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GLOBAL ENVIRONMENTAL CHANGE  
AND HUMAN SECURITY

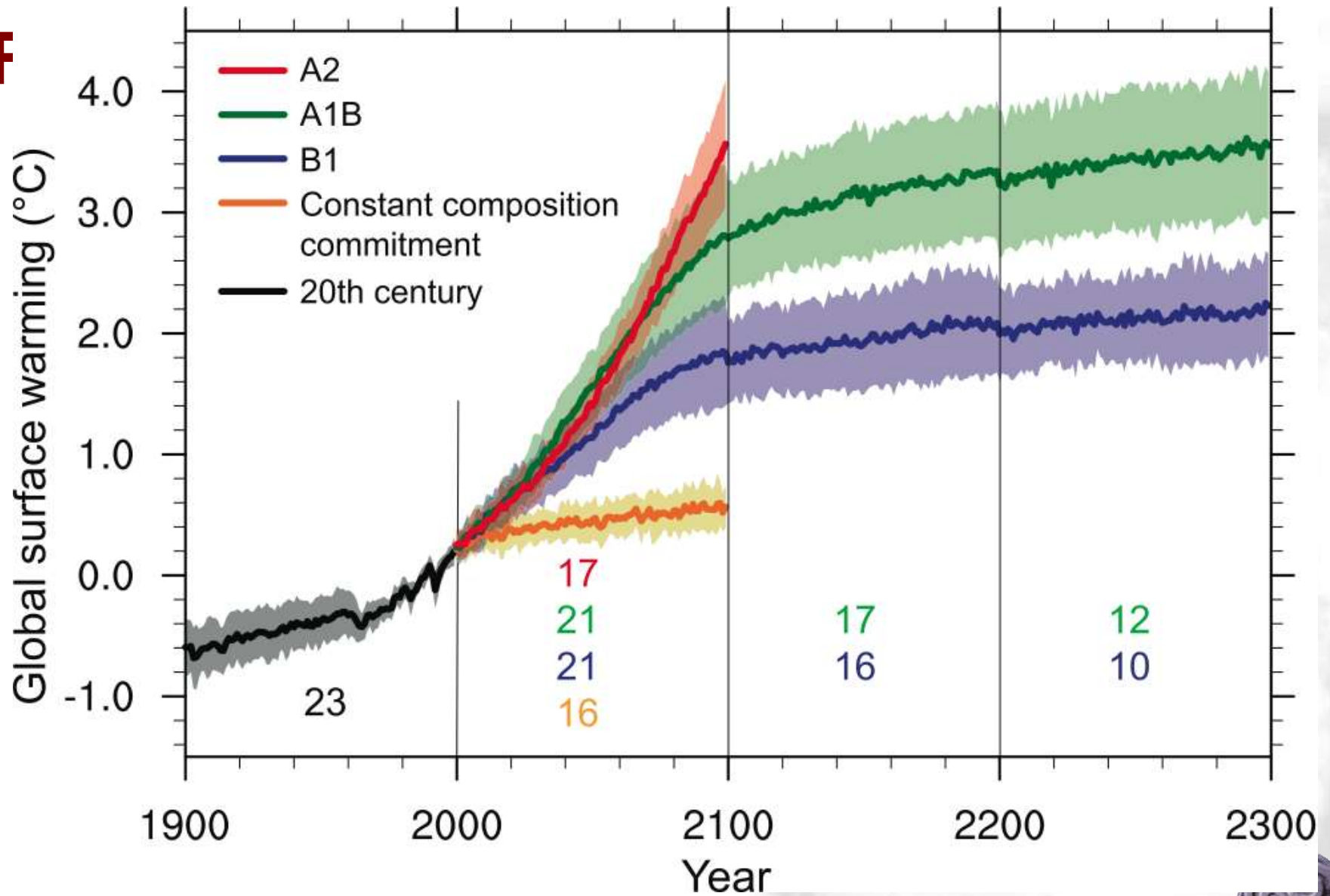
# Climate Change Adaptation: A North/South Perspective

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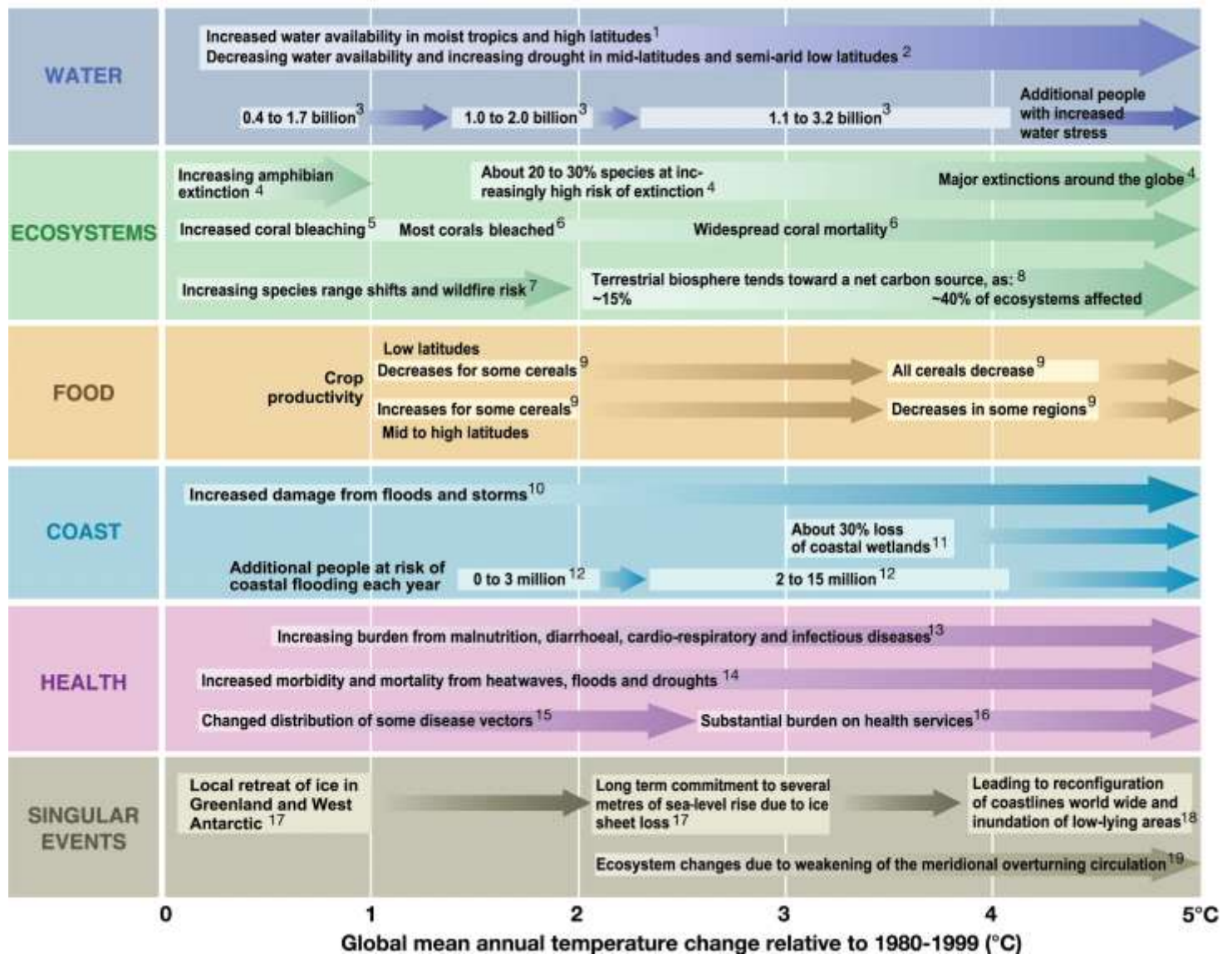
# Outline

- Why should we be concerned with adaptation?
- What is a "North" perspective on adaptation?
- What is a "South" perspective on adaptation?
- Is this a useful way to look at adaptation?
- What is sustainable adaptation?



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**Table TS.3. Examples of global impacts projected for changes in climate (and sea level and atmospheric CO<sub>2</sub> where relevant)**



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## Climate change: Prepare for global temperature rise of 4C, warns top scientist

Defra's chief adviser says we need strategy to adapt to potential catastrophic increase

The UK should take active steps to prepare for dangerous climate change of perhaps 4C according to one of the government's chief scientific advisers.

In policy areas such as flood protection, agriculture and coastal erosion Professor Bob Watson said the country should plan for the effects of a 4C global average rise on pre-industrial levels. The EU is committed to limiting emissions globally so that temperatures do not rise more than 2C.

"There is no doubt that we should aim to limit changes in the global mean surface temperature to 2C above pre-industrial," Watson, the chief scientific adviser to the Department for the Environment, Food and Rural Affairs, told the Guardian. "But given this is an ambitious target, and we don't know in detail how to limit greenhouse gas emissions to realise a 2 degree target, we should be prepared to adapt to 4C."



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Main Entry: **adapt** 🗣️

Pronunciation: \ə-'dapt, a-\

Function: *verb*

Etymology: French or Latin; French *adapter*, from Latin *adaptare*, from *ad-* + *aptare* to fit, from *aptus* apt, fit

Date: 15th century

*transitive verb*

: to make fit (as for a specific or new use or situation) often by modification

*intransitive verb*

: to become adapted



# Adaptation

“Adjustments in practices, processes, or structures to take into account climate change, to moderate potential damages, or to benefit from opportunities associated with climate change.”

(IPCC, 2001)



# Adaptation to climate change

- Adaptation is a social and cultural process;
- It takes place through actions that reduce vulnerability (or enhance resilience) in response to observed or expected changes in climate and climate variability.
- Influenced by exterior, objective factors (systems and behaviors), and also by interior, subjective factors (culture, values, beliefs);
- Adaptation is already taking place, but seldom in response to climate change alone.
- Not all adaptations are sustainable, and some may increase the vulnerability of others, and of future generations.



# Vi tar vinteren tilbake!



## Stort fakkeltog for kunstisbane

Vind og regn. Plusgradar og riddet is. Det har ikkje vært lett å gå på skøyter på Røstane i år. Det var like en gang is igjen til å arrangere skøytefest slik vi pleier i slutten av februar.

Men nå har vi en kjempesjansje til å ta vinteren tilbake. Røa Bandy jobbar nemlig for å få bygd en stor kunstisbane på golfbanen på Bogstad. Vi kaller anlegget for Bogstad Vinterparadis!

Tanken er at banen skal brukas av alle i næringsområdet. Om dagen kan skolene og SFO bolte seg. Om kvelden er det idrettslagenes tur. De slipper bandypløerne å reise til Herrer eller Valle Hovin for å gå på skøyter.

For å vise politikere og alle andre at dette er noe vi virkelig tror på, arrangerer vi fakkeltog fra Røa Torg til Røstane torsdag 6. mars. Først blir det appell ved bydelens politikere, og etterpå tenner vi takkene og går ned til Flusoen ved Røstane. Der blir det disco, musikk, grillmat og drikk. Til slutt blir det stort fyrverkeri!

Vi håper at DU vil være med å vise at vi utrolig gjerne vil ha denne banen for å ta vinteren tilbake. Det er viktig at vi blir mange, for da viser vi et heilt næringslaget ønsker seg et vinterparadis på Bogstad.

Ta derfor med deg søsken, foreldre, besteforældre, tante, onkler, naboer, venner og mat opp på.

**Røa Torg foran Samfunnshus Vest, torsdag 6 mars kl 1730**

Kontaktperson:  
Knut A. Abrahamson  
Mobil: 91655580  
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**BOGSTAD VINTERPARADIS**



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# Adaptation: a "North" perspective

- Adaptation to climate change is about how individuals, communities, and society as a whole can reduce the negative impacts of changes in temperature, precipitation, sea-level , etc.;
- Developed countries have the capacity to adapt;
- Key challenge: Identifying and removing the barriers to adaptation.



# Adaptive Capacity

- Wealth
- Technology
- Education
- Information
- Skills
- Infrastructure
- Access to resources
- Stability
- Management capabilities



# Problems with this perspective:

- Complacency may hinder action;
- Doesn't take into account ecological thresholds;
- Climate change is not the only change that is occurring;
- Climate change will affect what people value.



# Snow cover changes in Norway

- Winter temperature increases of 2.5 – 4°C by 2100;
- More winter precipitation in eastern Norway;
- 40% decrease in number of days with suitable skiing conditions by 2050 (compared to 1981-1999 period)



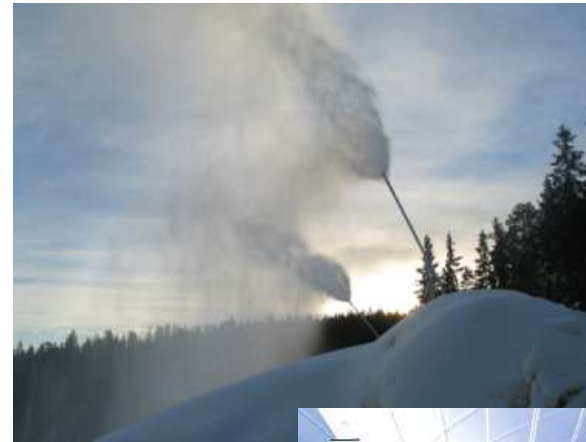
# Traditional values

- Snow cover is important to local and national identity
- Prioritized adaptations might preserve heritage, tradition, and identity (preservation of cultural landscapes and a sense of place)
- Challenge: to transform livelihoods *and* maintain a sense of community



# Modern values

- Snow cover as a medium for winter sports (an important economic sector)
- Prioritized adaptations might focus on snow-making technologies, indoor snow domes, artificially cooled ski tracks
- Challenge: reconstruct or reinvent identity (identify new or niche markets)



# Post-modern values

- Snow cover as a component of ecosystem integrity; distant impacts of climate change also a concern
- Prioritized adaptations might focus on adaptive management, building resilience, promoting sustainability.
- Challenge: promote mitigation as a form of adaptation



**How will climate change affect what is valued in Norway? Whose values count?**



# Adaptation: A "South" Perspective

- Climate change adds new uncertainties to climate-sensitive activities;
- Climate variability can have devastating effects on lives and livelihoods;
- Adaptive capacity is low;
- Key challenge: Transfer technology and resources to help developing countries adapt.



# Problems with this perspective:

- Climate change is not the only threat to human security (conflict, infectious disease, economic changes, etc.);
- Overemphasizes climate risk reduction, underemphasizes vulnerability reduction;
- Downplays the fact that people have adapted successfully to many other changes;
- Doesn't take into local knowledge;
- Adaptation is not neutral or value-free.

# Adaptation is not neutral or value-free

- "The educated individual is the adapted person, because she or he is better "fit" for the world. Translated into practice, this concept is well suited to the purposes of the oppressors, whose tranquility rests on how well people fit the world the oppressors have created, and how little they question it. The more completely the majority adapt to the purposes which the dominant minority prescribe for them (thereby depriving them of the right to their own purposes), the more easily the minority can continue to prescribe."

*Paolo Freire, Pedagogy of the Oppressed, 1970*



# Is a North/South perspective useful?

- Yes -- it raises some of the important equity issues around climate change;
- No – it hides the fact that we live in a globalized world; impacts and vulnerability are likely to resonate across any North/South divide.



# Norway in a globalizing world:

- The number of immigrants in Norway – people -- is increasing;
- International travel is increasing, especially for pleasure/vacation (more vacation homes in foreign countries);
- Increase in students traveling and studying abroad;
- More retirees living abroad;
- Increased foreign economic investments (China, Russia, Vietnam, Poland, etc.);
- Growing linkages (e.g., sister cities, fadder barn)
- Increased geo-political interests in the Arctic.

Å skape et nytt og større "vi"



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- From the perspective of human security, we need a well-adapted world.
- But can the world adapt to 4°C change?  
(not every adaptation is equally good...)

# Sustainable Adaptation

- Describes the processes, actions, decisions and strategies that reduce vulnerability to climate change **without compromising human security in the short run AND in the long run.**



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- Promotes the capacity to **adapt to complex, dynamic and nonlinear changes**, both at individual and collective levels.



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- Promotes the capacity to adapt to complex, dynamic and nonlinear changes, both at individual and collective levels.
- Addresses **direct impacts and risks** associated with climate change and the **systemic and contextual factors** that create vulnerability.



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- Promotes the capacity to adapt to complex, dynamic and nonlinear changes, both at individual and collective levels.
- Addresses direct impacts and risks associated with climate change and the systemic and contextual factors that create vulnerability.
- **Recognizes that values, beliefs, and worldviews differ** within and across populations, lifetimes, and generations -- yet prioritizes responses that **enhance human security for the majority** of the world's population, both in the present and future.



# Transforming Mobility

**Hugo Spowers, founder of RiverSimple**

“The purpose of RiverSimple is to move people sustainably. “



**A "zero-emission" sports car with a top speed of nearly 100mph is set to be unveiled at the Geneva Motor Show.**



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# Transforming Agriculture



# Transforming Urban Environments



*Transformation of an urban street into a functioning agricultural corridor*



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# Transforming Business Models



Michelin Fleet Services: From Selling Tires to Selling Services

**Adaptation to climate change from a global perspective is as much about reducing greenhouse gas emissions as it is about responding to the impacts of inevitable changes.**

