

THE EMISSIONS GAP REPORT 2014

A UNEP Synthesis Report



Published by the United Nations Environment Programme (UNEP), November 2014
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ISBN: 978-92-807-3413-3
DEW/1833/NA

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Citation

This document may be cited as:

UNEP 2014. The Emissions Gap Report 2014. United Nations Environment Programme (UNEP), Nairobi

A digital copy of this report along with supporting appendices are available at
<http://www.unep.org/emissionsgapreport2014/>

This project is part of the International Climate Initiative. The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety supports this initiative on the basis of a decision adopted by the German Bundestag.

Supported by:



Federal Ministry for the
Environment, Nature Conservation
and Nuclear Safety

Based on a decision of the Parliament of the
Federal Republic of Germany

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ACKNOWLEDGMENTS

The United Nations Environment Programme (UNEP) would like to thank the members of the steering committee, the lead and contributing authors, reviewers and the secretariat for their contribution to the preparation of this assessment report.

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Thanks also to

Unnada Chewpeechea (Cambridge Econometrics), Vijay Deshpande (Copenhagen Centre on Energy Efficiency), Philip Drost (United Nations Environment Programme), María Elena Gutiérrez (Libélula), Séraphine Häussling (United Nations Environment Programme), Kimon Keramidis (Enerdata), Tom Kober (ECN Netherlands), Cecilie Larsen (UNEP DTU Partnership), Prakriti Naswa

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GLOSSARY

The entries in this glossary are adapted from definitions provided by authoritative sources, such as the Intergovernmental Panel on Climate Change.

Additionality: A criterion sometimes applied to projects aimed at reducing greenhouse gas emissions. It stipulates that the emission reductions accomplished by the project must not have happened anyway had the project not taken place.

Aerosols: Airborne solid or liquid particles, with a typical size of between 0.01 and 10 micrometer (a millionth of a meter) that reside in the atmosphere for at least several hours. They may influence the climate directly through scattering and absorbing radiation, and indirectly by modifying the optical properties and lifetime of clouds.

Annex I parties/countries: The group of countries listed in Annex I to the United Nations Framework Convention on Climate Change. Under Articles 4.2 (a) and 4.2 (b) of the convention, Annex I Parties were committed to adopting national policies and measures with the non-legally binding aim to return their greenhouse gas emissions to 1990 levels by 2000. By default, the other countries are referred to as Non-Annex I Parties.

Biomass plus carbon capture and storage (BioCCS or BECCS): Use of energy produced from biomass where the combustion gases are then captured and stored underground or used, for example, in industrial processes. It excludes gases generated through, for example, a fermentation process (as opposed to combustion).

Biomass: The total mass of living organisms in a given area or volume, including products, by-products, and waste of biological origin (plants or animal matter) and excluding material embedded in geological formations and transformed to fossil fuels or peat.

Black carbon: The substance formed through the incomplete combustion of fossil fuels, biofuels, and biomass, which is emitted in both anthropogenic and naturally occurring soot. It consists of pure carbon in several linked forms. Black carbon warms the Earth by absorbing heat in the atmosphere and by reducing albedo – the ability to reflect sunlight – when deposited on snow and ice.

Bottom-up model: In the context of this assessment, a model that represents a system by looking at its detailed underlying parts. Compared to so-called top-down models, which focus on economic inter-linkages, bottom-up models of energy use and emissions can provide greater resolution with regards to sectors or mitigation technologies.

Business-as-usual: A scenario that describes future greenhouse gas emission levels in the absence of additional mitigation efforts and policies (with respect to an agreed set).

Carbon dioxide emissions budget: For a given temperature rise limit, for example a 1.5 or 2 °C long-term limit, the corresponding carbon budget reflects the total amount of carbon emissions that can be emitted to stay within that limit. Stated differently, a carbon budget is the area under a greenhouse gas emissions trajectory that satisfies assumptions about limits on cumulative emissions estimated to avoid a certain level of global mean surface temperature rise.



Carbon credits: An entitlement allocated by a government to a legal entity (company or other type of emitter) to emit a specified amount of a substance. These entitlements, which may be transferrable and tradable, can be used to reduce emissions of greenhouse gases (by giving them a monetary value) or can be used for accounting of emissions.

Carbon dioxide equivalent: A way to place emissions of various radiative forcing agents on a common footing by accounting for their effect on climate. It describes, for a given mixture and amount of greenhouse gases, the amount of carbon dioxide that would have the same global warming ability, when measured over a specified time period. For the purpose of this report, greenhouse gas emissions (unless otherwise specified) are the sum of the basket of greenhouse gases listed in Annex A to the Kyoto Protocol, expressed as carbon dioxide equivalents assuming a 100-year global warming potential.

Carbon leakage: Phenomenon whereby the reduction in emissions (relative to a baseline) in a jurisdiction or sector associated with the implementation of mitigation policy is offset to some degree by an increase outside of that jurisdiction or sector which can be causally linked to the aforementioned reduction.

Conditional pledges: Greenhouse gas emissions reduction pledges made by some countries that are contingent on the ability of national legislatures to enact the necessary laws, ambitious action from other countries, realization of finance and technical support, or other factors.

Double counting: In the context of this assessment, double counting refers to a situation in which the same emission reductions are counted towards meeting two countries' pledges.

Emission pathway: The trajectory of annual global greenhouse gas emissions over time.

Global warming potential: An index, based on the radiative properties of greenhouse gases, measuring the radiative forcing following a pulse emission of a unit mass of a given greenhouse gas in the present-day atmosphere integrated over a chosen time horizon, relative to that of carbon dioxide. The global warming potential represents the combined effect of the differing times these gases remain in the atmosphere and their relative effectiveness in causing radiative forcing.

Greenhouse gases covered by the Kyoto Protocol: The six greenhouse gases listed in Annex A to the Kyoto Protocol: carbon dioxide (CO₂); methane (CH₄); nitrous oxide (N₂O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulphur hexafluoride (SF₆)¹.

Integrated assessment models: Models that seek to combine knowledge from multiple disciplines in the form of equations and/or algorithms in order to explore complex environmental problems. As such, they describe the full chain of climate change, from production of greenhouse gases to atmospheric responses. This necessarily includes relevant links and feedbacks between socio-economic and biophysical processes.

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