THE OFFICE FOR CLIMATE EDUCATION: AN INTERNATIONAL INITIATIVE

Lydie Lescamontier, David Wilgenbus, Éric Guilyardi, Pierre Léna, Robin Matthews, Jenny Schlüpmann, Cliona Murphy, Anwar Bhai Rumjaun, Maria A. Martin

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ARTICLE 12 OF THE PARIS AGREEMENT

“Parties shall cooperate in taking measures, as appropriate, to enhance climate change education, training, public awareness, public participation and public access to information, recognizing the importance of these steps with respect to enhancing actions under this Agreement.”

INTERACADEMY PARTNERSHIP FOR SCIENCE (IAP)

“Climate education must become a prime component of science education at all educational levels.”
IPCC SPECIAL REPORT „GLOBAL WARMING OF 1.5°C“

Summary for Policymakers

Global Warming of 1.5°C

An IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.

Summary for Teachers

IPCC SPECIAL REPORT „GLOBAL WARMING OF 1.5°C“
SUMMARY FOR TEACHERS
SUMMARY FOR TEACHERS – FEATURES

SCHOOL ACTIVITY

TASK Compare the global warming potentials (GWP) of methane, nitrous oxide and hydrofluorocarbons with the GWP of CO₂.
See, for example, table 8.7 in the IPCC report AR5, chapter 8, p. 712:
http://www.climatechange2013.org/images/report/WG1AR5_Chapter08_FINAL.pdf

TASK Explain what is meant by global warming.

QUESTIONS CO₂ is emitted when burning fossil fuels. How can we reduce the emission of CO₂? How can we reduce the emission of other greenhouse gases like methane (CH₄) or nitrous oxide (N₂O)?
Keywords: biogas production, reforestation, less fertilizers in agriculture, renewable energy, energy saving.

TASK Explain the connection between hydrofluorocarbons, the ozone layer and global warming.

TO SUM UP

Human activities have caused a 1.0°C rise in the global temperature over the past 150 years.

Global warming is likely to reach 1.5°C between 2030 and 2052, if warming continues at the current rate.

Our CO₂ emissions will remain in the atmosphere for centuries to millennia, maintaining the warmer temperatures long after these emissions were released.

Climate change manifests itself on different time-scales affecting both short-term extreme weather events, as well as causing gradual, long-term changes, including sea level rise, melting of glaciers and ice sheets, and changes in biodiversity.

Current warming rate

Human-induced Climate uncertainty for 1.5°C pathway

Source: IPCC 2018, adapted

From an Infographic of Le Monde
EDUCATIONAL RESOURCES

summaries & tools for teachers alongside with IPCC reports

- scientific documentation
- simulators
- serious games
- classroom activities
- learning progressions
- citizen science
- testimonies & narratives
- global, regional, local production of resources
- multilingual & open source

EDUCATIONAL RESOURCES
THE OFFICE FOR CLIMATE EDUCATION AND ITS NETWORK

- Teachers primary and secondary schools
  - conduct local workshops
  - provide and adapt pedagogical resources
  - organize professional development

- Scientific & pedagogical partners worldwide
  - initiates and coordinates

- Teacher trainers
  - organizes international workshops

- Educational & Scientific Committee
  - assists

- Executive secretariat in Paris
  - provides pedagogical resources
  - international visibility
  - quality management

- carry out educational projects on climate change with children
- provide feedback & expertise
PARTNERS

Americas
22 partners

Europe
18 partners

Africa
12 partners

Asia
8 partners

+ 5 international organisations
WHAT WE WANT TO PROMOTE

- Understand complex systems – using experiments, models, simulations, serious games, testimonies, debates, ...
- Critical thinking
- Develop empathy
- Focus on solutions
- Think the future in a changing world
- Act in school & engage in the community
TEACHERS’ PROFESSIONAL DEVELOPMENT

Local teacher training sessions
- By local partners

Distant training sessions
- By the OCE + local partners

International events
- COP side events
- Symposia
- Summer schools
ACTIVITIES COMING UP

- IPCC special reports 2019
  - Oceans & cryosphere
  - Land use, land use change and forestry

- Alongside each IPCC report, the OCE will produce
  - A summary for teachers
  - Lesson plans (turnkey inquiry-based teaching modules)
  - Videos
  - Multimedia animations
  - “Low tech” serious games

- Free, open-source, multilingual
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The impact of climate change on a community depends not only on the rate and size of the physical changes in climate, but also on how exposed their location is and how vulnerable to the change they are. Adaptation is made more difficult because we can’t predict exactly how the climate will change in a given place in the future.
EASY DIAGRAMS – ADAPTED FROM THE IPCC 1.5°C REPORT
**Impacts at +1.5°C vs. 2°C Global Warming**

**Intensity of heat waves**
- At +1.5°C: maximum temperature higher by 3°C
- At +2°C: maximum temperature higher by 4°C

**Heavy rains**
Higher risk at +2°C than at +1.5°C in high latitudes of the Northern hemisphere, East Asia and North America

**Biodiversity loss**
- Loss of half of the natural habitat for:
  - 4% of vertebrates at +1.5°C vs. 8% at +2°C
  - 6% of insects at +1.5°C vs. 18% at +2°C
  - 8% of plants at +1.5°C vs. 16% at +2°C

**Cereal crops**
Greater decline in yield at +2°C, especially in Sub-Saharan Africa, Southeast Asia and Latin America

**Corals**
Loss of coral reefs:
- up to 70-90% at +1.5°C
- up to 99% at +2°C

**Sea level rise**
- At +1.5°C: 26 cm to 77 cm higher than today by the year 2100
- At +2°C: 10 cm higher than at +1.5°C
An additional 10 million people will be exposed

**Fisheries**
Annual fish catch reduced by:
- 1.5 million tonnes at +1.5°C
- more than 3 million tonnes at +2°C

**Arctic sea ice**
Free of ice:
- one incidence per century at +1.5°C
- several incidences per decade at +2°C

From an infographic of Le Monde