

# The 2<sup>nd</sup> International Conference on Water Resources and Arid Environment 2006

In coincidence with the Award Ceremony of the  
Prince Sultan bin Abdulaziz International Prize for Water  
(2<sup>nd</sup> Award 2004 – 2006)

## The Schedule

Riyadh- Kingdom of Saudi Arabia  
26 – 29 November 2006  
5 – 8 Dhu Al- Qa'dah 1427 H

**First Day**  
**Sunday 26/11/2006**

**Registration: From 7:30 to 9:30 am at Hall 26A**

**Hall 26 A**

Session I

Topic: Water Resources Management-1  
( From 9:30 to 11:00 )

Time		Activity
From	To	
9:30	10:00	<u>Chairman:</u> Dr. Abdullaziz S. Alturbaq <u>Reporteur:</u> Dr. Abdulaziz A. Alhamed  <u>Keynote Lecture:</u> Towards an Effective Management of Water Demand in Arid and Semi-Arid Areas: Egyptian Vision. <u>Dr. Mahmoud A. Abu Zaid</u> <i>Minister of Water Resources and Irrigation, Egypt</i>
10:00	10:20	Integrated Water Resources Development: Jordanian Action Plan. <u>Esmat AlKaradsheh</u> <i>National Center for Agric., Res., and Technology Transfer, Amman, Jordan</i>
10:20	10:40	Water Resources: Legal and Administrative Aspects Related to Water Resources <u>Fowad Vojdani</u> <i>Abazma Center for Water Res. (C.W.R.), Iran</i>
10:40	11:00	Break

**First Day**  
**Sunday 26/11/2006**

**Hall 26 B**

Session I

Topic: Global Climatic Changes & Desertification  
( From 9:30 to 11:00 )

Time		Activity
From	To	
9:30	10:00	<u>Chairman:</u> Dr. Abdulaziz H. Abuzenadah <u>Reporteur:</u> Dr. Homoud F. Albalawi  <u>Keynote Lecture:</u> Climatic Changes and Desertification <u>Eng. Abdo Kasim Alshareef</u> <i>Director General, Natural Resources Directorate, Ministry of Agriculture, Saudi Arabia.</i>
10:00	10:20	Comparison of Different Interpolation Methods for Temperature Mapping in Pakistan. <u>Rehan Anis, Fahad Saeed and Rizwan Aslam</u> <i>Global Change Impact Studies Centre, Islamabad, Pakistan</i>
10:20	10:40	Environmental Consequences of Global Change in Arid regions. <u>M. Saber</u> <i>National Res, Center, Cairo, Egypt</i>

10:40	11:00	Break
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**First Day**  
**Sunday 26/11/2006**

**Hall 26 A**

Session II

Topic: Water Demand Management  
( From 11:00 to 12:40 )

Time		Activity
From	To	
11:00	11:20	<p><u>Chairman:</u> Dr. Abdullah Aldroubi <u>Reporteur:</u> Dr. Abdullah M. Alrehaily</p> <p>Water Demand Management in the Arab World. <u>Mustafa Ahmed Ghayyas</u> <i>Hydraulic Irrigation Dept., Fac. of Eng., Cario Univ., Egypt</i></p>
11:20	11:40	<p>Implications of Virtual Water Concept on Water Demand Management. Gehan A.H. Sallam and <u>Gamal Abd El Nasser</u> <i>Drainage Res. Institute (DRI), National Water Res., Center, Cairo, Egypt</i></p>
11:40	12:00	<p>Water Resources in Yemen and their Effect upon the agricultural Sector. <u>Falah. S. Aswad</u> <i>Sana`a Univ., College of Education ,Arhab , Yemen</i></p>
12:00	12:20	<p>Evaluation and policy alternatives for water resources development in Abu Dhabi Emirate. <u>Entisar Al-Katheer</u> <i>Water and Power Research Center – ADWEA, Emirates</i></p>
12:20	12:40	Break and Dzohor Prayer

**First Day**  
**Sunday 26/11/2006**

**Hall 26 B**

Session II

Topic: Sustainable Development in Desert Environment  
( From 11:00 to 12:40 )

Time		Activity
From	To	
11:00	11:20	<p><u>Chairman:</u> Dr. Khaled A. Alhomoudi <u>Reporteur:</u> Dr. Ali T. Aldarbi</p> <p>The ecosystem indicators in studies of ecological recovery for plant cover in arid environment. G.A. Heshamati <i>Fac. of Rangeland &amp; Watershed Mange., Gorgan Univ., Iran</i></p>
11:20	11:40	<p>Natural Rangeland in Syria and Methods Used for Improvement and Development. Mohie El – Dein M. Kawas <i>Dept. of Natural Rangeland, Fac. of Agric., Alppo Univ., Syria</i></p>
11:40	12:00	<p>Modern methods for counteracting salinity stress: A review. <u>El-Zanaty A.A. Abou</u> El-Nourand Mohamed M. El-Fouly <i>Fertilization Technology Department, NRC, Egypt</i></p>
12:00	12:20	<p>In Vitro Prediction for Salt Tolerance in Wheat. <u>Abdel-Hady, M.S.</u> <i>Botany Dept., National Res., Centre, Cairo, Egypt</i></p>
12:20	12:40	Break and Dzohor Prayer

**First Day**  
**Sunday 26/11/2006**

**Hall 26 A**

Session III

Topic: Water Resources Management-2  
( From 12:40 to 14:50)

Time		Activity
From	To	
		<p><u>Chairman:</u> Dr. Omar S. Aburezizah <u>Reporteur:</u> Dr. Abdulrahman M. Aldakheel</p>
12:40	13:10	<p><u>Keynote Lecture:</u> Integrated Water Resources Management as a Tool to Insure Water Security for Arabs. <u>Abdullah Aldroubi</u> <i>Director, Water Resources, ACSAD, Syria.</i></p>
13:10	13:30	<p>Highlights on the Integrated Water Resources Management of Wadi Regions for Sustainable Development. <u>Mohamed A. Sonbol</u> and Mohamed Abdel-Motaleb <i>Water Res., Institute, National Water Res Center, Egypt</i></p>
13:30	13:50	<p>Integrated and Continuous Management of Water Resources in Yemen. <u>Foad Salem Bamarroof</u> <i>Fac. of Arts, Hadramoot Univ. for Sciences &amp; Technology, Yemen.</i></p>
13:50	14:10	<p>Groundwater Resource/Modelling Saline Water Intrusion Into Coastal Aquifers. <u>M.Elfleet</u> <i>Researcher, Caledonian Environment Centre Glasgow Caledonian University ,UK</i></p>
14:10	14:30	<p>Management of Groundwater Aquifers along the Mediterranean Sea in Sinai Peninsula. <u>Gamal Abdallah</u> <i>Water Resources Research Institute, National Water Research Center, Egypt</i></p>

14:30	14:50	Managerial Outputs of Mathematical Groundwater Models: Case. <u>Mahmoud Al-Sibai</u> <i>Integrated water resources management program, ACSAD, Damascus, Syria</i>
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14:50	Lunch Break and Asr Prayer
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**Ceremony**

19:30	22:00	The Award Ceremony of Prince Sultan bin Abdulaziz International Prize for Water ( 2 <sup>nd</sup> Award 2004 – 2006) and the Official Opening of the Conference Activities at Al-Faisalia Hotel .
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**First Day**  
**Sunday 26/11/2006**

**Hall 26 B**

**Session III**

Topic: Impact of Environmental Changes on Natural  
Resources in Arid Areas  
( From 12:40 to 14:50)

Time		Activity
From	To	
		<p><u>Chairman:</u> Dr. Dr. Abdullah A. Alobaid <u>Reporteur:</u> Dr. Ahmed H. Alfarhan</p>
12:40	13:10	<p><u>Keynote Lecture:</u> Global Water Challenges and the Arid Environment. <u>Dr. Andras Szollosi-Nagy</u> <i>Deputy Assistant Director General, Secretary, International Hydrological Programme (IHP), United Nations Educational, Scientific and Cultural Organization, (UNESCO), France</i></p>
13:10	13:30	<p>Water and Human Development. <u>El-Mostafa Benlamlih</u> <i>UNDP Saudi Arabia Water and Human Development, Saudi Arabia</i></p>
13:30	13:50	<p>Impact of climate change on sunflower crop production in Egypt. <u>El-Marsafawy Samia, M.</u> <i>Water Requirements and Field Irrigation Res., Dept., Soil, Water &amp; Environment Res., Institute, Agric., Res., Center, Egypt</i></p>
13:50	14:10	<p>The Environmental Impact of Lead-Zinc Mines in Red Sea Hills, Egypt. <u>Elsayed Ahmed El Gammal</u> <i>National Authority for Remote Sensing and Space Science, Egypt</i></p>
14:10	14:30	<p>Land Resources in Wadi Hodein Area, Southeastern Desert of Egypt. <u>El-Taweel, M.I. and Kotb, M.M.</u> <i>Soil and Water Use Dept., National Res., Center, Dokki, Cairo, Egypt</i></p>
14:30	14:50	<p>Integrative Approach of Gis and Remote Sensing to Represent the Hydrogeological and Hydrochemical Conditions of Wadi Qena – Egypt.</p>

		<p>Yehia Idris, M. Shaban, <u>M.Rashed</u>  <i>Researcher, Research Institute for Groundwater (RIGW), National Water Research Center (NWRC), Egypt</i></p>
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14:50	Lunch Break and Asr Prayer
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<b>Ceremony</b>
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19:30	22:00	<p>The Award Ceremony of Prince Sultan bin Abdulaziz International Prize for Water ( 2<sup>nd</sup> Award 2004 – 2006) and the Official Opening of the Conference Activities at Al-Faisalia Hotel .</p>
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**Second Day**  
**Monday 27/11/2006**

**Hall 26 A**

**Session IV**  
**Topic: Ground and Surface Water**  
**( From 8:30 to 10:40 )**

Time		Activity
From	To	
		<p><u>Chairman</u>: Dr. Ali S. Altukhais  <u>Reporteur</u>: Dr. Saud Kutb</p>
8:30	9:00	<p><u>Keynote Lecture</u>:  Water, the Conveyer for Live.  <u>Dr. Jorg Imerger</u>  <i>Director, Center for Water Research, Western Australia Univ, Australia</i></p>
9:00	9:20	<p>Development Impact On Ground Water In Saudia Arabia.  <u>Abdulrahman AL-Nashwan</u>  <i>Al-Imam Muhammad Ibn Saud Islamic University, Department of Geographic and Environmental Studies, Riyadh, Saudi Arabia</i></p>
9:20	9:40	<p>Study of the water recharge problematic in a semi-arid zone (climatic and anthropic impacts): The case of the Essouira aquifers system (Mogador, Morocco).  <u>M. Bahir, M.A. Misdah, M.O. Silva, P.Carreira, M. Benbiba</u>  <i>Laboratoire d'Hydrogéologie, Fac. des Sciences Semlalia, Morocco</i></p>
9:40	10:00	<p>Modeling Old Methods for Storage of Surface Water in Arid Areas (Examples for Syria and Saudi Arabia).  <u>Bahgat Mohamed Mohamed</u>  <i>Prof. Geography Dept., Fac. of Arts, Univ. of Damascus, Syria</i></p>
10:00	10:20	<p>Assessment of Sustainable Yield of Aquifers Using Groundwater Flow Modeling and Decision Support Systems: Western Aquifer Basin as a Case Study.  <u>Muath Jamil Abu Sadah</u>  <i>House of Water and Environment - Al Bireh-Ramallah, Palestine</i></p>

10:20	10:40	Break
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**Second Day**  
**Monday 27/11/2006**

**Hall 26 B**

**Session IV**  
**Topic: Applications of Remote Sensing in Water Studies.**  
**( From 8:30 to 10:40 )**

Time		Activity
From	To	
8:30	9:00	<p><u>Chairman:</u> Dr. Abdulaziz Alobaida <u>Reporteur:</u> Dr. Ahmed H Alashaikh</p> <p><u>Keynote Lecture:</u> National Strategic Geomatic/GIS Projects in Saudi Arabia King Saud University (KSU) and Ministry of Higher Education (MOHE) are Two Examples.</p> <p><u>Abdullah Mohammed Al-Garni</u> Associate Professor, King Saud University, College of Engineering P.O.Box 800; Civil Engineering Department, Saudi Arabia</p>
9:00	9:20	<p>Applications of Remote Sensing and Geographic Information System to Exploration of Groundwater in Different Regions in Syria.</p> <p><u>Marwan Koudmani</u> General Authority for Remote Sensing, Damascus, Syria</p>
9:20	9:40	<p>Use of Remote Sensing and GIS in Mapping the Environmental Sensitivity Areas for Desertification of Egyptian</p> <p><u>GAD, A. and Nafie, I.</u> National Authority for Remote Sensing and Space Sciences, Egypt</p>
9:40	10:00	<p>Identification of Suitable Sites for Groundwater Artificial Recharge Using Remote Sensing and GIS (Case study: Gavbandi Watershed, Iran)</p> <p><u>Mohsen Mohseni Saravi</u> Univ. of Tehran, Iran</p>
10:00	10:20	<p>Representation of Water Resources in Satellite Images Using Voronoi Diagram</p> <p><u>Ahmed M. Zeki</u> Department of Computer Science, Fac. of Information and Communication Tec. Inter. Islamic Univ. Malaysia Kuala Lumpur, Malaysia</p>

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10:20	10:40	Break
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**Second Day**  
**Monday 27/11/2006**

**Hall 26 A**

**Session V**

**Topic: Groundwater Pollution**  
**( From 10:40 to 12:40)**

Time		Activity
From	To	
10:40	11:00	<p><u>Chairman</u>: Dr. Mohamad F. Alrashed <u>Reporteur</u>: Dr. Abdulaziz Alothman</p> <p><u>Keynote Lecture</u>: Groundwater Contamination from USTs: Prevention versus Restoration. <u>Mohammad S. Al-Suwaiyan</u> <i>Civil Eng., Dept., King Fahd Univ., of Petroleum, &amp; Minerals, Saudi Arabia</i></p>
11:00	11:20	<p>Hydro geological Impact Assessment for Proposed Philadelphia Seawater Moat or Seawater Canal on Local Groundwater Resources <u>Ahmed S. AlYaqoubi</u> <i>Palestinian Water Authority, Palestine</i></p>
11:20	11:40	<p>Study of the underground water pollution in the Sana'a Basin. <u>Mustafa Rasheed Al-Ubaidi</u> <i>Dept. of Geography, College of Arts, Univ. of Sana'a , yamen</i></p>
11:40	12:00	<p>The Sources of Groundwater Pollution in the Syrian Coast due to Human Activities and its Repercussion. <u>Ibrahim Aziz Sakr - Ibtisam Khalil Maarouf</u> <i>Fac. of Agric , Tishreen Univ, Lattakia , Syria</i></p>
12:00	12:20	<p>Sedimentation in the Reservoirs of Embankment Dams in Arid Zone of North West of Pakistan. <u>Muhammad Jamal Khan</u> <i>NWFP Agricultural University, Peshawar, Pakistan</i></p>

12:20	12:40	Break and Dzohor Prayer
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**Second Day**  
**Monday 27/11/2006**

**Hall 26 B**

Session V  
Topic: Application of GIS in Water Studies  
( From 10:40 to 12:40)

Time		Activity
From	To	
10:40	11:00	<p><u>Chairman:</u> Dr. Lothar Beckel <u>Reporteur:</u> Dr. Abdullah Algarni</p> <p>Towards sustainable development for groundwater in Al-Hassa and the role of geographic information systems. <u>Y. Y. Al-Dakheel</u> and M. A. Massoud <i>Water Studies Center, King Faisal University, Saudi Arabia</i></p>
11:00	11:20	<p>Hydro-Meteorological Modeling and GIS for Operational Flood Forecasting and Mapping. <u>Lawal Billa</u><sup>1</sup>, Shattri Mansor <sup>1</sup>, Ahmad Rodzi Mahmud<sup>2</sup>, Abdul Halim Ghazali<sup>2</sup> <sup>1</sup><i>Institute of Advanced Technology &amp; Department of Civil Engineering, Malaysia</i> <sup>2</sup><i>Faculty of Engineering, University Putra, Malaysia</i></p>
11:20	11:40	<p>Artificial Neural Network Model to Assess The Impacts of Land Development on The River Flow Regime. <u>M.Y. Mohamed</u> <i>Faculty of Agriculture Al-Zaiem Al Azhary University, Sudan</i></p>
11:40	12:00	<p>Integrated Image Processing and Land Information Systems for Soil Assessment: A case Study of El-Maghara Area, North Sinai, Egypt. <u>Arnous, M. O.</u><sup>1</sup> and Hassan. M. A.<sup>2</sup> <sup>1</sup><i>Geology Dept., Fac. of Sci., Suez Canal Univ., Ismailia Egypt</i> <sup>2</sup> <i>Soil and water Dept., Fac. of Agri., Suez Canal Univ., Ismailia, Egypt</i></p>
12:00	12:20	<p>Modeling Nitrate leaching in the Azraq Basin/ Jordan using GIS <u>Reda A. N. Al-Azamat</u> <i>Jordan Badia Research and Development Centre, Jordan</i></p>

12:20	12:40	Break and Dzohor Prayer
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**Second Day**  
**Monday 27/11/2006**

**Hall 26 A**

<b><u>Session VI</u></b>	<b>Topic: Water Harvesting ( From 12:40 to 14:50)</b>
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Time		Activity
From	To	
		<p><u>Chairman:</u> Mr. Zaher K. Alsulaimani <u>Reporteur:</u> Dr. Farhan H. Aljuaidi</p>
12:40	13:10	<p><u>Keynote Lecture:</u> Rain Water harvesting and its Importance in Water Resources Development in the Kingdom of Saudi Arabia. <u>Abdulmalek A. Alashaikh</u> <i>Director, Prince Sultan Research Center for Environment, Water and Desert, King Saud Univ., Saudi Arabia</i></p>
13:10	13:30	<p>Sustainable Systems of Water Harvesting in Arid Regions, A Case Study: Sinai Peninsula Egypt. <u>Mohamed Ali Sonbol</u> <i>Water Res. Inst., National Water Res, Center, Cairo, Egypt</i></p>
13:30	13:50	<p>Water Harvesting in Palestine. <u>Hazem Kittani</u> <i>Palestinian Water Authority, Palestine</i></p>
13:50	14:10	<p>Traditional Water Harvesting Systems and Management in Wadi Hadhramou Yemen. <u>Mohamed Al-Hebshi and Saleh Bin Rabaa</u> <i>Fac. of Agric., Sana'a Univ., Yemen</i></p>
14:10	14:30	<p>Assessment the quality of water storage from rainwater harvesting from land surface catchments near the Asphalts roadway in rural Areas. <u>Abdul Hakim Massaud Mussa Almdny</u> <i>Academic School of Applied Sci., and Engi. Lybia</i></p>
14:30	14:50	<p>The Role of Water Harvesting in Rangeland Rehabilitation in Dry Areas in Jordan.</p>

	<u>Adel Shoubaki</u> <i>National Center of Agric., Res. &amp; Technology Transfer, Amman, Jordan</i>
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14:50	Lunch Break and Asr Prayer
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**Second Day**  
**Monday 27/11/2006**

<b>First Panel Discussion</b> <b>Hall 26 A</b>
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Time		Activity
From	To	
19:30	21:30	Topic: Rainwater Harvesting and Storage  Dr. Ali S. Altukhais Dr. Abdulmalik A. Alashaikh Dr. Abdulaziz Alturbaq Eng. Zaher K. Alsulaimani
21:30		Dinner

**Second Day**  
**Monday 27/11/2006**

**Hall 26 B**

**Session VI**

Topic: Desalination and Water Purification  
( From 12:40 to 14:50)

Time		Activity
From	To	
12:40	13:10	<p><u>Chairman</u>: Dr. Abdullah A. Alashaikh <u>Reporteur</u>: Dr. Nabil Nada</p> <p><u>Keynote Lecture</u>: Seawater Desalination as Strategic Option for Water Shortage: SWCC's Solutions. <u>Fehied F. Alshareef</u> <i>Governor' Saline Water Conversion Corporation, Riyadh , Saudi Arabia</i></p>
13:10	13:30	<p>The Seawater Greenhouse Cooling, Fresh Water And Fresh Produce From Seawater. <u>Charlie Paton</u><sup>1</sup> and <u>Philip Davies</u><sup>2</sup> <sup>1</sup><i>Seawater Greenhouse Ltd, 2A Greenwood Road, UK</i> <sup>2</sup><i>School of Engineering and Applied Science, Aston University, UK</i></p>
13:30	13:50	<p>Investigation of Multi-Effect Humidification (Meh)-Dehumidification Solar Desalination System Coupled With Solar Central Receiver. <u>M. R. Abdel Kader Mohammed</u> <i>Fac. of Eng., Port Said- Suez Canal Univ., Egypt</i></p>
13:50	14:10	<p>Design and Testing of A Solar Still Coupled With A Solar Central Receiver. <u>M. R. Abdel Kader Mohammed</u> <i>Fac. of Eng., Port Said- Suez Canal Univ., Egypt</i></p>
14:10	14:30	<p>A Comprehensive Study of Greenhouse for Agriculture and Water Desalination for Jordan Valley and Red-Dead Sea Region. <u>Ahmed Al-Salaymeh</u> <i>Mechanical Eng. Dep., Univ. of Jordan, Amman, Jordan</i></p>
14:30	14:50	<p>Numerical Modeling of Reverse Osmosis Desalination Systems. <u>Ali K. Abdel-Rahman</u> <i>Dept. of Mechanical Eng., Fac. of Eng., Assiut Univ., Assiut, Egypt</i></p>

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14:50	Lunch Break Asr Prayer
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**Second Day**  
**Monday 27/11/2006**

<b>First Panel Discussion Hall 26 A</b>
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Time		Activity
From	To	
19:30	21:30	<p>Topic: Rainwater Harvesting and Storage</p> <p>Dr. Ali S. Altukhais            Dr. Abdulmalik A. Alashaikh            Dr. Abdulaziz Alturbaq            Eng. Zaher K. Alsulaimani</p>

21:30	Dinner
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**Third Day**  
**Tuesday 28/11/2006**

**Hall 26 A**

**Session VII**

**Topic: Water Conservation-1**  
**( From 8:30 to 10:40 )**

Time		Activity
From	To	
		<p><u>Chairman:</u> Dr. Abdullah Alobodi  <u>Reporteur:</u> Dr. Ahmed M. Alabdulkader</p>
8:30	9:00	<p><u>Keynote Lecture:</u>            Efforts of the Kingdom in the Conservation of Drinking Water.  <u>Eng.Loay A. Al-Msallam</u>  <i>Deputy Minister for Planning and Development, Ministry of Water and Electricity, Saudi Arabia.</i></p>
9:00	9:20	<p>Irrigation Water Conservation and Sandy Soils Management in Saudi Arabia.  <u>A. M. Al-Omran</u><sup>1</sup>, A. M. Falatah<sup>1</sup>, A.S. Sheta<sup>1</sup>, &amp; A.R. Al-Harbi<sup>2</sup>  <sup>1</sup> Soil Sci., Dept., college of food and agric. Sci., King Saud Univ., Arriyadh, Saudia Arabia,  <sup>2</sup> Plant Production Dept college of food and agric. Sci., King Saud Univ., Arriyadh, Saudia Arabia</p>
9:20	9:40	<p>Yemen Optimum Agricultural Map to Water Conservation.  <u>Abdalla Yaya</u> and Adel Al-Weshali  <i>Eng. Dept., Agric., Fac., Sana'a Univ., Yemen</i></p>
9:40	10:00	<p>Maximizing Water Use Efficiency of Pearl Millet by Water and Drip Irrigation Management.  <u>A. M. Gaber</u>, E.I.Gaber, A.S. El-Hassanin and F. M. El- Boraie  <i>Water Requirement Unit., Desert Research Center, Cairo, Egypt</i></p>
10:00	10:20	<p>Computer-Aided Mapping Irrigation Scheduling For Arab Republic of Egypt.            Ramadan M.H. M.A. El-Adl H.N. Abd El-Mageed M. Maher  <i>Agric. Eng. Dept., Faculty of Agric., Mansoura Univ., Egypt</i></p>

10:20	10:40	Break
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**Third Day**  
**Tuesday 28/11/2006**

**Hall 26 B**

**Session VII**  
**Topic: Treatment and Reuse of Wastewater-1**  
**( From 8:30 to 10:40 )**

Time		Activity
From	To	
8:30	9:00	<p><u>Chairman:</u> Dr. Saleh Al-Mugrin <u>Reporteur:</u> Dr. Khaled H. Aldhewlea</p> <p><u>Keynote Lecture:</u> Transboundary Water Issues in the MENA Region. <u>Andres Jogeskog.</u> <i>Director, Stockholm International Water Institute and President of Stockholm Prize for Water, Sweden.</i></p>
9:00	9:20	<p>A Model to Maximize the Value of the Drainage Water Reuse Projects: Model Sensitivity. <u>Ahmed El-Hawary</u> <i>Drainage Research Institute, National Water Res., Center, Egypt</i></p>
9:20	9:40	<p>Agronomic and Economic Benefits of Reuse Secondary Treated Wastewater in Irrigation under Arid and Semi-arid Region. <u>M. M. Selim</u> <i>Field Crop Res. Dept., National Res. Centre, Cairo, Egypt</i></p>
9:40	10:00	<p>Cairo East Bank Effluent Re-use Study 1-Response of Some Field Crops to Irrigation Method with Secondary Treated Wastewater in Desert Soil. <u>Abd EL Lateef, E. M.</u><sup>1</sup>; Hall, J., E.<sup>2</sup>; Lawrence, P. C.<sup>3</sup> &amp; Negm, M. S<sup>4</sup> <i><sup>1</sup>National Res. Cent. Agric. Div., Dokki, Cairo, Egypt, <sup>2</sup>Independent sludge and water consultant, UK, <sup>3</sup>B.Sc. FICE FCIWEM- Project Director, Montgomery Watson <sup>4</sup> Fac. of Engi...Ain Shams Univ., Cairo, Egypt</i></p>
10:00	10:20	<p>Adsorption Ultrafiltration Comparative Study between two coagulants used: The ferric chloride &amp; the Calcium Chloride. <u>Abdessemed G. Nezzal</u> <i>Laboratory of the Process Engineering- Environmen, Univ. of Sciences and Technology Houari Boumedienet, Algeria</i></p>

10:20	10:40	Break
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**Third Day**  
**Tuesday 28/11/2006**

**Hall 26 A**

**Session VIII**

Topic: Water Conservation-2  
( From 10:40 to 12:40 )

Time		Activity
From	To	
10:40	11:00	<p><u>Chairman</u>: Dr. Ibrahim S. Almuataz <u>Reporteur</u>: Dr. Abdellatif S. El- Sebaay</p> <p>Low Cost, Innovative Water Conservation Practices in Irrigated Agriculture. <u>Muhammad Akram Kahlown</u> <i>Chairman, Pakistan Council of Research in Water Resources (PCRWR), Pakistan</i></p>
11:00	11:20	<p>Saving irrigation water in sandy soils. <u>Mohamed Elsayed Galal</u> <i>Soil Sci., Dept., Fac., of Agric., Ain Sham Univ, Cairo, Egypt</i></p>
11:20	11:40	<p>Hydroponics For Food Production: Comparison of open And Closed Systems on Yield And Consumption of Water And Nutrient. <u>Essam Mohamed Abd-Elmoniem</u> <i>Dept., Fac. of Agric., Ain Shams Univ., Cairo, Egypt</i></p>
11:40	12:00	<p>Chemical fractionation of trace elements in soil irrigated with wastewater and bioavailability of Cd and Ni for the plant. <u>Mostafa, M.A</u><sup>1</sup>; El-Sebaay, A.S<sup>1</sup>; Somaya Ahmed, H<sup>2</sup> and El-Sayed, M,H<sup>2</sup> <sup>1</sup><i>Soils Dept., Fac. of Agric., Ain Shams Univ., Cairo, Egypt</i> <sup>2</sup><i>Soils, Water &amp; Environment Res.Inst., ARC, Egypt</i></p>
12:00	12:20	<p>A Study on the Efficiency of Two Emprical Equations FAO-laney-Criddle and Torenth-Waite for Estimating Potential Evapotranspiration Data in Hashem Abad Synoptic Station-Gorgan, Iran. <u>Nader Jandaghi</u>, Maedeh Pairavand <i>Gorgan Univ., of Agric. Sci. and Natural Res Iran</i></p>
12:20	12:40	Break and Dzohor Prayer

**Third Day**  
**Tuesday 28/11/2006**

**Hall 26 B**

**Session VIII**

Topic: Treatment and Reuse of Wastewater-2  
( From 10:40 to 12:40 )

Time		Activity
From	To	
10:40	11:00	<p><u>Chairman</u>: Dr. Waleed A. Abdulrahman <u>Reporteur</u>: Dr. Fawzi S. Mohamad</p> <p>Disinfection of Wastewater Effluents for Reuse Purposes. <u>Saleh Al-Mogrin</u> <i>Director General for Sewerage; Ministry of Water and Electricity, Saudi Arabai</i></p>
11:00	11:20	<p>Redbeds: A Viable Biotechnology for Transforming Wastewaters into Valuable Asset in Arid Countries. <u>Abdullah Al Mahruki</u><sup>1</sup>, Heiko Patzelt<sup>2</sup> and Brian Alloway<sup>3</sup> <i>1 College of Agric, Sultan Qaboos Univ, 2 College of Sci, Sultan Qaboos Univ. 3 Arnolds Close, Kingston, Kingsbridge, Devon, UK.</i></p>
11:20	11:40	<p>Reuse as a Solution for Water Shortage in Iran. <u>S. S. Madaeni</u><sup>1</sup>, M. Ghanei<sup>2</sup> <i><sup>1</sup>Chemical Engi Dept., Razi Uni, Kermanshah, Iran <sup>2</sup>Urban &amp; Industrial Water Tech of Iran Co., Tehran, Iran</i></p>
11:40	12:00	<p>Utilization Treated Municipal Waste Water For Growing Some Aromatic Plants To Produce Volatile Oils And Study Its Nutritional Status In Arid Region. <u>Hussein, F. H.</u>, R. Kh. M. Khalifa, R .A. El-Mergawi &amp; A. A. Youssef <i>National Research Center, Cairo, Egypt</i></p>
12:00	12:20	<p>Water Consumption, Domestic Wastewater Generation and its Biodegradability, Based on Monthly Income and Ambient Temperature, in Kermanshah City. <u>Almasi, Ali</u><sup>1</sup> Amir Poor Ehsan<sup>2</sup> <i>1 Kermanshah univ of Medical Sci. (KUMS), Iran, 2 Water and Wastewater Company of Kermanshah, Iran</i></p>

12:20	12:40	Break and Dzohor Prayer
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**Third Day**  
**Tuesday 28/11/2006**

**Hall 26 A**

**Session IX**

Topic: Arid Environment and Development  
 ( From 12:40 to 14:50 )

Time		Activity
From	To	
12:40	13:10	<p><u>Chairman</u>: Dr. Abdullah A. Alsaadon  <u>Reporteur</u>: Dr. Walid M. Zahid</p> <p><b>Keynote Lecture:</b>            Efforts of Arab League to conserve Arab Water Resources and Facing Environmental Issues and Development.  <u>Shahra Kasiaa</u>  <i>Head, Center for Water Studies and Arab Water Security, Arab League, Syria.</i></p>
13:10	13:30	<p>Saving irrigation water in sandy soils.  <u>Mohamed Elsayed Galal</u>  <i>Soil Science Dept., Fac. of Agric., Ain Sham Univ., Cairo, Egypt</i></p>
13:30	13:50	<p>Climatic Drift Versus Desert Creep: The Case of Western Sudan.  <u>Awad Ibrahim Abdel-Rahman</u>  <i>Geography Dept., Sana'a University, Yemen</i></p>
13:50	14:10	<p>A Dual Effect of Upwelling and Easterly Jet Stream on Desert Formation in Southern and Eastern Parts of Yemen.  <u>Awad Ibrahim Abdel-Rahman</u>  <i>Geography Dept., Sana'a University, Yemen</i></p>
14:10	14:30	<p>Use of Remote Sensing for the Study of the Hazards of Ghard Abu Muharik Sand Dune Field, Western Desert, Egypt.  <u>El Gammal, E. A.</u> and Cherif, O. H.  <i>National Authority for Remote Sensing and Space Sciences, Cairo, Egypt</i></p>
14:30	14:50	<p>Upgrading and Reconstruction of A Collapsed Man-Made Lake Embankment Founded on Salty Soil  <u>A. A. Abdel-Motaleb</u>, A. A. El-Ashaal, and S. Elkholy  <i>Construction Res. Institute, National Water Res. Center, Egypt</i></p>

14:50	Lunch Break Asr Prayer
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**Third Day**  
**Tuesday 28/11/2006**

**Second Panel Discussion**  
**Hall 26 A**

Time		Activity
From	To	
19:30	21:30	Topic: Water Conservation  Eng. Abdullah Ahussayen Dr. Mahmoud A. Abu Zaid Dr. Mohamad Lotf Aleryani Mr. Loay A. Al-Msallam Dr. Abdullah Alobodi Dr. Ibrahim Abu Abat Dr. Hezam Alotaibi
21:30		Dinner

**Third Day**  
**Tuesday 28/11/2006**

**Hall 26 B**

**Session IX**

Topic: Desalination and Water Purification-2  
( From 12:40 to 14:50 )

Time		Activity
From	To	
		<p><u>Chairman</u>: Dr. Abdulrahman I. Alabdulaaly <u>Reporteur</u>: Dr. Abdulaziz M. Alshaibani</p>
12:40	13:10	<p><u>Keynote Lecture</u>: Arid Zone Water Issues :Technology, Management and Linkages. <u>David Garman</u> <i>President, IWA, Australia</i></p>
13:10	13:30	<p>Water Transfer/ Import versus Desalination in Arid Regions: GCC Countries Case Study. <u>Mohamed A. Dawoud</u><sup>1</sup> and <u>Walid Abderrahman</u><sup>2</sup> <sup>1</sup><i>Water Res. Dept., Terrestrial Environmental Res. Center, Environment Agency, Abu Dhabi, UAE</i> <sup>2</sup><i>Water Res. Manag., Res. Institute, King Fahd Univ. for Petroleum and Minerals, Dhahran, Saudi Arabia</i></p>
13:30	13:50	<p>Saudi Arabian Regulations for Wastewater Reuse in Irrigation; An analytical perspective. <u>Saleh Al-Mogrin</u> <i>Ministry of Water and Electricity, Saudi Arabia</i></p>
13:50	14:10	<p>Treatment Technologies Needs for Water in the West Bank Groundwater Aquifers. <u>Sobhi Samhan</u> <i>Palestinian Water Authority, Palestine</i></p>
14:10	14:30	<p>Enhancement of Groundwater through wastewater Reuse in Palestine. <u>Sami M. Hamdan</u> <i>Palestinian Water Authority, Palestine</i></p>
14:30	14:50	<p>Environmentally Friendly Desalination Processes. <u>Meadeh Pakzad Ahahabi</u> <i>Civil Eng. Dept., Tarbiat Modares Univ., Iran</i></p>

14:50	Lunch Break and Asr Prayer
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**Third Day**  
**Tuesday 28/11/2006**

<b>Second Panel Discussion</b> <b>Hall 26 A</b>
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Time		Activity
From	To	
19:30	21:30	Topic: Water Conservation  Eng. Abdullah Ahussayen Dr. Mahmoud A. Abu Zaid Dr. Mohamad Lotf Aleryani Mr. Loay A. Al-Msallam Dr. Abdullah Alobodi Dr. Ibrahim Abu Abat Dr. Hezam Alotaibi

21:30	Dinner
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**Fourth Day**  
**Wednesday 29/11/2006**

<b>Hall 26 A</b>
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<b><u>Session X</u></b>	<b>Topic: Groundwater: Storage and Evaluation ( From 8:30 to 10:40 )</b>
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Time		Activity
From	To	
8:30	9:00	<p><u>Chairman:</u> Dr. Mohamad S. Alswayan  <u>Reporteur:</u> Dr. Saleh A. Alhassoun</p> <p><u>Keynote Lecture:</u>            The Difficulties of Regional Groundwater Resources Assessment in Arid Areas.  <u>John Lloyd</u>  <i>Emirits Professor, Birmingham University USA</i></p>
9:00	9:20	<p>Multi-objective optimization for Sustainable and Integrated Groundwater Management in Arid Regions.  <u>Mohamed A. Dawoud</u>  <i>Water Res. Dept., Terrestrial Environ. Res. Center, Environment Agency, Abu Dhabi, UAE</i></p>
9:20	9:40	<p>Management of Multi-aquifer Systems in Jubail Area.  <u>Walid A. Abderrahman</u>, Ibrahim M. Al-Harazin, Abdalla S. Elamin, Jamal K. Nejem and Badie S. Eqnaibi  <i>Water Section, Center for Environment &amp; Water, Research Institute, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia</i></p>
9:40	10:00	<p>Impact of Structural Geology on the Interaction between Aquifers in Coastal Multi-Aquifer System.  <u>Walid A. Abderrahman</u>, Ibrahim M. Al-Harazin, Abdalla S. Elamin, Jamal K. Nejem and Badie S. Eqnaibi  <i>Water Section, Center for Environment &amp; Water, Research Institute, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia</i></p>
10:00	10:20	<p>Aquifers Parameters Estimation Using Well Log And Pumping Test Data, In Arid Regions -Step In Sustainable Development.  <u>Osama M. Sallam</u>  <i>The High Commission of Makkah Province, Makkah, Saudi Arabia</i></p>

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10:20	10:40	Break
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**Fourth Day**  
**Wednesday 29/11/2006**

**Hall 26 B**

**Session X**  
Topic: Arid Environment and its Development  
( From 8:30 to 10:40 )

Time		Activity
From	To	
8:30	9:00	<p><u>Chairman:</u> Dr. Ibrahim M. Aref <u>Reporteur:</u> Mr. Abdulaziz Almuhanaa</p> <p><u>Keynote Lecture:</u> Water resources, arid environments and desertification in the central western region of Argentina. <u>Elena Abraham</u> <i>Director, Desertification Lab., Mendoza, Argentina</i></p>
9:00	9:20	<p>The Role of the Advanced Biotechnology in the Sustainable Development of the Natural Resources in the Desert Environment. <u>Dr. Hassan Moawad Abdel Al</u> <i>National Research Centre, Cairo, Egypt</i></p>
9:20	9:40	<p>Water quality of wells in southern part of Tihama plains, Saudi Arabia. <u>M. Al-Darby</u>, G. Abdel-Nasser, A. S. Al-Farraj and A. Sh. Sallam <i>Colloge of Food Sciences and Arric., King Saud Univ., Saudia Araabia</i></p>
9:40	10:00	<p>Enhancing the soil quality of coastal salt marshes vegetation Die-off in Sinai protected areas, Egypt. <u>Akram A. Ali</u> <i>Deprt. of Botany and Microbiology, Fac. of Science, King Saud University, Saudi Arabia</i></p>
10:00	10:20	<p>Evaluation of climatic continentality of Saudi Arabian lands. <u>Jehad Kerbe</u> <i>Geograpy Dept., Umm Al-Qura Macca, Saudi Arabia</i></p>

10:20	10:40	Break
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**Fourth Day**  
**Wednesday 29/11/2006**

**Hall 26 A**

Session XI  
 Topic: Biodiversity in Arid Environments  
 ( From 10:40 to 12:40 )

Time		Activity
From	To	
		<p><u>Chairman:</u> Dr. Hassan M. Abdulaal  <u>Reporteur:</u> Dr. Mohamad I. Alwabel</p>
10:40	11:00	<p>ACSAD Contributions to the Conservation and Utilization of Cereals and Fruit trees Genetic Resources : Impacts on Conserving Biodiversity in the Arab Arid and Semi- arid Environments.  <u>M. Y. Sabbouh</u>  <i>The Arab Center for the Studies of Arid Zones and Dry Lands (ACSAD), Syria</i></p>
11:00	11:20	<p>Effect of National Parks on Plant Diversity Case Study: Sied National Park.  <u>Ahmed A. El-Khouly</u> &amp; Abdulrahman N. Al-Dawood  <i>Natural Resources Dept., Ministry of Agriculture, Saudi Arabia</i></p>
11:20	11:40	<p>Conservation of biodiversity of Pistacia atlantica in Syria.            Darouish,S<sup>1</sup>;Touchan,H<sup>1</sup>; Ayad,G<sup>2</sup>; Al-Khatib,M<sup>1</sup>  <sup>1</sup>Aleppo Univ., Syria <sup>2</sup>IPGR, Syria</p>
11:40	12:00	<p>Enhancement of water-stress tolerance in genetically modified plants.  <u>Ali Alawady</u>  <i>Institute of Biology, Humboldt Univ. of Berlin, Germany</i></p>
12:00	12:20	<p>Modeling Equitable Water Allocation for a Run-of-the-River Irrigation Scheme.  <u>Rowshon, MK</u>, Amin, M.S.M., Lee, T.S. and Shariff, A.R.M  <i>Institute of Advanced Technology (ITMA), Fac. of Eng., Univ. of Putra , Malaysia</i></p>

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12:20	12:40	Break and Dzohor Prayer
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**Fourth Day**  
**Wednesday 29/11/2006**

**Hall 26 B**

Session XI  
Topic: Remote Sensing and the Environment  
( From 10:40 to 12:40 )

Time		Activity
From	To	
10:40	11:00	<p><u>Chairman</u>: Dr. Abdullah Alsalman <u>Reporteur</u>: Eng. Ali W. Abu Reishe</p> <p>National Strategic Geomatic/ GIS Projects in Saudi Arabia : King Saud University and Ministry of Higher Education are two Examples. <u>Abdullah Mohammed Al-Garni</u> <i>Civil Eng. Dept., College of Eng., King Saud Univ., Saudi Arabia</i></p>
11:00	11:20	<p>Application of Remote Sensing Technology towards the Identification at the Existing Soil Units and their Capability in some areas, Southeast, Egypt. <u>El - Badawi, M.M.</u> <i>Soil &amp; Water Use Dept., National Research Center , Cairo , Egypt</i></p>
11:20	11:40	<p>UML Based Integrated Resources Management Model for Arid Zone. <u>R.Trinadha Raju</u><sup>1</sup> and R. Manimanjari<sup>2</sup> <sup>1</sup><i>GeoRIST, G5-Emerald, India</i> <sup>2</sup><i>DrBVR Institute of Technology, India</i></p>
11:40	12:00	<p>Study of Promised Areas for Grazing in Basin of Wadi Araba by Using Remote Sensing and G I S. <u>Lutfi ALmomani</u> <i>Jordan Phosphate Mines Company, Jordan</i></p>
12:00	12:20	<p>Landslides In Western Part Of Yemen : Causes And Effects Using Remote Sensing And Geographic Information Systems. <u>Abdel- Salam Ahmad Al-Eriany</u> <i>Abb Univ., Yemen</i></p>

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12:20	12:40	Break and Dzohor Prayer
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**Fourth Day**  
**Wednesday 29/11/2006**

**Hall 26 A**

<b><u>Session XII</u></b>	<b>Topic: Water Conservation-3</b> <b>( From 12:40 to 14:50 )</b>
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Time		Activity
From	To	
12:40	13:10	<p><b>Chairman:</b> Mr. Ahmed A. Alghamdi <b>Reporteur:</b> Dr. Ahmed A. Alothman</p> <p><b>Keynote Lecture:</b> The Importance of Greater Post Graduate Education in the Water Sector and the Role of UNESCO-IHE in Meeting the Demand. <b>Richard A. Meganck</b> <i>Rector, UNESCO-IHE Institute for Water Education , The Netherlands</i></p>
13:10	13:30	<p>Best Economical Use of Irrigation Water in Yemen for Water Conservation in Agricultural Sector. <b>Khaled Kasem Kaid</b> <i>Dept. of Agric. Economic, Fac. of Agric., Sana' a Univ., Yemen</i></p>
13:30	13:50	<p>Is There Enough Water to Feed the World in 2050?. <b>Anders Bertell</b> <i>Executive Director, SIWI, Sweden</i></p>
13:50	14:10	<p>Simulation of Soil Water Movement in Sandy Soil under a Prairie Field with Hydrus -2D Model. <b>Ekhmaj A.I.<sup>1</sup>, M.S.M. Amin<sup>2</sup> and W. Airun<sup>3</sup></b> <i><sup>1</sup>Dept. of soil and water, Fac. of Agric., Al Fatah Univ., Tripoli, Libya</i> <i><sup>2</sup>Dept. of Biological &amp; Agric.l Eng,Fac. of Eng., Univ. of Putra, Malaysia</i> <i><sup>3</sup>SMART Farming Program, Bio-Eng. Lab., Institute of Advanced Technology (ITMA), Putra, Malaysia</i></p>

14:10	14:50	Recommendations and Closing Session
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14:50	Lunch Break and Asr Prayer
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**Fourth Day**  
**Wednesday 29/11/2006**

**Hall 26 B**

**Session XII**

Topic: Arid Environment and its Utilization  
 ( From 12:40 to 14:50 )

Time		Activity
From	To	
12:40	13:10	<p><u>Chairman:</u> Dr. Abdulaziz M. Alsaeed  <u>Reporteur:</u> Dr. Saud L. Alroweily</p> <p><u>Keynote Lecture:</u>            Strategies for Managing Scarce Water Resources in the Drier Environments.  <u>Dheeb Oweis</u>  <i>International Center for Agricultural Research in Dry Areas (ICARDA)</i>  <i>Aleppo, Syria.</i></p>
13:10	13:30	<p>Effect of water quality on yield and quality of three lettuce cultivars under greenhouse conditions.  <u>A. A. Alsadon</u>, M. A. Wahb-allah, and S. O. Khalil.  <i>Dept. of Plant production, College of Food and Agric. Sciences, King Saud University, Saudi Arabia</i></p>
13:30	13:50	<p>Establishment of acacia plantation in the Central part of Saudi Arabia with the aid of DRiWATER.  <u>I M Aref</u><sup>1</sup>, L I El-Juhany<sup>1</sup> and M N Shalby<sup>2</sup>  <sup>1</sup><i>Dept.of Plant Production , College of Agric., King Saud Univ., Saudi Arabia</i>  <sup>2</sup><i>Institute of Natural Resources and Environment, King Abdulaziz City for Science and Technology, Saudi Arabia</i></p>
13:50	14:10	<p>Applied studies of Water Conservation on Alfalfa production at NADEC ( Hail project ).  <u>Eng. Salim S. Alshawy</u>  <i>Agric. Sector Manager, Saudi Arabia</i></p>
14:10	14:50	Recommendations and Closing Session

14:50	Lunch Break and Asr Prayer
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