

Research Projects on Climate Change and Food Security in the SADC Region

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“Understanding the linkages between climate change, human health, water and food security: research and knowledge sharing for southern Africa”

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Purpose of the Study

Bearing in mind the projected impacts of climate change on food security in southern Africa...

1. to synthesize the results of recent research on climate change and food security within SADC, and
2. to map the institutions that operate in the region linked to climate change and food security

Report Outline

List of Acronyms

Executive summary

1 Introduction

2 Climate change and food security-evolution of the debates within southern Africa

2.1 Evidence for climate change

2.2 Projected future changes in climate

2.3 Projected impacts of climate change

2.4 Approaches to food security

2.4.1 Food security analysis

2.4.2 Entitlement approach

3 Linking climate change and food security: the food systems approach

4 Synthesis of research gaps/opportunities for DDRN

5 Conclusion and recommendations

6 Research capacity in southern Africa

7 REFERENCES

Appendix: a selection of other important regional actors with regard to climate change and/or food security

Current thinking on climate change and food security: food systems approach

- Sees food systems as a coupled environmental-social system
- Allows recognition that climate change does not only affect food production, but also other aspects of the system (transport, distribution, storage, etc)
- Also useful for recognising the multiple drivers of food insecurity (climate change, conflict, HIV and AIDS, governance, markets...)

Defining Institutions

- Research Programmes/Networks/Knowledge Platforms
- Institutions where there is a recognised research group (i.e. more than one person) undertaking research on both climate change and food security

But also included:

- Summary of universities that have had staff involved in research programmes/networks/knowledge platforms

The Provisos and Boundaries

In considering research programmes/ networks/ knowledge platforms we have not included:

- those that are concerned *solely* with climate change or food security
- national level initiatives that address climate change and food security – these tend to be actual development interventions rather than having a research component (e.g. adaptation projects with funding from multilateral or bilateral donors)
- national government ministries that are concerned with climate change and/or food security

Programme Name	Programme Type	Dates	SADC Countries
Assessments of Impacts and Adaptations to Climate Change (AIACC)	Global funding initiative	2001-current	Botswana Mozambique Seychelles South Africa
Capacity Strengthening of Least Developed Countries for Adaptation to Climate Change (CLACC)	International network	2004-current	Malawi Mozambique Tanzania Zambia Zimbabwe
Climate Change Adaptation in Africa (CCAA)	Regional donor-led funding programme for research projects	2006-current	Madagascar Malawi South Africa Tanzania Zambia Zimbabwe
Famine Early Warning Systems Network (FEWS NET)	US-funded technical assistance initiative	1985-current	Malawi Mozambique Tanzania Zambia Zimbabwe

Programme Name	Programme Type	Dates	SADC Countries
Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN)	Southern African network	2002-current	Angola Botswana Lesotho Swaziland Mauritius Malawi Mozambique Namibia South Africa Tanzania Zambia Zimbabwe
Food Insecurity and Vulnerability Information and Mapping Systems (FIVIMS)	UN inter-agency working group	2000-current	Madagascar Mozambique Namibia South Africa
International Council for Science – Regional Office for Africa (ICSU – ROA)	Non-governmental (research) organisation	2005	Sub-Saharan Africa

Programme Name	Programme Type	Dates	SADC Countries
Global Environmental Change and Food Systems (Southern Africa) (GECAFS-SAF)	International research programme	2001-2011	Angola Botswana Lesotho Malawi Mozambique Namibia South Africa Swaziland Zambia Zimbabwe
International Food Policy Research Institute (IFPRI)	Research institute of CGIAR	1975	Malawi South Africa Zambia
International Institute for Environment and Development: Climate Change Group (IIED)	Independent international research organisation running several programmes	2001	Developing countries

Programme Name	Programme Type	Dates	SADC Countries
Regional Climate Change Programme (RCCP)	Regional programme for southern Africa funded by DFID	2009-2014	SADC, especially Malawi Namibia Tanzania Zambia
Regional Hunger and Vulnerability Programme (RHVP)	Regional programme for southern Africa funded by DFID	2005-2010	Whole of SADC
Southern Africa Regional Poverty Network (SARPN)	Regional network/NGO	2001-current	Whole of SADC
Southern African Development Community Regional Vulnerability Assessment Committee (SADC-RVAC)	Multi agency regional committee	1999	Whole of SADC
Southern African Vulnerability Initiative (SAVI)	Regional research programme and network	2003	Southern Africa

Detailed Information provided on Research Programmes/ Networks/ Knowledge Platforms

- Programme title
- Programme type
- Contact details/key personnel
- Country/ies
- Agencies involved/partnerships
- Year started
- Programme description
- Programme aims and objectives
- Outputs

Universities/Research Institutes/NGOs with research capacity in climate change and food security

Botswana	University of Botswana
Lesotho	University of Lesotho
Madagascar	Universite d'Antananarivo
Malawi	Coordination Unit for the Rehabilitation of the Environment (CURE) Civil Society Agriculture Network (CISANET) Malawi Polytechnique University of Malawi
Mozambique	Centro Nacional de Cartografica e Teledeteccao Action Group for Renewable Energies and Sustainable Development Eduardo Mondlane University
Namibia	Namibia Economic Policy Research Institute
Swaziland	University of Swaziland
Zambia	Energy and Environmental Concerns for Zambia Agricultural Consultative Forum (ACF) University of Zambia

South Africa	Council for Scientific and Industrial Research (CSIR) Economic Policy Research Institute (EPRI) University of Cape Town (Climate Systems Analysis Group) University of the Free State University of KwaZulu Natal University of Limpopo University of Pretoria University of the Witwatersrand
Tanzania	Economic and Social Research Foundation Environmental Protection and Management Services Institute for Resource Assessment Sokoine University of Agriculture
Zimbabwe	Midlands State University ZERO Regional Environmental Organisation University of Zimbabwe

Key observations from this mapping exercise

- Impressive array of research programmes – but how effective are they?
- A large amount of technical information exists – but does it get to the people who need to know it?
- Disproportionate role of South African institutions in the region
- Always ongoing research needs

Recommendations for DDRN involvement

1. Act as a *boundary organisation* between technical information services and various end-users to ensure dissemination of research-based knowledge (improving communications)
 - *Ensuring seasonal forecasts are disseminated to farmers*
 - *Ensuring food security alerts are disseminated to donors and relevant national government departments*

Recommendations for DDRN involvement

2. Providing technical assistance to government departments through exchange visits and skill-share visits

- *Building capacity to understand and make use of appropriate information available to them*
- *Providing a link between government departments and international research findings*
- *Providing training on climate change – as a cross-cutting issue – to a variety of different government departments*
- *Building awareness of international funding opportunities and partnerships*

Recommendations for DDRN involvement

3. Building research capacity with regards to climate change, especially outside of South Africa
 - *Working with existing researchers whose work is relevant to climate change even if they do not realise it, for example in, inter alia, agriculture, geography, biology or economics departments*

Recommendations for DDRN involvement

4. Research gaps

- *Market influences on food systems
(particularly topical given the 2008 food
price crisis)*
- *The role of biofuels*

Conclusions

- *Mainstreaming consideration of climate change into other arenas, rather than trying to address it as standalone, is imperative.*
- *DDRN consider placing their research and technical capacity in an existing programme in order to revive/continue it.*

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