Jordan Risk Assessment, challenges and opportunities to developing and using seismic risk information

The city of Aqaba Case

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ASEZA profile and Main Hazards

- **Name**: Aqaba Special Economic Zone (ASEZ)
- **Authority**: Aqaba Special Economic Zone Authority (ASEZA)
- **Area**: 375 km²
- **Population**: 110,000
- **Location**: South of Jordan 360 km from the Capital Amman
- **Main Hazards**:
  - Earthquakes
  - Flash Floods
  - The last Earthquake hit Aqaba was in 1995 lasted 45 seconds with a magnitude of 6.5 in Richter scale with no Casualties
Background of Seismic Risk information developing and use at ASEZA

- Earthquake Risk Assessment (ERA) was carried out in Sept 2009 by Royal Scientific Society (RSS), Jordan for the City of Aqaba.
- Funded by the Swiss Developing Agency (SDC) and UNDP under the Support for the National Capacity to Reduce earthquake Risk project implemented at ASEZA from 2009 till 2010.
- Resulted in investigating and mapping various seismic hazard parameters such as peak ground acceleration and spectral acceleration.
- The Higher Council for Civil Defense (HCC) and the Jordanian National Building Council (JNBC) as well as the Jordanian Engineers Association were involved in the study.
- The output of this ERA were:
  - Seismic Hazards Maps and Elements at risk Maps
Challenges:

- Gathering raw reliable data from right sources.
- Communicating the seismic risk amongst the public and private sector, during a rapid economic growth and urbanization period due to the transforming of the city of Aqaba into a Special Free Economic Zone (ASEZ) back in 2001.
- Coordination, and collaboration of amongst agencies and involved parties.
- Adoption and enforcement of Building Codes.
- Institutional capacity Building to use and apply Seismic risk information and update data regularly.
- Political support and commitment.
- Public awareness.
- Sustaining the efforts.
Opportunities:

- The governance System of ASEZA (decentralized) local government
- ASEZA has been mainstreaming the ERA outputs in the land planning process a *(RSLUP)* GIS-based process
- Enforcement of Building Seismic Resistance Codes and Zoning
- Construction Monitoring and Control By ASEZA
- Availability and accessibility to Hazards Maps and Seismic Risk information.
- The Support and catalytic role of funding and technical support agencies UNDP, SDC, etc.
Opportunities:

• strong environmental regulation in place, particularly the EIA process.
• Institutionalization of DRR practice at ASEZA