



International Actuarial Association
Association Actuarielle Internationale



Sink or Swim: An Actuary's Primer to Water Risks

An overview of the first paper of the IAA
Water Risk Task Force

Andries Schutte FIA FASSA CERA
Hayley Clarke FASSA FFA CERA
Emily Forsyth-Davies FIA
Sara Goldberg FSA MAAA



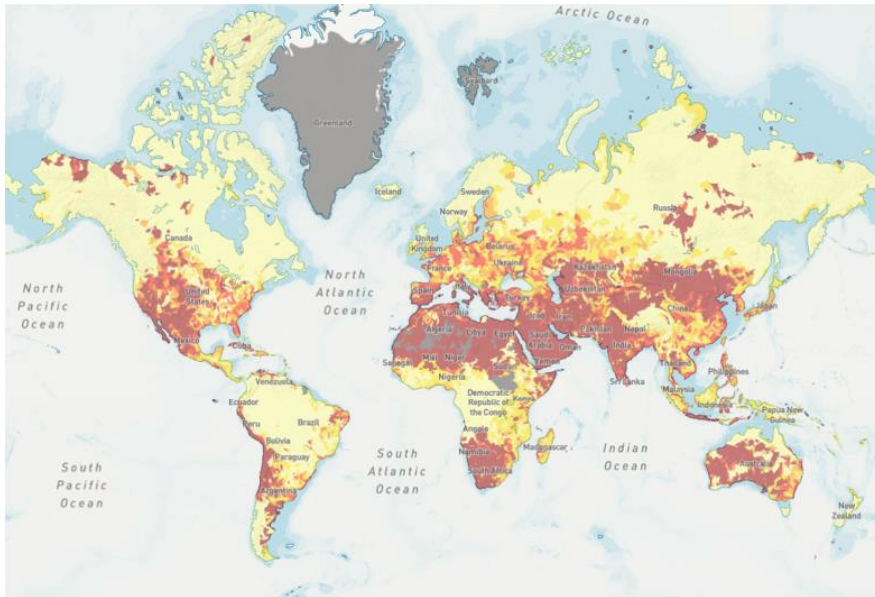
Water in statistics

- Only about **3%** of the global water supply is freshwater.
- Approximately **30%** of this freshwater comes from groundwater sources, such as aquifers.
- Around **30%** of the largest aquifers are currently experiencing depletion – **driven by irrigation.**
- **Desalination accounts for less than 3%** of consumable fresh water and is notoriously environmentally unfriendly.
- **Agriculture is the largest user of freshwater globally, accounting for roughly 70% of freshwater withdrawals.**
 - In developing countries this is **90%** with industry being only **3%** compared to **39%** in developed countries.
- **70% of diseases globally are water borne.**
- Water demand is expected to grow by **50%** by 2050!



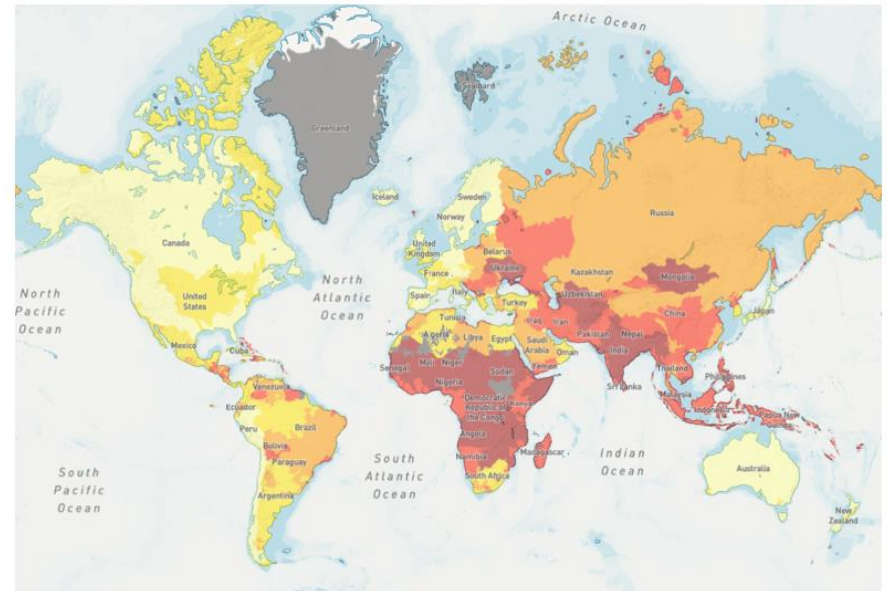
Understanding Water Risks

The Geography of Water Risks



■ No data

Sufficiency



■ No data

Quality

Source: WRI Aqueduct, www.aqueduct.wri.org

