



Food and Agriculture
Organization of the
United Nations



Online training on Mapping Salt-affected Soils (SAS) in the Near-East and North Africa (NENA) Region (TCP RAB 3802 NENA regional project)

Goal: To develop salt-affected soils (SAS) map of the countries under the TCP project

Countries involved: Morocco, Tunisia, Oman, Sudan, Yemen, Egypt, Syria, Iraq, Lebanon, Palestine, Jordan, and Iran

Training platform: Virtual on Zoom (<https://fao.zoom.us/j/97550582847>)

Requirements:

- (1) Internet connectivity
- (2) Computer (at least core i7, RAM 8 GB, 100 GB Hard disc)
- (3) Software: QGIS/ArcGIS, ILWIS, R, Spreadsheet (MS Office Excel)
- (4) Input national data (Georeferenced SAS soil properties, Remote sensing images, climate, relief, geology, land cover/use, and (optional) groundwater (level),

Topics:

- (a) Topic 1: Introduction - importance of SAS, mapping approaches, relevant soil properties, FAO SAS mapping activities
- (b) Topic 2: SAS mapping input data requirements, data sources, output specifications. FAO approach. Software installation
- (c) Topic 3: Step 1: Input data preparation
- (d) Topic 4: Step 2: Input data harmonization and spatial mapping of soil properties (EC, pH, ESP)
- (e) Topic 5: Step 3: SAS classification
- (f) Topic 6: SAS mapping output presentation, documentation, and contribution to GSASmap

Resources

- (a) SAS mapping technical manual (<https://www.fao.org/documents/card/en/c/ca9215en/>)
- (b) Presentation slides and daily recordings
- (c) Global layers (MODIS images, climate – precipitation, temperature, land cover, DEM)

Duration: 3 hours daily for 5 days from 7th February to 11th February 2022 (from 9:am Rome time)

Mode: Theory, Hands-on practical, and individual exercises (focused on product delivery) in **ENGLISH**

Output: National maps at 0-30 cm and 30-100 cm soil depths (EC, pH, ESP, SAS and their uncertainties)

All materials are available at:

<https://drive.google.com/drive/folders/1QqeUeaQhemJBEXoK8MID6TFsz5F5vx8?usp=sharing>

Training Program

Day	Date	Time	Activity	Responsible
1	Monday 7 th Feb 2022	9:00 - 9:10 am	Welcome and introductions	CO
		9:10 - 9:40 am	Opening speeches	TD, AE, CO
		9:40 - 10:40 am	Topic 1	CO, AE
		10:40 - 11:00 am	Break	
		11:00 - 11:45 am	Topic 2	CO
		11:45 am - 12pm	Questions & Answers	CO
2	Tuesday 8 th Feb 2022	9:00 - 9:10 am	Recap and catch-up	CO
		9:10 - 9:40 am	Topic 3 (theory)	CO
		9:40 - 10:40 am	Topic 3: Hands-on	Participatory
		10:40 - 11:00 am	Break	
		11:00 - 11:45 am	Topic 3: exercise	Participatory
		11:45 am - 12pm	Questions & Answers	CO
3	Wednesday 9 th Feb 2022	9:00 - 9:10 am	Recap and catch-up	CO
		9:10 - 9:40 am	Topic 4 (theory)	CO
		9:40 - 10:40 am	Topic 4: Hands-on	Participatory
		10:40 - 11:00 am	Break	
		11:00 - 11:45 am	Topic 4: exercise	Participatory
		11:45 am - 12pm	Questions & Answers	CO
4	Thursday 10 th Feb 2022	9:00 - 9:10 am	Recap and catch-up	CO
		9:10 - 9:40 am	Topic 5 (theory)	CO
		9:40 - 10:40 am	Topic 5: Hands-on	Participatory
		10:40 - 11:00 am	Break	
		11:00 - 11:45 am	Topic 4: exercise	Participatory
		11:45 am - 12pm	Questions & Answers	CO
5	Friday 11 th Feb 2022	9:00 - 9:10 am	Recap and catch-up	CO
		9:10 - 9:40 am	Topic 6 (theory)	CO
		9:40 - 10:40 am	Topic 6: exercise	Participatory
		10:40 - 11:00 am	Break	
		11:00 - 12:00 pm	Presentation of outputs	Country reps
		12:00 – 12:10 pm	Closing remarks	TD, CO

CO- Christian Omuto; TD- Talal Darwish; AE – Abdelmagid El Mobarak

Order of presentations of country-level outputs: Morocco, Tunisia, Oman, Sudan, Yemen, Egypt, Syria, Iraq, Lebanon, Palestine, Jordan, and Iran

Certificate: Certificate will be given at the end of the training