DDD Conference Program

Day 1, December 14, 2008: Life And Soil Degradation In The Drylands.

Programmatic Summary

The conference's first day focused on issues involving soil degradation in the drylands. The day opened with a presentation about the new Drylands Development Paradigm. Professor James Reynolds led an interdisciplinary, international team that attempted to better characterize the nature of the causes of desertification. Their resulting feature article in Science last year drew much attention and he presented the group's conclusions. A panel of leading international experts responded from their particular disciplinary and geographic perspectives. The day's subsequent parallel sessions included a focus on soil degradation, evaluation of soil (and vegetation conditions) via remote sensing, sessions in desert ecology and issues surrounding sustainable grazing and pastoralism. Other attractions of the day included six optional short field trips during the lunch break, a special evening poster session and contest, and following dinner, an Italian film, and the traditional "full moonlit" hike in the scenic Nahal Haverim dry river bed

DAY 2, December 15, 2008: The Role Of Vegetation In Sustainable Living In Drylands –*alongside* The Jeffrey Cook Workshop In Desert Architechture And Urban Planing.

Programmatic Summary

The second day of the conference considered a range of issues involving vegetation, agriculture and land restoration in the drylands. The morning began with three plenary addresses focusing on related topics associated with climate change: a review of anticipated changes in the Mediterranean dryland region by IPCC member Pinhas Alpert and results from Israel's dryland forest sequestration research station, by its director Dan Yakir. Later, a presentation regarding recent findings about soil sequestration by renowned soil scientist Rattan Lal, arriving directly from the airport. Lectures in the parallel sessions included talks on agriculture and irrigation, carbon sequestration, new findings regarding salt and drought resistant plants, drought response strategies. After the opening plenary, the first Jeffery Cook workshop for Desert Architecture was held concomitantly and included numerous presentations on both desert building and urban planning, as well as the granting of a major cash prize for life achievement. An active lunch break featured a multitude of interesting stops in and around campus, including selected BIDR departments, scenic spots in the community, and a tour of unique educational projects. Other attractions included an afternoon trip to the scenic "Makhtesh" (crater) of Mitspeh Ramon and a visit to its geological science visitor's center. Given their tremendous popularity at our first desertification conference the "Soul Messengers" were back with an after dinner performance by the electrifying band.

DAY 3, December 16, 2008: Field Trips Day

DAY 4, December 17, 2008: The Human Dimensions- Policies And Partnerships To Combat Desertification

Programmatic Summary

The fourth day of the conference considered issues involving international interven well as social and policy dimensions of efforts to combat desertification. Internation strategies to combat desertification have focused on "bottom up" programs that er community involvement. The plenary session considered what had been the reasor successes and disappointments regarding international efforts in the field, with sut time allocated to participant participation. The subsequent parallel sessions include specific issues involving gender, development and desertification, the political ecolo public policies regarding dryland land degradation as well as a variety of case studi regarding successful projects and "bottom up" initiatives. After lunch, a brief summ the conference findings was raised.

Day 1, December 14, 2008: LIFE AND SOIL DEGRADATION IN THE DRYLAN

Programmatic Summary

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8:00-9:00 Registration

9:00 - 9:30 Greetings: (Evans Auditorium)

- Professor Avigad Vonshak, Director, Blaustein Institutes for Desert Research, BGU
- Mr. Shmulik Rifman, Head, Ramat-Negev Regional Council
- Israel Ministry of Foreign Affairs TBA
- Dr. Thomas Schaaf, UNESCO
- Ms. Elisabeth David, UNCCD Secretariat

Moderator: Alon Tal, Blaustein Institutes for Desert Research, Ben-Gurion University

9:30 – 10:10 Plenary Address: (Evans Auditorium)

James Reynolds – Professor of Biology, Duke University (U.S.A) *Cutting through the Confusion: An Old Problem (Desertification) Viewed through the Lens of a New Framework (the DDP, Drylands Development Paradigm)*

10:10 – 10:40 Respondents:

- \cdot Thomas Schaaf Chief of Ecological Sciences & Biodiversity Section, UNESCO
- · Ingrid Hartman Amoud University, Borama, Somaliland

- · Godfrey Olukoye Kenyatta University, Nairobi
- · Uriel Safriel Hebrew University, Israel

Coming Attractions: The Italian Ambassador to Israel, Mr. Luigi Mattiolo

10:40-11:00 Coffee Break

11:00-12:30 Parallel Sessions I

1. Soil Biology in Drylands (Class 1)

Chair: Professor Pedro Berliner, Blaustein Institutes for Desert Research, Ben-Gurion University

Causes and Consequences of Soil Damage in Bosnia and Herzegovinia: Experiences in Soil Conservation, M. Markovic (Bosnia and Herzegovina)

Effect of Plant Patchiness on Soil Microbial Community Structure, A. Nejidat, E. A. Ben-David, Y. Sher, R. Golden, E. Zaady (Israel)

Dryland Salinity in Australia: Land Capability Assessment and Solutions for the Productive Use of this Land, E. Barrett-Lennard, T.D. Colmer (Australia)

2. Dryland Ecology (A) (Class 2)

Chair: Professor Tamar Dayan, Faculty of Life Sciences, Tel Aviv University

Sustainable Dry-land Management – the Obligatory Mechanism for Conservation of the Saiga Antelope in the North-West Pre-Caspian region, <u>V.M Neronov</u>, A.A Lushchekina, T.Yu Karimova, N.Yu Arylova (Russia)

Periodic and Scale-free Patterns: Reconciling the Dichotomy of Dryland Vegetation, J. von Hardenberg, A. Kletter, H. Yizhaq, <u>E. Meron</u> (Israel)

Water Balance in Desert Mammals and in Flying Birds: Different Evolutionary Paths with Similar Physiological Outcomes, B. Pinshow (Israel)

Desertification in the Grasslands of Central Australia: Effects of Fire and Climate Change, <u>C. R. Dickman</u>, G. M. Wardle, A. C. Greenville and B. Tamayo (Australia)

Is Grass Scarcity in the Chihuahuan Desert A Result of Shrub-Grass Competition or Soil Moisture Limitation? <u>G. Kidron</u> (Israel) V. Gutschick (U.S.A)

<u>3. Benchmarks and Indicators of Desertification</u> (Water Institute - Seminar Room)

Chair: Professor Moshe Shachak, Blaustein Institutes for Desert Research, Ben-Gurion University

Spatial Vegetation Patterns Indicating Imminent Desertification, M. Rietkerk (Netherlands)

Do Vegetation Indices Reliably Assess Vegetation Degradation? A Case Study in the Mongolian Pastures, <u>A. Karnieli</u>, Y. Bayarjargal, M. Bayasgalan, B. Mandakh, J. Burgheimer, S. Khudulmur, and P.D. Gunin (Israel)

Attaining Reliable Scientific Knowledge of the Global Extent of Desertification, A. Grainger (UK)

4. Pastoralism in the Drylands (A) (Evans Auditorium)

Chair: Dr. Eli Zaady, Gilat Research Center, Agricultural Research Organization, Israel

Complex Interactions between Climate and Pastoralists in Desert Grasslands, C. Curtin (U.S.A)

Striving to Balance Agricultural Development, Sustainability and Social Outcomes in the Western Australian Rangelands, C. Chilcott (AU)

Pattern Formation, State Changes and Catastrophic Shifts in Poa bulbosa Production as Responses to Simulated Grazing, <u>H. Majeed</u>, Y. Garb, M. Shachak (Israel)

12:30 – 14:30 Short Field Trips and Lunch Break

14:30-16:00 Parallel Sessions II

5. <u>Remote Sensing and Assessment of Desertification Processes (A)</u> (Class 1)

Chair: Professor Dan Blumberg, Department of Geography and Environmental Development, Ben-Gurion University

Progress in Mapping Global Desertification, S. D. Prince (U.S.A)

Exploring the Definition of Desertification, Through the Case Study of the Egyptian-Israeli Borderline, A. Karnieli, C. Hanisch, Z. Siegal and H. Tsoar (Israel)

Desertification in Sicily: Preliminary Results Based on the Evaluation and the Comparison of meteo-climatic and hydrological indicators in GIS environment, M. Sciortino, E. Caiaffa, M. Bucci, <u>R. M. Donolo</u>, G. Fattoruso, G. Salvetti (Italy)

6. Drought and Salt Resistant Plants for the Drylands (A) (Class 2)

Potential for Utilizing the Mulberry (Morus Alba) and the Neem (Azadirachta Indica) For Desertification Control in Northern Ghana: the Experience of the Sericulture Promotion And Development Association, Ghana. P. K. Ntaanu (Ghana)

Phenology, Floral and Reproductive Biology Studies of Genus Zizipus under Negev Desert Conditions, M. Kulkarni, B. Schneider, <u>N. Tel-Zur</u> (Israel)

Dissecting the Molecular control of Stomatal Movement in CAM plant: Potential Source for Genes Conferring Drought Tolerance in C3 Plants, Y. Sitrit (Israel)

Role of Hydrophilins in Water-stressed and Salt-stressed Environments, D. Bar-Zvi, (Israel)

Using the Model Plant Arabidopsis Thaliana and Extremophile Arabidopsis

Relatives to Identify Genes that Can Confer Plant Tolerance to Arid Conditions, S. Barak (Israel)

7. Water Management Strategies in the Drylands (Evans Auditorium)

Water Management in a Semi-arid Region: An Integrated Water Resources Allocation Modeling for Tanzania, S. Kazumba (Tanzania)

Of Droughts and Flooding Rains - the Legal Implications of Australia's New Water Act 2007. <u>J. McKay</u> (Australia)

Is Desalination Right for Sydney? P. Lawhon Isler (Australia)

The Influence of Infiltration Reservoirs on Groundwater Recharge in Arid Lands, O. Dahan (Israel)

8. Indigenous Knowledge in the Drylands (Water Institute - Seminar Room)

Chair: Prof. Aref Abu Rabia, Ben-Gurion University, Faculty of Humanities and Social Sciences

Environmental and Economic Potential of Bedouin Dryland Agriculture, <u>K. Abu</u> <u>Rabia</u>, E. Solowey, S. Leu (Israel)

Traditional Knowledge and Technologies: Administration of Common Goods from the Perspective of Goat Producers in the Lavalle Desert, L. M. Torres (Argentina)

16:00-16:15 Coffee Break

16:15-17:15 Parallel Sessions III

<u>9. Remote Sensing and Assessment of Desertification Processes (B)</u> (Class 1)

Chair: Prof. Hanoch Lavee, Director, Kinneret college

Assessing Land Cover Change and Degradation in the Central Asian Deserts Using Satellite Image Processing and Geostatistical Methods, <u>A. Karnieli</u>, T. Svoray, U. Gilad, (Israel)

Integrating Remotely-sensed Vegetation Phenology and Rainfall Metrics to Characterize Changes in Dryland Vegetation Cover: Example from Burkina Faso <u>S. Herrmann</u>, T. Hopson, (U.S.A)

The Effect of Wildfires on Vegetation Cover and Dune Activity in Australia's Desert Dunes: A Multi-Sensor Analysis, <u>N. Levin</u>, S. Levental, H. Morag (Israel) **10. Dryland Ecology (B) (Class 2)**

Chair: Dr. Yehoshua Shkedy, Chief Scientist, Israel Nature and National Parks Protection Authority

Short-term Responses of Small Vertebrates to Vegetation Removal as a Management Tool in the Nizzanim Dunes, <u>B. Shacham</u>, A. Bouskila (Israel) *Microbial Diversity of Mediterranean and Arid Soil Ecosystem,* <u>A. Bachar</u>, A. Ashhab, R. Angel, M. Ines M. Soares, O. Gillor, (Israel)

Effects of Woody Vegetation and Anthropogenic Disturbances on Herbaceous Vegetation in the Northern Negev, <u>M. Segoli</u>, E. David Ungar, M. Shahack (Israel)

Biodiversity and Productivity in a Conserved Semi-Arid Savanna, Ecosystem in the Eastern Negev, <u>A. Mussery</u>, B. Boeken, S. Leu, (Israel)

11. Land Restoration Strategies (Old Seminar Room)

Chair: Dr. Avi Gafni, Director of Research, Keren Kayemeth L'Yisrael

Role of Wetlands in Sustainable Drylands, D. Mutekanga (Uganda)

Restoration of Abandoned Lands, B. Gabrielyan (Armenia)

Desertification in the Sahel: Causes, Prevention and Reclamation, D. Pasternak (Israel)

<u>12. Strategies for Living in the Drylands</u> (Water Institute - Seminar Room)

Chair: Gen. Mansour Abu Rashid, Amman Center for Peace and Development

Ecological Sanitation (ECOSAN) as an Alternative Approach for Sustainable Dryland Development, A. Gross (Israel)

Has Dependence on Runoff Agriculture in the Dry-land Environment of the Central Negev Mountains Changed significantly in the Last Few Thousand Years? Testing the Contribution of the Geological Substrate, <u>N. Wieler, Y</u>. Avni, C. Benjamini. (Israel)

Vegetation Change in Response to Grazing and Water Level Decline in the Enot Zukim Nature Reserve (en Fescha) Israel, <u>L. Whittaker</u>, M. Walczak, A. Sabach and E. Dror (Israel)

<u>13. Pastoralism and the Drylands (B)</u> (Evans Auditorium)

Chair: Mr. Shmulik Friedman Head of Israel Grazing Authority

Patterns of Accessing Variable Resources across Time and Space: Desert Plants, Animals and People, R. McAllister (AU)

Normative Carrying Capacity of an Israeli Forest for Domesticated Grazers, <u>D.</u> <u>Evlagon</u>, S. Komisarchik, Y. Nissan, N. Seligman (Israel)

Sustainable Grazing Strategies for Semi-arid Rangelands of Central Argentina, R. Distel (Argentina)

17:30-19:00 Poster Session (and contest)

19:15-20:15 Dinner

20:15–20:30 Announcement of Poster Contest Winners - Israel Committee for UNESCO

20:30 Evening Activities (optional)

Moonlit Hike in Nahal Haverim (Please come w/ walking shoes and warm clothes)

or

An Italian film, courtesy of the Italian Cultural Center, Tel Aviv

DAY 2, December 15, 2008: THE ROLE OF VEGETATION IN SUSTAINABLE LIVING IN DRYLANDS - *ALONGSIDE* THE JEFFREY COOK WORKSHOP IN DESERT ARCHITECHTURE AND URBAN PLANING

Programmatic Summary

The second day of the conference considered a range of issues involving vegetation, agriculture and land restoration in the drylands. The morning began with three plenary addresses focusing on related topics associated with climate change: a review of anticipated changes in the Mediterranean dryland region by IPCC member Pinhas Alpert and results from Israel's dryland forest sequestration research station, by its director Dan Yakir. Later, a presentation regarding recent findings about soil sequestration by renowned soil scientist Rattan Lal, arriving directly from the airport. Lectures in the parallel sessions included talks on agriculture and irrigation, carbon sequestration, new findings regarding salt and drought resistant plants, drought response strategies. After the opening plenary, the first Jeffery Cook workshop for Desert Architecture was held concomitantly and included numerous presentations on both desert building and urban planning, as well as the granting of a major cash prize for life achievement. An active lunch break featured a multitude of interesting stops in and around campus, including selected BIDR departments, scenic spots in the community, and a tour of unique educational projects. Other attractions included an afternoon trip to the scenic "Makhtesh" (crater) of Mitspeh Ramon and a visit to its geological science visitor's center. Given their tremendous popularity at our first desertification conference the "Soul Messengers" were back with an after dinner performance by the electrifying band.

8:00-8:30 Registration

8:30 – 9:45 Plenary Addresses: (Evans Auditorium)

Pinhas Alpert – Director of the Porter School of the Environment, Tel Aviv University

The impact of climate Change on Desertification in the Mediterranean Region

Dan Yakir – Head of the Department of Environmental Sciences & Energy Research, Weitzman Institute

Israeli Forestry, Carbon and the Drylands: Recent Findings from Israel

Moderator: Mark Winslow, International Crops Research Institute for the Semi-Arid Tropics, Germany

9:45 – 11:15 Parallel Sessions IV

14. Drought and Salt Resistant Plants for the Drylands (B) (Class 1)

Chair: Professor Micha Guy, Blaustein Institutes for Desert Research, Ben-Gurion University

The Chemical Induction of Polyploidy Mutants in Zizphus Mauritiana, N. Tel Zur and <u>M. A.Taher</u> (Israel / Jordan)

Abiotic and Biotic Factors Limiting the Establishment of Quercus Ilex Seedlings in a Mediterranean Karstic Landscape, J. Cortina (Spain)

Recently Domesticated Native Desert Herbs for Sustainable Planting in Arid and Saline Areas, E. Solowey (Israel)

Germination and Seedling Survival in NaCl Solutions after Desiccation of some Halophytes used in Pasture and Fodder Production in the Solonchak Salinities of the Kyzylkum Desert, in Uzbekistan, T. Gendler, J. Ulbosun, N. Orlovsky and <u>Y. Gutterman</u> (Israel)

Comparison of Germination Strategies of Four Artemisia *Species (Asteraceae) in Horqin Sandy Land, China*, <u>L. Xuehue</u>, L. Zhimin, J. Demning (China)

15. Afforestation in the Drylands (Class 2)

Chair: Dr. Gabriel Shiller, Gilat Research Center, Agricultural Research Organization, Israel

Dryland Afforestation, B. Hollingworth, (Australia)

Soil and Water Management along with Afforestation for Rehabilitation of Desertified Areas of the Israeli Negev, Y. Moshe (Israel)

Land Restoration in the Mediterranean, V. R. Vallejo (Spain)

The Impact of Tree Shelters on Forest Survival of Eight Native Broadleaf Species in Forest Plantations in Israel, O. Boneh (Israel)

16. Irrigation in the Drylands (A) (Evans Auditorium)

Chair: Dr. Alon Ben-Gal, Gilat Research Center, Agricultural Research Organization, Israel

Drip Irrigation in Sub-Saharan Africa, Towards a Strategy for Successful Technology Transfer, L. Friedlander (U.S.A)

Managing Salt, Nutrient and Soil Structure in Reclaimed Water Irrigated Vineyards of South Australia, T. <u>Biswas</u>, McCarthy (AU)

Easily Implemented Manipulation of the Root Zone Environment for Optimization of Water and Soils in Irrigated Dry-land Agriculture, E. Ityel (Israel)

Combating Land Degradation in Irrigated Agriculture through Systematic Characterization of Saline-Sodic Soils for Improved Irrigation Efficiency in Kenya, E.M. Muya (Kenya)

<u>17. Climate Change in the Drylands</u> (Water Institute – Seminar Room)

Climate change in Unpredictable Environments: a Soil Seed Bank Perspective, M. Sternberg (Israel)

Climate Change Trends in an Hyperarid Zone, Southern Arava (Israel and Jordan), <u>H. Ginat</u>, Y. Shlomi, D. Blumberg (Israel)

Climate Change and its Effect on Mediterranean Basin Ecosystems, P. Bar (Kutiel) (Israel)

Climatic Change and Desertification Predictive Modeling in Northeastern Nigeria, O. Ati, <u>Q. Taiwo</u> (Nigeria)

The Impact of Long Term Drought Periods in Northern Israel, M. Inbar (Israel)

Micro-Climatic Effect of a Manmade Oasis During Different Seasons in an Extremely Hot, Dry Climate, <u>O. Potchter</u>, D. Goldman, D. Kadish, D. Iluz (Israel)

18. Managing Drought in the Drylands (Old Seminar Room)

Chair: Mr. Yaakov Lomas, Israel Meteorological Institute

Drought Risk Reduction in Rajasthan, India, M. Gupta (India)

Merits and Limitations in Assessing Droughts by Remote Sensing, A. Karnieli and N. Agam (Israel)

Hydric Characterization of the Sinaloa State (Mexico), Through the Aridity and Aridity Régime Indices, I. Velasco (Mexico)

Economically Sustainable Rain-fed Wheat Production under Semi-arid Climatic Conditions – Agrometeorological Criteria for Planning Purposes, Y. Lomas (Israel)

Jeffrey Cook Workshop in Desert Architecture and Urban Planning – <u>Session 1</u> (Location: Interdisciplinary Education Center)

9:45-10:10 Auroville – Vision, Goals and Projects, S. Ayer-Guigan (India)

10:10-10:35 *Microclimatic Issues in the Planning of a Modern City in a Desert Environment* E. Erell (Israel)

10:35-11:10 Urban Sustainability in Desert and Dryland Areas – a First Exploration, <u>Y. Rofe</u> (Israel), G. Feierstein (Argentina)

11:15- 12:00 -Plenary Addresses: (Evans Auditorium)

Rattan Lal - Director of the Carbon Management and Sequestration Center, Ohio

State University **Carbon Sequestration in the Drylands: Where we are... Where we might go...**

12:00-13:30 Open Campus Lunch Break

13:30-15:00 Parallel Sessions V

<u>19. The Role of Vegetation in Combating Desertification</u> (Evans Auditorium)

Chair: Mr. Israel Tauber, Keren Kayemeth L'Yisrael

Green Spots as a Tool to Combat Desertification in the Aral Sea Region, L. Dimeyeva, (Kazakhstan)

Combating Desertification - not at all costs – a Matter of Temporal and Spatial Scales and Policies, P. Bar (Kutiel) (Israel)

Establishing the Relationships between Soils, Vegetation and Ecosystem Dynamics: A Strategy for Land Degradation Control in Nurunit Marsabit District, Kenya, E. M. Muya (Kenya)

20. Agriculture in the Drylands (Class 1)

Chair: Dr. Israel Eliashiv, Ambassador of Israel (ret.), Senior Adviser, Blaustein Institutes for Desert Research, Ben-Gurion University

Evaluation of Optimal Time-of-Day for Detecting water Stress in Olive Trees by Thermal Remote Sensing, <u>N. Agam</u>, A. Ben-Gal, Y. Cohen, V. Alchanatis, U. Yermiyahu, A. Dag, (Israel)

Improving the Sustainability and Productivity of Rain-fed Field Crops in the Negev Regions, D. J. Bonfil (Israel)

21. Irrigation in the Drylands (B) (Class 2)

Sustainable Irrigation – New Innovations for the Drylands, N. Barak (Israel)

Root zone Salinity Management Strategy for the Australian Drought, G. Schrale (Australia)

On the Feasibility of Desalinating Water for Drylands Irrigation: Agricultural and Technological Perspectives, U. Yermiyahu (Israel)

Future Strategies for Addressing the Drainage Problems in the Desert Area (IGNP) of Western Rajasthan in India, K. S. Gupta (India)

22. Carbon Sequestration (Water Institute - Seminar Room)

Chair: Dr. Noam Gressel, Assif Strategies LTD.

Semi-arid Afforestation and its Effect on Land-atmosphere Interactions, <u>E.</u> <u>Rotenberg</u>, K. Maseyk, J. Gruenzwieg, R. Ben Mair, D. Yakir (Israel) Halting Land Degradation and Desertification: A Win-Win Mitigation Strategy Neglected by the Climate Establishment, S. Leu (Israel)

Carbon Trading, CDMs and Forestry – A Practitioner's Perspective, N. Gressel (Israel)

<u>Special Round Table discussion: Middle-eastern Regional Cooperation in</u> <u>Desertification Research</u> with Arab and Israeli Desertification Experts (Location: Old Seminar Room)

Jordanian, Palestinian and Israeli experts meeting and discussing common concerns and solutions to address desertification in the Middle East region.

Moderator: Prof. Avigad Vonshak

Jeffrey Cook Workshop in Desert Architecture and Urban Planning – <u>Session 2</u> (Location: Interdisciplinary Education Center)

13:30-14:00 Jeffrey Cook Award for Desert Architecture, Baruch Givoni (Israel & US)

14:00-14:20 *Passive Strategies to Improve Thermal Comfort in the Varying Climatic Conditions Experienced through Seasonal Change*, M. Hancock (UK)

14:20-14:40 *Towards a Comprehensive Methodology for Post Occupancy Evaluation (POE): A Hot Dry Climate Case Study*, <u>I. Meir</u> (Israel), E. Krueger (Brazil), L. Morhayim (Turkey), S. Fundaminsky, L. Frenkel(Israel)

14:40-15:00 *Sick Building Syndrome in a University Building – an Educational Survey,* L. Morhayim (Turkey), <u>I. Meir</u> (Israel)

15:00-15:30 Discussion

15:30 Bus Ride to Mitzpe-Ramon

16:00-17:00 Sunset at the Ramon Makhtesh; Visit to Geological Visitor's Center

19:00 Dinner and Modern Dance Performance

20:00 Evening Activity: *Music & Dancing with the Negev Desert's Own* Legendary Rocking Band: "The Soul Messengers"

DAY 3, December 16, 2008: FIELD TRIPS DAY

(1) SOCIAL CHALLENGES AND DRYLANDS DEVELOPMENT:

Objective: To consider some of the social aspects associated with development in Israeli drylands the potential of empowerment for local indigenous minorities.

Tour Highlights:

Bedouin settlements- past and present : a visit to Hura local municipality Migration challenges: visit to Yeruham local municipality African immigration to Israel: a visit to an Ethiopian Jews Klita center Women as entrepreneurs in traditional communities

(2) DESERT ECO-TOURISM

Objective: Consider conflicts between tourism (including ecological tourism) and environmental conservation in dryland regions.

Tour Highlights:

Mizpe Ramon: from mining center to tourists' paradise present challenges- Ecological Enterprises: soap factory, chocolatery The wine route farms Ecolodge: near Mashabim Bedouin tourism Use of saline water for tourism: Neve Midbar Spa

(3) AGRICULTURE IN THE DRYLANDS

Objective: To observe innovative and practical solutions to the specific challenges of agriculture in arid regions and meet practitioners.

Tour Highlights:

Gilat Research Center Dryland rainfed agriculture Crop management Irrigation research facilities Orchard studies Migda station Grazing Soil conservation – erosion Northern Negev agricultural settlements Precision agriculture Irrigated agricultural systems (sprinklers, traveling sprinklers, drip, subsurface) Irrigation with low quality (effluent and saline) water Vist to the Netafim factory, Kibbutz Hazerim

(4) FORESTATION IN THE DRYLANDS:

Objective: To consider Israel's experience in drylands afforestation as a possible solution in combating desertification

Tour Highlights:

"Liman"s – Water harvesting and monitoring Gilat nursery – Seedlings production for afforestation and urban use.

Karkor Wadi (safari vehicle!) – Water harvesting, gully control and afforestation

Meitar and Yatir forests – afforestation in the frontier of the Mediterranean zone, urban forestry, forest research and agriculture in Israel's largest forest, flourishing at less than 300 mm/year of precipitation.

(5) NATURE CONSERVATION IN ARID REGIONS:

Objective: To understand dilemmas and lessons learned from managing nature reserves and preserving biodiversity in an agricultural, arid region.

Tour Highlights:

Ein Avdat national park <<find picture, link>>: oasis in the past and present Kibbutz Revivim: intensive agriculture in sandy areas Mashabim dunes (safari vehicle) Species diversity issues

(6) WATER MANAGEMENT AND AGRICULTURAL RESEARCH:

Objective: To become familiar with advanced technologies to produce and conserve water, as well as advanced agricultural developments in arid areas:

Tour Highlights:

Desalination plants: from pilot to practice... A tour of the Zuckerberg Institute for Water Research Agricultural R&D Kziot desalination plant The wine route farms: conserving water in the field.

DAY 4, December 17, 2008: THE HUMAN DIMENSIONS- POLICIES AND PARTNERSHIPS TO COMBAT DESERTIFICATION

Programmatic Summary

The fourth day of the conference considered issues involving international interventions as well as social and policy dimensions of efforts to combat desertification. International strategies to combat desertification have focused on "bottom up" programs that emphasize community involvement. The plenary session considered what had been the reasons for successes and disappointments regarding international efforts in the field, with substantial time allocated to participant participation. The subsequent parallel sessions included specific issues involving gender, development and desertification, the political ecology and public policies regarding dryland land degradation as well as a variety of case studies regarding successful projects and "bottom up" initiatives. After lunch, a brief summary of the conference findings was raised.

8:00-8:30 Registration

8:30 - 10:15 Plenary Addresses/ Panel: (Evans Auditorium)

Reconsidering the Axiom of "Bottom Up" Desertification Programs: Lessons Learned about Partnerships and International Assistance: a short introduction followed by discussion.

- Elisabeth David, UNCCD Secretariat
- Chris Braeuel UNCCD Focal Point, Canada
- Alon Tal, Blaustein Institutes for Desert Research, Ben-Gurion University
- Delphine Ouedraogo, Ministry of Environment, Focal Point to UNCCD, Burkina Faso

Moderator: Uriel Safriel, UNCCD Focal Point, Israel

10:00-10:15 Coffee Break

10:15-11:50 Parallel Sessions VI

23. Women as Agents of Social Change in desert regions (Panel A) (Class 2)

Chair: Anat Lapidot-Firilla, School of Public Policy, The Hebrew University of Jerusalem

Rethinking Modern Education among Indigenous Negev Bedouin, S. Abu-Rabia-Queder (Israel)

Looking Ahead: Bedouin Women, Higher Education, Identity and Belonging, R. Halevi (Israel/U.S.A.)

The Nation and its Natures: Depictions of Women Environmental Educators in the Israeli Negev Desert, M. Lavi-Neeman, (Israel/USA)

"My Life? What is there to tell?" Interpreting the Life Stories of Multiply Marginalized Women in an Israeli 'Development Town, S. Ron (Israel)

24. Public Policy, Economics and Desertification (Class 1)

Chair: Dr. Moshe Schwartz, Blaustein Institute for Desert Research, Ben-Gurion University

Economic Instruments for Mitigation of Desertification Problems in Armenia, S. Gevorgyan (Armenia)

Land Degradation, Subsidies Dependency and Market Vulnerability of Stock – breeding Households in Central Crete, <u>H. Lorent</u>, E. F. Lambin (Belgium), R. Sonnenschein, P. Hostert (Germany), G. Tsiourlis (Greece)

The Value of Israel's Forests, <u>T. Eshet</u>, D. Disegni and M. Shechter (Israel)

Current Status and Issues for Combating Desertification in Western Rajasthan, K. S. Gupta, (India)

How to Put Desertification and Water Management on the Political Agenda: The South Italy Development Policies, <u>C. Donolo</u> and R. M. Donolo (Italy)

25. Food Security in the Drylands (Water Institute – Seminar Room)

Chair: Elisabeth David, UNCCD Secretariat

Livelihood Strategies: Indigenous Practices and Knowledge Systems in the Attainment of Food Security in Botswana, M. Bolaane (Botswana)

Drought and Food Insecurity: a Rationale for National Grain Reserves, H. Bruins (Israel)

The Impact of Drought on Agriculture in Jordan, <u>S. Batarseh</u>, H. J. Bruins (Jordan)

<u>26. Case Studies – Projects that Combat Desertification (Evans</u> Auditorium)

Chair: Beth-Eden Kite, Deputy Director, MASHAV Center for International Cooperation, Israel Ministry of Foreign Affairs

Valuing the Successes of Combating Desertification, the Experience of Burkina Faso in the Rehabilitation of the Productive Capacity of the Village Territories, D. Ouedraogo (Burkina Faso)

Production Diversification for Expanding the Economic Foundations of Argentinean Monte Desert Communities, <u>E. M. Abraham</u>, G. Enne (Argentina)

The Experiences of Turkey on Land Rehabilitation and UNCCD Implementation, E. Ozevren (Turkey)

Status of Desertification in Jordan, M. Bsoul (Jordan)

11:50-12:00 Coffee Break

12:00-13:00 Parallel Sessions VI

27. Bottom Up: Community Participation in Programs to Combat Desertification (Evans Auditorium)

Chair: Dr. Haim Divon, Deputy Director, Israel Ministry of Foreign Affairs

Dryland Gardening: A Sustainable Solution to Desertification? Southern Africa as a Case Study, A. Abramson (U.S.A)

28. Desertification and Culture: Gender and the Politics of Development (Panel B) (Old Seminar Room)

Chair: Dr. Pnina Motzafi-Haller, Blaustein Institute for Desert Research, Ben-Gurion University

Development and the Role of Women in Pakistan, M. Bano, (UK)

Domestic Water Provision and Gender Roles in Drylands, A. Coles (UK)

Wearing the Pants: The Gendered Politics of Trashwork in Senegal's Capital City, R. Fredericks, (USA)

<u>29. The Negev Desert – Balancing Development and Conservation (Class</u> 1)

Chair: Dr. Yodan Rofe, Blaustein Institute for Desert Research, Ben-Gurion University

The Negev Desert: From Frontier to Periphery, Y. Gradus (Israel)

The National-Strategic Plan for Developing the Negev – Negev 2015: An Old Prospect or a New Future, N. Theshner (Israel)

The Potential of TOD for Development of the Northern Negev, D. Gat (Israel)

Sense of Place and Naming in Hura as an Example of the Changing Spatial Consciousness of Bedouin in the Negev, A. Ben Israel, A. Meir (Israel)

A Spatial Analysis of the Ecological Impact of Settlement Patterns and Community Types in Israel's Negev Desert, D. Orenstein (Israel) **30. The Political Ecology of Deserts and Desertification** (Class 2)

Chair: Dr. Yaakov Garb, Blaustein Institute for Desert Research, Ben-Gurion University

Rebuilding the Land: Political Ecology of Land Degradation in Somaliland, I. Hartman (Germany)

Desertification or Greening in the Sahel? Case study of Inadvertent Greening in the Oued Kowb, Mauritania, <u>S. Herrmann</u>, M. Baro, A. Niang (U.S.A)

Political Ecology: Wind Erosion on the U.S. Southern High Plains, <u>R. E. Zartman,</u> A.C. Correa (U.S.A)

<u>31. Assessing International Efforts to Combat Desertification (Water</u> Research – Seminar Room)

Chair: Professor Uriel Safriel, Faculty of Science, Hebrew University Follow the Money: Navigating the International Aid Maze for Dryland Development, P. Chasek (U.S.A)

Research Priorities of the UNESCO Chair on Eremology, D. Gabriels (Belgium)

An Analytic Review for International Collaborations on Drylands Research and Sustainable Development, J. S. Hauger (U.S.A)

A Conference to Improve the Flow of Science into the United Nations Convention to Combat Desertification, M. Winslow (Germany)

13:00-14:30 Lunch and Concluding Session