



Science-policy considerations on climate change impacts research on health and migration

Impacts World Conference 2017, Potsdam, 11-13 October 2017

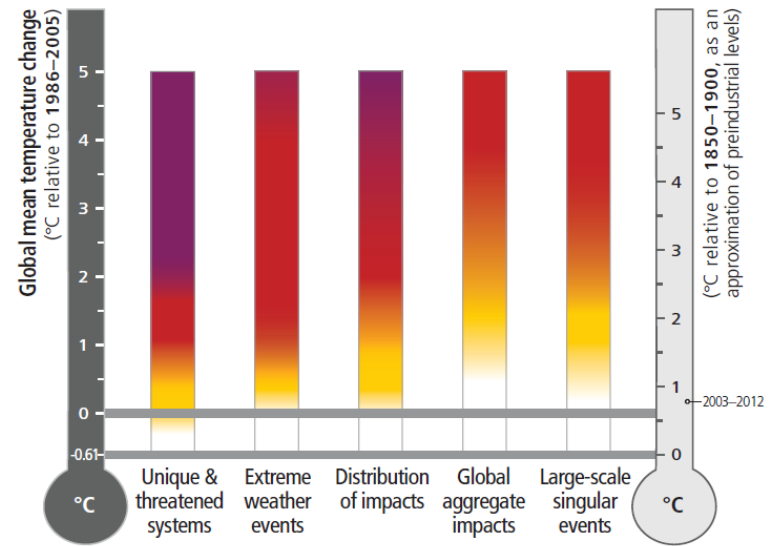
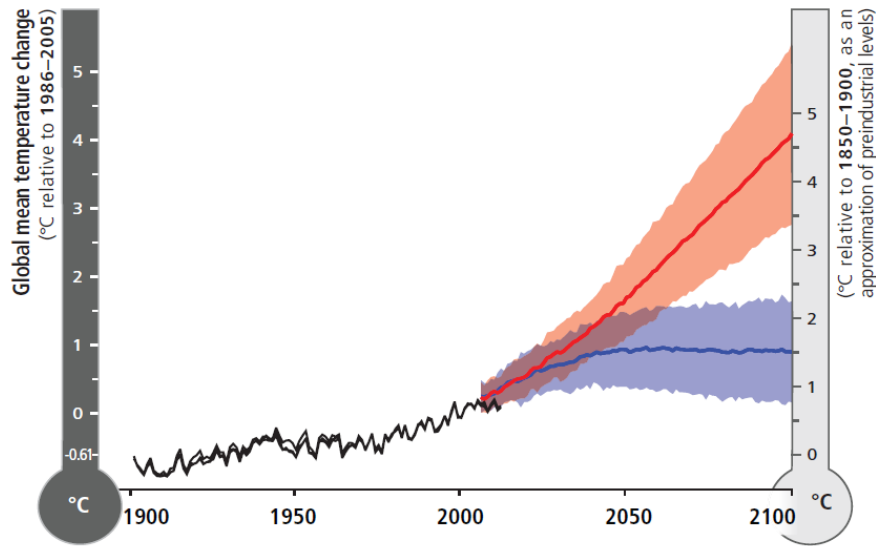
Andrea Tilche

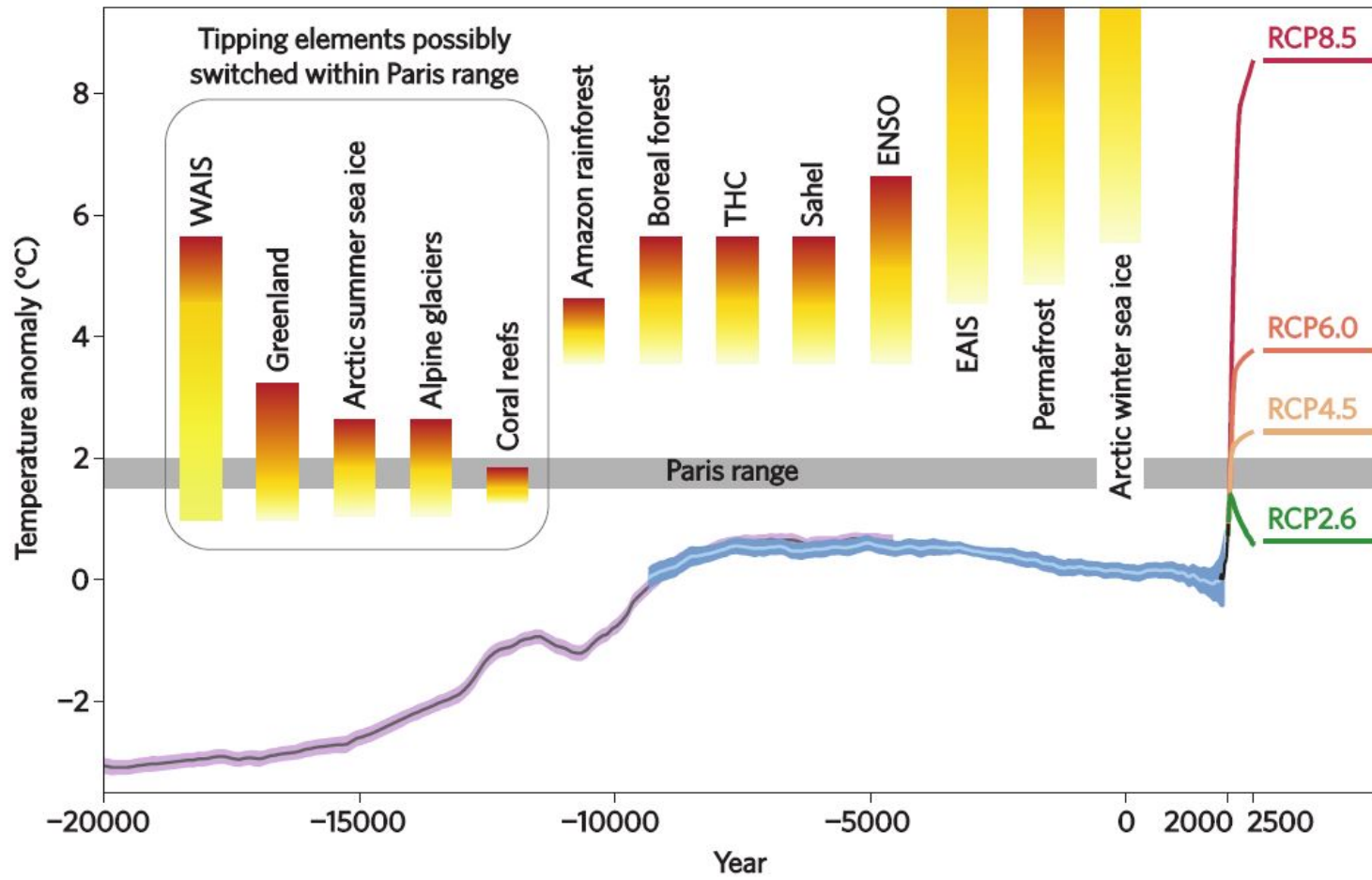
European Commission

Head of the Unit "Climate action and Earth observation"

DG RTD, Brussels

Where are we?





From: 2020 *The Climate Turning Point*, 2017
Preface of **Stefan Rahmstorf** and **Anders Levermann**

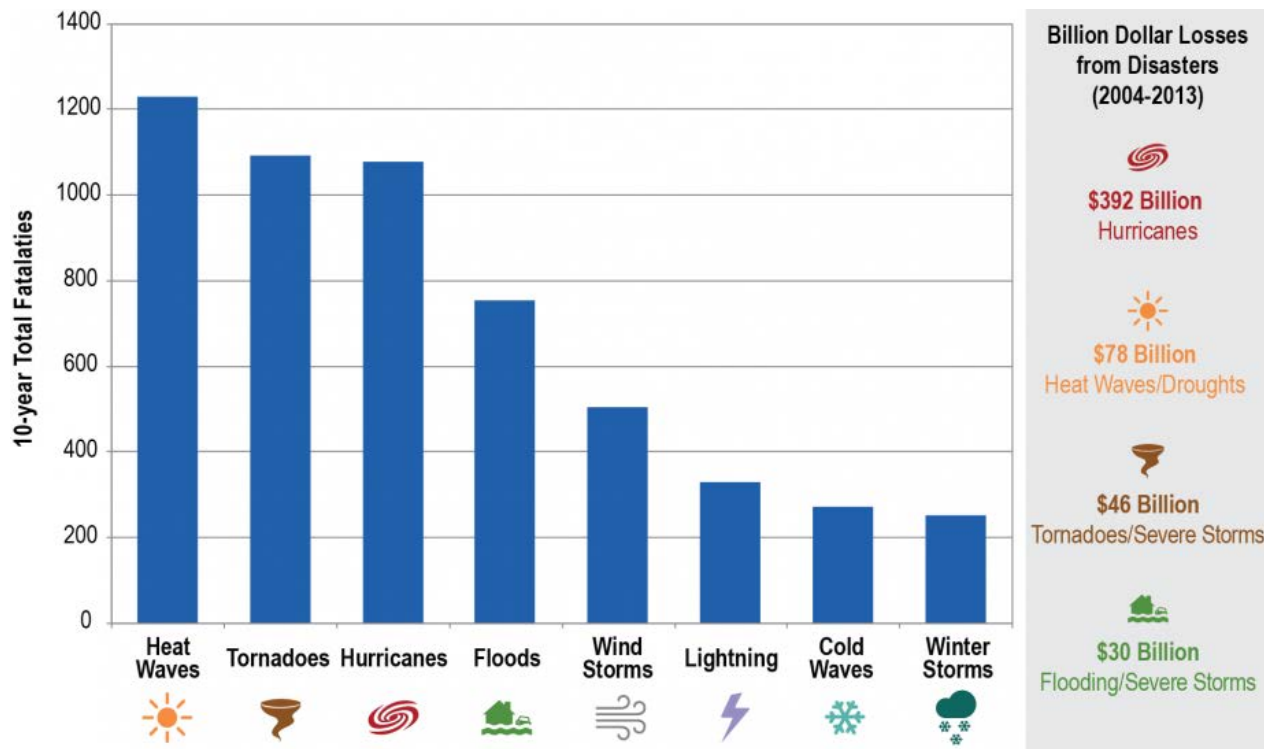
We are already there...

- ... where impacts of climate change are evident and already affect human societies and in particular:
 - the more vulnerable societies
 - the more vulnerable within societies

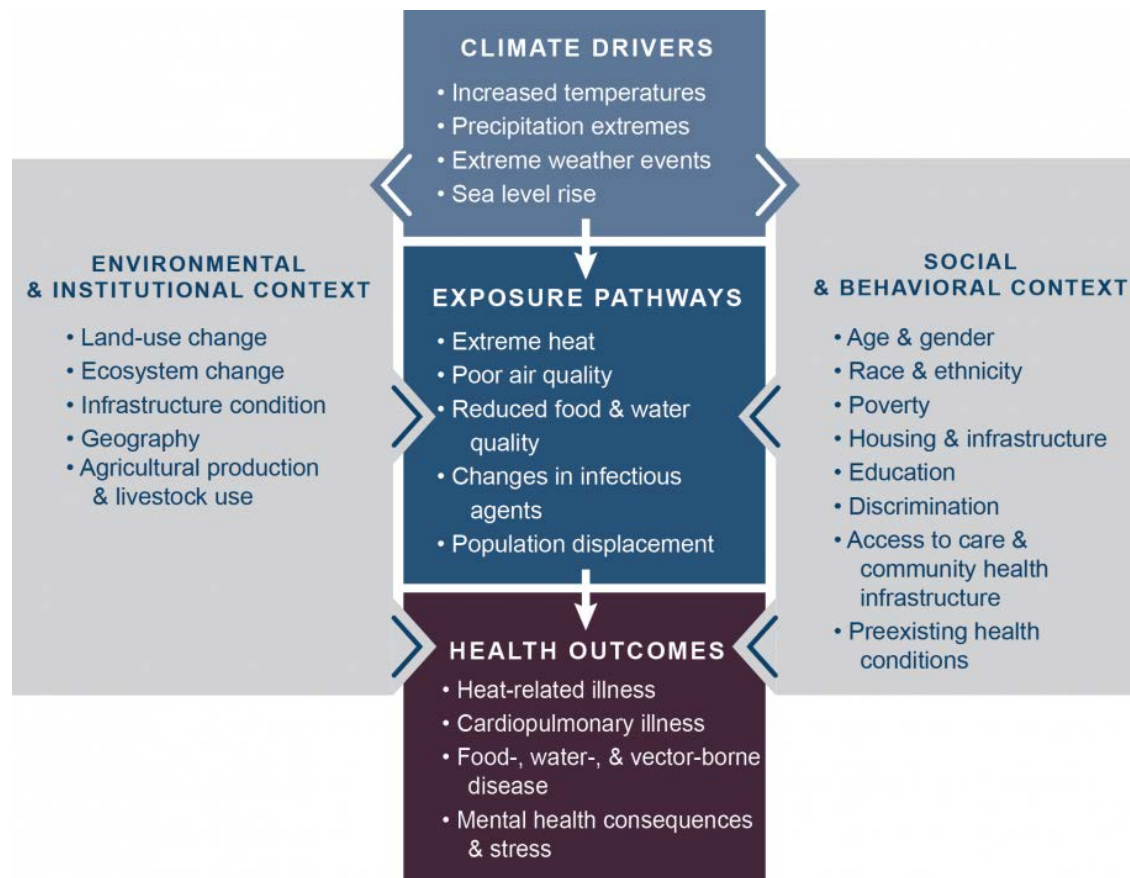
Human Health

- **Direct and indirect**
- **Linked to frequency and severity of extreme events**
- **Linked to the progressive change in temperature, sea-level, air quality, etc.**
- **Reduced by mitigation (co-benefit)**
- **Reduced by early adaptation**
- **Risk of tipping points**

Direct effects in the US (2004-2013)



USGCRP, 2016: The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment. Crimmins, A., J. Balbus, J.L. Gamble, C.B. Beard, J.E. Bell, D. Dodgen, R.J. Eisen, N. Fann, M.D. Hawkins, S.C. Herring, L. Jantarasami, D.M. Mills, S. Saha, M.C. Sarofim, J. Trtanj, and L. Ziska, Eds. U.S. Global Change Research Program, Washington, DC, 312 pp. <http://dx.doi.org/10.7930/J0R49NQX>



USGCRP, 2016: The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment.

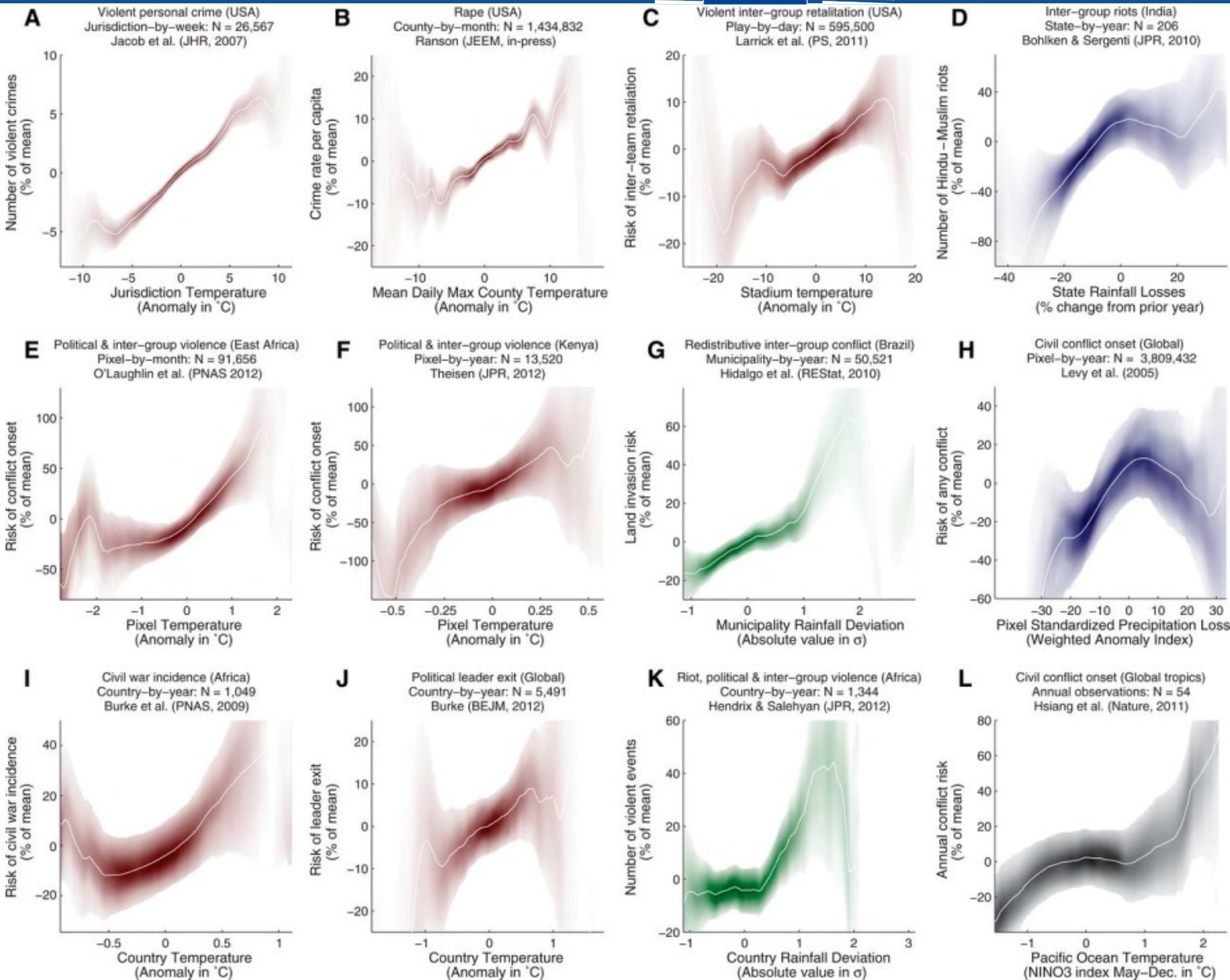
Crimmins, A., J. Balbus, J.L. Gamble, C.B. Beard, J.E. Bell, D. Dodgen, R.J. Eisen, N. Fann, M.D. Hawkins, S.C. Herring, L. Jantarasami, D.M. Mills, S. Saha, M.C. Sarofim, J. Trtanj, and L. Ziska, Eds. U.S. Global Change Research Program, Washington, DC, 312 pp. <http://dx.doi.org/10.7930/J0R49NQX>

Impacts on health in Horizon 2020

- **LC-CLA-03-2018: Climate change impacts in Europe**
 - a) **Climate change impacts on health in Europe**: Actions should review, report and progress on the current state-of-the-art knowledge on the links between climate change and impacts on human health in Europe **that have thus far been poorly addressed or understood**. Actions should also identify **associated costs** and suggest **effective adaptation strategies**, quantify **health co-benefits** from mitigation and early adaptation, target **research actions to address key issues and identified research gaps** and prioritise those that are of significance for Europe.

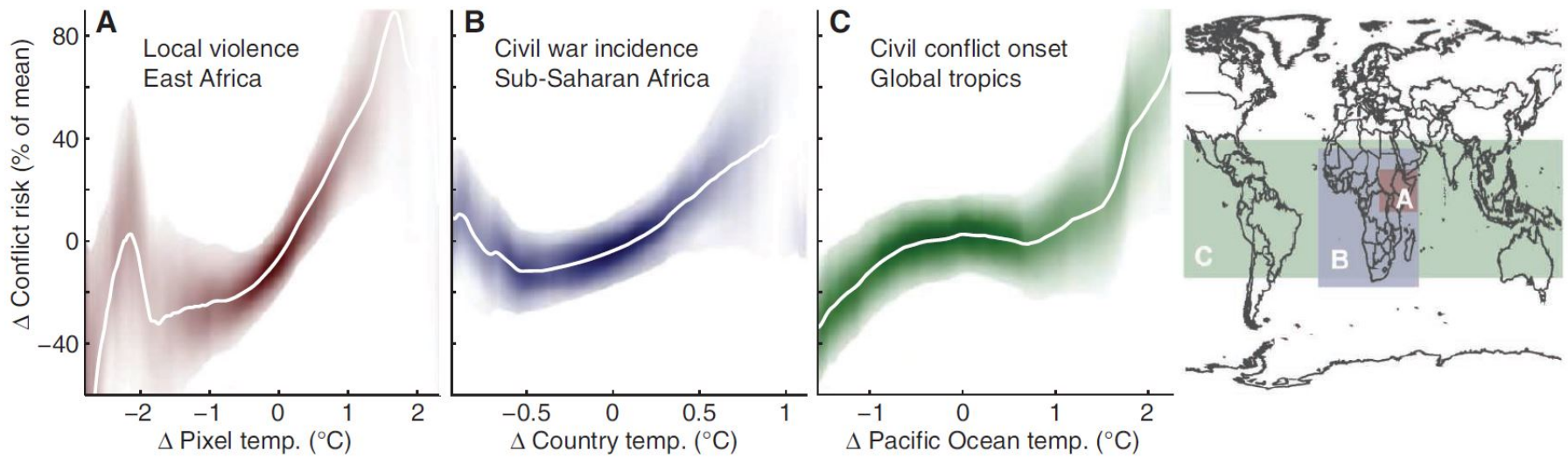
Climate change impacts on migration and population displacement

- Growing literature
- Rarely the sole cause
- Frequently a relevant driver
- Migration/displacement as adaptation response
- Expected to having increased impact in the future, e.g.:
 - Sea-level rise
 - Higher-end scenarios
 - Regions showing higher than average warming/other climate change impacts
- **Already foreseen by IPCC in 1990**



Some evidence on human security drivers

Hsiang, S. M.,
Burke, M.,
Miguel, E.
(2013) -
Quantifying the Influence of Climate on Human Conflict
- Science: Vol. 341, Issue 6151, 1235367



Hsiang, S. M., Burke, M., Miguel, E. (2013) - *Quantifying the Influence of Climate on Human Conflict* - Science: Vol. 341, Issue 6151, 1235367

cont.

- **Ability to migrate also function of mobility and resources (both financial and social)**
- **Forced migration impacts on development by:**
 - Increasing pressure on urban infrastructure and services
 - undermining economic growth
 - increasing the risk of conflict
 - leading to worse health, educational and social indicators among migrants
- **Forced climate migrants *fall through the cracks* of international refugee and immigration policy**

Impacts on migration in Horizon 2020

- **LC-CLA-05-2019: Human dynamics of climate change**
 - a) **Climate and human migration:** Actions should identify and analyse drivers relating to climate change that may affect human migration and displacement patterns. Actions should – using a multidisciplinary approach – identify and describe climate parameters, develop analytical methodologies, and demonstrate how these relate to human migration patterns, including the probability of migration/forced displacement and design adaptation solutions that may help in alleviating migration pressures at the source. They should also provide guidelines and policy recommendations for the European Agenda on Migration. Actions may also harness local knowledge and information by engaging with civil society organisations and citizen groups.



Thank you for your attention!

for the Horizon 2020 Work Programme 2018-2020, see:
https://ec.europa.eu/programmes/horizon2020/sites/horizon2020/files/h2020-sc5-2018-2020_09_15_2017_forpublication.pdf

* Disclaimer: it is a pre-publication, not yet adopted by the European Commission