

# The Abdus Salam International Centre for Theoretical Physics







Joint ICTP-TWAS Workshop on "Regional Climate Change & Impacts Modelling for Critical Assessment & Adaptation Strategies in Agriculture & Water Sectors over Horn of Africa"

20 - 24 June 2011

# hosted by IGAD Climate Prediction & Applications Center (ICPAC) Nairobi, Kenya

The Abdus Salam International Centre for Theoretical Physics (ICTP), Trieste, Italy, along with the IGAD Climate Prediction & Applications Center (ICPAC), Nairobi, Kenya is organizing a Workshop on "Regional Climate Change & Impacts Modelling for Critical Assessment & Adaptation Strategies in Agriculture & Water Sectors over Horn of Africa", to be held in Nairobi, Kenya, from 20 to 24 June 2011.

#### SUMMARY AND PURPOSE

Seasonal and inter-annual climate variability, in addition to climate extremes and long-term climate change has critical implications on agricultural productivity and water resources over the Greater Horn of Africa (GHA). But, as critical as these two sectors are to the socio-economic and environmental well being of the region, there is emerging evidence of more frequent and severe droughts and floods that are often accompanied by increased water stress and acute food shortages. The incidences of frequent droughts and floods are also setting back meaningful economic development in the region as most states are forced to redirect resources planned for economic development towards response and management of climate-related risks and disasters. Therefore, integrating and mainstreaming climate change information necessary for various adaptation options in specific-sectors, especially agriculture and water, into regional economic development plans is now more than ever before a critical factor in achieving sustainable development over the GHA.

The primary objective of the proposed workshop is to contribute and enhance capacity of the IGAD Climate Prediction and Applications Center (ICPAC) in generating and delivering appropriate climate information for impacts and vulnerability assessments, as well as developing a robust framework of climate change adaptation options in the two key economic-driving sectors over the GHA; water and agriculture. The workshop activities will cover fundamental issues on the theory and use of regional climate modeling for generation of regional climate change scenarios; customization of climate change scenarios of specific climatic variables to specific-sectors and specific user communities; characterization and understanding uncertainties in regional climate scenarios.

### <u>PROGRAMME</u>

The programme will consist of very limited lectures, but many tutorials and hands-on sessions. The participants will be familiarized with how climate change scenario information can be integrated with crop and hydrologic models to generate future outlooks for crop productivity (yields) and also water resources availability, including changes in stream flow for the main river channels.

Participants will have a hands-on experience and familiarization with some of the state-of-the-art crop and hydrologic models. In addition, the workshop activities will cover fundamental concepts on the theory and use of regional climate models for generating regional climate change scenarios; customization of climate change scenarios for the agriculture and water sectors in support of adaptation strategies.

### **PARTICIPATION**

Climate, Agricultural and Hydrological Scientists and Engineers from all countries from Africa, and particularly from the Greater Horn, who are Members of the United Nations, UNESCO or IAEA may apply. The Workshop will be conducted in English therefore participants must have an adequate working knowledge.

As a rule, travel and daily subsistence expenses of participants are borne by their home institutions; limited funds are, however, available for some participants, from and working in a developing country, will be selected by the Organizers. Such financial support is available only to those attending the entire activity. Every effort should be made by candidates to secure support for their travel fare (or at least part of the fare). There is no registration fee to be paid.

# **REQUEST FOR PARTICIPATION**

The application form can be accessed at the activity website <a href="http://agenda.ictp.it/smr.php?2278">http://agenda.ictp.it/smr.php?2278</a>
Once in the website, comprehensive instructions will guide you step-by-step, on how to fill out and submit the application form before 30 March 2011.

# ACTIVITY SECRETARIAT:

Secretary: Ms. Gabriella De Meo Telephone: +39-040-2240-355 Telefax: +39-040-2240-585

E-mail: <a href="mailto:smr2278@ictp.it">smr2278@ictp.it</a> ICTP Home Page: <a href="http://www.ictp.it/">http://www.ictp.it/</a>

# **HOSTED BY:**



ICPAC Nairobi, Kenya

#### **DIRECTORS:**

A. Zakey (DMI, Copenhagen, Denmark)

**R. Anyah** University of Connecticut, USA)

LOCAL ORGANIZER in Kenya:

**L. Ogallo** (ICPAC/University of Nairobi, Kenya)

### **LOCAL ORGANIZER:**

**F. Giorgi** (ICTP, Trieste, Italy)

# **INVITED LECTURERS:**

Adrian Tompkins (ICTP)
Tefera-Diro Gulilat (ICTP)
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Joseph Nzau Mutemi (UON)
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**DEADLINE** for requesting participation

30 March 2011