

Lessons Learnt: ZMM PLS Task Forces Perspective

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Background and Rationale

- ▶ The Zimbabwe –Mozambique-Malawi (ZMM) Pilot Learning Site (PLS) is designed to generate field-based evidence to contribute to testing the SSA-CP's over-arching hypotheses (H1-H6) as described in the programme's Medium Term Plan 2008-10.
- ▶ Central to the Integrated Agricultural Research for Development (IAR4D) approach is an **innovation platform** comprising stakeholders bound by their individual interests in a shared issue, objective, challenge or opportunity.

Background and Rationale...

- ▶ The ZMM PLS dominated by Maize-based mixed farming systems:
 - Maize is the staple food grain accounting for 60-70% of per capita calorie intake
 - Farmers grow maize because of food security concerns and wider adaptability
 - Achieving balanced nutrition, a major challenge, with women and children often the most vulnerable
- ▶ Focus on exiting the maize-poverty-trap

Why do we have a “maize-poverty trap”?

- Smallholder farmers’ yields are falling, soil fertility is declining and farmers are reverting to extensive production practices.
- Smallholder farmers have reduced levels of agricultural input use due to shortages of seed, fertilizer and agro-chemicals
- Mutually self-reinforcing mechanisms of increasing land degradation resulting in increasing poverty and increasing poverty, in turn, resulting in increasing land degradation.

Why do we have a “maize-poverty trap”?...

- Yield of the major crop need to increase from less than 0.5 t/ha to above 2 t/ha
- Farmers have to diversify to higher value crops, including fruits and vegetables

The Problem Setting

- Drought and market volatility: major sources of vulnerability
- High fertilizer-maize price ratios resulting from policy constraints
- Declining farm sizes and draught animal ownership
- Reduced labor supply due to HIV/AIDs
- Falling migrant remittances.
- Land locked countries versus stringent cross-boarder conditions: little trade and technology exchange
- Low productivity and high vulnerability encourages risk-averse agricultural strategies at all levels (including slash and burn agriculture), especially among the resource-poor households and in marginal areas

How can we deal with the crisis?

Good opportunities exist for long-term agricultural growth and poverty reduction through:

- Intensification of productivity
- Diversification into higher value cash crops livestock and off-farm income
- Current political environment offers opportunities for increased cross-border trade and technology exchange.
- Building functional markets and value-chains across national borders to create an environment for agribusiness development
- Enhancing the ability of producers to increase incomes and invest in new enterprise opportunities.
- Capacity building and knowledge initiatives targeted for members and beneficiaries

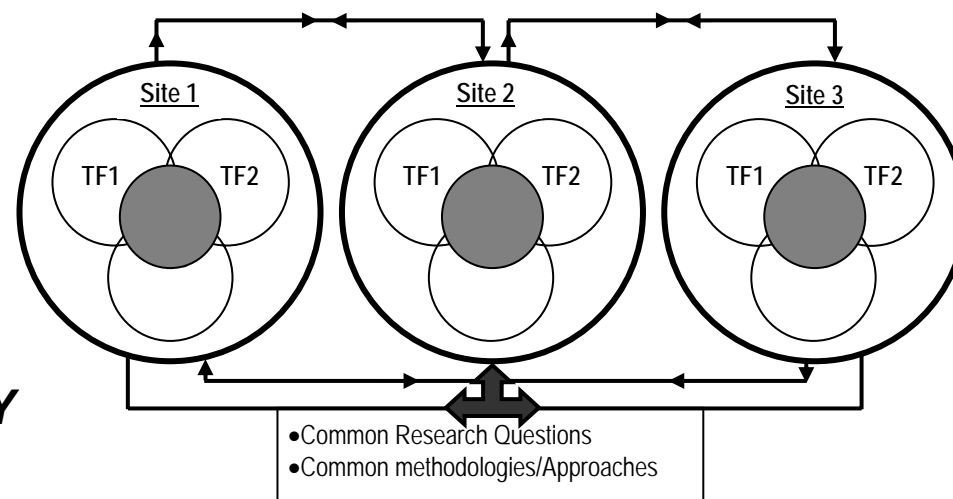
ZMM PLS Challenges: Responding to reduce vulnerability of smallholder farming systems by increasing productivity, efficiency of NR use, trade and knowledge spillovers in ZMM PLS and beyond

Expected Outputs

- 1. Stakeholder approved technologies for intensifying smallholder production systems developed and promoted**
- 2. Enabling institutional and policy options for sustainable integrated research for development practices evaluated and advocated**
- 3. Diversification options for market development and innovation evaluated and promoted**
- 4. Institutional and organizational capacity for knowledge management and learning and up-scaling enhanced**

Portfolio of ZMM PLS subprojects

1. **Integrating sustainable soil fertility management innovations in staple cereal systems and other value chains to enhance livelihoods and environmental systems in Southern Africa (led by SOFECSA-CIMMYT)**
2. **Improving human nutrition and income through integrated agricultural research on production and marketing of vegetables in Malawi and Mozambique (led by BIOVERSITY International)**
3. **Increasing the productivity, stability, sustainability and profitability of smallholder agriculture in vulnerable production systems through more efficient use of water and nutrients (led by TSBF-CIAT)**



Hard deliverables – What are the questions:

- What combinations of technological, institutional, policy and market innovations work?
- Do improved natural resource management, diversification and increased market-orientation of maize-based systems mutually reinforce each other in increasing productivity and reducing vulnerability?
- What institutional arrangements and policies best promote value chains while providing incentives for farmers to conserve natural resources?
- How can intra-regional and global trade be improved to promote value chains in priority areas and enhance agricultural productivity, profitability, income, employment, food and nutritional security?

Soft deliverables – What are the questions:

- What quality information and technical support do farmers need to improve their decision-making processes?
- What are the triggers for farmers to invest in collective action processes in NRM and input/output markets?
- What is the most effective way to establish, share and sustain KM systems?
- How does one establish functional innovation platforms?
- What incentives are necessary for individuals to participate in innovation teams, and to sustain that participation?
- How should the PLS and stakeholders go about influencing policy? What's wrong with the current mechanisms?
- Who needs what information to make changes, how do we package the required information, who should deliver it, who should receive it?

Alignment of ZMM PLS project with CGIAR System Priorities

ZMM PLS CGIAR Priorities

- 3a:** increasing income from fruit and vegetables
- 4c:** improving water productivity
- 4d:** promoting sustainable agro-ecological intensification in low- and high potential areas
- 5b:** making international and domestic markets work for the poor.
- 5d:** improving policies and facilitating institutional innovation to support sustainable reduction of poverty and hunger

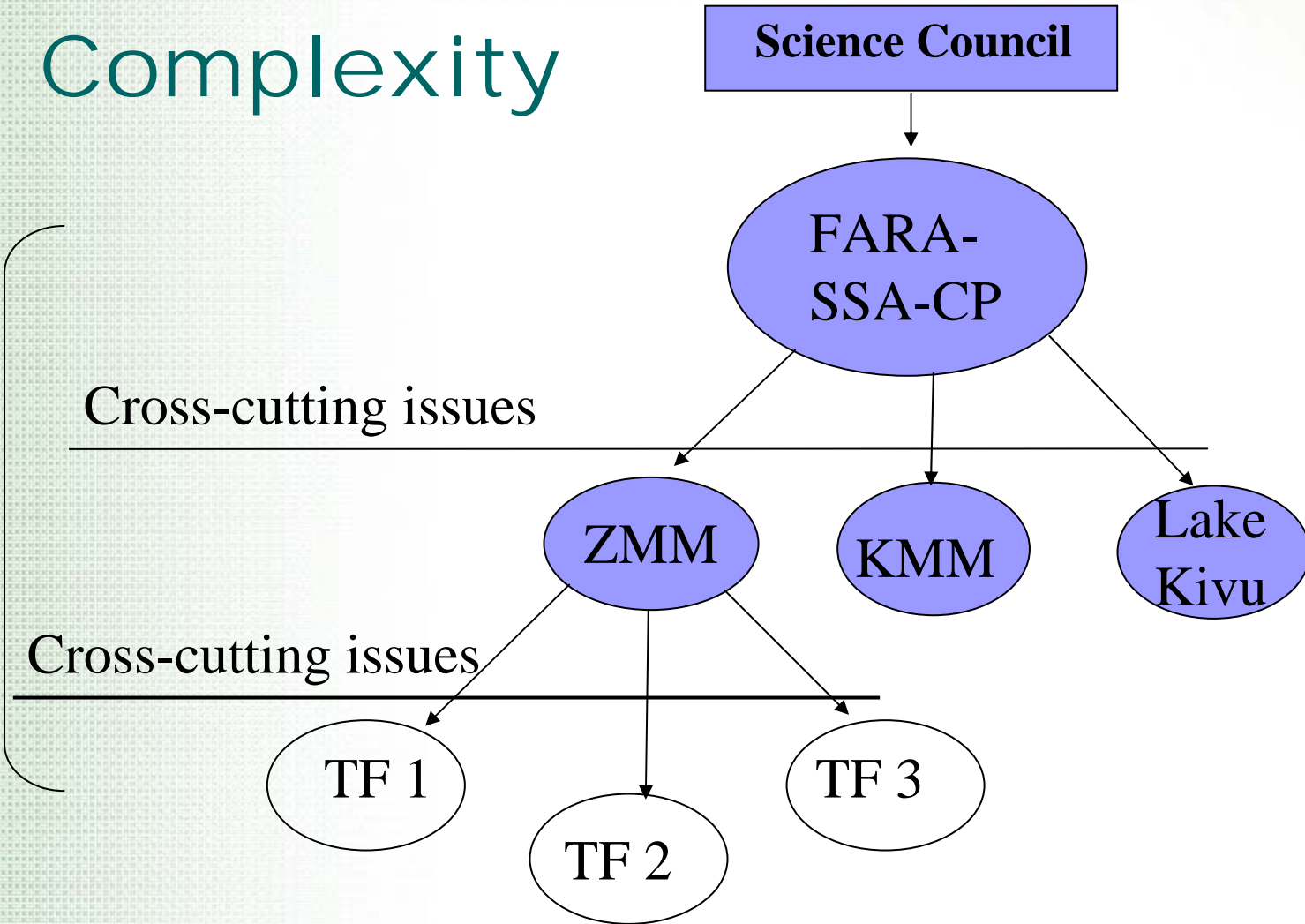
Impact pathway

1. **Catalyzing the development of innovation systems** for direct impact on target rural households and communities in the research sites
2. **Scaling-out of the innovation system** concept and of technological innovations to other communities, districts and regions within and/or outside the PLS
3. **Scaling-up by multi-national agribusiness firms, research organizations**, international NGOs, regional organizations and governments through transfer of results and experiences beyond the PLS and
4. **Influences of advocacy and lobbying** leading to governments changing policy practices and removing institutional and policy constraints.

Lessons Learnt... The challenges

1. Complexity

Meta-Analysis? Tools?



Multi-institutional & inter-disciplinary partnerships

Complexity.....

- Challenges in providing links across the different layers – programme-level functional framework
- How to managing the M&E and Impact Assessment process

2. IAR4D as an expensive process

- Committed and consistent participation of all (involvement non-agricultural institutions) – cost implications
- Mechanisms for keeping the momentum and enthusiasm – the establishment of innovation platforms requires funds from the onset
- Time taken out of other alternative initiatives
- Understanding of the IAR4D by various partners

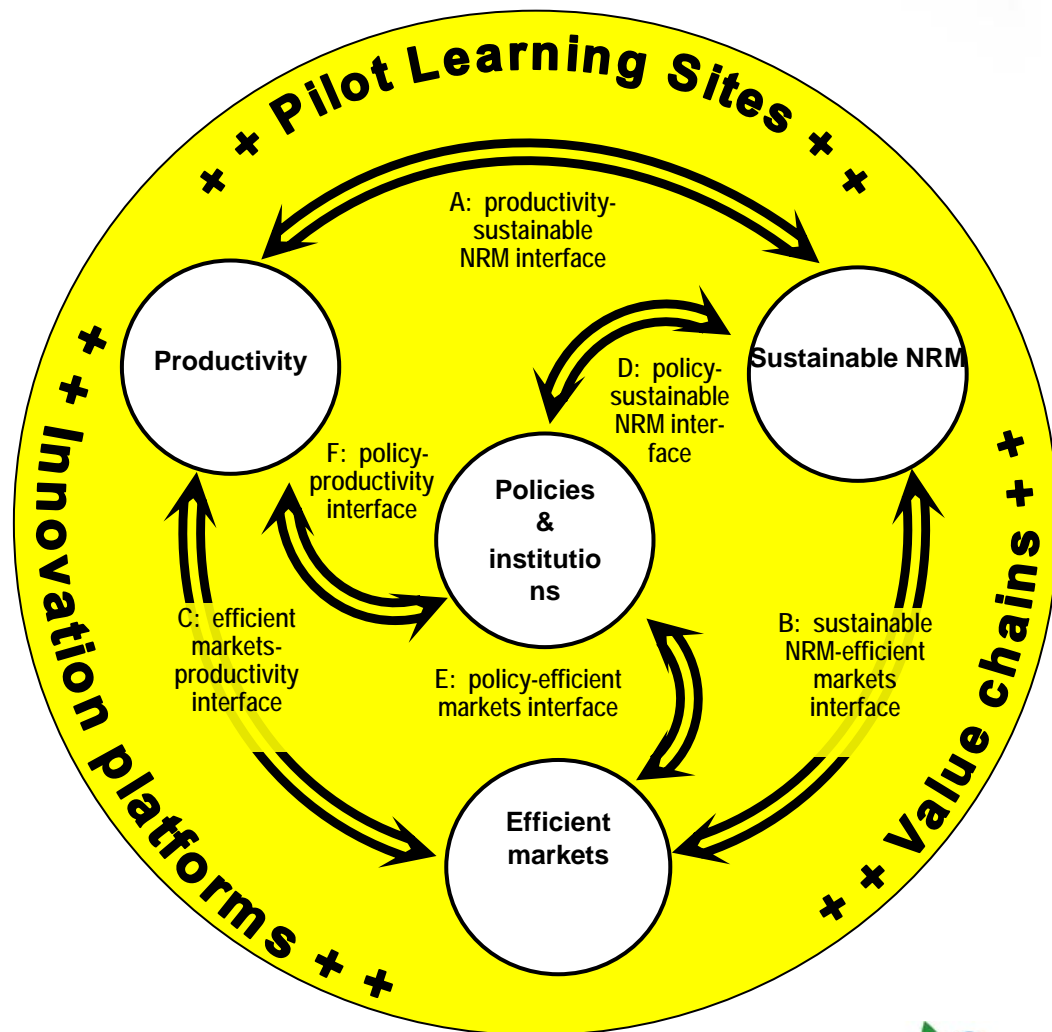
3. Importance of good scientific leadership

- Understanding of the IAR4D by various partners
- TF's happy about the leadership demonstrated by FARA through the SSA-CP Programme Coordination Unit
- Science Council –derived recommendation to focus on the interfaces

Framework for the research agenda

Research on INTER-FACES

- Innovation platforms
- Value chains



4. Opportunities for linking to other initiatives

- A number of other on-going initiatives by partner institutions
- Linkages to FARA initiatives beyond the SSA-CP
 - ▶ Regional Agricultural Information & Learning Systems (RAILS)
 - ▶ Building Africa's Scientific and Institutional Capacity (BASIC)
 - ▶ Dissemination of New Agricultural Technologies in Africa (DONATA)

THANK YOU