

**SUB SAHARAN AFRICA CHALLENGE PROGRAMME IN THE SADC:
ZIMBABWE-MOZAMBIQUE- MALAWI PILOT LEARNING SITE**

**Fourth Quarterly Technical Report for the Research Phase 1
April – 30 June 2008**

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Fourth Quarterly Technical Report for the Research Phase 1 April 2008-30 June 2008

Introduction

This report describes plans and implementation of activities and results for 1 April to 30 June 2008. The Sub Saharan Africa Challenge Programme Coordinating Unit's commentary on the reports submitted by the ZMM PLS Lead Institution and Task Forces for January to March 2008 recommended that the first reporting quarter begin in the 1 January to March 2008 period. This is because implementation of most field activities started in January 2008. Because this report builds on activities initiated during July 2007 to 31 December 2007 and reported in the First Semi Annual Technical Report for the Research Phase, we will, for completeness, refer to this report as the fourth quarterly report.

i. Activities planned and results expected by the end of the reporting period

Activities planned during the reporting period 1 April to 30 June 2008 include

- Select focal village communities within experimental and comparison Districts. Visit selected village communities, classify village communities into "clean" for assignment to IAR4D and non IAR4D non conventional treatment and "non clean" villages for assignment to conventional research and extension approaches. IAR4D villages to be drawn from only IAR4D Districts. Non IAR4D non conventional treatment villages and conventional research and extension approaches villages to be drawn from comparison Districts (in the same District).
- Baseline surveys of Innovation Platform and comparison Districts that have been assigned and collect pre-treatment characteristics of the Districts (Questionnaire pre-testing, enumerator recruitment and training, field administration, data entry and analysis, report write up)
- Baseline surveys of households in focal villages for IAR4D, non IAR4D non conventional and conventional research and extension approaches treatment villages (Questionnaire pre-testing, enumerator recruitment and training, field administration, data entry and analysis, report write up)
- Baseline environmental outcome indicators e.g., soil fertility measures, including taking soil samples
- Capacity building of Task Force members for Innovation Platform facilitation
- Innovation Platform testing, building capacity of existing IPs and new ones, and PM & E implementation
- Develop a coherent ZMM PLS research programme

- Support out scaling and up scaling of IAR4D, innovation platforms and interactions
- Conduct orderly handover of the ZMM LI functions to SADC FANR

ii. A description of both the research and project management activities carried out during the period of reporting

1: Selection of focal village communities within experimental and comparison Districts

The Conservation Agriculture Task Force developed a more elaborate framework and practical procedures for guiding multi stage stratified random selection of focal villages (Annex 1). This was shared with the other Task Forces. The framework was used to guide village selection in the IAR4D and non IAR4D comparison Districts in Zimbabwe, Mozambique and Malawi.

2: Baseline surveys of Innovation Platform and comparison Districts

Checklist questions for collecting baseline data from IP members during meetings and questionnaires for collecting data from individual members of IPs and equivalent players in comparison districts in order to benchmark levels of practices and indicators of outcomes at the IP level were designed and tested. It was decided to implement the questions and questionnaires to collect Innovation Platform level data during IP meetings when they are organised in the next quarter in September and October 2008.

3: Baseline surveys of households in focal villages for IAR4D, non IAR4D non conventional and conventional research and extension approaches

The questionnaires for collecting data at the household, plot and community levels to benchmark levels of practices and outcomes targeted under the IAR4D programme were designed and pre-tested. The training of enumerators and supervisors was carried out by the Conservation Agriculture Task Force. Conservation Agriculture completed implementing the household and plot level baseline surveys in Malawi. The CA Task Force also started implementing the surveys in Mozambique (Barue and Maringue) and Zimbabwe.

The Soil Fertility and Vegetables Task Forces decided to postpone the household, plot and village level baseline surveys to September and October 2008 in the next quarter. This is because most of the farmers in the ZMM PLS had not completed marketing their crops harvested during the main rainy season, and farmers who grow vegetables during the out of season period still had their crops in the field. The timing of household baselines in September and October will permit collection of more complete and accurate data especially for vegetables growing and marketing.

4: Baseline environmental indicators

During the SSA-CP ZMM PLS Review and Planning meeting in Harare 28-30 November 2007 the Science Council requirement of "properly targeted research on the interface of the processes driving productivity gains, efficient use of resources, the care of the environment and the policies and the markets to contribute IPGs through technical and policy options" was discussed. Changes in soil fertility measures in farmers' field were identified as the major indicators of the environmental outcomes. It was argued during that meeting that this was routinely done by the Task Forces as part of their on farm research process. Participants at the meeting agreed that a specialist group of technical experts (soil scientists and agronomists) be constituted and meet during the research methods and PM & E workshop to identify appropriate indicators and methods for their measurement. However this was not discussed during the PM & E meeting organised in Harare 12-15 February 2008.

The Conservation Agriculture and Soil Fertility Task Forces plan to conduct soil sampling and testing through their on farm participatory trials and demonstration plots. The issue presents a rather different challenge to the Vegetables Task Force because vegetables are a niche crop planted in niche environments. Sampling will be very difficult, and will depend on how farmers select vegetable plots and how often they change location. There is a need to plan how it will be done during the next activity period. There is also a need to ensure that soil samples and testing are carried out on representative parcels of the sample households in the focal villages included in the baseline surveys.

5: Capacity building of Task Force members

The Soil Fertility Task Force organised a capacity building monitoring and evaluation workshop 16-18 June 2008 in Harare to train its members on concepts and principles of PM & E focusing on outcome mapping. SOFECSA developed harvesting and data collection protocols and trained extension, farmers and IP actors in monitoring, harvesting and data recording from experiments. SOFECSA conducted field based workshops for participatory characterisation of IP functions in relation to identified problems and opportunities for increasing staple cereal production. SOFECSA organised learning tours and workshops involving farmers, IP members and other stakeholders to visit experiments and learning centres.

The Vegetables Task Force organised 30 farmer members of two groups in two of the five focal villages (15 from each group) to visit Bvumbwe Research station during its field day. The farmers were exposed to new technologies and products.

6: Innovation Platform testing

The Soil Fertility Task and Conservation Agriculture Task Forces continued with low intensity implementation and evaluation of IPs started in the 2006/07 season in readiness for random assignment of treatments under the IAR4D proof of concept starting this coming, 2008/09, cropping year. The Soil Fertility and Conservation Agriculture Task Forces completed farmer participatory field trials initiated at the beginning of the season. These Task Forces carried out field days to assess and screen the technological and institutional options being tested in readiness for large scale testing under IAR4D.

The Vegetables Task Force established nurseries for two of the five groups or villages in Zomba. These are providing village innovation platforms for field testing of new varieties and agronomic practices in order to identify technological, organisational and market innovations for linking farmers to urban based cash markets and for testing under IAR4D. The varieties consist of seven tomato varieties, green pepper, African egg plant and jute marrow varieties introduced from AVRDC and two newly released tomato varieties in Malawi.

7: Coherent ZMM PLS research programme

The LI Coordinator and Task Force leaders drafted the narrative and financial plan for the ZMM PLS for the SSA CP MTP for 2009-2010. The LI Coordinator participated in the workshop to review the first draft of the SS CP's MTP for 2009-2010 20-24 April 2008 at FARA Headquarters, Accra, Ghana.

8: Out scaling and up scaling of IAR4D, innovation platforms and interactions supported

The LI Coordinator participated in the SADC Multi Country Agricultural Productivity Programme Steering Committee Meeting in Gaborone, Botswana, 29 May 2008. The meeting received and discussed an update on SADC MAPP and the Centre for Agricultural Research and Development for Southern Africa (CARDESA), SADC MAPP transition and pre-implementation plan, update on the SADC MAPP Brussels meeting and the new role of the SADC MAPP Steering Committee.

The LI Coordinator participated in the Alliance for a Green Revolution in Africa Senior Policy Makers and Private Sector Convening for Policies for Achieving Africa's Green Revolution: Agenda for Action, held 23-25 June 2008 in Nairobi, Kenya. The meeting (1) received information from public policy makers, private sector, farmers' organisation representatives, policy analysts where AGRA can support to move the agenda forward; (2) reviewed policy constraints on productivity growth and food security; (3) synthesised policy lessons for Africa from Asian Green Revolution; (4) prioritised policies and institutional arrangements for achieving the Green Revolution in Africa; (5) identified critical constraints to effective policy development and implementation (national and regional and how to address them); (5) developed a draft policy action agenda

for AGRA; and (6) made recommendations about how AGRA should support national governments in improving policies for implementation of the Green Revolution.

9: Orderly handover of the ZMM LI function

The IITA DDG R4D (Dr Paula Bramel), the Director R4D for Southern Africa (Dr David Chikoye) and the LI Coordinator met on 30 May 2008 with the SADC FANR Directorate: Mrs Margaret Nyirenda (Director SADC FANR), Dr Keoagile Molapong (Senior Programme Manager-Agricultural Research & Development), Dr Patrick Tawonezwi (SADC Multi country Agricultural Productivity Programme Preparation Team Leader), Dr Monica Murata (Technical Assistant, Project Monitoring and Evaluation). The meeting discussed programmes and areas of collaboration between IITA and SADC FANR and changes in ZMM PLS site for moving the LI administration to SADC FANR.

iii. Results achieved during the reporting period

A number of results were achieved during the reporting period. These include:

1: Selection of focal village communities within experimental and comparison Districts

Selection of focal villages was completed in seven of the 12 IAR4D districts and three of the 12 non IAR4D comparison Districts. In Zimbabwe political activities associated with the harmonised elections in March 2008 and the presidential run off election in June 2008 made it difficult to implement selection of focal villages. Table 1 presents villages selected by district and Task Force.

	Conservation Agriculture		Soil Fertility		Vegetables	
	IAR4D	Comparison	IAR4D	Comparison	IAR4D	Comparison
Malawi	Balaka (5)	Blantyre (5)	Zomba (5)	Chiradzulu (5)	Zomba (5) Thyolo (5)	Phalombe (0) Mulanje (5)
Mozambique	Barue (5)	Maringue (0)	Barue (5)	Macossa (0)	Barue (5) Milanje (0)	Guro (0) Morrumbala (0)
Zimbabwe	Murehwa (0) Wedza (0)	Marondera (0) Chikomba (0)	Makoni (0) Wedza (0)	Nyanga (0) Mutasa (0)		
Total	2	1	2	1	3	1

2: Baseline surveys of Innovation Platform and comparison Districts

The checklist questions for collecting data from IP members during the meetings and questionnaire for benchmark levels of social interaction and knowledge from individual members and equivalent members in comparison Districts were completed and pre tested.

3: Baseline surveys of households in focal villages for IAR4D, non IAR4D non conventional and conventional research and extension approaches

The Conservation Agriculture Task Force completed household, plot and village or community level interviews in Balaka and Blantyre. A total of 150 households was interviewed: 50 households in Balaka (IAR4D District) and 100 in Blantyre consisting of 50 households from non IAR4D and conventional focal villages and 50 households from nonIAR4D non conventional villages.

4: Baseline environmental indicators

There is a need to monitor this activity more closely during the next quarter.

5: Capacity building of Task Force members

Capabilities and skills of some Task Force members and IP players in experimentation, data collection, monitoring and evaluation and analysis have been strengthened in readiness for the IAR4D proof of concept. The members include researchers, farmers, extension agents, representatives of NGOs, agricultural input and output marketing firms and other IP players.

6: Innovation Platform testing

Models and protocols have been developed for moving Innovation Platforms from theory to practice, a shared understanding of what IAR4D Innovation Platforms are all about and formulating hypotheses about the effects of IAR4D in farmers' fields for testing of the proof of concept. Technological options that are feasible, relevant, practical, profitable and adoptable under varying smallholder farmer conditions and complementary institutional and market innovations have been screened in readiness for large scale testing under the IAR4D proof of concept.

7: Coherent ZMM PLS research programme

ZMM PLS narrative and financial plans were completed and included in the SSA CP MTP for 2009-2010.

8: Out scaling and up scaling of IAR4D, innovation platforms and interactions supported

Connectivity has been established between SADC MAPP and the SSA CP ZMM PLS programme priorities and approaches for each programme to contribute and benefit from the other. SADC MAPP is focusing on thematic areas rather than components:

1. Farmer empowerment and market access: market chains and value chains
2. Research and technology generation: what are the gaps, what are the current technologies, what are the needed technologies?
3. Extension: Are there technologies in the region which can be scaled up?
4. Agricultural education: How to sustain agricultural system that sustains critical mass? How relevant is the education?
5. ICT

6. Institutional capacity building. This is the creation of an SRO using MAPP to create an SRO that will run the MAPP. This is being created in broad terms. The next stage is how to translate plans into real activities. There is a need to identify work in commodities and livestock, identify the gaps and set priorities.

There is much within the models and understanding of IAR4D and Innovation platforms that has been developed under the SSA CP ZMM PLS which are highly relevant to SADC MAPP. SADC MAPP provides institutional mechanisms for taking IAR4D Innovation Platforms to scale if their value to smallholder African agricultural development can be credibly demonstrated.

In a similar vein, the Alliance for a Green Revolution in Africa meeting in Nairobi developed a conceptual framework and understanding of key concepts for launching a successful farmer led Green Revolution in Africa. This includes technological, institutional, organisational, market and policy ingredients of a Green Revolution, smart subsidies, institutional experimentation drawing from agricultural systems innovation approaches, social learning for widespread diffusion of innovations, platforms and brokerage to bridge structural holes in local, regional, national, sub regional and Africa wide agricultural systems. AGRA provides institutional mechanisms with significant potential for taking to scale Innovation Platforms being identified, developed and promoted under the SSA CP if their value can be demonstrated.

9: Orderly handover of the ZMM LI function

Options for orderly handover of the ZMM PLS LI functions to SADC FANR were identified for further discussion and analysis.

iv. Challenges and lessons learned during the period and risks that may affect future implementation of the project

The major challenges are;

- Difficulties coordinating activities among different Task Forces and Task Force partners with differing interests indifferent components of the programme. Some Task Force partners are reported as failing to perform their planned functions after receiving initial advance payments
- Delays by Task Forces in submitting technical and financial reports which, in turn, results in late submission by the LI of technical and financial reports
- Political activities in Zimbabwe that have affected implementation of field activities, including completion of on farm trials, random selection of focal villages, construction of sample frames and selection of households for interviews

- The economic situation in Zimbabwe presents problems for the design of the computer data entry forms. High inflation means that price data on the survey questionnaire needs to be captured by the date of expenditure and the prevailing parallel market exchange rate to convert to United States dollars equivalents. The data entry forms for Zimbabwe questionnaires need to be set up differently to allow the input of both price and exchange rate variables
- Soil sampling and testing procedures to establish benchmark levels of indicators of environmental outcomes need to be developed and implemented

v. Actions taken or to be taken to resolve the challenges and risks

To resolve these challenges, better coordination of activities among Task Forces is proposed by introducing standardised forms for monitoring and recording implementation of IAR4D research activities and writing up technical reports. These are included in Annex 2.

vi. Resources used during the period of reporting

These are reported in the accompanying financial reports.

vii. A brief description of activities planned for the next quarter

The following activities are planned for the next quarter:

- Complete construction of sampling frames (village population lists) and selection of households at the village level
- Complete training of enumerators and supervisors
- Complete baseline data collection, implementation of baseline surveys
- Data entry, cleaning and analysis
- Start report writing and drafting of journal papers
- Innovation platform formation in the randomly chosen sites for the proof of IAR4D concept
- Workshops and planning meetings: Task Force review and annual planning meetings in September and October 2008
- Support out scaling and up scaling of IAR4D, innovation platforms and interactions
- Conduct orderly handover of the ZMM LI functions to the SADC/FANR

vii. Acknowledgement of SSA CP funders and FARA

The contributions of FARA and its donors including the EU, DFID, Italian government, and Norway are acknowledged.

ANNEXES

Attached as separate files

Annex 1: Practical procedures for guiding multi-stage stratified random selection of focal villages developed by CA Task Force

Annex 2: Proposed forms for monitoring and reporting implementation of IAR4D research activities

Annex 3: TSBF CIAT report

Annex 4: SOFECSA report

Annex 5: Bioversity International report