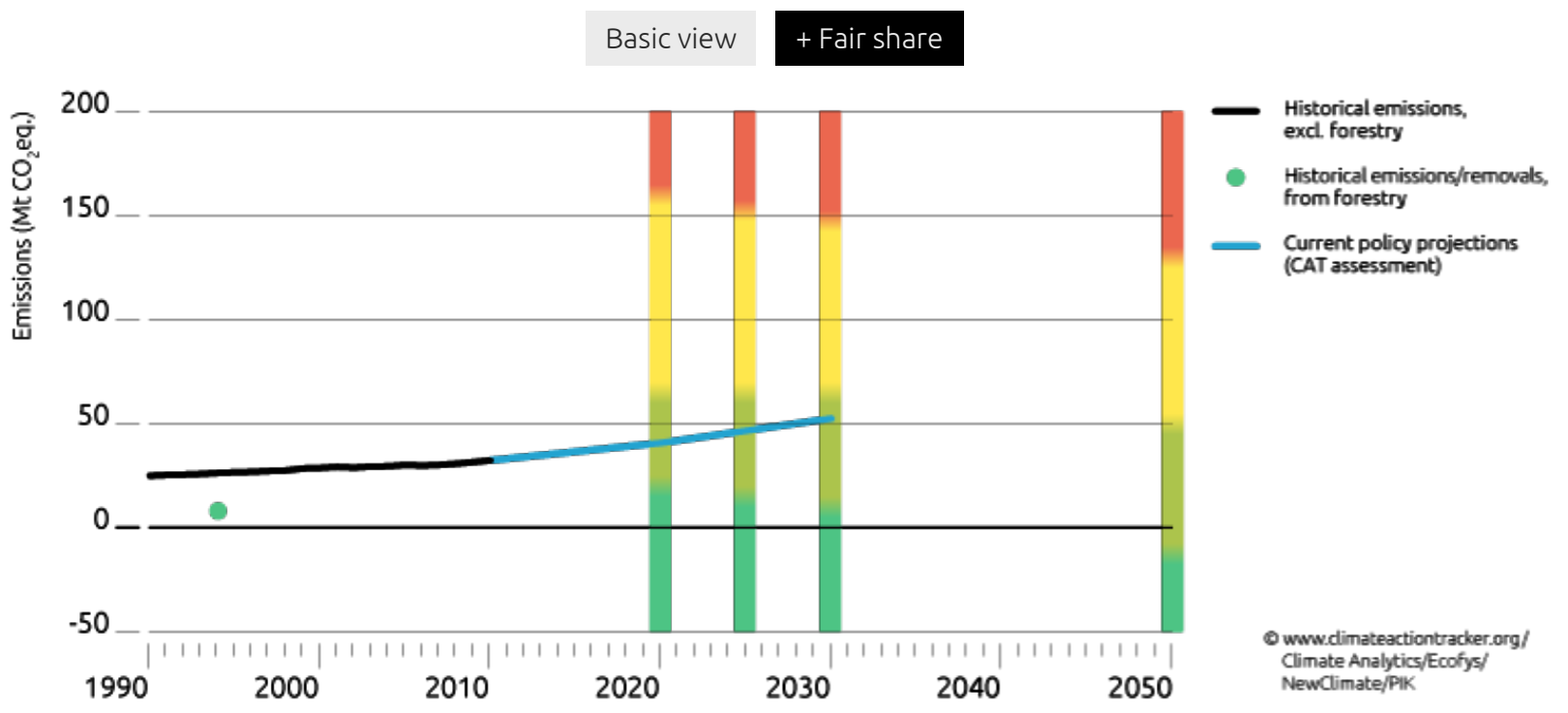
Nepal

Page last updated: 31st March 2015



Note: Hover over the coloured bars for a pop-up with the fair emissions range per effort sharing category. More information here.

Assessment

Nepal has not made any emissions reduction commitments. Its own emissions make up less than 0.1% of global emissions. With its current policies, Nepal's greenhouse gas emissions are expected to increase by 62% to 2030 compared to 2010 levels.

Pledge

Nepal is one of the countries most vulnerable to climate change, because of rapidly melting glaciers - resulting in the danger of glacial lake outbursts and degradation of agricultural land on which two thirds of the population base their livelihoods (Ministry of Environment, 2011). Therefore the Government has focused on adaptation measures and no emissions mitigation commitments have been made. During the UNFCCC Conference of the Parties in Lima (COP-20) Nepal spoke on behalf of the Least Developed Countries (LDC) group and called for (UNFCCC, 2014):

Convention	
Copenhagen pledge	none
National goals	
Long term goal(s)	none

- Ambitious mitigation actions in all countries with short term, quantifiable, economy-wide targets and long-term commitments in all countries that are capable of doing so;
- An agreement on a mechanism to increase global emissions reductions over time; and
- An agreement on a pathway for additional financial resources for climate action in the least developed countries.

Fair share

Nepal's projected emission levels in 2020, 2025 and 2030 are in the "sufficient" range. However, since Nepal has not submitted a pledge, we did not rate it. We determined the upper end of the "medium" range for Nepal using effort sharing approaches based on equality principles. To be in line with approaches that focus on responsibility and capability, Nepal would need to reduce its emissions from its current policy projected levels. Given Nepal's low per capita emissions, approaches that focus on equal cumulative per capita emissions, are an outlier and in the "inadequate" range.

Current policy projections

Nepal's contribution to global greenhouse gas emissions is negligible at only 32 Mt CO_2e in 2010, which is less than 0.1% of global emissions. Over the period 1990–2010 Nepal's greenhouse gas emissions excluding LULUCF have increased by 1.3% per year on average. With current policies, this emissions growth is projected to accelerate to 2.4% per year, on average, in the period 2010–2030, reaching 52 Mt CO_2e in 2030. Even with this accelerated growth, per capita emissions will still be very low at around 1.3 t CO_2e per capita by 2030.

The majority of emissions in Nepal are non-CO2 greenhouse gas emissions from the agriculture sector. Methane and nitrous oxide contributed 70% to total greenhouse gas emissions in 2010, arising from rice cultivation, enteric fermentation and agricultural soils (USEPA 2012). Energy-related CO2 emissions contributed only 12% to Nepal's total emissions in 2010, but this share is projected to increase to 18% by 2030 from an increase in access to electricity. Currently about 55% (43% in rural areas) of the population has access to electricity, and power cuts occur frequently (NEEP, 2014). Electricity access is expected to increase to 100% by 2030 (Shrestha & Shakya, 2012). Carbon intensity of the power sector is very low in Nepal. In 2010 over 99% of the electricity generation was from hydro power (IEA, 2013).

As a Least Developed Country highly vulnerable to climate change, Nepal's has focussed its climate change action on adaptation. Nepal has developed nine National Adaptation Programmes of Action (NAPAs). These NAPAs focus mainly on the agricultural sector, water resources and disaster risk management (UNFCCC, 2013). For Nepal to be able to implement these NAPAs, replenishment of the Least Developed Countries Fund (LDCF) is needed (UNFCCC, 2014).

In early 2010, Nepal established the Climate Change Management division in the Ministry of Environment. The main policy related to emission mitigation is the Climate Change Policy 2010 the main goal of which is 'to improve livelihoods by mitigating and adapting to the adverse effects of climate change, adopting a low-carbon emissions socio-economic development path and supporting and collaborating in the spirits of country's commitments to national and international agreements related to climate change' [sic] (Government of Nepal, 2011). Under the twenty-year hydropower development plan 2010–2030, the Government of Nepal has a target of installing 25 GW of hydro power by 2030.

Nepal has a high deforestation rate due to drivers such as illegal harvesting, overgrazing, forest fires and high dependency on forests. There is a strong interest in Reducing Emissions from Deforestation and Forest Degradation (REDD+) and a number or REDD+ readiness projects are being implemented. However, some authors have pointed out that the implementation of REDD+ projects is challenging in Nepal, because of weak governance and high opportunity costs for agricultural expansion (Paudel et al., 2013).

Assumptions

Historical emissions

The historical dataset is based on CO_2 emissions from fuel combustion from IEA (2013) and other CO_2 and non-CO_2 emissions from JRC/PBL (2012). The 1994 LUCF value is taken from UNFCCC (2011).

Current policy projections

Current policy projections are based on growth rates from Shrestha & Shakya (2012) applied to the latest historical data for energy-related CO2 emissions. Growth rates from US EPA (2012) are applied to the latest historical data for non-CO_2 emissions. Other CO_2 emissions are assumed to remain constant at the 2010 level.

Sources

Government of Nepal (2011). Climate Change Policy, 2011.

IEA (2013). CO2 emissions from fuel combustion.

JRC/PBL (2012.) Edgar Version 4.2 FT2010. Joint Research Centre of the European Commission/PBL Netherlands Environmental Assessment Agency.

Ministry of Environment, Government of Nepal (2011) Status of Climate Change in Nepal.

Nepal Energy Efficiency Programme (NEEP) (2014). Energy Situation Nepal.

Paudel, N.S., Khatri, D.B., Khanal, D.R. and Karki, R. (2013). The context of REDD+ in Nepal: Drivers, agents and institutions. Occasional Paper 81. CIFOR, Bogor, Indonesia.

Shrestha, R. M. & Shakya, S. R. (2012). Benefits of low carbon development in a developing country: Case of Nepal. In: Energy Economics, 34, p S503-S512.

UNFCCC (2011). GHG emission profiles for non-Annex I countries.

UNFCCC (2013). National adaptation programmes of action.

UNFCCC (2014). Statement delivered by Nepal on behalf of The Least Developed Countries (LDC) Group Opening of the High Level Segment COP-20 / CMP- 10 Lima, Peru, 09/12/14

USEPA (2012). Global Mitigation of Non-CO2 Greenhouse Gases, Washington, D.C., USA.

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