



PBL Netherlands Environmental
Assessment Agency

Linking climate change and water security to conflict

An exploration of pathways



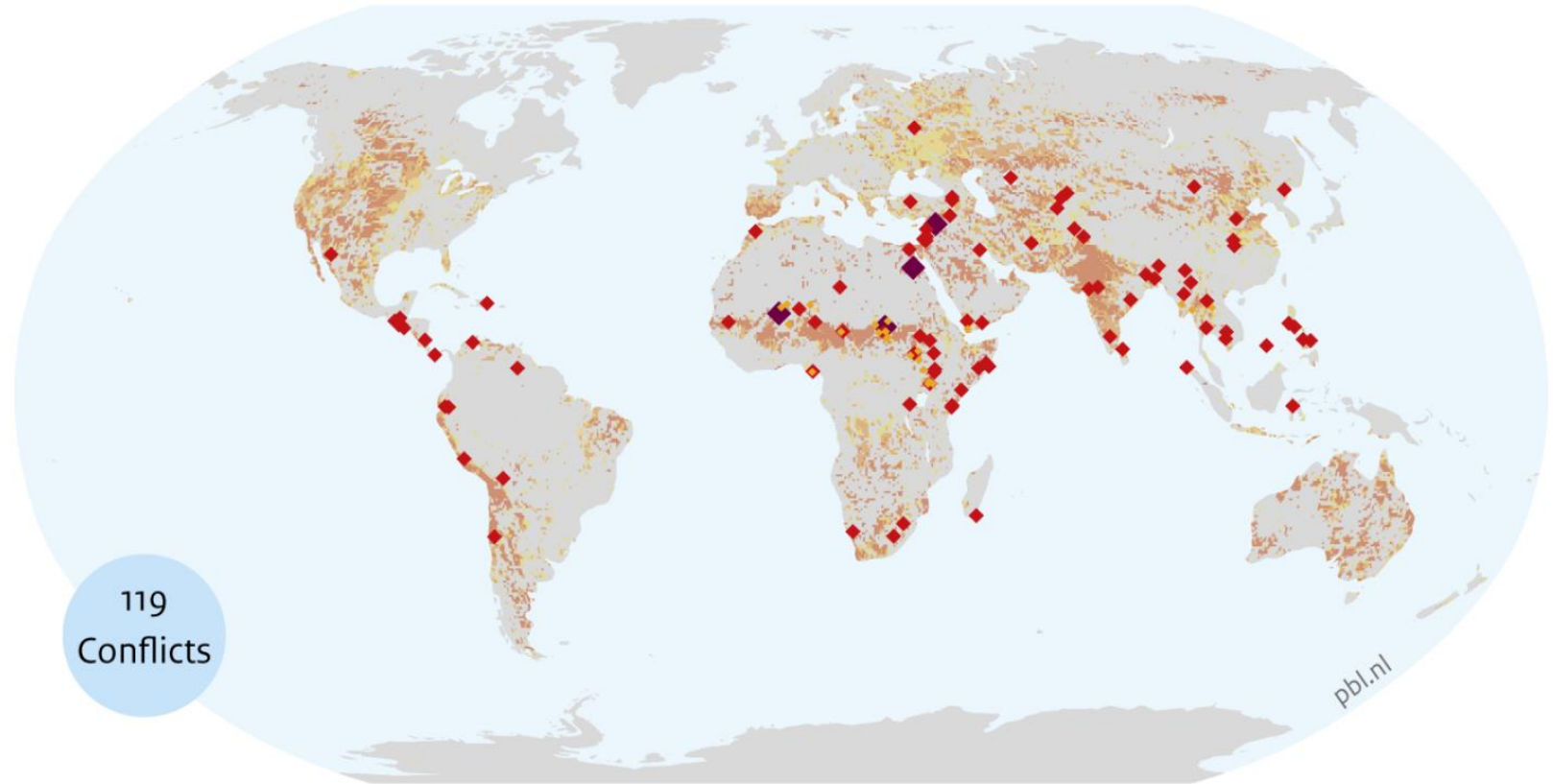
Climate, water and conflict: a contested nexus

- Geography and climate shape societies in the long term (Sachs, Diamond)
 - Risk civil conflict 7-10 times higher drylands and tropical zones;
 - Poverty also clearly related to drylands and tropical zones
- Short term impacts of climate change and unsustainable water use may affect societies severely
 - Economic shocks, shortage of water or food, displacement & migration



Climate, water and conflict: a contested nexus

- Impact on conflict? Sciences and politicians are divided:
 - Conflict, indirect impacts, no impact or even an opportunity for cooperation
 - Reinforcing existing conflict



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Conflicts

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Water stress



Low High

Conflicts

- ◆ Particularly severe and/or politically salient
- ◆ Major
- ◆ Minor

Source waterstress: Wada et al.; Computations: Utrecht University

Source conflicts: Adelphi Research Gemeinnützige GmbH (<https://factbook.ecc-platform.org>)



Climate, water and conflict pathways

– Local water stress

- *(droughts, economic scarcity, inaccessibility) may induce conflicts over remaining water and food*

– Local variability in precipitation

- *may influence the moment of local conflict outbreak and type of conflict – increasing variability may lead to increasing levels of societal disruption*

– Food price spikes

- *As a result of water related hazards (floods, droughts) in other regions may accelerate or stimulate local/regional riots or conflicts*

– Regional/local economic shocks

- *Due to natural disasters (hydro-meteorological) may increase inequality adding to regional tension and conflict risk*

– Water as weapon or strategic tool/measure

- *may be used within existing conflict, possibly intensified by climate change*



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 - Institutional capacity, governance
 - Food prices
 - Economic inequality & development, poverty
 - Suppression/grievances
 - Vulnerability to natural disasters/lacking coping capacity
 - Agricultural dependence
- Little proof that conflict can be directly caused by water stress, but risks can increase



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