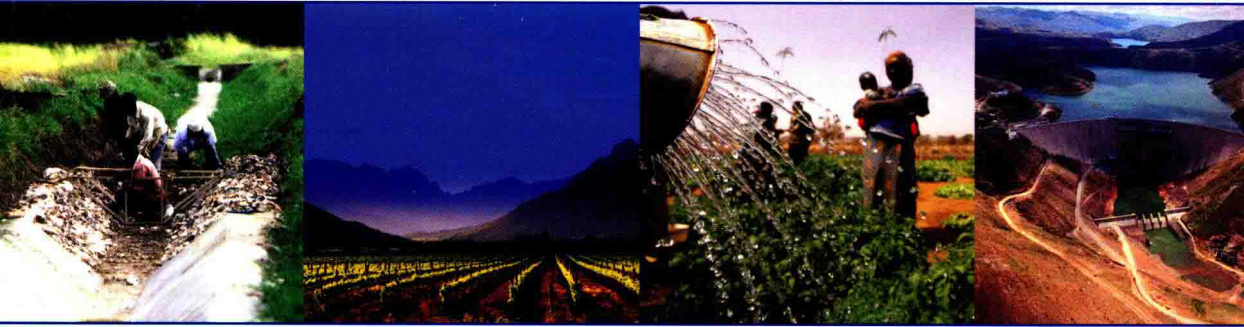




Water for agriculture and energy in Africa The challenges of climate change

Report of the ministerial conference
15-17 December 2008
Sirte, Libyan Arab Jamahiriya





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- The African Union (AU)
- The African Development Bank (ADB)
- The African Ministers' Council on Water (AMCOW)
- The Economic Commission for Africa (ECA)
- The New Partnership for Africa's Development (NEPAD)
- The International Water Management Institute (IWMI)
- The United Nations Convention to Combat Desertification (UNCCD)
- The Sahara and Sahel Observatory (OSS)
- UN-Water
- UN-Water/Africa
- UN-Energy/Africa
- The Islamic Development Bank (IDB)
- The World Bank (WB)

The Sirte 2008 Conference on Water for Agriculture and Energy in Africa: the Challenges of Climate Change would not have been possible without the energy and dedication of its Secretariat, established in the Land and Water Division of FAO and operated both at its Headquarters and in Sirte.

The contribution of all those who presented papers, chaired plenary sessions and participated in the sessions, the round tables and side events of the Conference as well as in the Regional Workshops during the preparatory stage are gratefully acknowledged. Their inputs, support and participation were instrumental to the success of the Conference.

An integral component of the Sirte 2008 Conference outputs was the preparation of the National Investment Briefs (NIBs) that represented each country's estimated investment needs in water for agriculture and energy in the short, medium and long term. Thanks and appreciation are due to the many individual experts from all African countries for their generous contributions to the preparation of the briefs.

Conference core task team

Parviz Koohafkan (Conference Executive Secretary, Director of Land and Water Division, FAO); Omar Salem (Chair of General Water Authority, Libyan Arab Jamahiriya); Edson Mpyisi (Head of Agriculture and Food Security Division, African Union Commission); Maher Salman (Conference Officer,

Land and Water Division, FAO); Catherine Gaury, Claudia Casarotto, Alba Martínez, Mariem Dkhil and Samia Touati (Conference Support Staff); and other Staff Members of Land and Water Division at FAO in close collaboration with representatives of the Libyan Arab Jamahiriya, AU, AMCOW, NEPAD, AfDB and UNECA as members of the Conference Steering Committee.

Publication production team

Art direction: Nicoletta Forlano

(Communications and Information Manager, Land and Water Division, FAO)

Graphic design: James Morgan (Web and Print Designer, Land and Water Division, FAO)

Acronyms and abbreviations

ACPC	African Climate Policy Centre
ADB	African Development Bank
ADEA	Association for the Development of Education in Africa
AfDB	African Development Bank
AFREC	Africa Energy Commission
AGRA	Alliance for a Green Revolution in Africa
AgWA	Agriculture Water Partnership
AMCEN	The African Ministerial Conference on the Environment
AMCOW	African Ministerial Council on Water
AMESD	Africa Monitoring the Environment for Sustainable Development
AR4	Fourth Assessment Report (AR4) of the United Nations Intergovernmental Panel on Climate Change (IPCC)
ARR	Annually Renewable Resource
AU	African Union
AWF	African Water Facility
CAADP	Comprehensive Africa Agriculture Development Programme
CAS	Country Assistance Strategies
CBFF	Congo Basin Forest Fund
CDM	Clean Development Mechanism
CEN-SAD	Community of Sahel-Saharan States
CICOS	Commission Internationale du Bassin Congo-Oubangui-Sangha
ClimDev-Africa	Climate Development in Africa Programme
cm	centimetres
CNR	Compagnie Nationale du Rhône
CWRAS	Country Water Resource Assistance Strategies
DFID	United Kingdom Department for International Development
EADS	East African Development Bank
EC	European Commission
ECCAS	Economic Community of Central African States
EIA	Environmental Impact Assessment
EUMETSAT	European Meteorological Satellite
FAO	Food and Agriculture Organization of the United Nations
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GCM	Global Circulation Model
GEF	Global Environment Facility
GHG	Greenhouse gasses
GTZ	German Technical Assistance
GW	Gigawatt
HDI	Human Development Index
ICA	Infrastructure Consortium for Africa
IBWT	Inter Basin Water Transfer
ICID	International Commission on Irrigation and Drainage
IDB	Islamic Development Bank

IFAD	International Food and Agriculture Organization
IFC	Infrastructure Consortium for Africa
IFI	Infrastructure Financial Institutions
IFPRI	International Food Policy Research Institute
INGA	International Network on Genetics in Aquaculture
IPPC	International Panel on Climate Change
ISFP	FAO Initiative on Soaring Food Prices
IUCN	International Union for the Conservation of Nature
IWRM	Integrated Water Resources Management
JS	Joint Secretariat
km	kilometres
LCBC	Lake Chad Basin Committee
LDC	Least Developed Countries
LHP	Large Hydropower Plants
MDG	Millennium Development Goals
MDTF	Multidonor Trust Fund
mm	millimetres
Mtoe	Millions tonnes oil equivalent
NEPAD	New Partnership for Africa's Development
NERICA	New Rice for Africa
NIB	National Investment Briefs
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
OMVG	Organisation pour la Mise en Valeur du Fleuve Gambie / Gambia River Basin Development Organisation
OPEC	Organization of the Petroleum Exporting Countries
PPP	Public Private Partnership
PRSP	Poverty Reduction Strategy Papers
REC	Regional Economic Communities
ROPPA	Le Réseau des Organisations Paysannes et des Producteurs Agricoles de l'Afrique de l'Ouest / Network of Farmers' and Agricultural Producers Organisations of West Africa
RPCLB	Regional Parliamentary Committee of Lake Chad Basin
RWSSI	Rural Water Supply and Sanitation Initiative
SAP	Strategic Action Plan
SHP	Small Hydropower plants
SME	Small Medium Enterprises
SMI	Small Medium Industries
SOFI	State of Food Insecurity (in the World, FAO)
TDA	Transboundary Diagnostic Analysis
TWh	Terawatt hour
UNDESA	United Nations Department of Economic and Social Affairs
UEMOA	West African Economic and Monetary Union
UNECA	United Nations Economic Commission for Africa
UNEP	United Nations Environment Programme
UNSO	United Nations Sudano-Sahelian Office
USAID	United States Agency for International Development

WADB	West African Development Bank
WB	World Bank
WEC	World Energy Council
WWF	World Water Forum

Foreword

Efforts to achieve the hunger and poverty reduction targets reflected in the Millennium Development Goals call upon the international community, particularly FAO and its partners, to assist member countries and the rural poor in facing new global challenges of rising food prices, water scarcity, energy demand and the impact of climate change on food and agriculture. Within this context, FAO, as the chair of UN-Water, jointly with the African Union and the Government of the Libyan Arab Jamahiriya, took the lead in the process which culminated in the Conference on Water for Agriculture and Energy in Africa: the Challenges of Climate Change organized in Sirte, Libya in 2008. The process addressed food and energy security in Africa through a convergent approach which integrates four critical resource factors – water, energy, technology and knowledge – considering the actual and forecasted scenarios for climate change as the premise and framework for action.

Essential to the process was the identification of investment needs as well as existing and potential financial mechanisms to harness the development of water for agriculture and energy in Africa. The Sirte Conference was a great opportunity to address the financial aspects of water development in Africa, both in terms of costs and sources of funding, within the framework of the Comprehensive Africa Agriculture Development Programme (CAADP) and to ensure that investment commitments are made or confirmed by national governments, bilateral, regional and international financing institutions.

Building on the NEPAD-CAADP estimates that US\$37 billion would be needed in investments for land management and water control in Africa between 2002 and 2015, the preparatory work to the Sirte Conference approved a detailed portfolio of about 1 000 projects and programmes for investment in water control for agriculture and energy in the 53 African countries, with a total budget of US\$65 billion spread over twenty years.

The Sirte Conference was attended by over 400 officials including 37 Ministers and representatives of various United Nations organizations and civil society. The Conference unanimously approved the Sirte 2008 declaration reaffirming African governments' commitment to agricultural development and called for urgent and increased investment in water to meet the continent's growing food and energy demands.

To mobilize the financial support required for water development for agriculture and energy in Africa, adequate follow-up activities should be planned and, as stated in the final declaration, a road map and a mechanism to monitor and evaluate the implementation of the Sirte Declaration are to be designed and implemented.

The scaling up and phasing of the investments into short, medium and long-term priorities - as identified in the CAADP update and by the Sirte Ministerial Conference - should remain relevant for many years to come, certainly for most of sub-Saharan Africa. What is, however, now compelling is to build on the work of the Sirte Conference and to effectively boost investment in water development to achieve food and energy security in Africa. By making such investments a political and financial priority, the international community and the countries concerned would contribute to achieving the targets of meeting the growing demand for food, alleviating poverty

and sustaining economic growth. Just as African countries committed to allocate at least 10 percent of national budgetary resources agriculture and rural development in the 2003 Maputo Declaration on Agriculture and Food Security, development partners will need to increase investment in the water sector to help broaden and accelerate the recent economic and agricultural growth recovery process.

Food and energy security and achievement of the Millennium Development Goals (MDG) cannot be accomplished without substantial investment and donor support for water development in Africa. A road map showing the path for the implementation of commitments made, timely mobilization of financial resources, capacity building and technical assistance is urgently needed in a joint effort led by the African Union, NEPAD and African Development Bank in collaboration with FAO and all other development partners. Such an effort would ensure not only high levels of financial investment allocation but also greater efficiency in planning and delivery.

Jacques Diouf
Director General of FAO
Food and Agriculture Organization of the United Nations
Rome, April 2010

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Date and place of the Conference

The Ministerial Conference on Water for Agriculture and Energy in Africa: the Challenges of Climate Change was held in Sirte, Libyan Arab Jamahiriya, from 15 to 17 December 2008.

Inaugural ceremony

Mr Jacques Diouf, Director-General of FAO, welcomed the honourable delegates and observers, and expressed his profound gratitude to His Excellency Colonel Muammar el Ghaddafi, Guide of the Revolution, who, well aware of the importance of agriculture, water and energy for the African continent, had kindly agreed to host this Conference in Libya. The Director-General also thanked the Libyan Government and people for the warm welcome and generous hospitality extended to the participants. He stated that five years after the 2004 Sirte Conference on integrated and sustainable development of agriculture and water in Africa, it was time to review progress made and to discuss the short, medium and long-term actions that were needed to ensure the food and energy security of the continent.

His Excellency Abu Baker Al-Mansouri, Secretary of the General People's Committee of the Authority for Agriculture, Animal Wealth and Marine Resources of the Libyan Arab Jamahiriya, welcomed all participants. He stressed the importance of water for food security and the need to develop the untapped hydroelectric potential of the African continent. Recalling the Maputo Declaration, he called for increased investment in water for agriculture.

Her Excellency Rhoda Peace Tumusiime, African Union (AU) Commissioner for Rural Economy and Agriculture, thanked the Government of Libya and FAO for the partnership with the African Union in convening this important Conference in a context of food insecurity, climate change, rising cost of energy and financial crisis. She indicated that the Commission was working through the New Partnership for Africa's Development (NEPAD) Secretariat and with development partners on a number of initiatives aimed at mitigating the effects of high food prices, and improving agricultural production, productivity and food security. Investments should develop water resources to enable community-based irrigation, modernize existing irrigation and drainage systems, and replace and augment storage capacity in reservoirs and groundwater basins.

His Excellency Bruno Jean Richard Itoua, Chairman of the African Ministerial Council on Water (AMCOW), expressed his gratitude to the Libyan Arab Jamahiriya, AU and FAO for inviting AMCOW to be a member of the Steering Committee of the Conference. Recalling the successive declarations of AMCOW related to water supply and sanitation in Johannesburg, Brazzaville (2007), Tunis and Sharm El Sheikh (2008), he stressed the need to develop water resources for agriculture, energy and socio-economic development in Africa.

Mr Aly Abou-Sabaa, Director of Agriculture and Agro-Industry of the African Development Bank (AfDB) indicated the Bank's commitment to: i) increase irrigation and storage capacity by at least 8.5 billion m³ over the period 2009-2013 and; ii) accelerate the development of hydropower by