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## **Greenhouse Gas Emissions Gap Widening as Nations Head to Crucial Climate Talks in Doha**

**Keeping Average Global Temperature Rise to Below 2°C Still Achievable, with Potentially Big Cuts Possible from Buildings, Transportation and Avoided Deforestation--But Time Running Out**

**Current Pledges by Governments Indicate a 3-5° C Temperature Rise this Century without Fast Action**

**London/Nairobi, 21 November 2012** - If the world does not scale up and accelerate action on climate change without delay, emissions could rise to 58 gigatonnes (Gt) by 2020 – far above the level scientists say is in line with a likely chance of keeping global temperature rise below 2 degrees Celsius this century.

The Emissions Gap Report 2012, coordinated by the UN Environment Programme (UNEP) and the European Climate Foundation, and released days before the convening of the Climate Change Conference of the Parties in Doha, says that if the world stays on a business-as-usual trajectory, more drastic and expensive cuts will be needed after 2020.

Previous assessment reports have underlined that scenarios which keep the costs of meeting the two-degree target as low as possible involve ambitious early action. In these scenarios, emissions are on average at around 44 Gt or less in 2020, thus laying the path for the even-bigger reductions needed afterwards.

Economic assessments highlighted in the report indicate that overall costs will increase considerably if emissions reductions are delayed until after 2020.

Delaying action also implies a greater risk of temperature rise exceeding two degrees – beyond which irreversible damage to the environment could occur – and a heavier long-term dependence on mitigation technologies such as bioenergy and carbon capture and storage.

However, emissions of warming gases like carbon dioxide (CO<sub>2</sub>) are actually increasing. Total greenhouse gas emissions have risen from around 40 Gt in 2000 to an estimated 50.1 Gt in 2010.

The report, which involved 55 scientists from more than 20 countries, said the projected 2020 emissions of 58Gt that would result from business as usual leave a gap bigger than projected in the 2010 and 2011 UNEP assessments. This expansion is in part a result of projected economic growth in key developing economies and a phenomenon known as 'double counting' of emission offsets.

The Emissions Gap Report 2012 points out that even if the most ambitious level of pledges and commitments were implemented by all countries – and under the strictest

set of rules – there would be a gap of 8 Gt of CO<sub>2</sub> equivalent by 2020. This is 2 Gt higher than last year's assessment.

Achim Steiner, UN Under-Secretary General and UNEP Executive Director, said: “There are two realities encapsulated in this report—that bridging the gap remains do-able with existing technologies and policies; that there are many inspiring actions taking place at the national level on energy efficiency in buildings, investing in forests to avoid emissions linked with deforestation and new vehicle emissions standards alongside a remarkable growth in investment in new renewable energies worldwide, which in 2011 totaled close to US\$260 billion”.

“Yet the sobering fact remains that a transition to a low carbon, inclusive Green Economy is happening far too slowly and the opportunity for meeting the 44 Gt target is narrowing annually,” he added.

“While governments work to negotiate a new international climate agreement to come into effect in 2020, they urgently need to put their foot firmly on the action pedal by fulfilling financial, technology transfer and other commitments under the UN climate convention treaties. There are also a wide range of complementary voluntary measures that can that can bridge the gap between ambition and reality now rather than later,” said Mr. Steiner.

The report estimates that there are potentially large emissions reductions possible—in a mid-range of 17 Gt of CO<sub>2</sub> equivalents—from sectors such as buildings, power generation and transport that can more than bridge the gap by 2020.

Meanwhile, there are abundant examples of actions at the national level in areas ranging from improved building codes to fuel standards for vehicles which, if scaled up and replicated, can also assist.

Christiana Figueres, Executive Secretary of the UN Framework Convention on Climate Change, said, “This report is a reminder that time is running out, but that the technical means and the policy tools to allow the world to stay below a maximum 2 degrees Celsius are still available to governments and societies”.

“Governments meeting in Doha for COP18 now need to urgently implement existing decisions which will allow for a swifter transition towards a low-carbon and resilient world. This notably means amending the Kyoto Protocol, developing a clear vision of how greenhouse gases can be curbed globally before and after 2020, and completing the institutions required to help developing countries green their economies and adapt, along with defining how the long-term climate finance that developing countries need can be mobilized. In addition, governments need to urgently identify how ambition can be raised,” added Ms. Figueres.

### **Bridging the Gap**

The report looked at sectors where the necessary emissions reductions may be possible by 2020.

Improved energy efficiency in industry could deliver cuts of between 1.5 to 4.6 Gt of CO<sub>2</sub> equivalent; followed by agriculture, 1.1 to 4.3 Gt; forestry 1.3 to 4.2 Gt; the power sector, 2.2 to 3.9 Gt; buildings 1.4 to 2.9 Gt; transportation including shipping and aviation 1.7 to 2.5 Gt and the waste sector around 0.8 Gt.

## **Buildings**

The report points out that some sectors have even bigger potential over the long term—boosting the energy efficiency of buildings, for example, could deliver average reductions of around 2.1 Gt by 2020 but cuts of over 9Gt CO<sub>2</sub> equivalent by 2050.

“This implies that by 2050 the building sector could consume 30 per cent less electricity compared to 2005 despite a close to 130 per cent projected increase in built floor area over the same period,” it says.

The report concludes that if this is to happen, “state of the art building codes may need to become mandatory in the next 10 years in all of the major economies such as the United States, India, China and the European Union”.

Further emission reductions are possible from more energy efficient appliances and lighting systems. The report cites Japan’s Top Runner Programme and the Ecodesign Directive of the European Union which have triggered household electricity consumption savings of 11 per cent and 16 per cent respectively.

It also cites Ghana’s standards and labelling programme for air conditioners which is set to save consumers and businesses an estimated US\$64 million annually in reduced energy bills and around 2.8 million tonnes of CO<sub>2</sub> equivalent over 30 years.

## **Sustainable Transportation**

Potential emissions reductions from the transportation sector are assessed at 2 Gt of CO<sub>2</sub> equivalent by 2020.

The report notes that there is already a shift with the eight biggest multilateral development banks at the recent Rio+20 Summit pledging US\$175 billion over the next decade for measures such as bus rapid transport systems.

The report recommends the “Avoid, Shift and Improve’ policies and measures that encourage improved land planning and alternative mobility options such as buses, cycling and walking above the private car alongside better use of rail freight and inland waterways.

Combinations of improved vehicle standards and scrappage schemes for old vehicles can also assist. The report says approved and proposed new standards in seven countries ranging from Australia and China to the European Union, the Republic of Korea and the United States are expected to reduce fuel consumption and greenhouse gas emissions of new light-duty vehicles by over 50 per cent by 2025 from 2000 levels.

## **Forestry**

“Although it remained under-utilized, “avoided deforestation” is considered a low cost greenhouse gas emissions reductions option,” says the report.

Policies to assist in reducing deforestation and, thus, greenhouse gas emissions, include establishing protected areas such as national parks to economic instruments such as taxes, subsidies and payments for ecosystem services.

The report cites Brazil where a combination of conservation policies allied to falls in agricultural commodity prices has led to a decrease in deforestation by three quarters since 2004 avoiding 2.8 Gt of CO<sub>2</sub> equivalent between 2006 and 2011.

Protected areas in Costa Rica now represent over a fifth of its territory, reducing greenhouse gas emissions and triggering a rise in tourists from just under 390,000 in 1988 to 2.5 million in 2008: tourism now accounts for around 15 per cent of GDP.

These actions by Brazil and Costa Rica predate Reduced Emissions from Deforestation and forest Degradation (REDD or REDD+) policies under the UN Convention for Combating Climate Change.

The report indicates that scaled-up action under, for example, the UN-REDD initiative which is working with over 40 countries, can provide even larger emission reductions while generating additional benefits such as jobs in natural resource management.

### **Notes to Editors**

- The Third Emissions Gap Report 2012 is available at:  
<http://www.unep.org/publications/ebooks/emissionsgap2012>
- More information on the first and second assessments of the Emissions Gap is available at [www.unep.org](http://www.unep.org)
- UNEP's Climate Change portal: <http://www.unep.org/climatechange/>
- The European Climate Foundation: <http://www.europeanclimate.org/>
- UNFCCC: [www.unfccc.int](http://www.unfccc.int)

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