

Advanced Workshop on CLIMATE CHANGE AND AGRICULTURE

**Shefayim, Israel
03– 14 May 2015**

1. Introduction

The IMS/WMO RTC Bet Dagan of the Israel Meteorological Service has provided training at a post-graduate level since 1967. Several thousands of participants from all over the world, mainly from developing countries, have taken advantage of the opportunities provided by our RTC to study the application of meteorology to various aspects of economic activity.

The topics of this workshop are in accordance with the concept of the Global Framework for Climate Services (GFCS), where agriculture is one of the four key areas selected by the High Level Taskforce of GFCS.

Since Israel was successful with developing agriculture, despite the negative impact of its climate and water resources scarcity on its agricultural production, many of the methodologies developed during the years could be used also for mitigating the results of climate change and increasing the agricultural production.

This workshop will demonstrate advanced methodologies and techniques developed in order to compensate for the impact of unfavorable climate conditions on agricultural production. It will introduce Israel's knowledge in various fields such as: (i) Irrigation under changing climate conditions (ii) Microclimate Control in Agricultural Buildings (iii) Forecaster-Farmer Interaction (iv) Cultivation of crops resistant to Climate Change, etc.

The workshop's curriculum will include a combination of classroom lectures, exercises, demonstrations, field trips and round-table discussions.

2. Workshop Objectives

- a) To discuss the effects of climate change on different fields of agriculture and agricultural production.
- b) To demonstrate modern agrometeorological techniques and methods for mitigating the effects of climate change.

3. Learning Outcomes

After the workshop, participants will be able to:

- a) Communicate the existing and potential effects of climate change to the agricultural stakeholders in their country or region.
- b) [Make rRecommendations to](#) agricultural stakeholders on advanced irrigation methods for efficient water usage
- c) Use GIS and remote sensing for decision making
- d) Advise government officials on soil conservation and eco-agricultural strategies.

- e) Improve the work of the forecasting units in their services and strengthen the provider-user relations between the forecasters and other professional staff with the local farming communities.

4. Main Workshop Content:

Effects of climate change on agricultural production:

- Precipitation distribution and changes
- Extreme events – floods, droughts, frost and heatwaves
- Phenological effects
- Pest and disease effecting agricultural yields

Agrometeorological techniques:

- Evapotranspiration (Penman-Monteith) and advanced irrigation methods
- Usage of marginal water
- Climate control in horticulture and livestock buildings
- GIS and remote sensing as integrative tools for decision making
- Soil conservation (increase soil degradation caused by intensive precipitation)
- Eco-Agriculture (the coexistence between the agriculture and natural environment)

Forecast and risk management for improving agricultural production:

- Weather and Climate forecasts and their impact on agriculture
- Usage of Economical Tools for mitigating the impacts of climate change

5. Participation cost

The airfare cost should be covered by the participant, by his/her employer, or by the granting institution. The total cost of lodging at full board for single in a double room during the duration of the workshop, including tuition fees and field trips transportation will amount to app. 270\$ per day (incl. insurance). Total for the whole period is 2700\$.

6. Scholarships

Scholarships, covering accommodations at full board (two persons per room) during the duration of the workshop, tuition fees and field trip transportation will be provided for participants from developing countries, by the Government of Israel – MASHAV – Israel's Agency for International Development Cooperation.

7. Criteria

The advanced workshop is designed primarily for meteorological staff of National Meteorological and Hydrological Services engaged and interested in application of advanced agrometeorological methodologies and techniques in mitigating the effect of climate change.

8. Language

The workshop will be held in English. A working knowledge of English is mandatory. All the relevant candidates will be interviewed by local representatives of MASHAV in their countries.

9. Training Staff

The workshop will be conducted by senior staff of the IMS/WMO RTC Bet Dagan having extensive knowledge and experience in Climatology, Agrometeorology and Agronomy, in Israel and elsewhere. Invited guest lecturers will also participate in providing and sharing their knowledge and experience in specific fields of expertise.

10. Visa Information

Most of the participants will require a visa in order to enter Israel. For additional information - <http://mfa.gov.il/MFA/ConsularServices/Pages/Visas.aspx>

The required time for obtaining a visa varies from country to country, but might take up to a few weeks. For participants flying through other countries, an additional entrance visa for these countries may be required.

11. Registration

Interested candidates are requested to complete the attached Participant Application Form for the workshop and return it directly to RTC Bet-Dagan, Israel Meteorological Service, P.O. 25 Bet-Dagan 5025001 Israel, to rmtc@ims.gov.il or to gershsteing@ims.gov.il not later than the 15 March 2015.