

# GLOBAL SYMPOSIUM ON SALT-AFFECTED SOILS

20 - 22  
October, 2021  
Virtual meeting

Soil Salinity Mapping and  
Biosaline Agriculture in Kazakhstan

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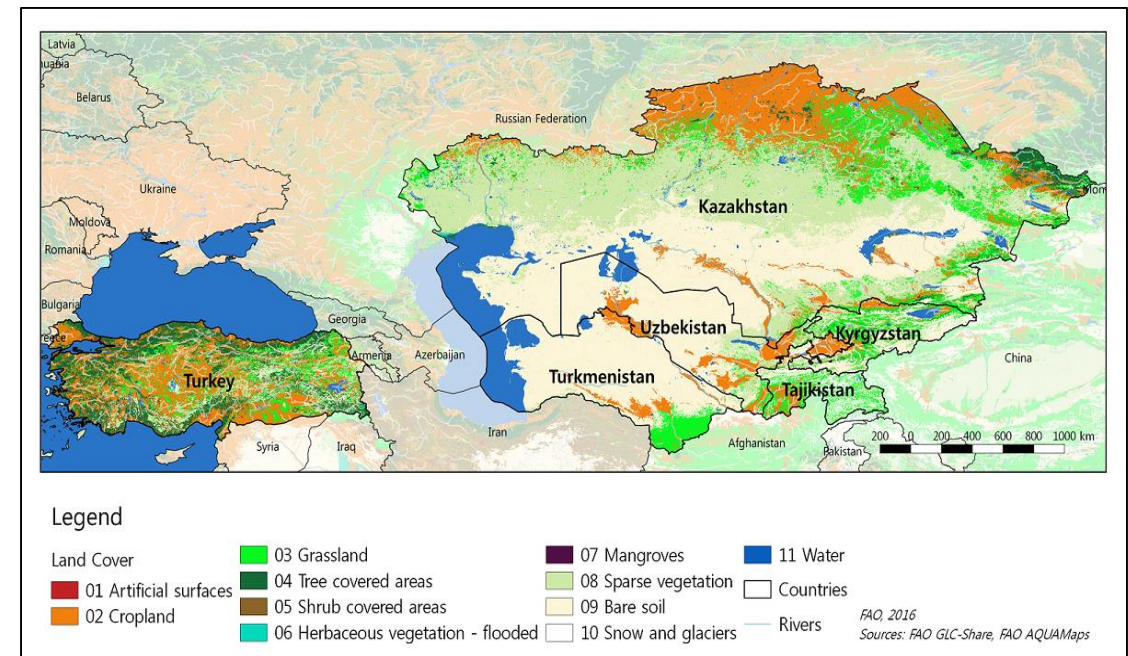
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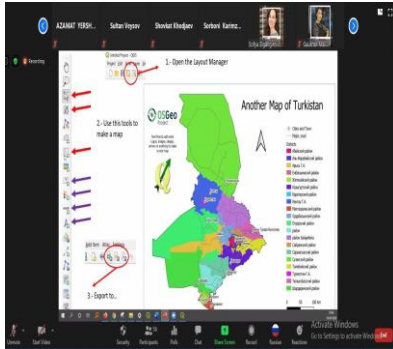
# Background information

- CACILM-2 is a regional FAO-GEF project in 5 Central Asian countries and Turkey and aims to scale up best practices and integrated natural resources management approaches in drought-prone and salt-affected land.
- Kazakhstan with its typical arid climate and intensive irrigation agriculture is severely exposed to the risk of soil salinization.
- An outdated soil salinity map and a lack of knowledge and skills impeded the effectiveness of efforts to combat the soil salinization.



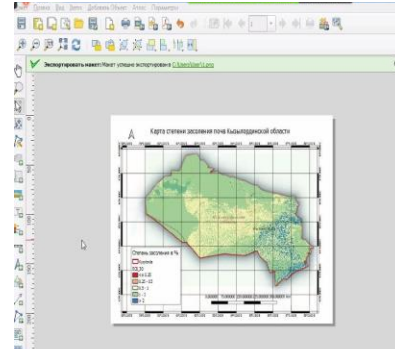


# Soil salinity mapping



Ministry of  
Agriculture

Ground data  
collection



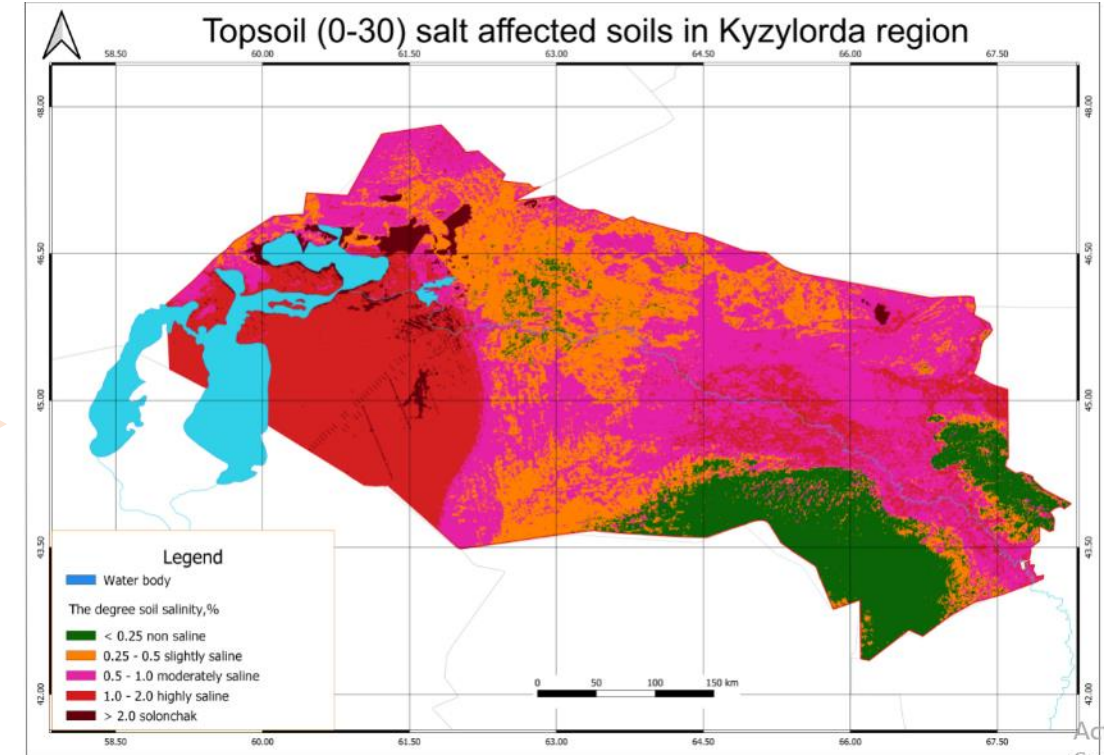
CACILM-2

Calibration of  
remote sensing  
data with the  
ground data



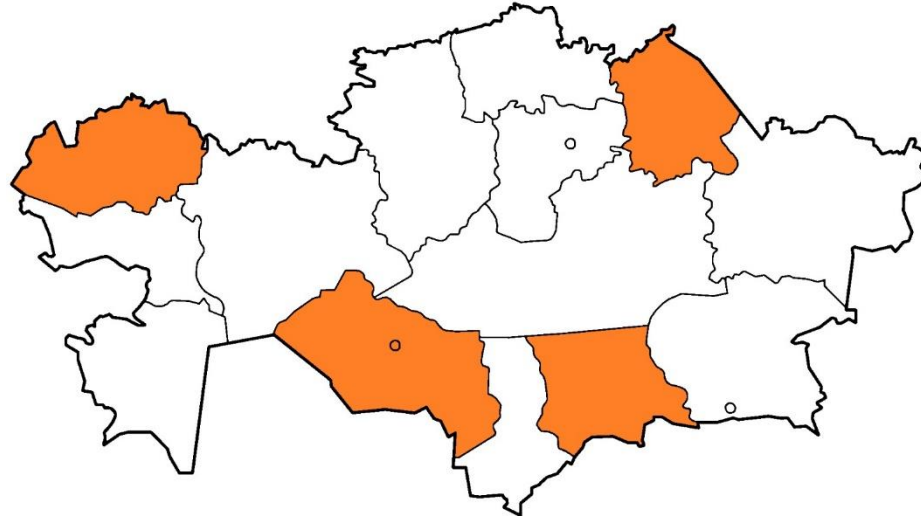
CACILM-2

Training sessions  
on ground  
measurement &  
GIS tools

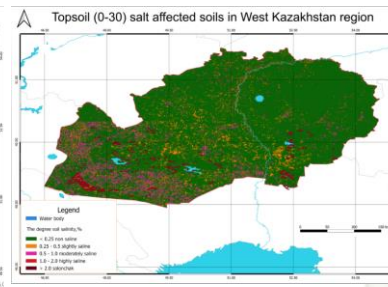
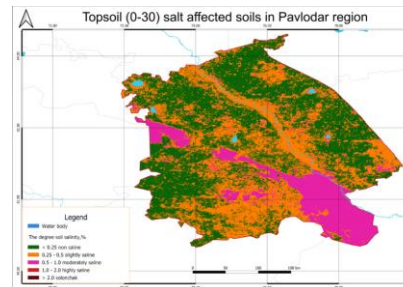
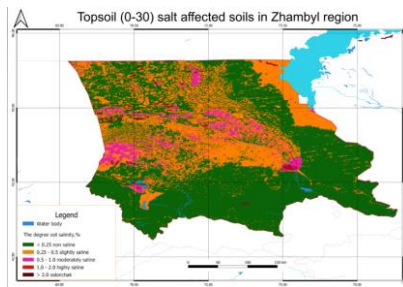
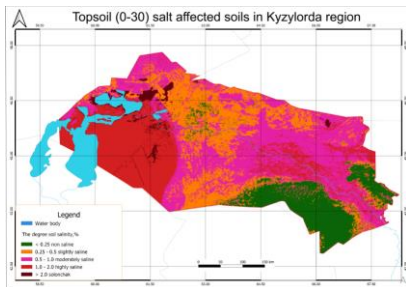


# Soil salinity mapping

- Soil salinity mapping has been completed for 4 oblasts as of now.
- A preliminary map of the whole Kazakhstan will be made this year with ground data.



- Up-to-date soil salinity data will provide a scientific base for decision-makers.
- More advanced research on salinity will be facilitated.
- Soil salinity mapping will be sustained by local stakeholders trained through CACILM-2.



# Salinity management manual



I Classification & assessment of saline soil

II Reclamation of saline soil

III Salt tolerance of crops

IV Biosaline agriculture

V Cross-cutting themes (e.g. value chain, gender, etc.)

- An integrated modular approach was applied for a manual, which addressed soil, water, biosaline agriculture, and more.
- A special focus was given to the specific circumstance of Central Asia with rich field examples, particularly of Kazakhstan.
- Cross-cutting themes were considered to achieve SDGs in a more comprehensive way.

- The manual will improve farmers' knowledge of salinity management.
- The best biosaline practices are to be applied to salinity vulnerable areas identified by the soil salinity mapping, and the subsequent change in salinity will be monitored by a regular update of the map.





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