



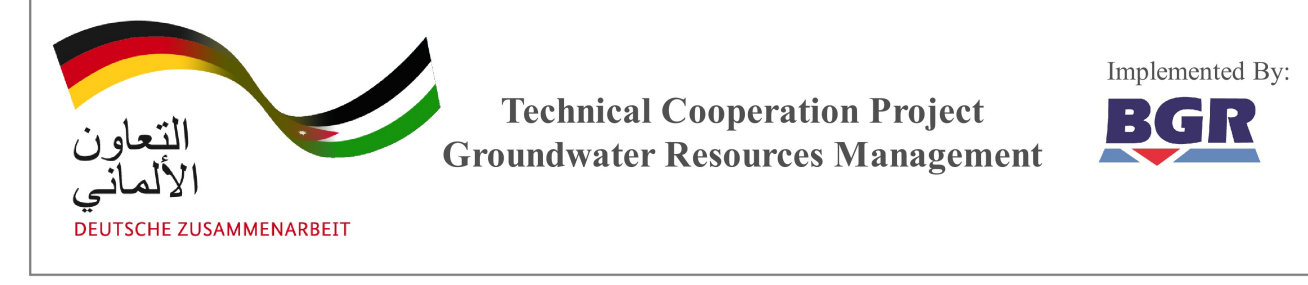
The Hashemite Kingdom of Jordan  
Ministry of Water and Irrigation

### Groundwater Vulnerability Map of the Ajloun and Balqa Group Aquifers

خريطة حساسية المياه الجوفية في الطبقات المائية التابعة لمجموعتي  
عجلون والبلقاء

Scale 1: 650 000

Annex No. 13	First revised ed.	2018
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#### Vulnerability

- Very Low
- Low
- Moderate
- High
- Very High

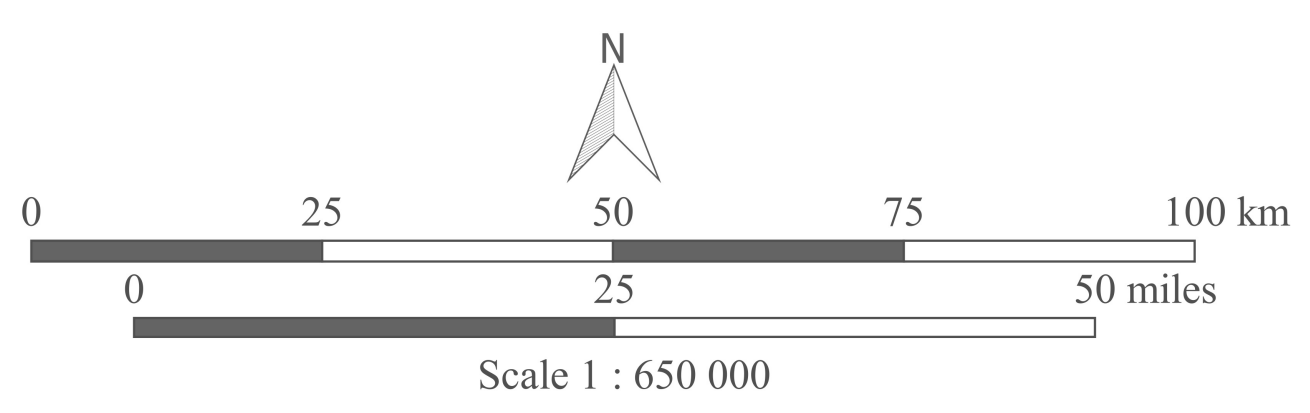
- #### Hydrology
- Sea, Lake
  - Salt Pond
  - River

- #### Topography
- National Border
  - Main Road
  - Capital
  - Governorate Main Town
  - Town

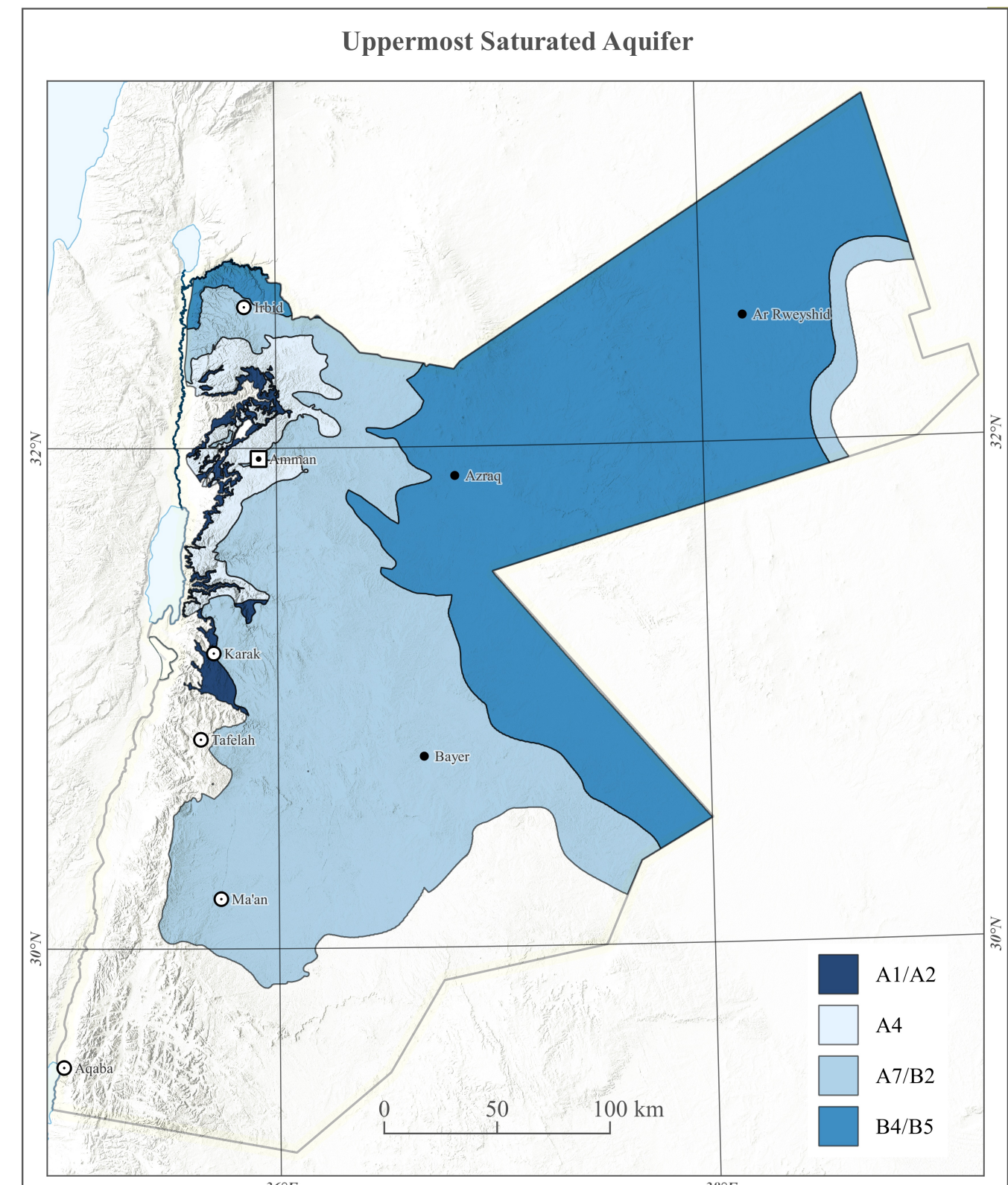
- JVA Jurisdiction
- Uppermost Saturated Aquifer Limit

#### Tectonic Lineament

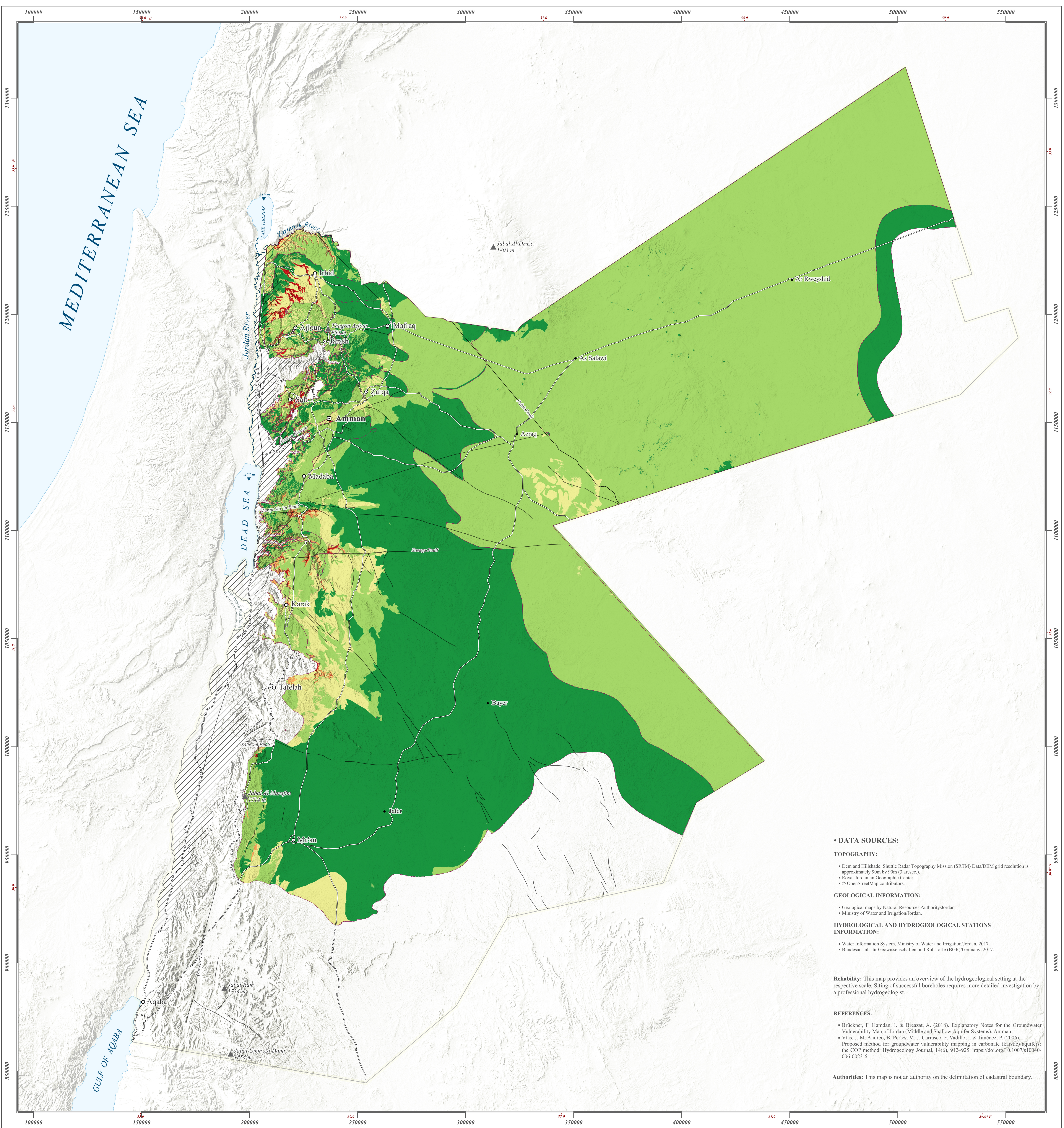
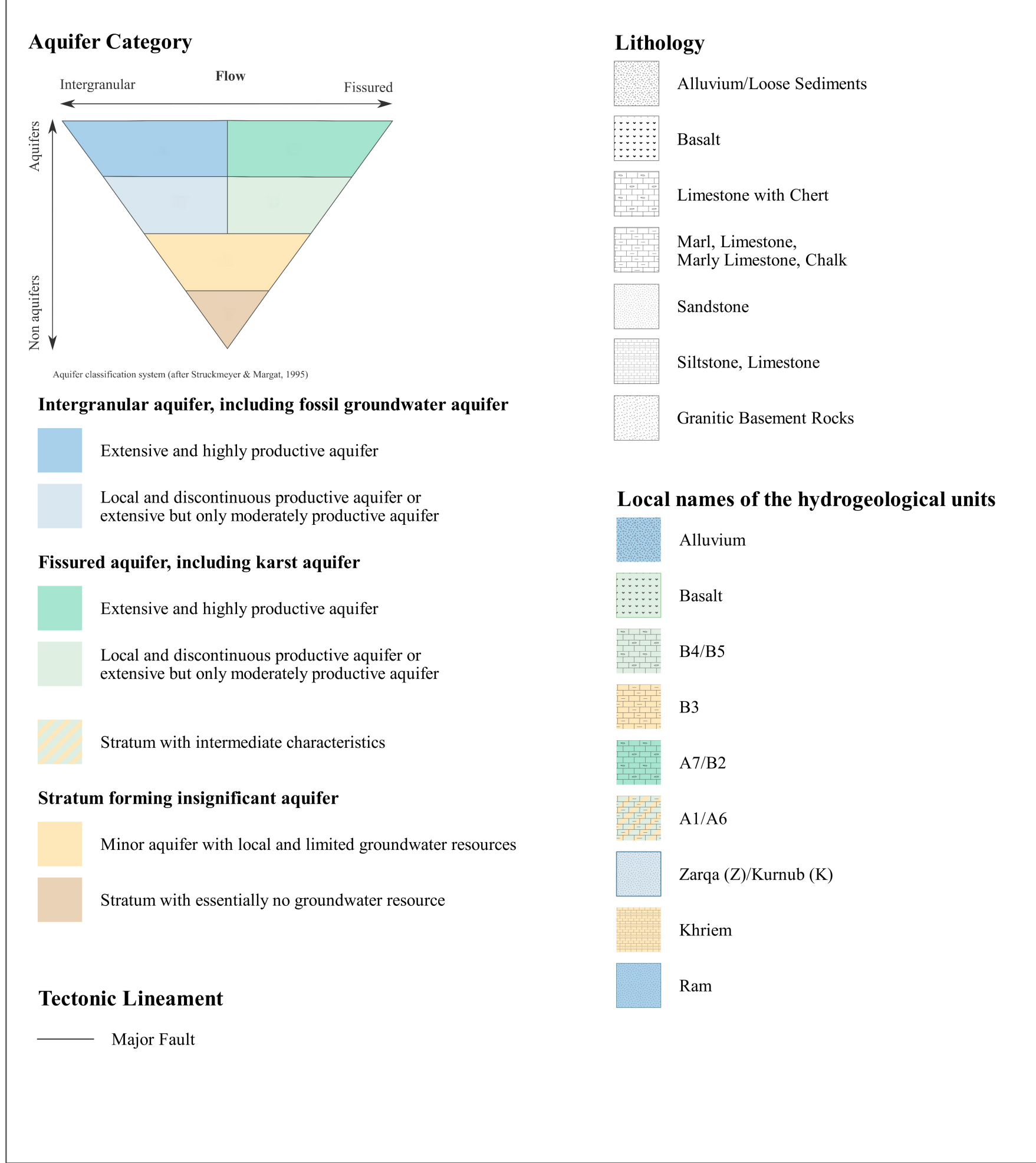
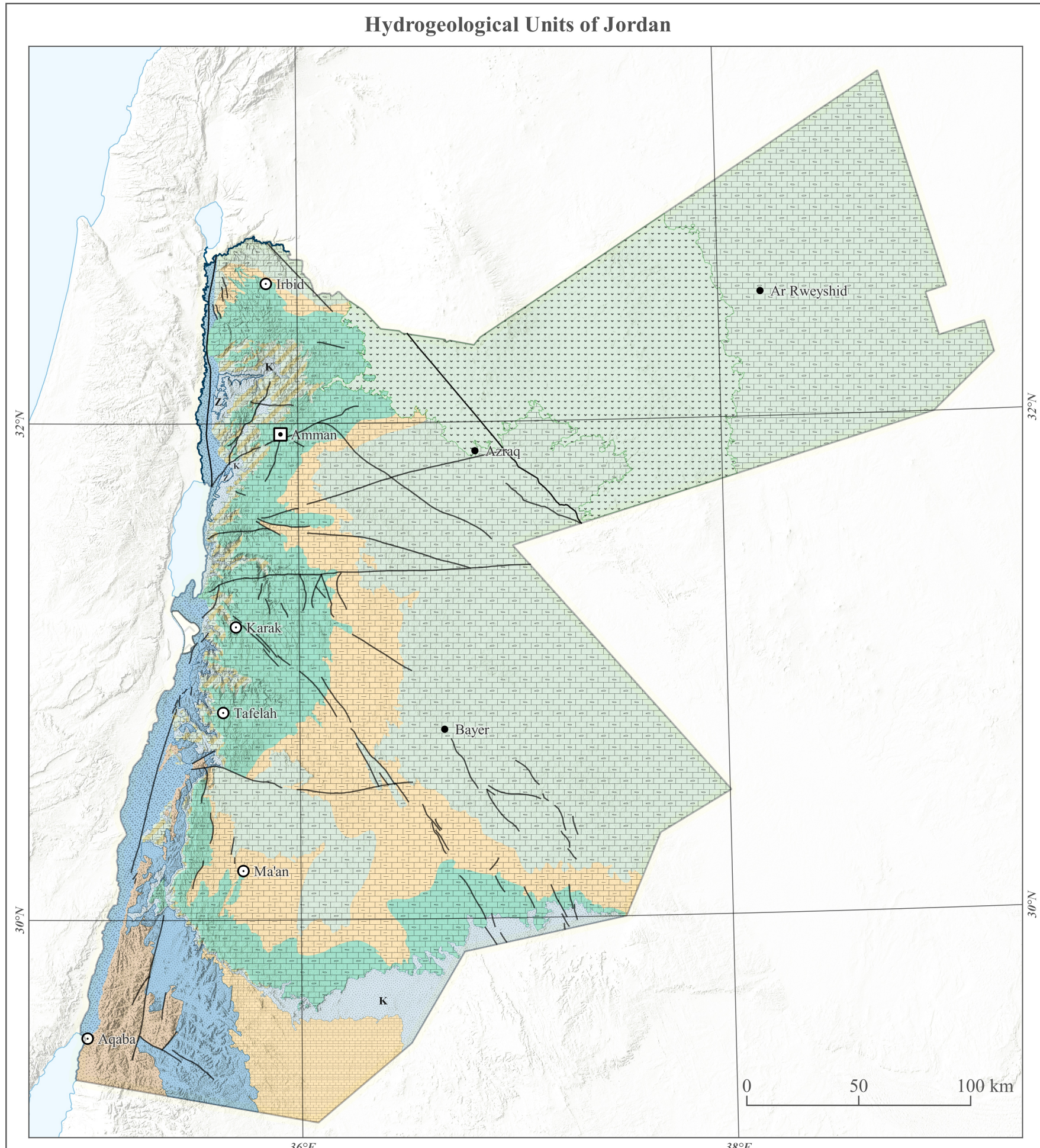
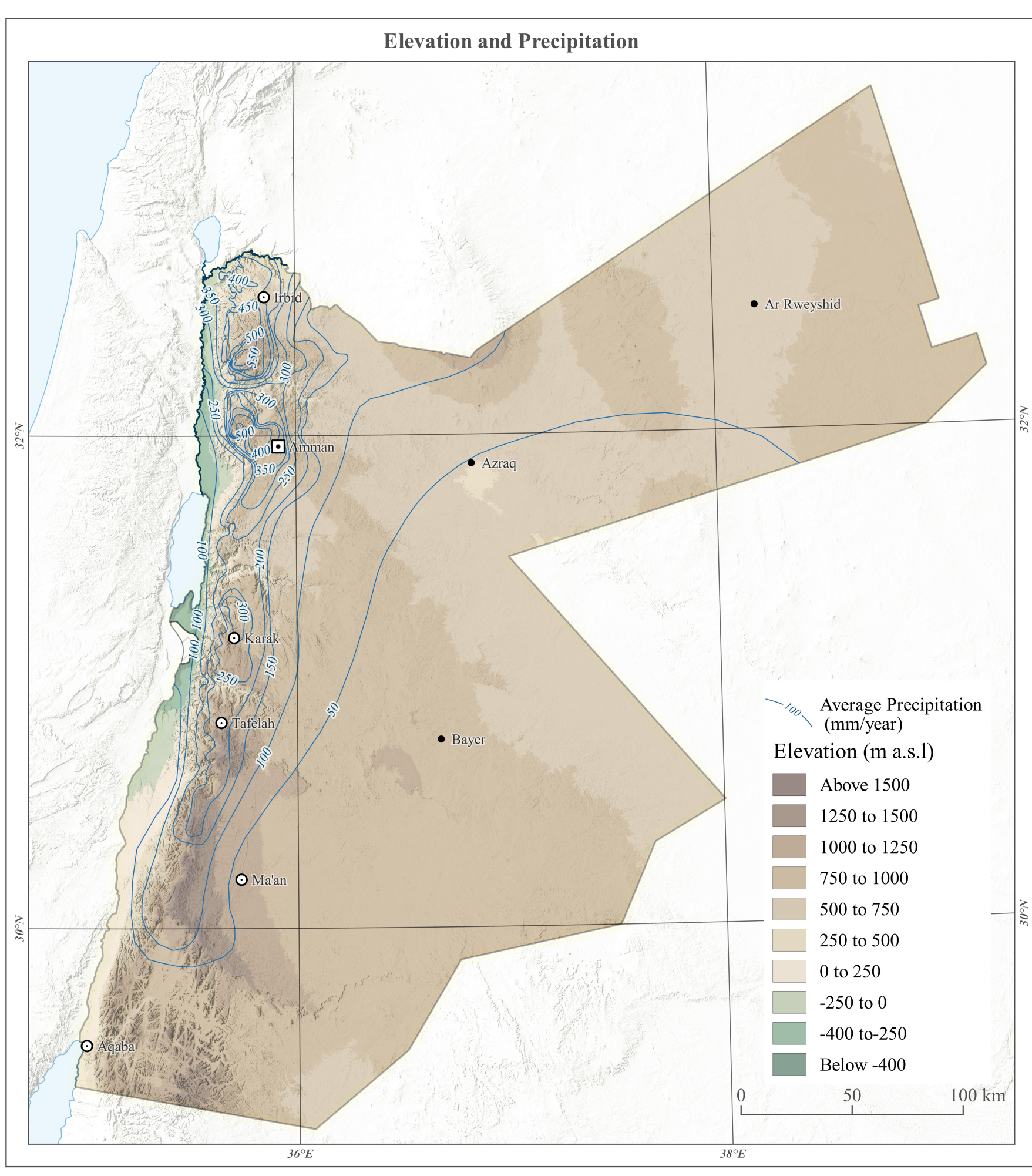
- Major Fault



COORDINATE SYSTEM:  
 -Major Grid: Projected Coordinate System Palestine 1923/Palestine Belt  
 Datum: Clarke 1880 (Benoit), Units: Meter  
 EPSG: 24952  
 -Minor Grid: World Geodetic System 1984  
 Datum: WGS 84, Units: Degree  
 EPSG: 4326



CARTOGRAPHERS:  
 Mohammad Alhyari, Sandra Seeger, Stephanie Belenberger.  
 © Ministry of Water and Irrigation (MWI), The Hashemite Kingdom of Jordan  
 Bundesanstalt für Geowissenschaften und Rohstoffe (BGR), Federal Republic of Germany  
 Amman/Hanover April, 2018



**DATA SOURCES:**

**TOPOGRAPHY:**

- Dem and Hillshade: Shuttle Radar Topography Mission (SRTM) Data DEM grid resolution is approximately 90m by 90m (3 arcsec.).
- Royal Jordanian Geographic Center.
- OpenStreetMap contributors.

**GEOLOGICAL INFORMATION:**

- Geological maps by Natural Resources Authority/Jordan.
- Ministry of Water and Irrigation/Jordan.

**HYDROLOGICAL AND HYDROGEOLOGICAL STATIONS INFORMATION:**

- Water Information System, Ministry of Water and Irrigation/Jordan, 2017.
- Bundesanstalt für Geowissenschaften und Rohstoffe (BGR) Germany, 2017.

**Reliability:** This map provides an overview of the hydrogeological setting at the respective scale. Siting of successful boreholes requires more detailed investigation by a professional hydrogeologist.

**REFERENCES:**

- Brückner, F., Hamdan, I. & Bressan, A. (2018). Explanatory Notes for the Groundwater Vulnerability Map of Jordan (Middle and Shallow Aquifer Systems). Amman.
- Vias, J. M., Andreo, B., Perles, M. J., Carrasco, F., Vadillo, I. & Jimenez, P. (2006). Proposed method for groundwater vulnerability mapping in carbonate (karstic) aquifers: the COP method. Hydrogeology Journal, 14(6), 912-925. <https://doi.org/10.1007/s10040-006-0023-6>

**Authorities:** This map is not an authority on the delimitation of cadastral boundary.