform (IP) issues:</strong> governance &amp; policy, facilitation, mapping of value chain actors, value chain analysis and its performance, gender and equity, processing &amp; value addition, agri-business &amp; finance, price &amp; market information, transportation, inputs &amp; sustainability</td>
</tr>
</tbody>
</table>

CORAF—IITA 2012
Integrating Gender in Innovation Platform (IP)

- Analyze gender roles in value chains
- Identify entry points/niches along the chains for women & youth involvement

- Analyze knowledge/capacity needs, resources, access to technologies & best bet practice

- Acquisition of assets especially by women
- Create enabling conditions for women effective participation

- Monitor, learn and share experiences

Ranjitha
Lessons from facilitation

- Generally, Organisations or group of individual offer a wider skill set than an individual
  - Facilitation requires a wide-range of skills set
  - A person combining all required skills is rare, a team may be needed
- Organisation assures continuity
- A change of style and approach can be refreshing
- Level of independence / impartiality appreciated
- Once established the platform participants can over time assume facilitation roles
- Facilitation is highly involving, and as a result costly
Innovation Platform (IP) Impact Pathways

**Output**
- Improved stakeholder relationship, knowledge & information flow

**Immediate Outcomes**
- Identification of opportunities
- Needs articulation
- Conflict resolution
- Problem-solving
- Policy-advocacy
- Stakeholder organization

**Intermediate Outcomes**
- Improved services (i.e. research, advisory, etc.)
- Improved policies and decision making
- Improved system efficiency
- Business deals and new agricultural business operations
- Improved production and management practices

**Impact**
- Income increase
- Risk reduction
- Improve food security, welfare and livelihoods
Institutionalizing Innovation Platform (IPs) in CORAF Projects

**Sensitize, Inform & Train**

1. Extension Aids: videos, brochure, posters, leaflets, flyers, etc

Workshops, conference, seminars

2. Skills development training through **Community of Practice** less on Training of Trainers (ToT)

Use complementary skilled trainers

**Coach & Mentor**

3. Technical backstopping through learning by doing

Resource persons
- Champions of change at NARS
- Consultants

Technical & Management organizations
- ICRA, KIT, IFDC, ILRI, IITA, AfricaRice, NRI, GIMPA, Afrique Communication, etc

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Innovation Systems (IS) Literature

Peer Learning and Networking
Innovation Platform—LEARNING by DOING

• **Triple Track Process**
  – (i) Sensitize to create awareness and secure buy-in and ownership among actors
  – (ii) Train to inform and educate to enhance understanding and skills of actors
  – (iii) Coach and mentor champions of change and or actors to enhance applicability of the innovation platform (IP) tool in CORAF projects
  – Process has high cost implications

• **Minister of Science Technology & Innovation, Burkina Faso**
  – *I am convinced that innovation platform facilitates better organization of actors along value chains and the adoption of technology with great potential to contribute to wealth creation........... I am inspired to discuss with my colleagues in Government, the issue of organizational convergence using innovation platform to break the barriers to institutional convergence***
Acknowledgement

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Thank YOU