



MASHAV - Israel's Agency for International Development Cooperation



**The Hebrew University of Jerusalem
The Robert H. Smith Faculty of Agriculture, Food & Environment, Division for International Studies**

WATER MANAGEMENT: DECISION MAKING, ENVIRONMENTAL ASPECTS & RISK ASSESSMENT

March 9, 2015 – April 2, 2015

MASHAV is the Hebrew acronym for the Israel's Agency for International Development Cooperation, a department established 50 years ago in Israel's Ministry of Foreign Affairs. MASHAV is responsible for designing and implementing Israel's international development programs, carried out in Israel and in development partner countries.

In cooperation with the Hebrew University of Jerusalem's Robert H. Smith Faculty of Agriculture – MASHAV's only academic professional affiliate in agriculture – we are pleased to announce the opening of a training and capacity building program entitled Water Management. The course will be held in Israel at the Robert H. Smith Faculty of Agriculture, Food and Environment, Division of External Studies, in Rehovot.

RATIONALE

According to the [World Water Development Report](#) (WWDR), problems of poverty are inextricably linked with those of water - its availability, its proximity, its quantity and its quality. Improving the access of poor people to water has the potential to make a major contribution towards poverty eradication and improvement of quality of life.

The combination of safe drinking water and hygienic sanitation facilities is a precondition for health and for success in the fight against poverty, hunger, child deaths and gender inequality. It is also central to the human rights and personal dignity of every woman, man and child on earth. One person in six has little choice but to use potentially harmful sources of water. Billions of people are locked in a cycle of poverty and disease.

Policy-makers, economists, environmental officers, water engineers, and influential community leaders have a meaningful potential to advance these efforts with the benefit of exposure to the latest technology, enhanced awareness of proven strategies that can be adapted to their locale, opportunities to interact with experts in the field, and introductions to a network of businesses and professionals serving as resources and collaborators.

OBJECTIVES

Today's challenges are various and contradictory: improving water quality in order to feed a growing population, and minimizing negative environmental impacts in order to limit water hazards for both humans and animals. The aim of this program is to train participants in various aspects of sustainable water management regarding water quantity and quality.

Today's challenges regarding sustainable water management are various and contradictory. Challenges include increasing water quantity and improving water quality in order to feed growing populations and provide clean drinking water while minimizing negative health and environmental impacts.

Israel has extraordinary experience in water management including conveying water, developing irrigation technologies, reusing treated wastewater for irrigation and building desalination plants to supply clean water for domestic use. Advancements increase the quantity of natural and secondary water resources and improve the quality of water with minimal environmental damage. Awareness of health and environmental risk factors is needed, due to increased use of unconventional water sources, including treated wastewater for agricultural reuse and desalinated water for domestic use.

The program addresses multi-disciplinary tools related to water resources management including policy-making, economic, environmental, planning and technical considerations. Participants will gain knowledge in innovative technologies for supplying and treating water designated for irrigation and drinking. The program provides exposure to rapidly expanding areas of research which are making major contributions to economic decision making and to developments in water supply and treatment. Participants will acquire crucial concepts, methodology and information, which they can transmit and adapt to the unique development challenges of their own countries. The program promotes networking and research cooperation among the participants and with the Israeli researchers, planners and managers.

TOPICS OF STUDIES

Water Management- the Global View

Introduction to global water resources
Climate change and water resource management
Governmental and institutional issues

Water Management in Israel - the National View

Water resources management
Structure of agriculture

Economic Considerations

Production function
Optimal allocation
Irrigation- multidisciplinary approach

Irrigation Management

Soil water storage, movement and availability
Crop water relation

Irrigation Technologies

Historical background
Sprinkler and drip irrigation

Treatment Technologies

Wastewater treatment
Desalination

Environmental aspects

Health impacts– pathogenic and toxic micro-organisms
Standards of water use

STUDY CONDITIONS

- Classes will be held at the Faculty's Rehovot campus, where there are laboratories, advanced research equipment and the central library of Agricultural Science.
- Around-the-clock computer access will be provided, and computers will be used extensively.
- We recommend that participants who own a personal computer bring it with them for their own convenience.
- Scientific material and homework will be assigned and graded.
- Professional field trips will be held.
- Full attendance is required.
- We reserve the right to make changes in the academic program.

COURSE COMPLETION

Each participant will prepare a seminar presentation, which will be reviewed and graded. It should apply knowledge acquired during the course to a topic in water management. Participants are advised to bring with them digitalized data relevant to their countries.

REQUIREMENTS

Candidates interested in attending this program require:

Background: M.Sc. degree or above in water science, economics, water management, hydrology, agriculture, environment, water engineering, or in a related field from a recognized university.

Language: A high level of proficiency in all English skills is required for participation in the program. An authorized certificate of English proficiency at a level of at least 89 on the TOEFL new internet based scale or an internationally recognized equivalent.

COST AND APPLICATION

Scholarships are available from MASHAV (see below) to cover the fee for study. The scholarship covers tuition, board, lodging and travel in Israel required for the purposes of the program of studies. This fee **does not include** travel costs to and from the home countries or incidental expenses.

Application forms may be obtained from the nearest Israeli diplomatic or consular representative or can also be downloaded from the Internet site of the Foreign Ministry of Israel, MASHAV Study Programs.

Their address is:

<http://www.mashav.mfa.gov.il/MFA/mashav/Courses/Pages/default.aspx>

Completed applications (2 copies) **MUST** be sent directly to the Israeli representative in your country by **Feb. 1, 2015** In addition, please send a copy of the forms in PDF format and not JPEG to the Faculty by e-mail to malab@savion.huji.ac.il.

ADDITIONAL DETAILS FOR PARTICIPANTS

ACCOMMODATIONS: Single bedroom accommodation in a shared apartment will be provided in our fully equipped guest house on campus. Meals will be provided. Both laundry (on campus) and dry cleaning (in town) are at the participant's expense.

WEATHER: The weather in Israel during the spring months is varied, approximately 12-25° C. There may be some sunny days where light clothing is appropriate, but it might also rain and be cool during the season. Participants are requested to bring clothes suitable for outdoor activities including a warm jacket and comfortable walking shoes. We also recommend that you bring some light sweaters, long-sleeved shirts, a rain coat and an umbrella.

INSURANCE: Participants are insured for medical care during their stay in Israel. This does not include pre-existing conditions and /or major dental care. Personal belongings are not insured, and are the responsibility of each individual.

Participants who take regular medication must bring enough medicine for the duration of the course. Participants who wear glasses are advised to bring a spare pair. We recommend that hand luggage include basic toiletries and a change of clothes for the first day or so. These should be carried separately in case of delay in baggage delivery. Participants will not receive any allowance or pocket money. Please bring money for out-of-pocket expenses.

AIRPORT TRANSPORTATION: Those accepted to the course will supply flight details to their local Israeli representative and to us. Upon arrival in Israel, the participant will pick up his/her luggage. After passing through customs, the participant will enter the arrivals terminal and walk towards the left. Go up the escalator to the first floor. On the left, behind the car rental counters, you will see a counter of a company called MONI-SITON. This is a special taxi service, which has a list of expected arrivals. Go to the counter and tell them your name, country and that you're attending a course at the Faculty. You will be taken to the Faculty of Agriculture, Rehovot, free of charge. This service is pre-paid.

PLEASE DO NOT TAKE ANY OTHER FORM OF TRANSPORTATION!

PARTICIPATING INSTITUTIONS

This 25-day course is truly a joint venture. Involved in its implementation are:

Academics: Under the auspices of the Hebrew University of Jerusalem's Robert H. Smith Faculty of Agriculture, Food & Environment. **Academic Coordinator:** Dr. Yael Mishael
Administration: The Faculty's Division for International Studies in cooperation with the Division for International Cooperation of the Ministry of Foreign Affairs (MASHAV).

MASHAV

MASHAV – Israel's Agency for International Development Cooperation - at Israel's Ministry of Foreign Affairs was founded in late 1957, and is responsible for the design, coordination and implementation of the State of Israel's development cooperation programs.

MASHAV concentrates on human and institutional capacity building by sharing Israel's own development experience and expertise, imparting know-how and transferring innovative technologies and tested methodologies adaptable to developing country needs.

MASHAV's approach is to ensure social, economic and environmental sustainable development, joining the international community's efforts to implement the Millennium Development Goals by 2015. In events of natural disasters, MASHAV also provides humanitarian assistance and participates in reconstruction and rehabilitation efforts.

THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem was opened in 1925, preceding the establishment of the State of Israel by more than two decades. The University was designed to be a world class institution of higher learning and research. Today, the Hebrew University comprises seven faculties, 15 schools, some 60 research centers, a student body of about 23,000 and a tenured-track faculty of some 1,500. One third of its enrollment is at the M.Sc. and Ph.D. level.

THE ROBERT H. SMITH FACULTY OF AGRICULTURE, FOOD & ENVIRONMENT

The Hebrew University's Robert H. Smith Faculty of Agriculture, Food & Environment was established in 1942 in Rehovot, a city at a distance of some 55 km from the main campus of the University in Jerusalem. The site was chosen with considerations of its climate and soil conditions. It is the only agricultural institution of higher education in Israel offering university degrees.

The Faculty's Division for International Studies was established in 1986. One of its aims is to expose academic graduates from abroad to post-graduate programs, giving them insight into the achievements and research of Israel in general and of the Faculty in particular, expanding their knowledge in specific fields and creating opportunities for international cooperation.

COMMUNICATION

Further information relating to the subject matter of the course may be obtained from:

Division for International Studies

Robert H. Smith Faculty of Agriculture, Food & Environment

P.O. Box 12

Rehovot, Israel 76100

Tel. 972-8-9489509, or 972-8-9489511

Fax. 972-8-9470171

Website: <http://departments.agri.huji.ac.il/externalstudies/index.php>

Program Administrator: Ms. Mala Braslavsky

E-mail address: malab@savion.huji.ac.il