



STATE OF ISRAEL

MASHAV
Israel's Agency for International
Development Cooperation



HEBREW UNIVERSITY OF
JERUSALEM
Robert H. Smith Faculty
of Agriculture, Food & Environment
Division for External Studies

The First International Post-Graduate Workshop on Water Management: Decision Making, Environmental Aspects & Risk Assessment

For East Africa: Kenya, Uganda, Tanzania, Ethiopia, Malawi

February 22 - March 3, 2010

K0300309.doc

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 Faculty of Agriculture, Food & Environment – MASHAV's only academic professional affiliate – we are pleased to announce the opening of a training and capacity building workshop entitled **Water Management- Decision Making, Environmental Aspects & Risk Assessment**. The workshop will be held in Israel at the Robert H. Smith Faculty of Agriculture, Food and Environment, Division of External Studies, in Rehovot from February 22 – March 3, 2010.

INTERNATIONAL POSTGRADUATE COURSE

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.

COURSE 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 course 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 course 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 course 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 course promotes networking and research cooperation among the participants and with the Israeli researchers, planners and managers.

TOPICS OF STUDY

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

Strategy and Methodology in Decision Making

- Diagnosis
- Terms of reference
- The planning stage
- Cost benefit analysis
- Plan of operation

Irrigation Management

- Irrigation- multidisciplinary approach
- 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.
- Professional field trips will be held.
- Full attendance is required.

REQUIREMENTS

Candidates interested in attending this program require:

- B.Sc. degree or above in water science, economics, water management, hydrology, agriculture, environment, health, water engineering, or in a related field from a recognized university.
- Documentation of academic studies conducted in English OR a TOEFL score of at least 89 on the internet-based scale OR an internationally recognized equivalent. (The language of instruction is English. Therefore, participants whose native tongue isn't English, must furnish proof of proficiency in this language.)
- A detailed record of studies and copies of degrees must be included with application forms.
- Professional experience in policy making related to water issues is recommended. We encourage applications from legislative policy makers, water engineers,

environmental officers, community officers, agricultural officers, and people involved in water management.

- An official certificate of good health.
- Letters of recommendation are required from the candidate's place of work or university.

COST AND APPLICATION

MASHAV (see below) will grant participants **scholarships** to cover the cost of the course. The scholarship **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 web site of the Foreign Ministry of Israel, MASHAV Study Programs. The e-address for the application form is: <http://mashav.mfa.gov.il/mfm/Data/52920.pdf>

Completed applications (**2 copies**) **MUST** be sent directly to the Israeli representative in your country as soon as possible. In addition, please send a copy of the forms to the Faculty by e-mail to joyce@agri.huji.ac.il .

PARTICIPATING INSTITUTIONS

This 10-day workshop 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.
- Administration: by the Faculty's Division for External Studies in cooperation with the Division for International Cooperation of the Ministry for Foreign Affairs (MASHAV).

MASHAV

Israel's Agency for International Development Cooperation, known as **MASHAV** in its Hebrew acronym, was founded in 1958 as part of the Ministry of Foreign Affairs. It is responsible for initiating and implementing Israel's development-cooperation program worldwide. MASHAV aims at transferring the expertise and technologies, which have assisted Israel in its own path to development, to other countries. Today, Israel cooperates with almost 140 countries, providing training in Israel and abroad, operating on-site demonstration projects and building medical infrastructures in partner countries.

MASHAV is active in fields ranging from agriculture to medicine and from community development to entrepreneurship.

THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem was opened in 1925, preceding the establishment of the State of Israel by over two decades. The University was designed to be a world class institution of higher learning and research. Today, the Hebrew University comprises 7 faculties, 15 schools, some 60 research centers, a present student body of about 24,000 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 (35 miles) from the main campus of the University in Jerusalem. The site was chosen due to considerations of climate and soil conditions. It is the only agricultural institution of higher education in Israel offering university degrees.

The Faculty's **Division for External 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.

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 winter months is varied, temperatures range from approximately 5-20°C . There may be some days where light clothing is appropriate, but it might also rain and be quite 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** are requested to 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 some money for minor additional expenses.
- **AIRPORT TRANSPORTATION:** Those accepted to the course will supply flight details to their local Israeli representative, to be forwarded 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 TOURBUS . 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.**

COMMUNICATION

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

Division for External 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
 Web-site: <http://www.agri.huji.ac.il/external/international.html>

Director: Ms. Miri Ben-Haim

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E-mail address: joyce@agri.huji.ac.il

Please make sure that subject of e-mail is: Water Management 2010