

Training course

Land Degradation and Soil Management in Africa



Organizer:
International Center for
Biosaline Agriculture (ICBA),
United Arab Emirates

Partner countries:

Burkina Faso, Ethiopia, Gambia,
Mali, Mauritania, Nigeria, Niger,
and Senegal

Funder:

Islamic Development Bank
(IDB), Saudi Arabia

Course Coordinator at ICBA:

Dr. Shabbir A. Shahid, Salinity
Management Scientist
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For more information on ICBA,
visit www.biosaline.org

Date: November 23-27, 2015

Location: Dakar, Senegal

Agenda

Monday, November 23, 2015

09:00-09:30 **Registration**

09:30-10:30 **Opening session**

Welcome by Director General ISRA, **Dr. Alioune Fall**

Welcome by ICBA

Introduction of participants, lecturers and program

Group photo

10:30-11:00 **Tea/coffee break**

11:00-11:45 **Lecture 1:** *Human demand on nature – we need healthy soils for food security*

Dr. Shabbir Shahid, Salinity Management Scientist

11:45-12:00 Discussion

12:00-12:45 **Lecture 2:** *Water and soil interaction: How does salt move?*

Dr. Richard Soppe, Marginal Water Scientist

12:45-13:00 Discussion

13:00-14:00 **Lunch and prayer break**

14:00-14:45 **Lecture 3:** *Soil salinity/sodicity and development mechanisms*

Dr. Shabbir Shahid, Salinity Management Scientist

14:45-15:00 Discussion

15:00-15:30 Tea/coffee break

15:30-17:00 **Discussion 1:** *Limitations in salinity/sodicity assessment and management in Africa*

Moderator: Dr. Richard Soppe, Marginal Water Scientist

Tuesday, November 24, 2015

09:00-09:45 **Lecture 4:** *A mass balance approach to salt management*

Dr. Richard Soppe, Marginal Water Scientist

09:45-10:00 Discussion

10:00-10:45 **Lecture 5:** *Irrigation induced salinity development zones – different irrigation systems*

Dr. Shabbir Shahid, Salinity Management Scientist

10:45-11:00 Discussion

11:00-11:30 **Tea/coffee break**

11:30-12:15 **Lecture 6:** *Field-based solutions to reduce salinity mobilization*

Dr. Richard Soppe, Marginal Water Scientist

12:15-12:30 Discussion

12:30-13:15 **Lecture 7:** *Developments in soil salinity assessment technologies*

Dr. Shabbir Shahid, Salinity Management Scientist

13:15-13:30 Discussion

13:30-14:30 **Lunch and prayer break**

- 14:30-15:15 **Lecture 8:** Field observation of salinity and sodicity
Dr. Shabbir Shahid, Salinity Management Scientist
- 15:15-15:30 **Discussion**
- 15:30-17:00 **Exercise 1:** Crop selection based on salinity diagnostics

Wednesday, November 25, 2015

- 09:00-16:30 **Field visit:** Field visit to agricultural farms to witness soil salinization problems

Thursday, November 26, 2015

- 09:00-09:45 **Lecture 9:** Conservation agriculture
Dr. Richard Soppe, Marginal Water Scientist
- 09:45-10:00 Discussion
- 10:00-10:45 **Lecture 10:** Introduction to gypsum requirement methods
Dr. Shabbir Shahid, Salinity Management Scientist
- 10:45-11:00 Discussion
- 11:00-11:30 **Tea/coffee break**
- 11:30-12:15 **Lecture 11:** Case study – mitigation and adaptation of salinity and sodicity – lessons learnt.
Dr. Shabbir Shahid, Salinity Management Scientist
- 12:15-12:30 Discussion
- 12:30-13:15 **Lecture 12:** Prevention of regional salt mobilization
Dr. Richard Soppe, Marginal Water Scientist
- 13:15-13:30 Discussion
- 13:30-14:30 Lunch and prayer break
- 14:30-15:15 **Lecture 13:** Integrated reclamation of salt-affected soils
Dr. Shabbir Shahid, Salinity Management Scientist, ICBA
- 15:15-15:30 Discussion
- 15:30-17:00 **Exercise 2:** Soil reclamation (determining gypsum requirement of saline-sodic and sodic soils)
Dr. Shabbir Shahid, Salinity Management Scientist

Thursday, November 27, 2015

- 09:00-09:45 **Lecture 14:** Nutrient cycling and integrated nutrient management
Dr. Shabbir Shahid, Salinity Management Scientist
- 09:45-10:00 Discussion
- 10:00-10:45 **Lecture 15:** Land degradation in Africa
Dr. Shabbir Shahid, Salinity Management Scientist
- 10:45-11:00 Discussion
- 11:00-11:30 **Tea/coffee break**
- 11:30-12:15 **Lecture 16:** Developing a strategy for Africa salinity management
Dr. Richard Soppe, Marginal Water Scientist
- 12:15-13:00 Discussion
- 13:00-14:30 **Lunch and prayer break**
- 14:30-15:30 Discussion – Future consideration of salinity research in Africa
- 15:30-16:00 Course evaluation
- 16:00-17:00 **Closing ceremony/distribution of certificates**