1. The Legal Status of the Atmosphere

2. 1992 UNFCCC

3. 1997 Kyoto Protocol
   2. Cancun Agreements (2010)
   3. Durban platform and way forward (2011)

4. Global Carbon Market
The Atmosphere
Legal status:

- Common resource
- Shared resource
- Common heritage of mankind
- Common concern of humankind (Preamble UNFCCC)
Preamble UNFCCC, para 1:

…”change in the Earth’s climate and its adverse effects are a common concern of humankind,…”
How to make international climate law?
How to make international climate law?
How to make international climate law?
The Making of International Climate Law?

• Where?:
  – By States
  – By the Conference of the Parties (COP) (Art. 7.2 UNFCCC)
  – Are COP-decisions law?
The Making of International Climate Law?

• How?
  – Adopting legally binding instruments (amendments, protocol or amendments to protocols)
  – Rules of Procedure – not formally adopted
  – …but applied by every COP since 1995
  – …except for rule 42 on voting
  – «Each Party shall have one vote» (Art. 18)
  – Consensus
The Making of International Climate Law?

• What is Consensus?
  - Precise content and scope unclear
  - Consensus does not equal unanimity
  - UN Office of Legal Affairs: “a practice under which every effort is made to achieve unanimous agreement; but if that could not be done, those dissenting from the general trend were prepared simply to make their position or reservations known and placed on record”.

The Making of International Climate Law?

• Consensus in international climate negotiations?

• … in COP 16- Cancun
The Making of International Climate Law?

• Consensus in international climate negotiations?
• …and COP 18- Doha
International Climate Agreements

- UNFCCC 1992/1994
- Berlin Mandat 1995
- **Kyoto Protocol 1997/2005**
- Marrakech Accords 2001
- Bali Action Plan 2007
- Copenhagen Accord 2009
- Cancun Agreements 2010
- **Amendment to the Kyoto Protocol 2012**
UNFCCC

- Adopted in 1992 in NY
- In force since 21 March 1994
- Almost universal participation:
  - 194 States and the EU
- *Framework* Convention
- Legally binding international agreement
  - Ultimate objective, Art. 2
  - Principles, Art. 3
  - Groups of States, Art. 4 and Annexes I and II
  - Institutional Framework and Reporting
UNFCCC

Ultimate Objective, Art. 2:

"stabilizing of greenhouse gas concentrations at a level that would prevent dangerous anthropogenic interference with the climate system."

• BUT:

"such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner."
Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, sea level has risen, and the concentrations of greenhouse gases have increased.

Each of the last three decades has been successively warmer at the Earth’s surface than any preceding decade since 1850 (see Figure SPM.1). It is *virtually certain* that globally the troposphere has warmed since the mid-20th century.

Human influence on the climate system is clear. This is evident from the increasing greenhouse gas concentrations in the atmosphere, positive radiative forcing, observed warming, and understanding of the climate system. It is *extremely likely* that human influence has been the dominant cause of the observed warming since the mid-20th century.

Continued emissions of greenhouse gases will cause further warming and changes in all components of the climate system. Limiting climate change will require substantial and sustained reductions of greenhouse gas emissions.

Global surface temperature change for the end of the 21st century is *likely* to exceed 1.5°C relative to 1850 to 1900 for all RCP scenarios except RCP2.6. It is *likely* to exceed 2°C for RCP6.0 and RCP8.5, and *more likely than not* to exceed 2°C for RCP4.5.
UNFCCC

• Ultimate Objective, Art. 2:
  "stabilizing of greenhouse gas concentrations at a level that would prevent dangerous anthropogenic interference with the climate system."

• BUT:
  "such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner."
### Projected impact of climate change

<table>
<thead>
<tr>
<th>Temperature (°C)</th>
<th>Food</th>
<th>Water</th>
<th>Ecosystems</th>
<th>Extreme weather events</th>
<th>Risk of abrupt and major irreversible changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0°C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1°C</td>
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<td></td>
</tr>
<tr>
<td>2°C</td>
<td></td>
<td></td>
<td>Extensive damage to coral reefs</td>
<td>Rising intensity of storms, forest fires, droughts, flooding and heat waves</td>
<td>Increasing risk of dangerous feedbacks and abrupt, large-scale shifts in the climate system</td>
</tr>
<tr>
<td>3°C</td>
<td>Food</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4°C</td>
<td>Food</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>5°C</td>
<td>Food</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6°C</td>
<td>Food</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Global temperature change (relative to pre-industrial)**

- **0°C**: No change
- **1°C**: Small mountain glaciers disappear – water supplies threatened in several areas
- **2°C**: Significant decreases in water availability in many areas, including Mediterranean and Southern Africa
- **3°C**: Sea level rise threatens major cities
- **4°C**: Falling yields in many developed regions
- **5°C**: Falling crop yields in many areas, particularly developing regions
- **6°C**: Falling yields in many developed regions

**SOURCE**: Stern Review
4. Further recognizes that deep cuts in global greenhouse gas emissions are required according to science, and as documented in the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, with a view to reducing global greenhouse gas emissions so as to hold the increase in global average temperature below 2 °C above preindustrial levels, and that Parties should take urgent action to meet this long-term goal, consistent with science and on the basis of equity;
Equilibrium global mean temperature increase above preindustrial

Temperature increase (°C)

Temperature increase (°F)

GHG concentration stabilization level (ppm CO₂ eq)
• **Ultimate Objective, Art. 2:**

"stabilizing of greenhouse gas concentrations at a level that would prevent dangerous anthropogenic interference with the climate system."

• **BUT:**

"such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner."
Climate Change: Defining Options

Climate Change

Mitigation
- Reducing Emissions
- Expanding and Protecting Forests
- Life Style Changes

Adaptation
- Building Dams
- Flood Protection
- Erosion protection
- Irrigation Systems
UNFCCC

Principles:

• Precautionary Principle (3.3.)
• Sustainable Development (3.4.)
• Cost-Effectiveness (3.1 and 3.2)
• Inter-generational Equity (3.1.)
• Common but Different Responsibilities (3.1.)
UNFCCC

Commitments:

• *All parties*; Art 4.1.:
  • National inventories
  • National and regional programmes to mitigate cc
  • Promote Sustainable Development
  • Promote conservation of sinks, adaptation, education etc.
UNFCCC

Commitments:

• **Annex-I Parties:** Art. 4.2.(a)
  - Develop *national policies and measures* on the mitigation of cc

• Taking the lead!

• Reporting requirements (Art. 4.2.(b))
UNFCCC

Annex-II Parties: (OECD countries /30=18% of world population)

• provide financial resources to developing countries (Art.4.3)

• assist developing countries in meeting adaptation costs (Art. 4.4)

• technology transfer (Art. 4.5)

• allow degree of flexibility (Art 4.6)
UNFCCC

Commitments:

• Non-Annex countries (developing countries, Group 77 and China – now 131 countries – 80% of world population and more than 50% of current GHG emissions)
UNFCCC

Art. 4.7: ”The extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties.”

…. Art. 17: Protocol necessary (more specific obligations)
Figure 3: Total Greenhouse Gas Emissions by Region

- Developed Countries
- Developing Countries

1 Gt = 10^9 metric tons = 1 billion metric tons = 1 petagram (Pg)

U.S. Environmental Protection Agency
Top Fossil Fuel Emitters (Absolute)

Top four emitters in 2011 covered 62% of global emissions
China (28%), United States (16%), EU27 (11%), India (7%)

The growing gap between EU27 and USA is due to emission decreases in Germany (45% of the 1990-2011 cumulative difference), UK (19%), Romania (13%), Czech Republic (8%), and Poland (5%)

Source: CDIAC Data; Le Quéré et al. 2012; Global Carbon Project 2012