



Faculty of Science



Climate change, conflict, security, migrants and refugees

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Perspectives on climate change and migrants

- Natural sciences: What may actually happen ?
- Economics: What will be costs (or benefits), for states and individuals ?
- Political science: How will climate change affect conflict, international collaboration and the function of states ?
- Law: What is/will be the legal status of 'climate migrants / refugees' ?
- Ethics: What should we do in the face of climate change ? What obligations do we have to 'climate migrants', future generations and other species ?



Three questions I will try to address:

1. Causality: What elements of climate change are likely to lead to increased flows of migrants, refugees or internally displaced persons ?
2. How are climate change, 'security', armed conflict and migrants/refugees related ?
3. What moral issues are involved ?



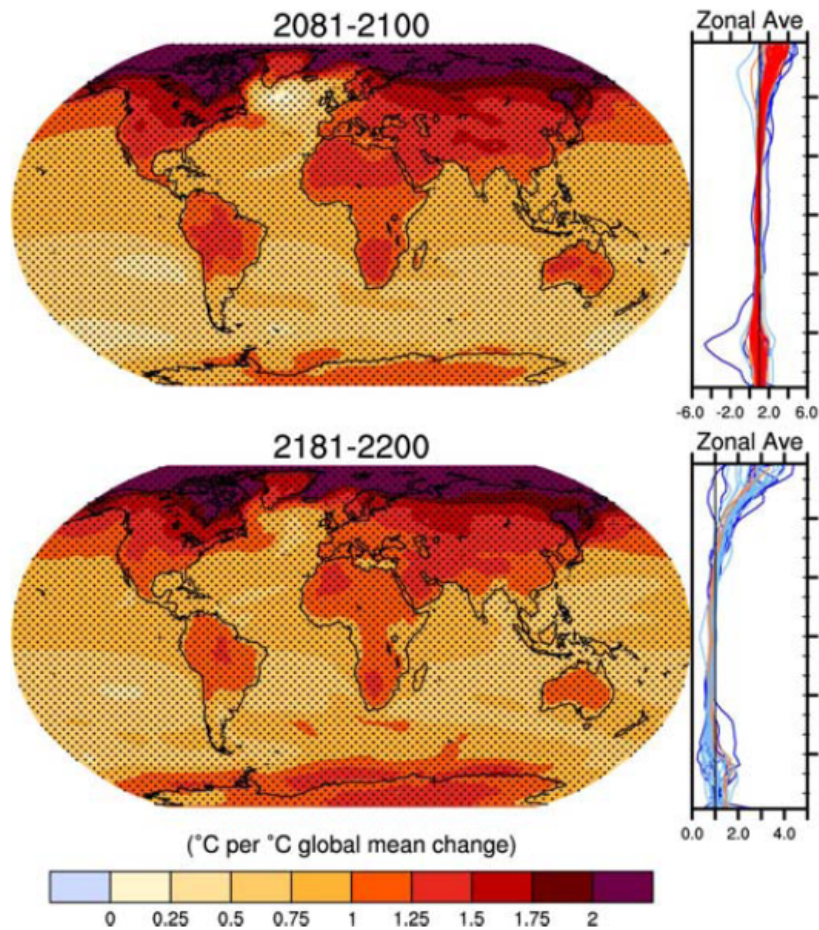
Causality: What elements of climate change are likely to lead to increased flows of migrants

I would suggest three different elements:

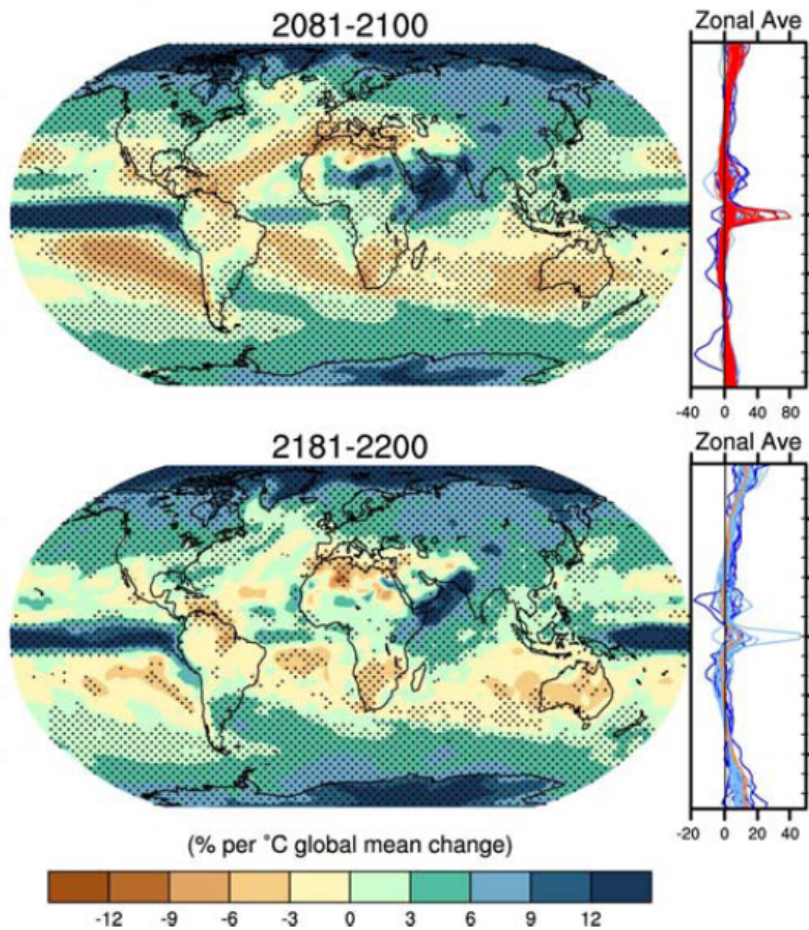
- Gradual changes in the distribution of water resources / agricultural potential



Temperature scaled by global T (°C per °C)



Precipitation scaled by global T (% per °C)



Causality: What elements of climate change are likely to lead to increased flows of migrants

I would suggest three different elements:

- Gradual changes in the distribution of water resources / agricultural potential
- Changes in the statistics of extreme events
 - Stronger cyclones
 - Higher rainfall intensity
 - More intense droughts
 - Heat waves



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- 'Tipping elements', such as the accelerated melting of the Greenland Ice Cap and the West Antarctica, causing rapid sea-level rise



Causality: Examples of possible sources of 'climate migrants'

- Small, low-lying island states
- Drought-prone area of Sub-Saharan and Northern Africa
- The big river deltas, e.g. Ganges-Brahmaputra



Security, conflict and climate refugees

Will climate change 'cause' conflicts (leading to refugee flows) ?

Claimed cases of climate change currently 'causing' conflicts over scarce water resources:

- Darfur
- Mali/the Sahel
- Syria

Possible future conflicts over scarce water resources in trans-national river basins. Examples:

- The Nile
- Euphrates
- Mekong



Security, conflict and climate refugees

Possible future conflicts caused by refugee flows associated with extreme events, such as super-cyclones (in combination with sea level rise, in particular if accelerated by 'abrupt climate change' associated with 'tipping elements'). Examples:

- Flooding of large, densely populated river deltas (such as the Ganges-Brahmaputra delta in Bangladesh) or other low-lying coastal areas
- Flooding of low-lying islands (and island states)
- Persistent drought in dryland areas



Security, conflict and climate refugees: Securitization of climate change

- Talking about climate change as a 'security problem', rather than an environmental or an economics issue
- Climate migrants/refugees are often used as an argument for securitizing climate change
- Is securitization actually helping us to solve the problem ?



Three moral issues

- *The intra-generational justice/fairness issue:* In contrast to migrant/refugee flows generated by civil war or general poverty, the rich 'global North' is obviously the main responsible for the climate changes which may lead to migrant/refugee flows. Climate change is likely to have the greatest negative impacts in the 'global South'.
- *The inter-generational justice/fairness issue:* The full effect of historical and current emissions of GHGs will not be seen before several centuries into the future. How do we weigh the interests of future generations against those of our own?
- *The anthropo-centric versus eco-centric rights issue:* Climate change – in combination with increased appropriation of land (and products of photo-synthesis) for human purposes – is likely to cause massive extinction of species.

