



Program

6 November 2008 (Thursday)

- 11:00-19:00 *Registration at Hilton Green Plaza Hotel*
- 19:00-21:30 *Mixer cocktails at Hilton Green Plaza Hotel*

7 November 2008 (Friday)

- 08:00-09:00 *Registration (contd.) at Bibliotheca Alexandrina Convention Center (BACC)*
- 09:00-10:15 **Opening Ceremony** (*Venue: Great Hall*)

Chairman: Prof Dr Adel El-Beltagy, President ICDD
Chief Guest: Dr Ismail Serageldin, Director, Library of Alexandria

Welcome Remarks:

- **Dr Ayman Abou Hadid**, ARC
- **Dr Steve Wells**, DRI
- **Dr Iwao Kobori**, UNU
- **Dr Atsushi Tsunekawa**, ALRC
- **Dr Mahmoud Solh**, ICARDA
- **Dr Suleiman Al-Harbish**, OFID
- **H.E. Mr. Hani Helal**, Minister of Higher Education and Scientific Research
- **H.E. Mr. Amin Abaza**, Minister of Agriculture & Land Reclamation

Inaugural Address: Dr Ismail Serageldin, Director, Library of Alexandria

- 10:15-10:45 *Coffee Break & Group Photo*
- 10:45-12:30 **Plenary Session 1** (*Venue: Great Hall*)

Chairman: Prof Adel El- Beltagy
Co-Chair: Prof Mohan Saxena

Keynote: *Coping with climate change in rural communities: the untold story* - **Dr Kanayo Nwanze**, Vice President, IFAD

Lead presentations:

1. *Strategic governmental perspectives on climate change/current and future water and land use and human welfare* - **Prof Ahmed A. Gowily**, CAEU, Egypt
2. *Food security, climate change and bio-fuels; focus on the Middle East* - **Dr Hafez Ghanem**, FAO
3. *Climate change and the World Bank Report on agriculture for development* - **Dr Eija Pehu**, World Bank
4. *Managing knowledge to cope with climate change – role of information and communication technology* – **Dr Ahmed Refea**, AUC

- 12:30-13:30 *Lunch at BACC*

Theme 1.1: (Climatic change in arid lands and impact of global climate change on the natural resources of land, water and biodiversity in the dry areas)*(Venue: Multipurpose Room)***Chair:** Dr. Ali Chafai Elalaoui; **Co-Chair:** Dr Fawzi Karajeh

1. *Climate change and water resources management in arid and semi-arid regions* – Ragab Ragab & Atef Hamdy
2. *Regional implications of climate change for water resources in Africa* – Abdelkader Allali
3. *Some features of climate change in arid regions of Georgia and its impact on water resources* – T. Davitashvili & T. Basilashvili
4. *Global warming impacts on agricultural water use: a case study from Iran* – Gh. Zarei

Theme 2.1: (Desertification processes and tools for assessment and their application)*(Venue: Room C)***Chair:** Dr. Nicholas Lancaster; **Co-Chair:** Prof M. Shinoda

1. *The ICARDA Agro-Climate Tool* – Steve Mauget & Eddy De Pauw
2. *Agroecological zoning of the CWANA region* – Eddy De-Pauw
3. *GIS and remote sensing based monitoring of interaction between the land surface and groundwater in the uppermost aquifer, north-east of Hama, Syria* – M. Kappas & W. Sahwan
4. *Spatial pattern of climate trends in the CWANA region, 1901 to 2002* – Eddy De-Pauw & W. Goebel

Theme 3.1: (Enhancing resilience of agriculture in dry areas through management of water and land resources and agronomic practices)*(Venue: Lecture Room)***Chair:** Prof. Y. Kitamura; **Co-Chair:** Dr Theib Oweis

1. *Importance of daily climate information on improvement of crop water productivity* – H. Dehghanisanij & M. Akbar
2. *Management of drought and water scarcity in Zayandeh Rud basin, Iran* - M. Akbari & H. Dehghanisanij
3. *Management of rain water harvesting lined ponds in dry areas of Rwanda: a case study of Ntarama lined ponds owners* – Jean Claude Ndayambaje
4. *Land and water use for irrigated agriculture in the lower Ili river basin, Kazakhstan* - K. Shimizu, Y. Kitamura and Y. Tsukamoto
5. *Effect of supplemental irrigation and fertilizer treatments on the productivity of some field crops in north western coastal zone of Egypt* - M.S. Osama, M.S. Barsoum, and A.Sh. Abd El Naser

Theme 6.1: (Stress physiology: drought, heat, cold and salinity)*(Venue: Delegate Room)***Chair:** Prof Shinobu Inanaga; **Co-Chair:** Dr. Shinji OTANI

1. *How plant and nutrient management options influence physiological determinants in salinity stressed environments* – Javaid Akhtar
2. *Varietal variations in durum wheat differing in ¹³C and its relation to transpiration rates under gradual drought* – Ammar Wahabi & A.S. El Dein Shabaan
3. *Effect of salt stress on growth, water use efficiency and physiological responses of twenty pearl millet inbred lines under hydroponics* – S. Choudhary & V. Vadez
4. *Genetic variation in stem-reserve utilization for grain filling in promising bread wheat genotypes for moderate-cold rainfed conditions of Iran* – R. Haghparast, R. Rajabi, R. Mohammadi, M. Aghaee-Sarbarzeh, N. Bahrami and A. Daryaei
5. *Drought tolerance of twelve varieties of bread wheat* – Seyed Mortaza Azimzadeh

Theme 9.1: (Blending indigenous/traditional knowledge and heritage with modern science in the sustainable development of oases)

(Venue: Auditorium)

Chair: H.E. Dr Rashed Khalfan; **Co-Chair:** Prof Pietro Loreano

1. *Classification of traditional water-harvesting systems* – Fikri Hassan
2. *Indigenous knowledge of browse species and their availability on rangeland: case of Sahelian zone of West Africa* – Hadja O. Sanon, M. Savadogo and I. Ledin
3. *Local mangrove-resource use of Kilwa Island in southern Swahili Coast* – Ryo Nakamura
4. *Mechanism and prevention of diseases relative to desert: homeostasis suggestion combining 'Omics' and traditional Chinese medicine* – Hong Luo, Shinji Otani and Youichi Kurozawa
5. *Can organic agriculture be a solution to sustainability problem in the dry areas?* – Helmy Abouleish

Theme 10.1: (Enhancing livelihood of desert communities, socioeconomic studies and cross-cutting issues)

(Venue: Small Theater)

Poverty Workshop – 1st Session

Chair: Prof Ahmed A.Gowli; **Co-Chair:** Dr Kamel Shideed

1. *Poverty-targeted research for improving livelihoods in the dry areas – introductory remarks* - K. Shideed
2. *Determinants of rural poverty in the dry areas* - Aden Aw-Hassan
3. *GIS-based approaches for linking natural resource endowment to rural poverty* - Eddy De-Pauw, J. A. Szönyi and A. Aw-Hassan
4. *Impact of investment in crop improvement research: the case of winter-sown chickpea in Syria* - Ahmed Mazid, Koffi N. Amegbeto and Kamel Shideed
5. *Impacts of cereal and food legume technologies in the Nile Valley region* - Koffi N. Amegbeto, Ahmed Mazid, and Kamel Shideed

15:00-15:30 *Coffee Break*

15:30-17:30 **Concurrent Session 2**

Theme 1.2: (Climatic change in arid lands and impact of global climate change on the natural resources of land, water and biodiversity in the dry areas)

(Venue: Multipurpose Room)

Chair: Dr M. Roozitalab; **Co-Chair:** Dr Mohamed El Mourid

1. *Extreme drought events on Tibetan plateau during the past millennium derived from ring width and oxygen isotopes in juniper trees* – A. Braeuning, J. Griessinger and G. Helle
2. *Study of impact of climate change on agricultural production in Iran* – H. Dehghanisanij & A. Keshavarz
3. *Impact of climate and world market changes on wheat production in the Nile Valley and Sub-Saharan Africa region: the Egypt case study* – F. Karajeh, S. Rajaram and A. Abou-Hadid
4. *On wetland landscape of arid area in Xinjiang, China* – Hua-rong Zhou
5. *Adaptation measures for productive drylands to cope with possible climate change in Egypt* – Ismail H.M. El-Bagouri
6. *The impact of climate change on the spread and epidemics of late blight of potato* – M.A. Fahim, M.A. Medany, H.Y Aly and M.M. Fahim

Theme 2.2 (Desertification processes and tools for assessment and their application)

Chair: Prof. Masato SHINODA; **Co-Chair:** Adeel Zafar
(Venue: Room C)

1. *Ecological modeling of Walker Lake to evaluate the influence of local and global environmental change* – M. Stone & K. Acharya
2. *Modeling climate impact on carbon budget in drylands of Kazakhstan using remote sensing data and field measurements* – P.A. Propastin & M. Kappas
3. *Carbon isotope composition in tree rings of dryland species and their potential for climate reconstruction* – A. Gebrekristos, M. Worbes, D. Teketay, M. Fetene and R. Mitloehner
4. *Wavelength-based hyperspectral data fusion: vegetation characterization in arid and semi-arid environments* – A. Darvishi & M. Kappaas
5. *Tele-connection between global yearly mean temperature and Egyptian northwest Coast precipitation* – M.M. Eissa Ahmed
6. *Meteorological drought analysis case study: Central Anatolia* – F. Dikbas, U.G. Bacanli and T. Baran

Theme 3.2: (Enhancing resilience of agriculture in dry areas through management of water and land resources and agronomic practices)

(Venue: Lecture Room)

Chair: Prof Abdelghani El-Gindy; **Co-Chair:** Igr. A. Keshwarz

1. *Measures against competition for water-use between riparian countries and land salinization in Syr Darya river basin* - Y. Kitamura, K. Shimizu, K. Inosako and S. Yamamoto
2. *Towards optimal water management: assessment of the cost effective techniques in irrigation improvement in Nile Delta* – G. El-Kassar, W.H. Abou El-Hassan, Y. Kitamura and A. Zahoor
3. *An assessment of supplemental irrigation at upstream sub basin of Karkheh river basin on water quantity and quality of Karkheh dam* – M. Akbari, F. Abbasi, B. Hessari, H. Farhani and T. Oweis
4. *An assessment of water and land management: a case study in the North Sinai Development Project in Egypt* – W.H. Abou El-Hassan, Y. Kitamura and K. Shimizu
5. *Influence of temperature fluctuations on crack width in irrigation canal* – K. Ueno, I. Natsuka, M. Ishii and T. Nonaka
6. *Effect of cultivation period on soil quality indicators in some irrigated great soil groups of Aridisols* - Abdelaziz S. Sheta, M. Al-Sewaillem and M. Al-Harby

Theme 6.2: (Stress physiology: drought, heat, cold and salinity)

(Venue: Delegate Room)

Chair: Dr. Shinji OTANI; **Co-Chair:** Prof. S. Inanaga

1. *Physiological and growth responses of two cool-season turf-grass species to NaCl stress* – Ran Xu & Hideyasu Fujiyama
2. *Nitrogen metabolism in halophytes* – Nagisa Kudo & Hideyasu Fujiyama
3. *Identification of silicon-regulated genes under drought or salt stress* – Amin Elsadig Eltayeb & Kiyoshi Tanaka
4. *Molecular characterization of shoot and root protein contents of salt-stressed barley seedlings inoculated with Azospirillum brasilense NO40* – M.E.H. Osman, W.A. Kasem, M.N.A. Omar and I.A. Abdel Daim
5. *Improvement of olive tree culture durability in arid environments: use of sap-flow measurement to assess plant water stress* – Dalenda M. Boujnah, Fathi Ben Mariem, Mohamed Chaieb, Besma Kemicha and Raoul Lemeur
6. *Pathological study on pulmonary toxicity by the intra-tracheally instilled yellow dusts in mice* – Akinori Shimada & Misaki Naota

Theme 8.1: (Reducing greenhouse gas emission through harnessing renewable energy in the dry areas)

(Venue: Auditorium)

Chair: Eng. Abd El Rahman S. El Din; **Co-Chair:** Dr W. TSUJI

1. *Renewable energy in Egypt* – Abd El Rahman Salah El Din

2. *Addressing climate change via harnessing renewable energy from abandoned salt-affected soils and saline drainage networks in the dry areas* – M. Qadir, C. Martius and J. Lamers
3. *Trees in dryland and their potential for renewable energy* – Ali Mousa & Mahmoud A. Medany
4. *A new international cooperation framework for dryland development under public-private-academia partnership, an example with Jatropha project* – Ando Takayuki
5. *Reconsidering animal power as the basis of Afro-Eurasian dryland civilization* – Yoshihito Shimada
6. *Impact of green roof on global warming in urban areas* – U.A. El-Beahiry & A.F. Abu Hadid
7. *Dry areas provide good prospects for bio-fuel production* - Mohan C. Saxena

Theme 10.2: (Enhancing livelihood of desert communities, socioeconomic studies and cross-cutting issues)

(Venue: Small Theater)

Poverty Workshop – 2nd Session

Chair: Prof J. Alwang **Co-Chair:** Dr Kamel Shideed

1. *Sources and costs of inefficiency in the use of scarce water resources in dry areas: Impact of improved irrigation technologies* – K. Shideed, M. Bouglala, A. Elamin, H. Asadi, F. Shomo and E.Sarver
2. *Economic and environmental impacts of water harvesting techniques in the low rainfall areas of Jordan* - Samia Akroush, K. Shideed and Adriana Bruggeman
3. *Establishing policy influence of agricultural research: assessment and welfare implications* - Kamel Shideed, Ahmed Mazid, Mohamed A. M. Ahmed and Zuhair Zahir
4. *Drought, livelihood and adoption of improved seed* - T. Lybbert

Discussion

Concluding comments: policy perspectives - A. El-Gowily

Concluding comments: research perspectives - J. Alwang

17:30-19:00 **Posters Session 1**

Theme 1, Theme 2, Theme 3, Theme 4, and Theme 10

19:00-20:00 **Video “Running Dry”** *(Venue: Great Hall)*

Introduction: Dr Steve Wells

Presentation: Mr. Jim Theabut

8 November 2008 (Saturday)

08:30-11:00 **Plenary Session 2** *(Venue: Great Hall)*

Chairman: Prof Adli Bishay

Co-Chair: Prof Adel El-Beltagy

Keynote: Dr Suleiman Al-Herbish, President, OFID

Lead presentations:

1. *Enhancing resilience in dry areas to cope with vagaries of climate change* - Prof Adel El-Beltagy, ICDD
2. *Old problems - new challenges and new opportunities* - **Prof Gareth Wyn Jones**, CAZS, UK
3. *Improved food security and livelihoods in dry areas in the context of climate change* - **Dr Mahmoud Solh**, ICARDA
4. *New challenges for science and technology in dryland development - bridging dryland science and on-the-ground practice* - **Prof Atsushi Tsunekawa**, ALRC, Japan
5. *Incipient threat of land degradation* - **Dr Paul L.G. Vlek**, ZEF, Univ. of Bonn, Germany

11:00-11:30 *Coffee Break*

11:30-13:00 **Plenary Session 3** (Venue: Great Hall)

Chairman: Prof Gareth Wyn Jones

Co-Chair: Prof Ayman Abou Hadid

Lead presentations:

1. *The dry region issue* - **Mr Henri Carsalade**, AGROPOLIS
2. *Alternative livelihoods to improve human well-being in marginal drylands* - **Dr Adeel Zafar**, UNU
3. *Adapting to climate change via improving water productivity of soils in dry areas* - **Dr Colin J Chartres**, IWMI
4. *Managing current climatic uncertainty and adapting to future climate change in the SAT of Africa and Asia: ICRISAT's approach* - **Dr Stefen Twomlow**, ICRISAT

13:0-14:00 *Lunch at BACC*

14:00-16:00 **Plenary Session 4** (Venue: Great Hall)

Chairman: Prof Atsushi Tsunekawa

Co-Chair: Prof Wang Tao

Lead presentations:

1. *Climate change and geomorphic processes in drylands: insights for the future from the record of past climate change* - **Dr Nicholas Lancaster**, DRI, Nevada, USA
2. *Sustainable desert development as a means for combating global warming and overcoming global food reduction* - **Prof Adli Bishay**, FEDA, Egypt
3. *Climate change and the Egyptian agriculture* - **Prof Ayman Abou Hadid**, ARC, Egypt
4. *Combating desertification and achieving sustainable development in the drylands of China* - **Prof Wang Tao**, CAS, China
5. *Imperatives of global climate change for agricultural research in Asia-Pacific* - **Dr Raj Paroda**, APAARI
6. *Improving agricultural water productivity: A necessary response to water scarcity and climate change in dry areas* - **Dr Theib Oweis**, ICARDA

16:00-16:30 *Coffee Break*

16:30-18:00 **Concurrent Session 3**

Theme 1.3: (Climatic change in arid lands and impact of global climate change on the natural resources of land, water and biodiversity in the dry areas)

(Venue: Multipurpose Room)

Chair: Dr Ana Iglesias; **Co-Chair:** Dr Raj Paroda

1. *Ten years of continuous exposure to elevated CO₂ increases litter production and carbon sequestration in an undisturbed Mojave Desert ecosystem* – Stephen. F. Zitzer

2. *Impact of climate change in the dry areas in Latin America* – G.O. Magrin and M.I. Travasso
3. *Building climate change impact scenarios for nine irrigation schemes* - Dirk De Ketelaere, Anna Spiteri and Jesús Garrido
4. *Multi-criteria analysis of some adaptation measures of on-farm irrigation system in Egypt* - S.M. Attaher, M. Medany, A.A. Abdel Aziz and A. El-Gindy
5. *Effect of some aspects of climate change on the fauna of Tajikistan* – A.S. Saidov, N.Sh. Saidov and B.R. Nakhishniev
6. *Climate change and food in 21st century- an overview and Egypt case study* – A.K. Hegazy

Theme 2.3: (Desertification processes and tools for assessment and their application)

(Venue: Room C)

Chair: Dr Adeel Zafar; **Co-Chair:** Dr Eddy De-Pauw

1. *Climate change mitigation in Morocco; setting an indicator for an early warning of drought* – Ali Chafai Elalaoui, I. Abdelouafi and B. Abdelilah
2. *Drought memory concept and its application to an early warning* – Masto Shinoda
3. *Agroecological characterization studies: a case study in the Aras and Daryacheh Oromieh basin, Iran* – A. Ghaffari, Eddy De Pauw and V. Ghasemi
4. *Index estimating the moisture availability using the day-night surface temperature difference* – A. Abdelsalam Mohamed, R. Kimura, M. Shinoda and M. Moriyama
5. *Assessment of time-dependent soil erodibility parameter for inter-rill soil erosion modeling* – M.A.M. Abd Elbasit, Zahoor Ahmed, H. Yasuda and H. Anyoji
6. *Oasis construction in China: theories and practices* – Wen-Zhi Zhao, Yan-Li Zhuang and Xue-Xiang Chang

Theme 3.3: (Enhancing resilience of agriculture in dry areas through management of water and land resources and agronomic practices)

(Venue: Lecture Room)

Chair: Prof Atef Hamdy; **Co-Chair:** Dr Hamdy A. Khalifa

1. *Heat islands for the formation of clouds and rain-making* – Sherif Hussein Eissa
2. *Interventions to enhance the use efficiency of water harvested from dams and reservoirs in the mountains of Yemen* – K.B. Atroosh & A.T. Moustafa
3. *Lessons from upstream soil conservation measures to mitigate soil erosion and its impact on downstream users of the Nile River* – Y.G. Selassie, T. Amdemariam, M. Haile and C. Yamoah
4. *Influence of supplementary irrigation and variety on yield and some agronomic characters of safflower under rainfed conditions of northern Syria* – A. Beg, S.S. Pourdad, A. Gaffari and M. Pala
5. *Nutrient leaching and plant uptake from different bio-composts under chloride and sulphate dominated saline irrigation* – Zahoor Ahmed, W.H. Abou El-Hassan, Faridullah, Toshimasa Honna, Sadahiro Yamamoto and Tsuneyoshi Endo
6. *Application of indicators to assess salinization threats to sustainability of irrigated agriculture in Luohui irrigation scheme, China* – Solomon E. Habtou. Y. Kitamura, Z. Li, P. Li, H. Yasuda and W.H. Abou El-Hassan.

Theme 5.1: (Range management and forage and livestock production)

(Venue: Auditorium)

Chair: Dr Salah Galal; **Co-Chair:** Dr Barbara Richkowsky

(Venue: Auditorium)

1. *Performance of crosses of Damascus goat with local Barki raised by Bedouins at the arid coastal zone of Egypt* - Adel Aboul-Naga, I. Shaat, Mona A. Osman, H.R. Metawi and Ferial Hassan

2. *Effect of exposure to solar radiation on body fluids and thermoregulation of pregnant Egyptian Baldi goats* – Hesham H. Khalifa, Reda S. Mohamed, Ahmed M. Darwish and Tarek M.M. Abdel-Khalek
3. *Livestock production in dryland ecosystems in Africa: potential benefits from carbon trade* – Cyprian Ebong, Jolly M. Kabirizi and Francis Ejobi
4. *Forage and pasture legumes for dryland agriculture* - Ali Abd El Moneim & Mohan C. Saxena
5. *Pasture and forage status in Egypt – limitations and opportunities* – Mohamed Abu-Zeid El-Nahrawy

Theme 7.1: (Improvement of stress resistance in dry area crops, shrubs and tree species through conventional breeding and application of biotechnology)

(Venue: Delegate Room)

Chair: Dr Maarten van Ginkel; **Co-Chair:** Prof Magdy Madkour

1. *Adaptation to climate change: challenges to breeders* – Stefania Grando, S. Ceccarelli and Michael Baum
2. *Enhanced tolerance to abiotic stresses in transgenic plants over-expressing vitamin C recycling enzymes* – Amin Elsadig Eltayeb & K.Tanaka
3. *Transgenic bread wheat with the bacterial *mtlD* gene for salt tolerance* - A.M. Ramadan, F.M. El-Domyati, Hala F. Eissa, H. T. Mahfouz, O.M. Saleh, Hanaiya A. El-Itriby, A. Bahieldin and M.A. Madkour
4. *Genetic engineering approach to develop drought tolerant potatoes* - E. Anis, S. Mostafa and T. Nasr El-Din
5. *Participatory selection assisted by DNA markers for enhanced drought resistance and productivity in rice* – Adnan Kanbar & H.E. Shashidhar

Theme 10.3: (Enhancing livelihood of desert communities, socioeconomic studies and cross-cutting issues)

(Venue: Small Theater)

Chair: Dr. Monica Kaparini; **Co-Chair:** Dr Andy Spiess

1. *The challenge of measuring impacts of sustainable land management- development of a global indicator system* - B. Schuster, D. Niemeijer, C. King and Z. Adeel
2. *Sustainable agricultural management of drylands* – Ali Chafai Elalaoui
3. *Challenges in IWRM implementation in the Arab region: Wadi Jerash Project case study* – Walid Saleh & Zafar Adeel
4. *Human-induced desertification in northern Chile* – Isabel M. Madaleno
5. *Alternative futures for Egypt: a case study in the lower Nile River delta* – David Mouat, B. Salem, S. Bassett and M. Eissa
6. *Linkages between environment and food security in northern Ethiopian drylands* – Davis Anokye Asamoah
7. *Capacity building in dryland management: experience of joint Masters' degree program* – Luohai Liang

18:00-19:00

Panel Discussion: Global, regional and local assessment of climate change – implications for dry areas (Venue: Great Hall)

Chair: Prof Adel El-Beltagy

Co-Chair: Prof Gareth Wyn Jones

Panel: Zafar Adeel, Eddy De-Pauw, Ana Iglesias, Raj Paroda and Paul Vlek

Poster Session 2

Theme 5, Theme 6, Theme 7

20:00 – 22:00 *Conference Dinner (by invitation)*

9 November 2008 (Sunday)

08:30-10:30 **Plenary Session 5** (Venue: Great Hall)

Chairman: Prof Iwao Kobori

Co-chair: Prof Fathi Saleh

Lead presentations:

1. *Climate change, water crisis and desertification - role of traditional knowledge to cope with the challenge* - **Prof Pietro Laureano**, Florence Univ., Italy
2. *Blending traditional knowledge and heritage with modern science* – **Prof Fathi Saleh**, CULTNAT, Egypt
3. *Climate change impact on dry areas: a daunting challenge for sustainable agricultural production* - **Prof Azhari A. Hamada**, ARC, Sudan
4. *United Nations World Food Program strategy for food security to cope with climate change* – **Mr. Asif Niazi**, WFP
5. *Climate change and water: recommendations for healthier Africa* - **Dr Fawzi Karajeh**, ICARDA
6. *Developing stress tolerant germplasm and its utilization for the drylands of Central and West Asia and North Africa* - **Dr Michael Baum**, ICARDA

10:30-11:00 *Coffee Break*

11:00-12:30 **Concurrent Session 4**

Theme 2.4: (Desertification processes and tools for assessment and their application)

(Venue: Room C)

Chair: Prof. Awni Timeh, **Co-Chair:** Dr. Nicholas Lancaster

1. *Vegetation roughness controls on wind erosion: a shear stress partitioning approach* – John A. Gillis, W.G. Nicking and N Lancaster
2. *Impact of hydrological constraints on natural vegetation cover in a representative watershed south of Mediterranean Sea: an integrated approach* – Ahmed F. Yousef & Sadia M. Shehata
3. *Assessing salt-affected degraded soils using remote sensing in Qaseem region, Saudi Arabia* – Abdalla Saad El Modaihsh, A. Sh. Sallam and M.O. Mahjoub
4. *Dryland wheat yield prediction by precipitation and edaphic data: 1. Regression models; 2. Artificial neural network model* – Maryam Tatari, A. Koocheki, M.N. Mahallati and R.A. Alikamar
5. *Impact of human activities on groundwater depletion and quality deterioration in the northwestern shelf of Nubian sandstone and fractured carbonate aquifer systems* – Ahmed F. Yousef
6. *Utilization of remote sensing and GIS for estimating degree-day units for cotton leaf worm* – M.S. Yones, A.F. Abou Hadid, H.A. Abd Elrahman and A.H. El Nahry

Theme 3.4: (Enhancing resilience of agriculture in dry areas through management of water and land resources and agronomic practices)

(Venue: Lecture Room)

Chair: Dr Manzoor Qadir; **Co-Chair:** Dr Ahmad El-Bakri

1. *Bioengineering solutions for soil protection in continental and Mediterranean climates* – Atef Hamdy & Ju-Ying Wu
2. *Evolution of re-vegetation-stabilized desert ecosystems: influences on hydrological processes* – Xin-Ping Wang, Xin-Rong Li and Yan-Xia Pan

3. *Integrated nutrient management strategies for improving soil health and enhancing crop productivity in rainfed agro-ecosystems* – Anand Swaroop
4. *Soil carbon sequestration and aggregation effects of sandy desertified land rehabilitation in the marginal oasis, northwest China* – Yong-Zhong Su
5. *Carbon sequestration in soil and its dynamics associated with short-term land use changes in a semi-arid ecosystem* – Fayez Raiesi
6. *Recycling of organic waste for sustainable management of land degradation in dry areas* – Faridullah, S. Yamamoto, M. Irshad, T. Endo, A. Zahoor and T Honna

Theme 5.2: (Range management and forage and livestock production)

(Venue: Auditorium)

Chair: Dr Ali A. Moneim; **Co-Chair:** Dr M. Abu-Zeid El-Nahrawy

1. *Coping with climate change and risk management strategies for sustainable livestock and rangeland systems in the WANA region* – Ali Nefzaoui & Mohamed El Mourid
2. *Quantitative measurement of arid land condition and change at the local scale* – Mounir Louhaichi, Michael D. Johnson, Adele L. Woertz, Pat E. Clark, Abdul Wahid Jasra and Douglas E. Johnson
3. *Improving dry season feeding in smallholder dairy systems: a case study of testing maize crop-lablab intercropping technology with farmers in Uganda* – Jolly M. Kabirizi, E. Ssewanyana, D. Mpairwe and D. Mutetikka
4. *Evaluation of sweet potato tuber as an alternative animal feed* – Tewdros T. Ghebremariam & David H. Mechin
5. *Evaluation of spineless cactus as an alternative feed resource for ruminants in Eritrea* – Habteab S. Teklehaimanot & Joseph P. Tritschler

Theme 7.2: (Improvement of stress resistance in dry area crops, shrubs and tree species through conventional breeding and application of biotechnology)

(Venue: Delegate Room)

Chair: Prof M. Madkour; **Co-Chair:** Dr M. van Ginkel)

1. *Exploiting novel genetic diversity in synthetic wheats to mitigate productivity constraints in wheat in the era of global climate change* – F.C. Ogbonnaya and O. Abdalla
2. *Improving barley drought tolerance through selection criteria and molecular markers* – S.A. Afiah and H.I. Farag
3. *Genotype-environment interaction for newly bred barley lines under different stress environments* – A. Ekram Migawar & S.A. Afiah
4. *Genetic system and response to selection for some physiological characters related to drought tolerance and grain yield in bread wheat* – H.A. Awaad, A.A. Aly and A.M. Moursi
5. *Participatory bread wheat breeding program in Kermanshah, Iran, under rainfed conditions* – R. Haghparast, S. Ceccarelli, M. Rahmanian, R. Rajbi, F. Khodadoost, M. Micheal, H. Parvin and K. Nader-Mahmoudi
6. *Resistance of new barley accessions to net-blotch disease under certain environmental conditions* – K.A. Zaki, S.A. Safiah and K.H. Ghalab

Theme 10.4: (Enhancing livelihood of desert communities, socioeconomic studies and cross-cutting issues)

(Venue: Small Theater)

Chair: Dr David Mouat; **Co-Chair:** Caroline King

1. *Indian national action plan for climate change - mitigation and adaptation for drought prone areas* – Vinod K. Sharma

2. *Land use change in dryland state of India – some environmental implications* – M.S. Rathore
3. *Analysis of desertification in drylands of Nigeria; causes, extent, and impact on human migration and agricultural productivity* – Abiodun Elijah Obayelu
4. *Comprehensive approach to desertification and drought management in Nigeria* – Andrew I. Ayeni
5. *Effect of water insecurity on agricultural productivity and human security in dryland areas of Nigeria* – Abiodun Elijah Obayelu
6. *Mangroves as fish nursery and forage safekeeping in coastal zones of the arid tropics* – Hiroshi Nawata

12:30-13:30 *Lunch at BACC*

13:30-15:30 **Plenary Session 6** (Venue: Great Hall)

Chairman: Dr Mahmoud Solh
Co-chair: Acad Djamin Akimaliev

Keynote: *Climate change and drylands: impacts on natural resources and the role of WMO* - **Mr. Michel Jarraud**, Secretary General, WMO

Lead presentations:

1. *Global climate change and livestock production: a double-edged sword* - **Prof Mohamed K. Yousef**, Nevada University, USA
2. *Strengthening sustainable use of small ruminant genetic resources in the drylands in the WANA region* - **Dr Barbara A. Richkowsky, M. Tibbo and L. Iniguez**, ICARDA
3. *Impact of global climate change on natural resources of land, water and biodiversity* - **Dr Ana Iglesias**, UPM, Spain
4. *Climate change in arid western India* - **Dr K.P.R. Vittal**, CAZRI, India
5. *New trends on qanat studies* - **Prof Iwao Kobori & Dr Kyoko Horie**, UNU

15:30-15:45 *Coffee Break*

15:45-17:15 **Concurrent Session 5**

Theme 3.5: (Enhancing resilience of agriculture in dry areas through management of water and land resources and agronomic practices)

(Venue: Lecture Room)

Chair: Dr Christopher Martius; **Co-chair:** Dr Anand Swaroop

1. *Urban growth and land use change effects on water quality and ecosystem in Las Vegas watershed: implications for water resource management in semi-arid areas* – Kumud Acharya & Mark C. Stone
2. *No-till practices in the drought and salt-affected region of Uzbekistan* – A. Nurbekov, M. Suleimanov, T. Friedrich, F. Taher, R. Ikramov and N. Nurjanov
3. *Effects of conservation agriculture on soils and crops in Khorezm, Uzbekistan* – Mehriddin Tursunov, O. Egamerdiev, John P.A. Lamers, Sarah Kienzler, R. Eshchanov, A. Pulatov, Paul L.G. Vlek and Christopher Martius
4. *Effect of a super-absorbent hydro-gel on microbial respiration and biomass in semiarid soils of contrasting textures* – Fayez Raiesi & Fershteh Rajaei
5. *Effect of super-absorbent polymers on yield and water-use efficiency of red bean* – Davood Habibi, P. Pouresmaeil, M.M. Akbar Boojari and A. Tavasoli

6. *Improving barley productivity under saline and calcareous soil conditions* – H.S. Kafaga & A.S. Abd-Elnaby

Theme 4.1: (Biodiversity conservation and utilization)

(Venue: Room C)

Chair: Dr Ali Nefzaoui; **Co-Chair:** Stefano Padulosi

1. *Agro-biodiversity in a climate change scenario: new challenges and paradigm shift* – S. Padulosi, T. Hodgkin and M. Bellon
2. *Patterns of shrub species richness and abundance in relation to environmental factors on the Alaxa Plateau: prerequisites for conserving shrub diversity in extreme arid desert regions* – Xin-Rong Li
3. *Underexploited plants of Rajasthan, India: current utilization and improvement of growth and productivity* – V.P.S. Shekhawat, A. Kumar and K.H. Neumann
4. *Changes in abundance and diversity of shrub species under protected and grazed sandy grasslands, northern China* – Feng-Rui Li, Wen-Zhi Zhao and Ji-Liang Liu
5. *Genetic diversity in the core subset of bread wheat evaluated for water deficit revealed by agronomical characterization and molecular markers* – A.M. Abd El Ghani, S.Y. Mohamed, W.I. Miseha, A.A. Zohry and Gehan A. Nour El Din
6. *Landscape ecology and biodiversity to enhance biodiversity and biological pest management* – N. Sh. Saidov & D.A. Landis

Theme 5.3: (Range management and forage and livestock production)

(Venue: Auditorium)

Chair: Dr Adel Aboul Naga; **Co-Chair:** Dr Morsi Al-Soda

1. *Environmental effect on nitrogen metabolism and protein requirement of Egyptian oasis sheep* – M.H. El-Shafie, T.M.M. Abdel Khalek and A.A. Abd El-Hamid
2. *Evaluation of some pasture species grown under conditions of rock phosphate fertilization and mycorrhiza inoculation on calcareous soil* – M.F. Emam El-Saidy
3. *Managing populations of leaf-cutting bees and their effect on alfalfa seed production in the newly reclaimed area in Egypt* – Mohamed A. Shebl, Soliman M. Kamel, Talaat A. Abu Hashesh and Mohamed A. Osman
4. *Impact of plant diversity on feeding value in Gurbantunggut Desert grassland* – Y.B. Qian, R. Adilla, Z.N. Wu, L.Y. Zhang and H.Y. Zhang

Theme 7.3: (Improvement of stress resistance in dry area crops, shrubs and tree species through conventional breeding and application of biotechnology)

(Venue: Delegate Room)

Chair: Dr Stefania Grando; **Co-Chair:** Osman Abdalla

1. *Identification of advanced winter and facultative bread wheat genotypes tolerant to drought in cold drylands of Iran* – M. Roustaii & A. Amri
2. *Use of phenotypic stability statistics for selecting and comparing advanced durum genotypes in multi-environment trials* – Reza Mohammadi & Ahmed Amri
3. *Application of chlorophyll fluorescence in improving winter wheat under drought stress* - M. Roustaii, S.A. Mohammadi, A. Amri, E. Majidi, M. Nachit, and R. Haghparast
4. *Development of drought and heat tolerant wheats for rainfed areas of arid and semi-arid regions* – Abid Mahmood
5. *Improving lentil genotypes under stress conditions in El-Tur, southern Sinai* – A.I. Hassan, S.A. Omar and S.A. Afiah
6. *Developing a new germplasm pool adapted to climate change* – Geletu Bejiga & Ashutosh Sarker

Theme 10.5: (Enhancing livelihood of desert communities, socioeconomic studies and cross-cutting issues)

(Venue: Small Theater)

Chair: Dr Aalia Refea; **Co-Chair:** Dr Aden Aw-Hassan.

1. *The incorporation of local and scientific knowledge in oasis ecosystem management strategies: two cases from Egypt and Tunisia* – Caroline King
2. *Engaging communities in combating drought and negative climate variations in the dryland of southern Pakistan* – Arif Tanveer
3. *Community agricultural development in semi-arid lands, Kenya experience* –David Kioko Mutisya & K. Sato
4. *Improving degraded lands by farmer participation in Amhara, Awi zone, Ethiopia* – Admassu Mola Fetene
5. *Farmer's perceptions on livelihood diversification for sustainable crop production* – G.D. Satish Kumar, Devidayal, and Y.V. Singh
6. *A gender perspective in the enhancement of rural communities' livelihoods in Merek and Honam, Iran* – Malika Martini

17:15-17:30 *Coffee Break*

17:30-19:30 **Concurrent Session 6**

Theme 3.6: (Enhancing resilience of agriculture in dry areas through management of water and land resources and agronomic practices)

(Venue: Lecture Room)

Chair: Dr Khalifa Ali Naibi; **Co-Chair:** Dr A. T. Moustafa)

1. *Role of olive trees irrigated with poor quality water in sustainable development in desert* – Mohamed El-Kholy
2. *Sustainable soil-less technique to combat soil-borne diseases and salinity for greenhouse growers – a success story of an Omani grower* – A.Al Farsi, A.T. Moustafa, A.Al Bakry, M. Al Rawahi, S. Al Makhmary
3. *Increasing crop productivity in drought affected Afghanistan* – J. Rizvi, A.R. Manan, S. Siddiqi, S. Tavva, K. Wadan, A.R. Rahmani and N. Haque
4. *Genotypic variation in grain yield and related traits in response to different nitrogen levels under heat-stressed environment* – Izzat S.A. Tahir, A.M.E. Elbashier, A.S.I. Saad, and Watru Tsuji
5. *Yield and energy-saving advantages of applying slow-release N-fertilizer in Upper Egypt* – Kh. A. Abbady, M.M. Ahmad, E.B. Othman and L.K. Mohamed
6. *Improving drought tolerance of wheat plants with controlled K, P and mycorrhizal management in newly reclaimed lands* – S.M.H. Abd-Allah & A.M. Awad
7. *Biological nitrogen fixation by faba bean grown on heavy metal contaminated soil with application of ¹⁵N technique* – Y.G.M. Galal, H.H. El-Sheikh, I.A. El-Ghandour and O.A. Abdel Aziz

Theme 7.4: (Improvement of stress resistance in dry area crops, shrubs and tree species through conventional breeding and application of biotechnology)

(Venue: Delegate Room)

Chair: Dr. Michael Baum; **Co-Chair:** Dr Geletu Bajiga

1. *Genetic enhancement for drought tolerance in lentil* – Ashutosh Sarker, F. El-Ashkar, M. Jalaluddin and M. Omer
2. *Large genotypic variation for salinity tolerance in groundnut particular to reproductive stage* – Namita Srivastava, V. Vadez, M. Lakshmi Narasu, H.D. Upadhyaya, S.N. Nigam and A. Rupkala
3. *Evaluation of different soybean genotypes under drought stress* – P. Moaveni, A.S. Bokaie D. Habibi, H.R. Babaie, F. Javidfar and A. Mohammadi

4. *Identification of promising safflower lines for drought conditions* – K. Alizadeh
5. *Evaluation of some seeded date palm trees grown in Fayoum Governorate* – H.A. Metwaly, A.M. Zeinab Abou-Rekab, A.A. Abd El-Baky, and A.A. El-Bana

Theme 10.6: (Enhancing livelihood of desert communities, socioeconomic studies and cross-cutting issues)

(Venue: Small Theater)

Chair: Dr K.P.R. Vittal; **Co-Chair:** Prof Hamdy Salem

1. *Sustainable water management in the oases of Egypt's Western Desert: The case of Abu Minqar* - Dr. Tina Jaskolski
2. *Feasibility of protected agriculture techniques for cash crop production in Baluchistan province of Pakistan* – Farooq Shomo, Azeem Khan, Kamel Shideed, Ahmed T. Moustafa and M. Islam
3. *Potential of ecosystem natural resources of the Red Sea region of Egypt* – Hassan M. El-Shaer
4. *Assessing the potential of crop diversification in arid zone areas: a case study of Dakhla oasis, Egypt* – Mohamed A. Medany and Gina Wuppermann
5. *Assessing the potential for environmentally sustainable agricultural tourism in arid zone areas: a case study of Dakhla oasis, Egypt* - Gina Wuppermann and Mohamed A. Medany
6. *Low cost sewage wastewater treatment station for remote areas and oasis communities* – A. Ahmed El-Behery, M. Ahmed Kassem, Joachim Kruger and M. Afaf El Moneim

Poster Session 3

Theme 8 and Theme 9

19:30- 20:00 **Closing Ceremony** *(Venue: Great Hall)*

Chairman: Prof Dr Adel El-Beltagy

Statement from host: Prof Ayman Abou Hadid

Statement on ICDD: Prof Gareth Wyn Jones

Closing Remarks: Prof Adel El-Beltagy

Vote of Thanks: Prof Mohan C. Saxena.

10 November 2008 (Monday)

08:30-09:30 **Visit of Alexandria Library**

09:30 – 10:00 *Coffee Break*

10:00 **Whole day scientific visit to dryland sites in Egypt**

11 November 2008 (Tuesday)

Optional end-of-conference visit to dryland research and developmental activities in Syria, coordinated by ICARDA. (Prior registration latest by **mid day 8 November** necessary).