



Climate Change

EU climate action in and for the Arctic

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Arctic Indigenous People Dialogue,

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The EU and the Arctic matter to each other...

Nearly 500,000 Union citizens reside in the Arctic (out of about 4 mio. Arctic residents in total)

EU, some EU member states and EU private sector invest heavily in the Arctic

EU is key investor in Arctic research

EU is largest consumer of goods and products from the Arctic

Arctic maritime routes relevant for trade to/from EU

Arctic research crucial for understanding of global and local climate change effects

etc

.... also for climate change policy !

Global Climate change impacts most visible in the Arctic

Short-lived pollutants leave their mark in the Arctic

=> adaptation needs of Arctic residents: EU Adaptation Strategy

New opportunities for economic development due to melting of Arctic sea ice (exploitation of resources, maritime routes) entail potential causes of GHG emissions

=> need to consider broader perspective of transition to low-carbon economies, (trans-boundary) impact assessments taking mitigation potential into account: EU domestic climate policy

Climate change effects in the Arctic produce feedback loops

Global efforts to effectively mitigate climate change required to safeguard Arctic

=> urgency to tackle GHG emissions globally, consistent with 'below 2° C-objective': EU leads on international mitigation efforts



UNDERSTANDING ARCTIC (CLIMATE) CHANGE –

THE EU CONTRIBUTION

Arctic climate change rapid, strong

Arctic = the most rapidly changing climate region on earth
Arctic = particularly fragile region where strong ecosystem feedbacks accelerate changes compared with other regions

Changes in

- Temperature
- Sea ice cover,
- Snow cover
- Water regimes

are linked to the loss of important habitats for Arctic species, and shifts in species composition, which in turn affects people's livelihoods.

Figure SPM.8c

Maps of CMIP5 multi-model mean results

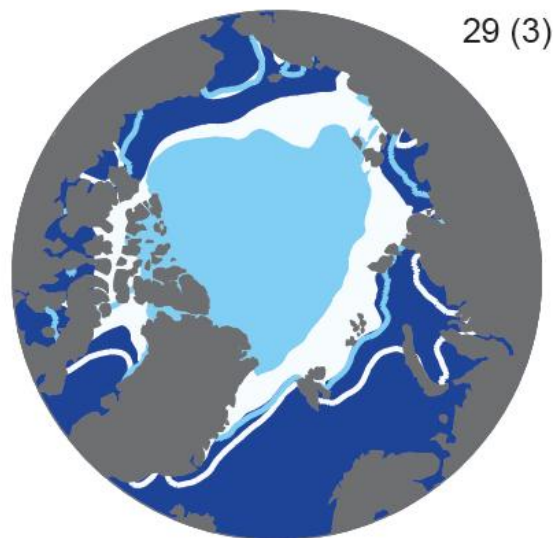
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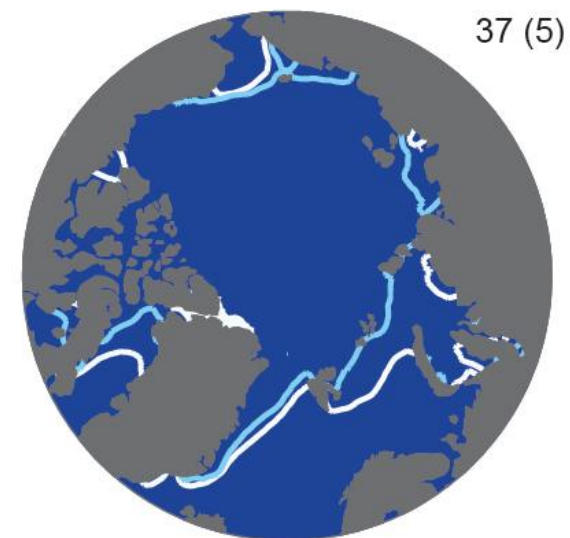
RCP 2.6

RCP 8.5

Northern Hemisphere September sea ice extent (average 2081–2100)



- CMIP5 multi-model average 1986–2005
- CMIP5 multi-model average 2081–2100
- CMIP5 subset average 1986–2005
- CMIP5 subset average 2081–2100



Climate change impacts seen in the Arctic, f.ex. melting Arctic Sea Ice

= *consequence of global warming*

= *(also) trigger for further changes:*

Less ice->less reflection->more warming->less, thinner ice

Feedback effect of black carbon on atmosphere and snow/ice cover

Methane bubbles trapped in ice

Effects on temperature distribution in the atmosphere

Arctic sea as engine for conveyor belt for global ocean currents

Biodiversity: changes in the range/distribution of animal species

EU key investor in Arctic (research)

20 mio. EUR per year between 2007 and 2013

200 mio. EUR in total between 2007 and 2011 on Polar research alone

Horizon 2020 (subject to climate mainstreaming) provides further opportunities for Arctic research

New earth observation programs funded by the EU (GMES/Copernicus) contribute to better monitoring of parameters relevant for understanding Arctic climate change



SUPPORTING ADAPTATION IN THE ARCTIC – THE EU CONTRIBUTION

Increased vulnerability in the Arctic

Reduced sea-ice, ocean acidification, changes in landscape, Loss of ice and snow cover, thawing of permafrost...

Lead to

Decline in traditional food sources,

Disruption in hunting and food-sharing cultures,

Danger or inaccessibility of traditional transport/hunting routes

Disruption of community infrastructure, water supply, connectivity with population centers

Investment needs for infrastructure

Disruption of harvesting or other nature-based activities with cultural and spiritual value

EU support for adaptation

EU Adaptation Strategy of 2013: more climate-resilient Europe, enhanced preparedness and capacity to respond

EU CLIMATE-Adapt database

EU encourages all MS to promote integrated, coherent adaptation strategies: 17 MS have national adaptation strategies or plans (incl DK, FI, SE)

1.14 billion EUR in total between 2007 and 2013 for regional development in Arctic member states

LIFE funding, inter alia, to support capacity-building and adaptation action in Europe (2013 – 2020)

20% climate-friendly expenditure across EU budget

EU adaptation strategy

1. Promote action by all member states

- ✓ Encourage all MS to adopt adaptation strategies
- ✓ Provide funding to help them build resilience
- ✓ Launch voluntary adaptation initiative for towns and cities

2. Make EU-level action 'climate-proof'

- ✓ Further integrate climate adaptation needs into key vulnerable sectors eg agriculture, fisheries, energy, regional development
- ✓ Make infrastructure more resilient
- ✓ Promote insurance against disasters

3. Make decision-making better informed

- ✓ Address knowledge gaps through research
- ✓ Develop European climate adaptation platform as 'one-stop shop' for adaptation information in Europe





MITIGATING CLIMATE CHANGE – THE EU CONTRIBUTION

Tackling the causes of climate change affecting the Arctic

What can the Arctic Do?

Few emission sources in the Arctic: Arctic is disproportionately affected compared to its contribution to the causes of climate change

Integration of environment and climate considerations in impact assessments for new developments in the Arctic

What can the EU do?

Driving down GHG emissions domestically, in the EU,

Ensuring climate-friendly expenditure of EU budget

Tackling short-lived climate pollutants, and

Promoting effective climate action globally

Europe 2020 headline targets: Leading the way towards the low-carbon economy

✳ Commitment to transform Europe into a **highly energy-efficient, low-carbon economy**

⊕ **2020 targets:**

- ✳ **20% cut in GHG emissions by 20% (below 1990 levels)**
- ✳ **Conditional offer to cut by 30% if other major economies do their fair share**
- ✳ **20% of energy from renewable sources (c.14% today)**
- ✳ **20% cut in energy use through energy efficiency improvements**

✓ *Good for the climate, energy security, innovation, growth, jobs and competitiveness!*



EU climate change policy – domestic (results)

Thanks to structural climate and energy policies, the EU is successfully decoupling economic and emissions growth:

- Emissions reductions by 19% between 1990 and 2012 while GDP increased by 44% - emissions intensity in the EU reduced by 44%
- Less Co2 per GDP than any other major economy
- Emissions per capita reduced by 24%, lowest emissions per capita among major economies

20% target by 2020 consistent with 80% by 2050

EU is projected to reach 25% emission reductions by 2020, exceeding its international obligations

Continuing the transition to a low-carbon economy

- * For 2050, EU has committed to **reduce emissions by 80-95%**
- * European Commission has developed a **Roadmap for moving to a competitive, low carbon economy in 2050** most cost-effectively
- * Next milestone on road to 2050: **2030**



2030 framework for climate and energy policy



2030
FRAMEWORK FOR CLIMATE ENERGY
#EU2030

- * Aims to make the EU economy and energy system **more competitive, secure and sustainable**
- * **40% GHG reduction** below 1990 by 2030 through domestic measures alone (no use of credits): this puts EU on most cost-effective path towards 2050 goal
- * Target to be divided between EU ETS (43% below 2005) and national targets (-30%)
- * **Market stability reserve** proposed to remove surplus of allowances in EU ETS
- * EU target of **at least 27% renewable energy**: to give MS flexibility, no national targets
- * **Energy efficiency to be strengthened**: review of progress later this year
- * **New governance framework** for climate and energy policies, based on national plans
- * EU leaders to decide on framework and targets in October 2014

Measures beyond 2020 already in the pipeline

* Stricter fuel efficiency standards for new vans and cars

- ✓ from 2020/21; further norms for 2025 to be developed

* Tighter restrictions on fluorinated industrial gases

- ✓ will cut emissions by 2/3 by 2030

* Monitoring of shipping emissions

- ✓ first step towards regulation later

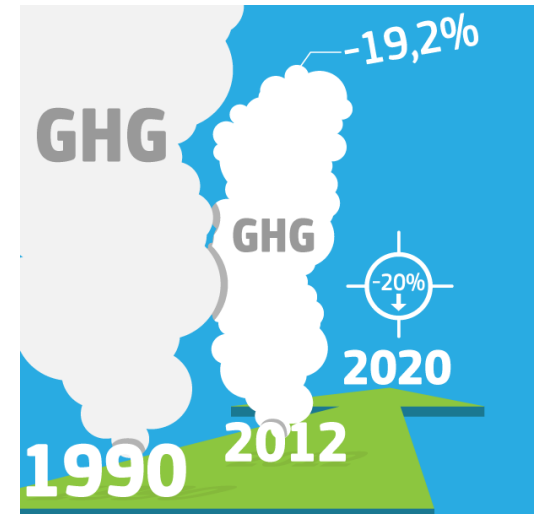
* EU strategy for heavy duty vehicles

- ✓ trucks, buses and coaches



EU funding for climate action

- ★ For 2014-2020 EU budget spending on climate-related action raised to **at least 20% (€180 bn)** (6-8% before)
- ★ This will be done by **integrating climate considerations into all main spending areas**, eg regional spending, agriculture, R&D
- ★ **New €864 mln Climate Action sub-programme** under LIFE Programme
- ★ **NER300 Programme** is co-funding CCS and innovative renewable energy projects – one of world's biggest demonstration programmes for low-carbon technologies



EU climate change policy – international (fora)

Black carbon and short-lived pollutants:

*Climate and Clean Air Coalition,
Stockholm Convention (LRTAP) and its
Gothenburg Protocol*

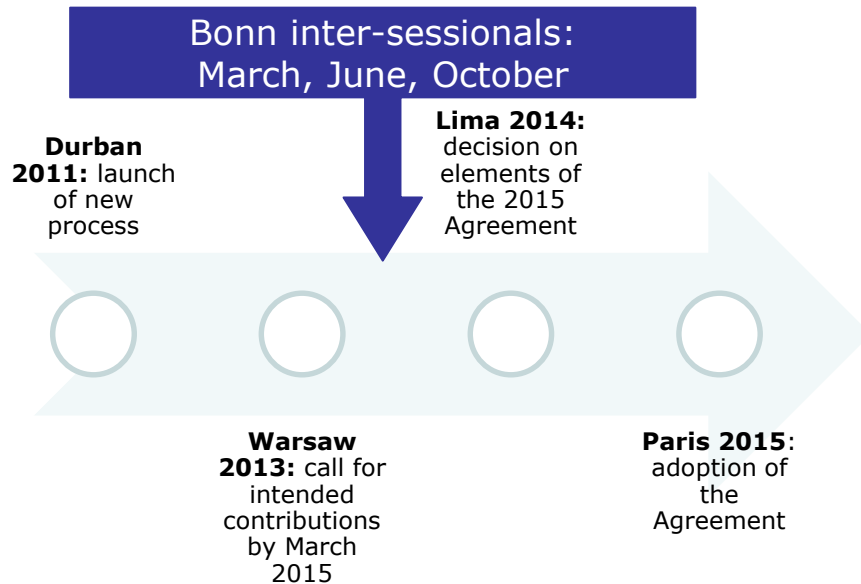
Comprehensive international Climate Change Policy:

*UN FCCC, its Kyoto Protocol and the 2015
Agreement*

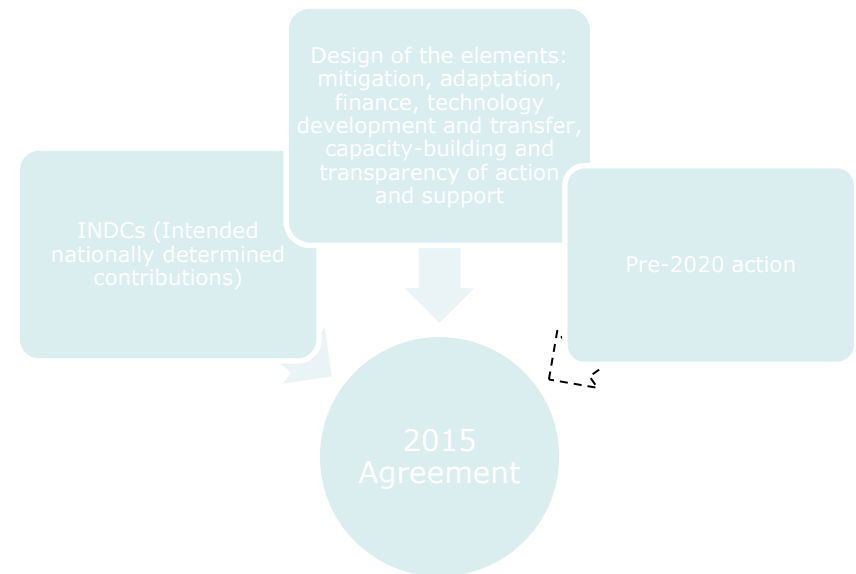
Context: towards the 2015 Agreement

A new international climate agreement applicable to all
to keep global average temperature increase below 2°C

Process



Content



Bonn, June 2014: main outcomes

1

Intended nationally determined contributions (INDCs):

Will Parties be ready by Q1 2015? What will contributions look like?

EU, US, China clear frontrunners.
Other major economies preparing; international support available

Consensus that **all must contribute emission reductions**; discussions on adaptation and finance ongoing

Consensus that **upfront information requirements** must be agreed in Lima; wide agreement on an assessment phase

2

Elements of the 2015 Agreement:

How will the agreement address mitigation, adaptation, finance, technology, capacity-building, transparency?

Elements to be decided in Lima

Emerging consensus on **ambitious mitigation commitments** from the outset, on a mechanism to continue increasing ambition

Challenges: adaptation, finance, rules base – and negotiating process

4

Implementation agenda:

Follow-up to previously taken decisions – also relevant to the development and implementation of the 2015 Agreement

Steady progress on technology, agriculture...

Little progress on: reform of Clean Development Mechanism, Executive Committee of Loss and Damage Mechanism

Concern as **Kyoto Protocol accounting rules** for second commitment period not finalised

EU continued intensive outreach

EU priorities for Lima and Paris



Lima 2014

- Upfront information requirements defined so INDCs are understandable and comparable
- Clarity on international process in 2015 to assess fairness & collective adequacy of INDCs
- Further progress on how adaptation and financial and other support are to be reflected in the 2015 Agreement
- First draft negotiating text available



Paris 2015

- Addressing mitigation, adaptation, finance, technology, capacity-building, transparency of action and support in a comprehensive way
- Inclusion in the 2015 Agreement of a long-term goal consistent with science (keeping global average temperature increase below 2°C vs. pre-industrial levels)
- Nationally determined contributions to be included in the form of mitigation commitments that are legally binding
- Further strengthen multilateral rules through monitoring, reporting and verification, accounting and compliance
- Mechanism to regularly consider global level of ambition so Parties can raise their own ambition if wished and necessary
- Catalyse real action by all types of stakeholders, building on pre-2020 experience



Thank you for your attention!

Any questions?

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