



STATE OF ISRAEL



Israel's Agency for International  
Development Cooperation  
Ministry of Foreign Affairs



CINADCO - Centre for  
International Agricultural  
Development Cooperation,  
Ministry of Agriculture and  
Rural Development



ARO – Agriculture Research  
Organization,  
Ministry of Agriculture and  
Rural Development

**MASHAV - Israel's Agency for International  
Development Cooperation**

**with**

CINADCO - Centre for International Agricultural  
Development Cooperation, Ministry of Agriculture & Rural  
Development and the ARO – Agriculture Research  
Organization, Ministry of Agriculture & Rural Development

invite professionals  
to participate in the

**International Course:**

# **Agriculture and Environment in a Changing Climate – The Israeli Perspective**

**November 26<sup>th</sup> – December 15<sup>th</sup>, 2017**



## About the Course

### Background

The increase in atmospheric greenhouse gases over the past 150 years and their influence on climate has become major contemporary concerns. In the Eastern Mediterranean, climate models predict increased temperatures and decreasing rainfall in the coming decades. This can lead to profound impacts on the environment, and requires adaptation steps in all sectors, including agriculture, to prevent detrimental results.

Israel has semi-arid and arid climates, and suffers from frequent drought years. Pressure on Israel's water resources has challenged its aquifers both in quantity and quality. In order to maintain its intensive agricultural production under these harsh conditions there has been a constant drive to (a) increase water use efficiency by utilizing improved understanding of soil properties, crop water use, and atmospheric demand for evapotranspiration, (b) to use new resources (e.g. marginal water) and (c) to develop new techniques and methodologies that enable the practice of sustainable agriculture. Solutions adopted include improved irrigation practices, methods to use different types of water (e.g. treated sewage effluents, ground and desalinated water), amendment of soils with composted sewage sludge, breeding of varieties that thrive on marginal water and innovative structures, like screen houses, to provide economical climate control. At the same time attention has been given to the environmental aspects of these practices so as to prevent contamination of soil and aquifers.

### Aims

Upon their return to their home countries, it is expected that participants should be able to:

- Initiate and conduct research needed for improving crop water use and irrigation.
- Initiate and conduct research needed for optimizing the use of marginal waters (saline and treated sewage) for irrigation for a wide range of crops with minimal risks to the environment.
- Contribute to the scientific knowledge on these subjects in their home countries.
- Maintain the scientific relations formed during the course and implement combined agricultural projects and joint research between Israel and their respective organizations.

### Main Subjects

- Introductory aspects of climate change – theory and evidence.
- Plant nutrition and soil properties, including irrigation with different types of water.
- Plant physiology – salt and water stress.
- Introductory agricultural meteorology, including theory and calculations of crop water requirements.
- Irrigation technologies, design and scheduling, including marginal water irrigation.
- Recycling sewage sludge and fertigation waters.
- Soil-pesticides interactions including sorption, desorption and bound hazardous residues.
- Soil and water conservation technologies aimed at reducing sodicity hazards, runoff and erosion problems.
- Water use and quality and micro-climate in protected cultivation.

## Application

### Application Requirements

This course is designed for professionals from governmental institutions, universities and research institutes, extension workers, private companies and non-governmental organizations involved in agricultural research and/or extension programs. Candidates should hold an academic degree in related disciplines with at least a three- year professional work experience. A full command of English is required.

### Application forms

Application forms and other information may be obtained at the nearest Israeli mission or at MASHAV's website: <http://mashav.mfa.gov.il/MFA/mashav/Courses/Pages/default.aspx>.

Completed application forms, including the medical form, should be sent to the relevant Israeli mission in the respective country by or before October 1<sup>st</sup>, 2017.

## General Information

### Arrival and Departure

Arrival date:	November 26 <sup>th</sup>
Opening date:	November 27 <sup>th</sup>
Closing date:	December 14 <sup>th</sup>
Departure date:	December 15 <sup>th</sup>

Participants must arrive at the training center on the arrival date, and leave on the departure date. Early arrivals/late departures if required, must be arranged by the participants themselves, directly with the hotel/center, and must be paid for by the participant him/herself.

### Location and Accommodation

**MASHAV** awards a limited number of scholarships. The scholarship covers the cost of the training program including lectures and field visits, full board accommodation in double rooms (two participants per room), health insurance (see below) and transfers to and from the airport. Airfares and daily allowance are not included in the scholarship.

### Health Services

Medical insurance covers medical services and hospitalization in case of emergency. It does not cover the treatment of chronic or serious diseases, specific medications taken by the participant on a regular basis, dental care and eyeglasses. Health authorities recommend that visitors to Israel make sure they have been inoculated against tetanus in the last ten years. Subject to the full binding policy conditions. Participants are responsible for all other expenses.

The course will be held at **the Volcani Agricultural Complex**, situated **10 km east of Tel Aviv, Israel**. Participants will be accommodated at **City Prima Hotel** in double rooms (two participants per room).

## About MASHAV

MASHAV – Israel's Agency for International Development Cooperation is dedicated to providing developing countries with the best of Israel's experience in development and planning. As a member of the family of nations, The State of Israel is committed to fulfilling its responsibility to contribute to the fight against poverty and to the global efforts to achieve sustainable development.

MASHAV, representing Israel and its people, focuses its efforts on capacity building, sharing relevant expertise accumulated during Israel's own development experience to empower governments, communities and individuals to improve their own lives.

MASHAV's approach is to ensure social, economic and environmental sustainable development, and is taking active part in the international community's process of shaping the Post-2015 Agenda, to define the new set of the global Sustainable Development Goals (SDGs).

MASHAV's activities focus primarily on areas in which Israel has a competitive advantage, including agriculture and rural development; water resources management; entrepreneurship and innovation; community development; medicine and public health, empowerment of women and education. Professional programs are based on a "train the trainers" approach to institutional and human capacity building, and are conducted both in Israel and abroad. Project development is supported by the seconding of short and long-term experts, as well as on-site interventions. Since its establishment, MASHAV has promoted the centrality of human resource enrichment and institutional capacity building in the development process – an approach which has attained global consensus.

Web site: <http://mashav.mfa.gov.il>

Facebook: <https://www.facebook.com/MASHAVisrael/>

## About CINADCO

The Center for International Agricultural Development Cooperation (CINADCO) is a part of the Israel Ministry of Agriculture and Rural Development. Since 1958, CINADCO has been in charge of the International Agricultural program conducted by MASHAV in Israel and abroad. CINADCO's activities consist of: International and country "tailor-made" courses in Israel, on-the-spot courses, long- and short-term projects and advisory missions. Israeli experts have also been sent to different locations around the world to conduct projects and to share their expertise in various aspects of agricultural production, extension and project planning.

Website: [http://www.moag.gov.il/en/Ministrys%20Units/CINADCO/courses\\_seminars/current\\_future\\_courses/Pages/default.aspx](http://www.moag.gov.il/en/Ministrys%20Units/CINADCO/courses_seminars/current_future_courses/Pages/default.aspx)

Facebook: <https://www.facebook.com/cinadcoIsrael/>

## About A.R.O.

The Agricultural Research Organization (ARO) is the research arm of the Ministry of Agriculture and Rural Development and is responsible for most of the agricultural research conducted in Israel. The scientists of the ARO collaborate with the regional R&D Stations and with the Agricultural Extension Service of the Ministry of Agriculture. Research at the ARO aims to improve existing agricultural production systems and introduce new products, processes and equipment on which Israel's future agricultural efforts will be based.

ARO website: <http://www.agri.gov.il/en/departments/118.aspx>

**For further information, please contact:**

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