



COST Action ES1104

Arid Lands and Combat of Desertification: Setting up a Drylands and Desert Restoration Hub

## Final Conference

### Restoration of Arid Lands and Combat of Desertification: From Science to Practice

30-31 March 2016

University of Greenwich, London, UK

#### Wednesday 30 March

09:00-09:45 Registration

09:45-10:00 Welcome

10:00-11:00 Benz Kotzen (University of Greenwich, UK): COST Action ES1104 – An overview

11:00-11:30 Coffee break

11:30-13:00 **Applied multidisciplinary research in dryland restoration**

*Chair: Cristina Branquinho (University of Lisbon, Portugal)*

Edoardo Costantini (Council for Agricultural Research and Economics, Italy): Soil indicators to assess the effectiveness of restoration strategies in dryland ecosystems

Ilan Stavi (Dead Sea and Arava Science Centre, Israel): Moderate-intensity practices for restoring soil functions and ecosystem services in drylands

Melanie Batista (University of Lisbon, Portugal): Plant diversity along a desertification gradient: the importance of soils

13:00-14:00 Lunch break

14:00-15:30 **From science to practice**

*Chair: Edoardo Costantini (Council for Agricultural Research and Economics, Italy)*

Roberto de Phillipis (University of Florence, Italy): The induction of biological soil crusts: an environmental biotechnology for the rehabilitation of desert soils

Alejandro Valdecantos (Mediterranean Centre for Environmental Studies, Spain): plant-plant interactions in dryland restoration

Alexandra Silva (Secil, Portugal): Quarry rehabilitation and biodiversity: a case study from Portugal

15:30-16:00 Coffee break

16:00-17:30 **Strategic approaches to land use planning**

*Chair: Gudrun Schwilch (University of Bern, Switzerland)*

Janet Hooke (University of Liverpool, UK): Landscape approach to dryland restoration: a review of relevant concepts and tools for implementation

Maria Jose Marques (Autonomous University of Madrid, Spain): Multifaceted impacts of Sustainable Land Management in drylands

Matteo Jucker (University of Bern, Switzerland): Assessing resilience of land use systems in dry Mediterranean areas prone to regime shifts

**Thursday 31 March**

09:30-11:00 **Engagement with stakeholders**

*Chair: Maria Jose Marques (Autonomous University of Madrid, Spain)*

Ute Schmiedel (University of Hamburg, Germany): The role of paraecologists in ecological restoration

Pandi Zdruli (CIHEAM Mediterranean Agronomic Institute of Bari, Italy): Engaging with local communities in the restoration of Wadi Kharrouba, North West Desert, Egypt

Tesfai Mehreteab (Norwegian Institute for Bioeconomy Research): Stakeholder involvement in water harvesting projects in Africa: a key factor for success

11:00-11:30 Coffee break

11:30-13:00 **Learning from practitioners**

*Chair: Janet Hooke (University of Liverpool, UK)*

Gudrun Schwilch (University of Bern, Switzerland): Learning from and sharing best practice in the management of drylands

Alice Nunes (University of Lisbon, Portugal): Ecological restoration in Mediterranean drylands: a survey of restoration practitioners

Teresa Mexia (University of Lisbon, Portugal): Priorities, difficulties and challenges of restoration in drylands: young researchers' perspectives

13:00-14:00 Lunch break

14:00-16:00 **Setting new agendas in restoration science**

*Chair: Simon Berkowicz (Hebrew University of Jerusalem, Israel)*

Federico Rossi (University of Florence, Italy): The role of cyanobacterial-produced exopolysaccharides in the successful induction of biological soil crusts in desertified areas

Alessandra Adessi (University of Florence, Italy): Investigating the role of extracellular polymeric substances in the physiology of dryland biological soil crusts

Isaac Kedem (Hebrew University of Jerusalem, Israel): Exploring the role of an unusual green alga in the healthy functioning of a desert crust

Ariel Cohen (Ben Gurion University of the Negev, Israel): The impact of environmental change on the development of ephemeral gullies

Luca Paoli (University of Siena, Italy): Desertification and lichens: biological markers of climatic

and nitrogen stress in dry environments

Bouajila Essifi (Institut des Regions Arides, Tunisia): Mapping and monitoring of a restoration project in southern Tunisia

Adriana Príncipe (University of Lisbon, Portugal): Regenerating Mediterranean forest: the implications of microclimate in drylands

Troy Sternberg (University of Oxford, UK): Mapping potential shallow groundwater in the Gobi Desert

16:00-16:30 Coffee break / Close