

# The Climate Challenge - and how we should tackle it

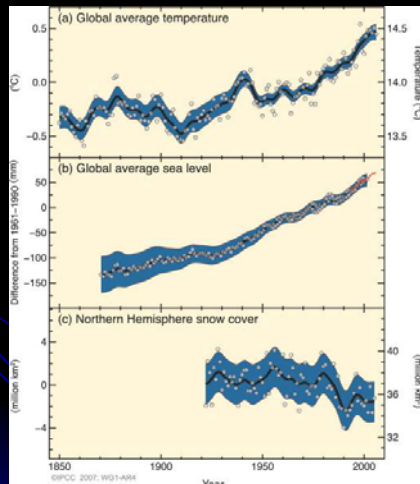
*If not now, when? If not here, where? If not us,  
who?*

"Climate Literacy: Experience from Sweden and Ukraine"  
17-18th of November 2009  
Anna Havula

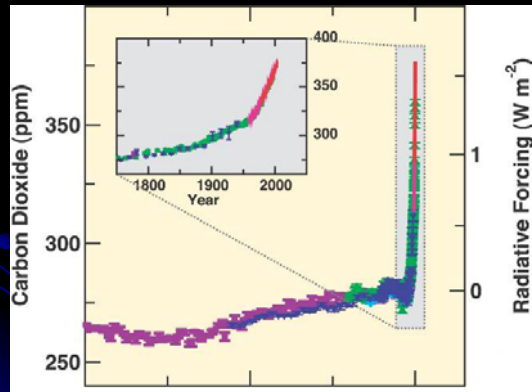
- The climate challenge and the need to tackle it
- The Swedish perspective



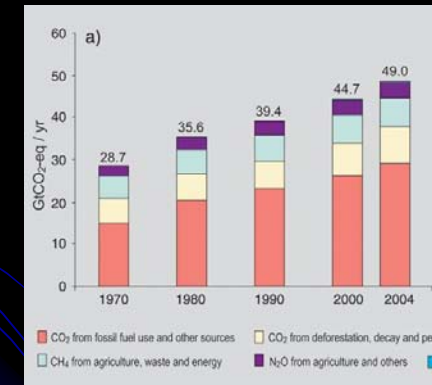
## The climate change is already happening



## Climate change is caused by anthropogenic emissions



## Fossil fuels - the primary source of increased concentration of CO<sub>2</sub>



## The world is dependent on fossil fuels

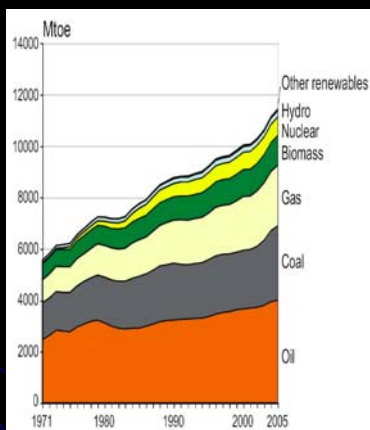
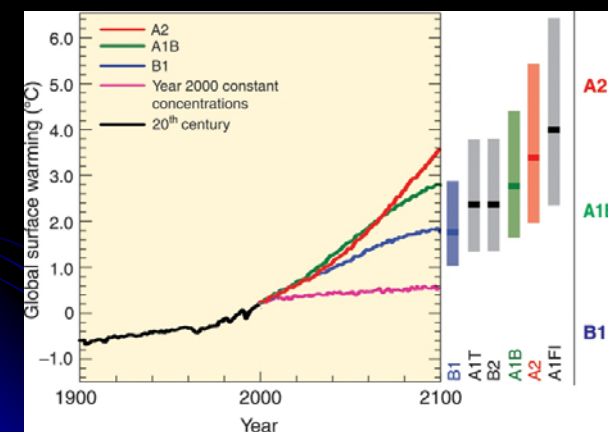


Figure 4.5: World primary energy consumption by fuel type.

## The Earth is getting warmer



### What impacts of climate change can we expect from 2 degree temperature rise?

- Water scarcity
- Up to 30 % of the species - at higher risk of extinction
- Negative effects on food production
- Floods and storms
- Worsen health due to heat waves, malnutrition etc.
- Nearly all regions in Europe will be negatively affected
- Eastern Europe: water scarcity, heat waves and health risks

### The effects of climate change in developing countries

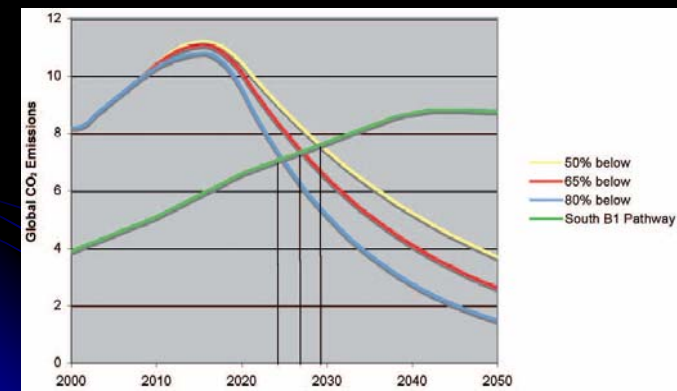
- 75-80 percent of the potential damage of climate change (World Bank)
- 145-220 million people in Asia and Africa - absolute poverty (Stern Review)
- 200 million people - climate refugees 2050 (Stern Review)
- High risk of violent conflicts in 46 countries (Swedish International Development Cooperation Agency)
- Women most vulnerable

### The economic consequences due to climate change are predicted to be huge all over the world

Stern Review on the Economics of Climate Change:

- If we don't act now: 5-20 % loss of the GNP per year
- The cost to act: 2 % of the GNP per year
- Transition to a low-carbon economy - opportunities for growth and new, green jobs

### The climate challenge – the greatest challenge of our time



*If not now, when? If not here, where?  
If not us, who?*



**Investments in renewable energy & energy efficiency**  
- New, Green Jobs

- Solar power is the fastest growing energy source in the world.
- The global market for environmentally friendly products and services will double to 2.7 billion dollars in the year 2020 (UNEP)
- 20 million people will work with renewable energy year 2030 (2.3 million today, UNEP)

**What is Sweden doing for the climate?**



**The Swedish people are aware of the climate challenge**

- 95 %: "Sweden has or will be affected by the climate change "
- 85 %: "Sweden can do something to limit the climate change"
- 78 %: "I can do something to limit the climate change"

(Swedish Environmental Protection Agency)

### Big support for climate measures

- 96 %: "Important that Sweden introduces measures against the climate change"
- 63 %: "good" or "fairly good" to introduce extra taxes and charges on petrol, oil and aviation
- 69 %: prefer to buy their goods and services from companies that are actively working to limit climate change

### Why do Swedish people care so much about the climate change?

- Ambitious climate policy
- Very active civil society
- Media

### Swedish climate policy

- Reduction of emissions 1990- 2008: -9 %  
Climate goal to 2020: - 40 %
- Reduction of emissions from the residential and service sector 1990-2007: - 60 %! Main explanations:
  - CO2 tax and energy tax
  - State's investment contribution: 30 % of the cost to switch from oil to renewables.

### Some successful Swedish climate policies

- CO2 tax
- Climate investment program
- Green certificates for renewable electricity

## Strong civil society

- Swedish Society for Nature Conservation: 181 000 members
- WWF: 130 000 supporters
- Greenpeace: 60 000 supporters
- Several smaller organizations
- State support: 1,4 million USD (2009)



## Green jobs: Swedish experience

- 73 000 green jobs
- 12 % more green jobs 2003-2007
- Export increased with 64 %
- Turnover increased with 41 %
- 60 000 more green jobs is possible, says several organizations: renewable energy, energy efficiency, sustainable infrastructure

*"Another world is not only possible, she is on her way.  
On a quiet day, I can hear her breathing."  
- Arundhati Roy*



Thank you for your attention!

[Anna.Havula@Riksdagen.se](mailto:Anna.Havula@Riksdagen.se)