

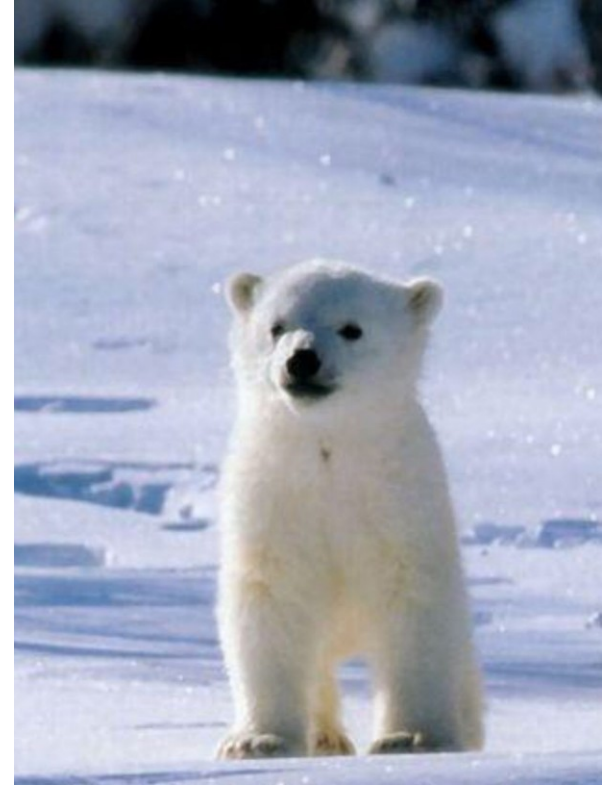
Climate change and geo-engineering

MODERN TECHNOLOGIES AND CONFLICTS

12.11.2018
Michael Myklín

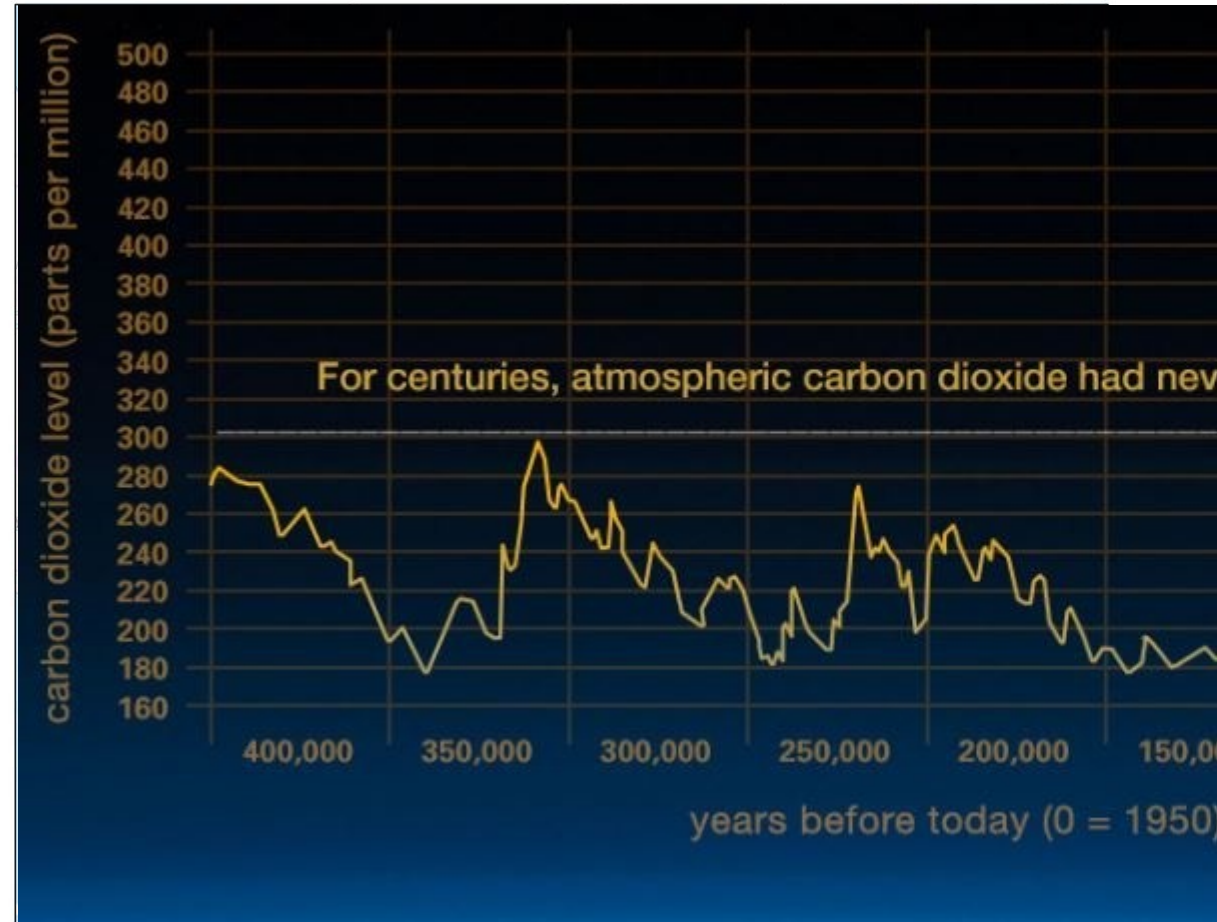
Content of lecture

- Climate change
- Geo-engineering
- Case study: Role of environmental factors behind the outbreak of Syrian civil war



Climate change

- Historical norm, but...
 - Ice Age
 - Record concentration of CO2
- Negative impacts
 - Melting of glaciers, permafrost
 - More frequent weather extremes, (
 - Geopolitical impacts
- Positive impacts
 - Agriculture
 - Shipping



Geo-engineering

- SRM – Solar Radiation Management
 - Stratospheric Aerosol Injection
- High-tech / Low-tech
 - Space mirrors
 - The Great Green Wall of China
- Carbon capture
 - Technical / Organic
- Weather control
- Source of conspiracy theories– HAA
- Nuclear holocaust☺



Role of environmental factors behind the outbreak of Syrian civil war



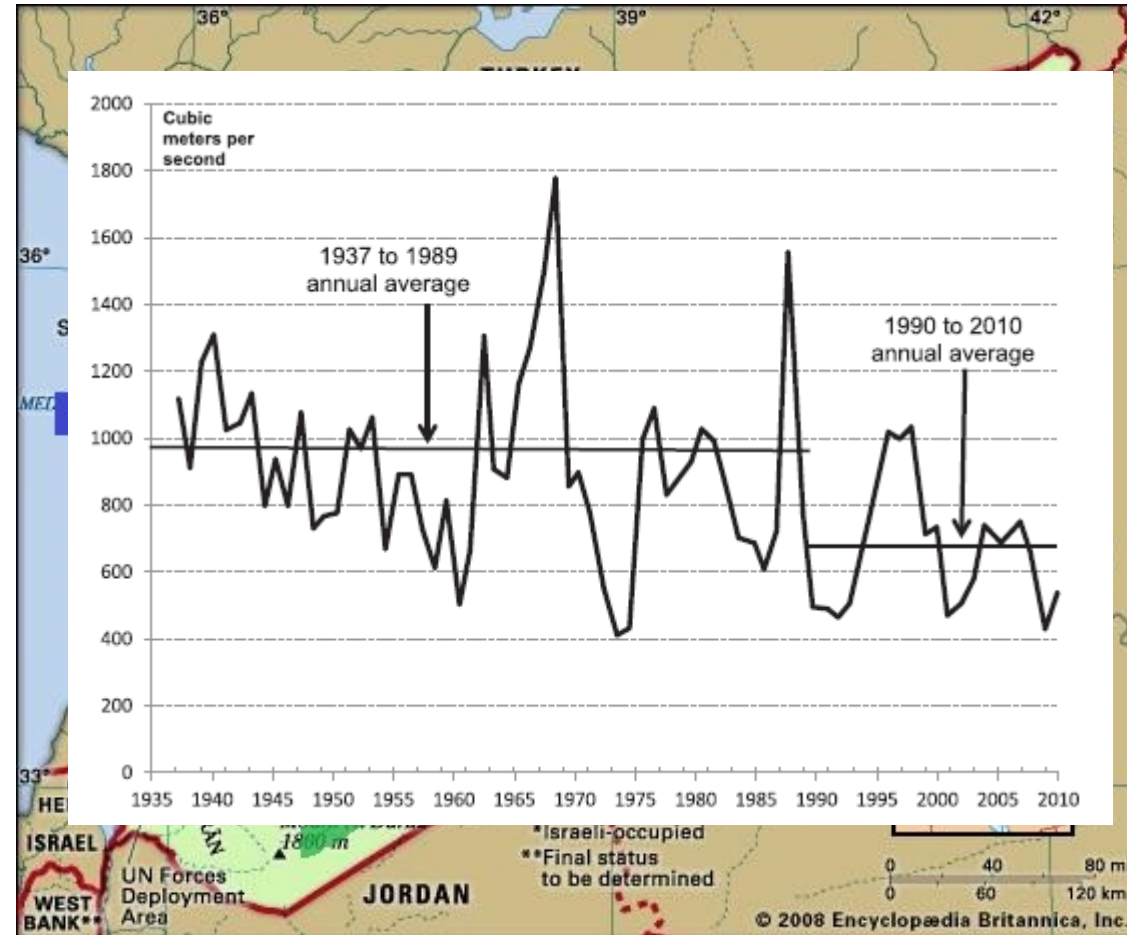
CASE STUDY

Syria – quickly and briefly

- 2010
 - Population 20,7 mil.
- 2018
 - 6,2 mil. IDPs
 - 5,6 mil. refugees in the region (UN OCHA 2018)
- Pre-war economy
 - Agriculture
 - Oil extraction
 - Food and textile industry



Syria – water resources and agriculture



Draught 2006-2010

- Worst draught in the Mediterranean in 900 years? (Cook et al. 2009)
- Massive reduction of rainfall
 - Temperature increase and reduction of rainfall during the winter months
- Eastern Syria: 1,3 mil people affected, 800 thousand lost their living
- Livestock reduction— decrease of livestock population by 60 %
- Government's mistakes
 - Selling the stockpiles of wheat
 - Cultivation of cotton
 - Ineffective method of irrigation
 - Regulation of well drilling





NO WATER
NO FARMER | NO FOOD

Impacts of draught

- **Is the draught direct cause behind the Syrian civil war?**
- Migration to the cities (Aleppo, Damascus, Hama, Homs)
- Increase of unemployment
- Significant increase of prices of food, water and fuel
- Reduction of agricultural land

Conflict potential of climate change

- Climate change
- Decreasing level of ground water in China,
- Loss of agricultural land
 - Uneconomic agriculture
 - Erosion
 - Desertification
 - Urbanisation
- Rising sea levels
 - Glaciers
- Population growth

