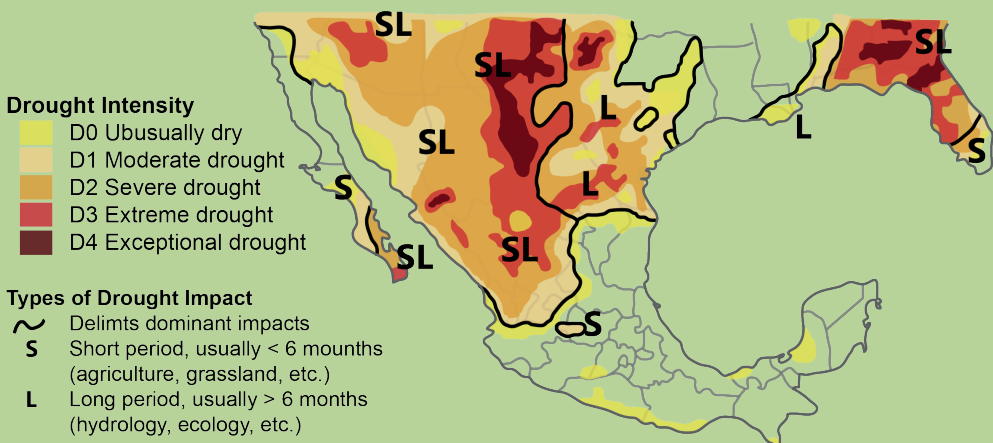
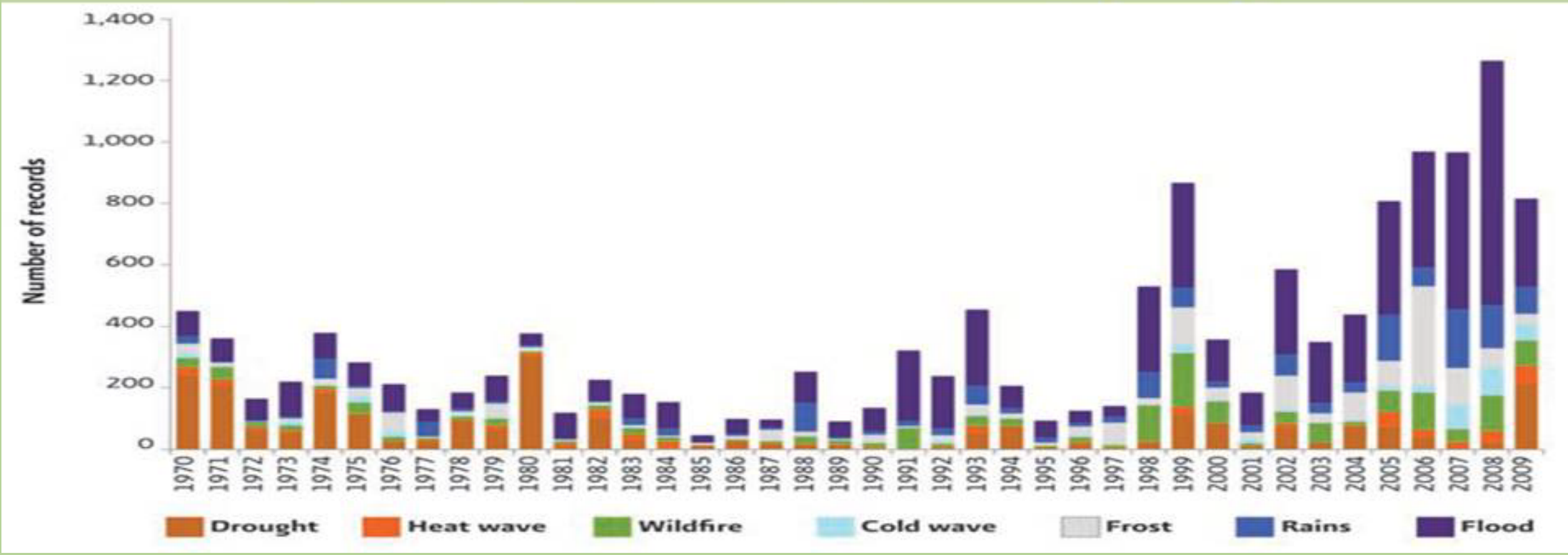




Nexus among Water, Soil, Food, and Biodiversity in Mexico

Prof. Dr. Úrsula Oswald-Spring



Research Question, WSF&B, Human security

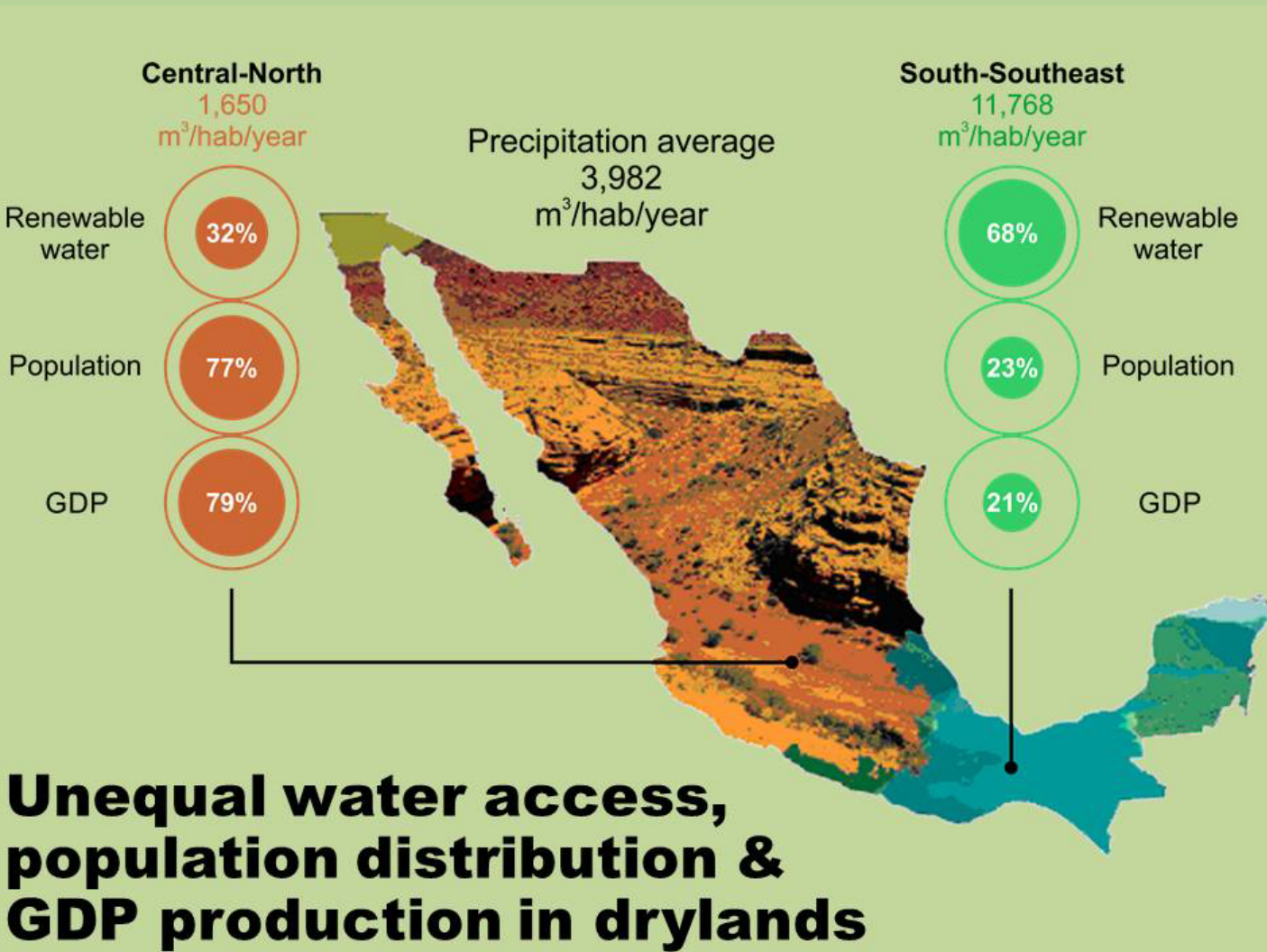
How could human security of people be enhanced who are impacted by the nexus of water, soil, food and biodiversity (WSF&B), triggered by climate change impacts and sea water intrusion?

Human security is understood as freedom from fear, freedom from want (HSN 2003), freedom from hazard impacts (Bogardi/ Brauch 2005) and freedom to live in dignity (Annan 2005)

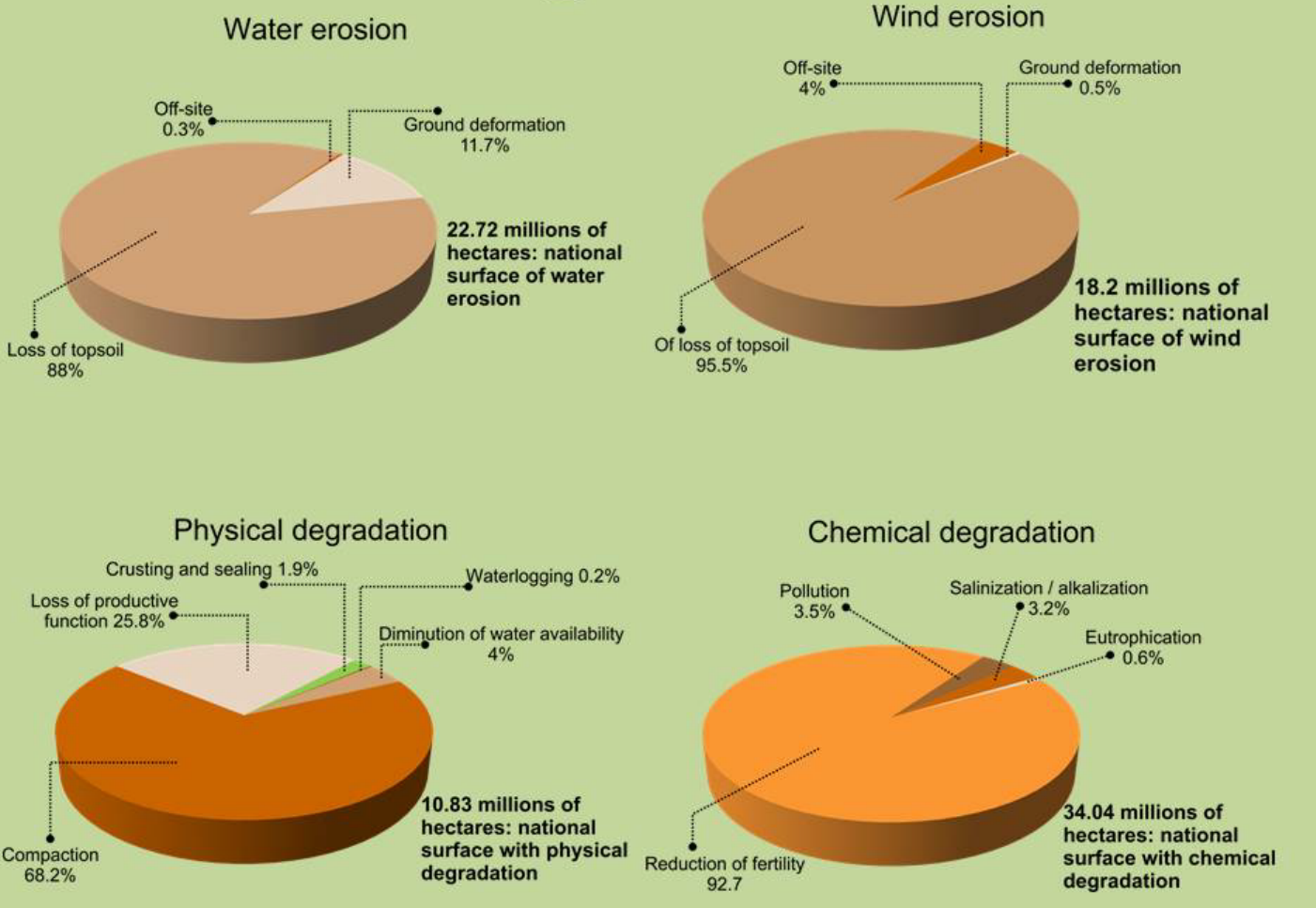
The WSF&B nexus addresses the feedbacks between water and soil, land-use changes and food production and their impacts on biodiversity loss. Climate change with more frequent and severe droughts and extreme storms and flash floods have increased the costs in human lives and for the economy.



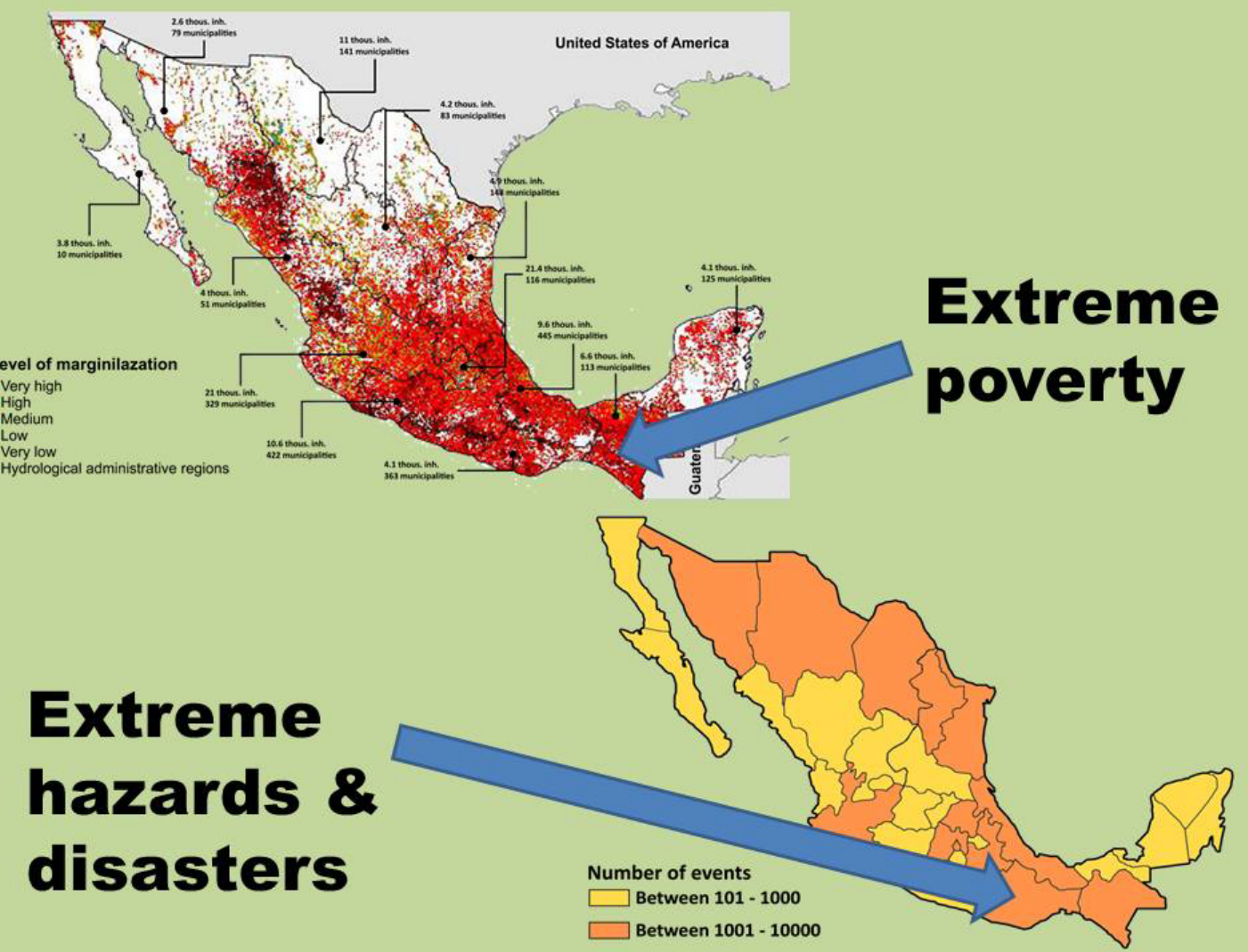
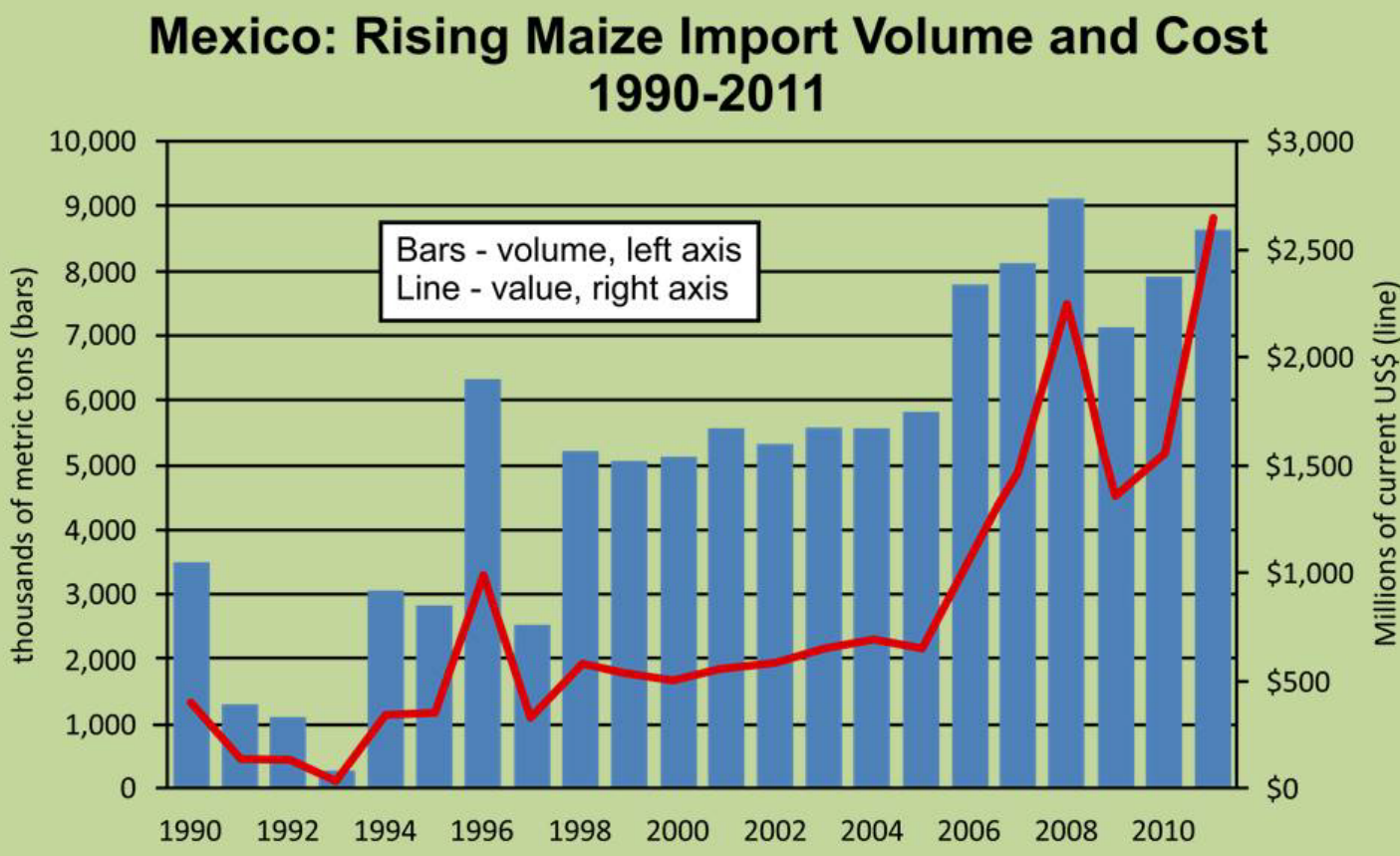
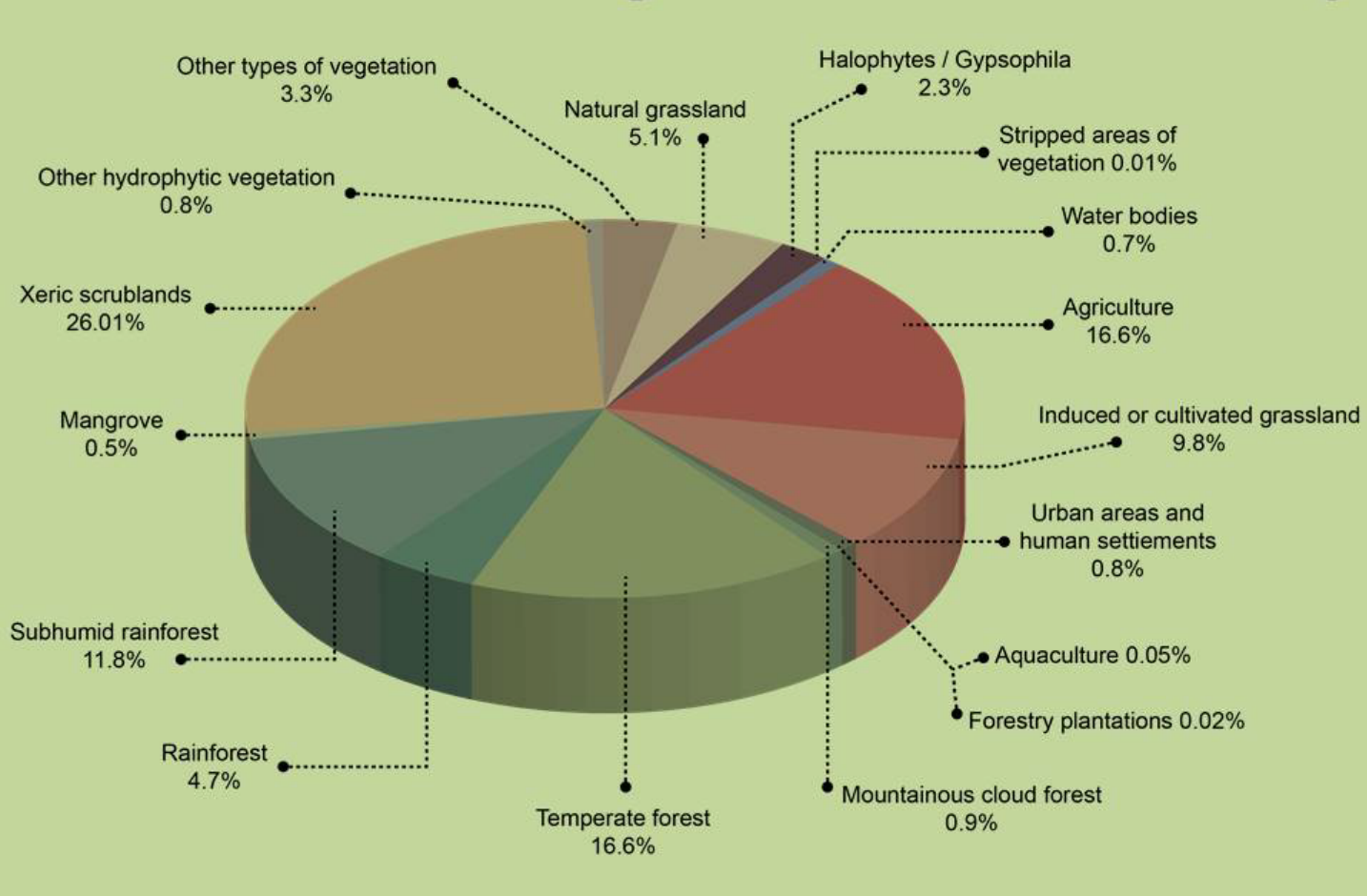
Unequal water access, population distribution & GDP production in drylands



Soil management at risk



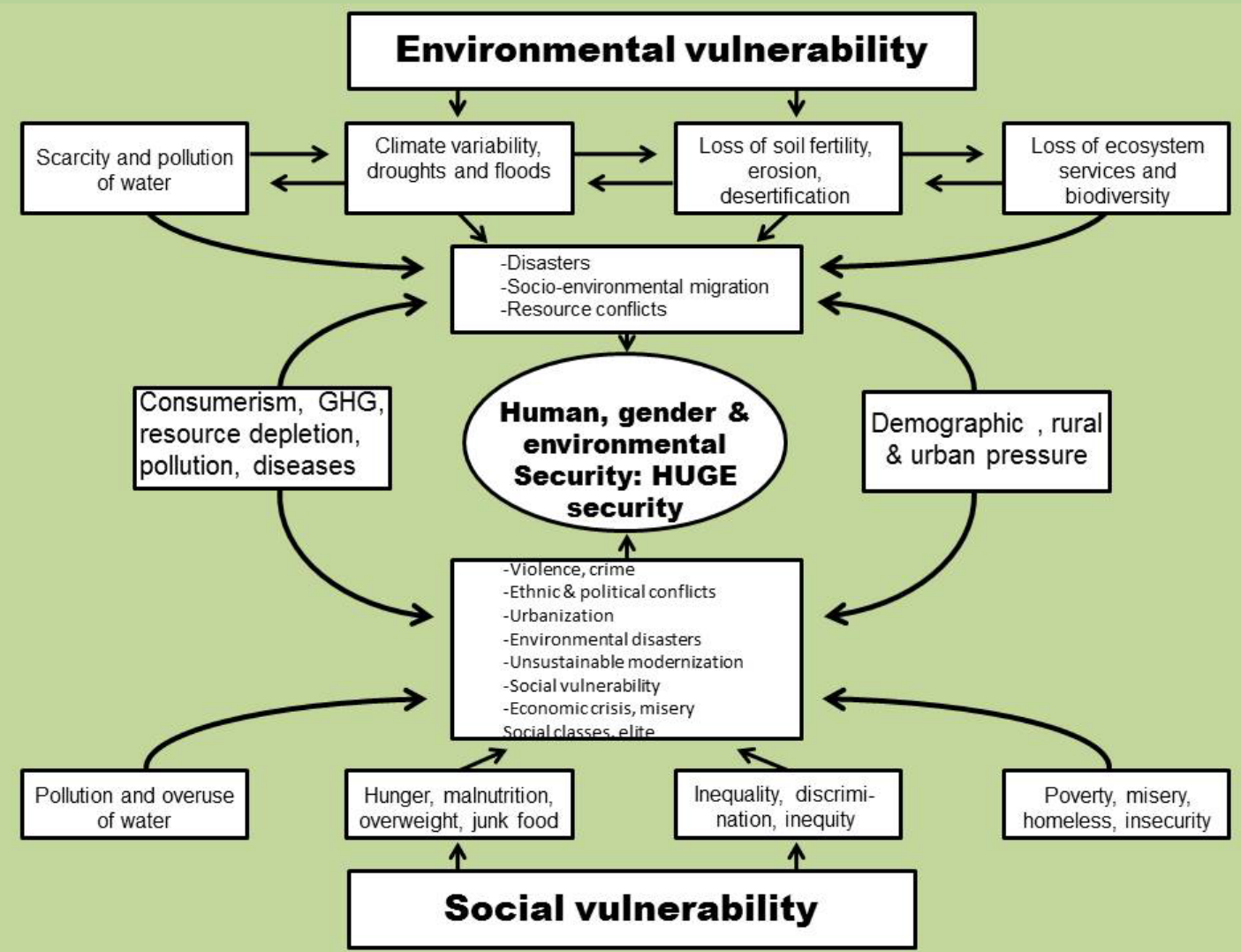
Land use changes & biodiversity



Discussion

Less precipitation and longer and more intensive droughts are affecting also the natural cover of biota, but requires also more water for irrigation (IPCC, 2014). Crop yields decline due to brackish water and soils are increasingly salinized, while the return water into aquifers raises further the amount of salt content in groundwater (Garatuza et al., 2011). Further, the neoliberal free trade policy (NAFTA) has increased subsidized food imports, what resulted in rural-urban and international migration, hunger and obesity among the socially vulnerable people.

This WSF&B nexus has increased both the social and the environmental vulnerability of the poor and often marginalized rural and urban populations and contributes to their human insecurity (Brauch et al. 2011). Longer and more intensive droughts related to climate variability increase this dual vulnerability (Oswald, 2013).



Conclusion

