

ANNOUNCEMENT AND CALL FOR PAPERS

SADC LAND AND WATER MANAGEMENT APPLIED RESEARCH AND TRAINING PROGRAMME

2nd SCIENTIFIC SYMPOSIUM

Tentative Venue: Kasane, Botswana
Tentative Dates: 14 – 17 February, 2007

THEME

“OPPORTUNITIES TO INCREASING WATER USE AND WATER USE EFFICIENCY IN AGRICULTURE IN SEMI-ARID AND ARID AREAS OF THE SADC REGION”

Background/Introduction

The Land and Water Management Applied Research Programme is one of several regional agricultural research programmes which operate under the auspices of the Agricultural Research and Training Unit of the Food, Agriculture and Natural Resources Directorate of the SADC Secretariat. The Agricultural Research and Training Unit is responsible for coordination of agricultural research and training programmes in the SADC region. Land and water management issues were identified by SADC Member States as being of major regional significance for several reasons. Food security is regarded a regional priority and is intimately tied up with water availability for agricultural production. With increasing population pressure and the need for intensification of production to generate food surplus, sustainability of soil and water resources has become a major concern. Finally, land and water management issues, except within the narrow confines of soil conservation have suffered considerable neglect, and soil conservation services in the region have been established outside of the National Agricultural Research Institutions. Research facilities are limited and the ability of trained research and extension staff is generally inadequate. Hence, SADC Member States are interested in building research and training capacity through this Programme.

The primary beneficiaries of the programme are smallholder farmers in the SADC region who will benefit from dissemination of improved land and water management technologies and practices in order to achieve sustainable agricultural production. Through encouragement of close liaison between different types of institutions and integration of research, extension services and farmer requirements, the programme will bring together government agencies, universities, farmers' groups, NGOs and the private sector. Involvement of this variety of institutional actors will increase the profile of land and water management issues in their activities and cross-sectoral and cross-country learning.

Objective of the Programme

The overall objective of the Programme is to increase the availability of improved and appropriate land and water management technologies to research and development institutions in the SADC region for subsequent dissemination to farmers, particularly small-holder farmers. The mounting of a regional scientific symposium is one of the

activities envisaged to ensure more participation by relevant personnel in the SADC region in the land and water management research and development information exchange network.

Abstract for Scientific Symposium

The SADC region has seen renewed attempts to revive the agricultural sector at a macro policy level through pronouncements to increase budgetary commitments by Member States to 10% of annual budgets. It is envisaged that much of this revival will occur through increased trade, market integration, production of food crops, livestock and other rangeland products by the region's peoples. It is also generally acknowledged that much of this revival will take place in part through increased research and development efforts. Increasing agricultural production is linked to increasing access to water and increasing water use efficiency by the region's small-scale farmers, more so in semi-arid and arid areas where the majority of the region's small scale farmers reside.

Over the last few decades, at a broader level there have been extensive revisions to policy and institutional frameworks intended to address how water resources can be developed, allocated and managed as well as to increase water use efficiency especially in relation to agriculture. Managing both supply and demand are capital intensive in arid areas, a resource which smallholder farmers lack hence emphasis is often put on low cost works/technologies including *in situ* water harvesting practices and use of surface run-off. The critical question to be posed in such circumstances therefore is what are the opportunities to increasing water use and water use efficiency? This second Scientific Symposium will bring together R&D practitioners from 10 SADC Member States on the continental mass to deliberate on the theme of the symposium and how the most recent advances in land and water management R&D can be made relevant to policy and decision makers as well as to the region's small-scale farmers. The SADC Secretariat invites contributions of symposium papers which should be guided by the five sub- themes indicated below which were identified by the Regional Steering Committee. Case study material should be brought to bear in the papers in order to clarify the complexities in dealing with these issues.

Sub-Themes

Sub-Theme 1: Policy and institutional aspects affecting agricultural water use

The changes in policy and institutional frameworks referred to above, in brief, refer to changes that have led to a re-orientation towards emphasising cost recovery measures, the economic value of water, decentralized management, promotion of stakeholder participation, a move away from supply orientation to demand management, a move away from public provision of water towards mixed types of provision, the promotion of efficiency and equity and not least the development of allocative and conflict management mechanisms. After several decades of implementation, it is now important to critically examine the performance of such policies from the perspective of whether or not they have facilitated the following especially in arid areas of Southern Africa:

- development of water resources for smallholder farmers;
- promotion of increased access and use of water by smallholder farmers;
- promotion of efficiency in the use of water;

- promotion of suitable institutional arrangements for smallholder farmers which promote appropriate use of water,
- promotion of water management technologies that help women and vulnerable groups such as the HIV-AIDS affected.

Sub-Theme 2: Legislation and regulations guiding common water resources use and management

Smallholder farmers are heavily reliant on common water resources largely because of the communal nature of the land tenure systems. Literature on common resources argues that appropriate legislative and governance arrangements (including policy and institutional arrangements) can ensure effective use and management of common water resources including mediation of conflicts within and across communities. These arrangements also need to deal with conflicts across tenure boundaries such as between communal lands and private farms. Again, there has been long experience in attempts to foster appropriate common water resources management and hence the need to bring case study material to bear in critically examining whether such legislative arrangements have facilitated the following:

- effective management of common water resources;
- promoted increased use of common water resources; and
- effectively mediated conflicts across uses, communities, and tenure types.

Sub-Theme 3: Utilisation of available technologies to ensure environmental sustainability especially in rangelands

The need to invest in environmental measures in order to ensure sustainability of communities and ecological processes in arid areas is critical. These investments can include the management of groundwater, recycling of water, reducing water losses, protection of catchments eg. headwater afforestation, erosion control, wetlands protection, etc which are all critical in arid areas in order to increase efficiency of water use. So also is the development of water harvesting techniques that are appropriate for and can sustain rangeland-dependent livelihood strategies. Analysis of investments in environmental sustainability needs to be cast within an integrated water resources management perspective and within it to understand the downstream impacts of such investments especially in terms of ecological services eg. control of soil erosion, the regulation of the water cycle, biodiversity conservation, conservation of aesthetic and cultural values, etc. How successful has been the use of such technologies and what chances are there of scaling up such initiatives? Another dimension to ensuring environmental sustainability is the ability to anticipate and plan for mitigation of climate change and other future threats. To what extent are technologies being developed which could be of use in mitigating such future threats?

Sub-Theme 4: Land management and crop selection

The development of land management and crop selection practices that are suitable for arid environments is key in increasing water utilisation (improvements in soil moisture) and hence increasing agricultural productivity in these arid environments. Such practices include but are not limited to water saving techniques such as tillage practices, uptake of irrigation technologies which improve efficiency of water use,

development of crops which are more efficient in utilisation of the little water available, etc. Investments in these land management and crop selection practices/ techniques/technologies are important in so far as their absence can compromise or diminish investments in water development. Again, analysis of investments in land management and crop selection might need to be cast within an integrated water resources management perspective and within it to understand the downstream impacts of such investments. How successful has been the use of such technologies and what chances are there of scaling up such initiatives?

Sub-Theme 5: Socio-cultural and marketing issues in increased water use

The production of different varieties of livestock suitable for arid areas, forestry and other rangeland products eg. fruits and charcoal, high value crops, and development of markets (local, national, regional) for these agricultural/natural resources products is key in sustaining increased water use in arid environments. More so under prevailing economic conditions where the economic value of water, and at the very least cost recovery measures, are promoted in the provision and use of water in agriculture. These developments entail substantial changes in the way that production is organised in smallholder families hence the need to understand any socio-cultural practices that might act as opportunities and/or barriers in the choice of production strategies in moving towards high value crops and natural resource products and increased participation in markets.

Deadline for Submission of Full Papers

The deadline for submission of full papers is set at 30 November 2006. Other arrangements and logistics will be communicated in due course.

Symposium Contacts

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Schedule of Submission of Papers

1 September 2006 latest: Announcement and Call for papers
30 November 2006: Deadline for submission of full papers
14 – 17 February 2007: Hosting symposium