The Good, the Bad and the Ugly: Who is Who in the Fight Against Climate Change

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Abstract As it is well-known, not every government has embraced the Paris Agreement with the same enthusiasm; some have not even signed it and others are threatening to get out of it. However not all countries have the same weight, or responsibility, in the fight against climate change. What follows is an outline of who is who from a birds eye view.

Keywords Climate change · Development · Climate finance · NDCs

The world is heading towards a warming of 3C, warned a UNEP report last year.¹ That is, the pledges made by governments will bring about temperatures rise by 3C above pre-industrial levels because they are insufficient to curb the progress of greenhouse gas (GhG) emissions.

And we know who is going to suffer the most. A report published by the Overseas Development Institute² estimated that ‘up to 325 million extremely poor people will be living in the 49 most hazard-prone countries in 2030, the majority in South Asia and sub-Saharan Africa.’ The countries most at risk of disaster-induced poverty are Bangladesh, Democratic Republic of the Congo, Ethiopia, Kenya, Madagascar, Nepal, Nigeria, Pakistan, South Sudan, Sudan and Uganda.

Some the events and processes unleashed by such warming will damage development progress.

At 2C to 3C warming, there will be an increase in people at risk of hunger by between 30m and 200m in vulnerable

groups; at 3C warming, there will be a reduction of crop yields of more than 90 percent in sub-Saharan Africa; at 2C warming, 1bn to 4bn people are to experience growing water shortages in Africa, the Middle East, Southern Europe and parts of South and Central America; at 3.9C to 4.3C warming, 145m to 220m additional people could fall below the \$2-a-day poverty line by 2100 in South Asia and sub-Saharan Africa, says another ODI report³ which quotes from the World Bank, Stern Reviews and the IPCC assessments, among others.

The Paris climate agreement⁴ entered into force last year. As of 12 January 2017, 194 countries had signed the Agreement, and 123 ratified it. Although the letter of the agreement says that it becomes legally binding for those countries that sign and ratify it, few countries have embarked on plans to assure that temperatures are kept below a 2C warming.

There is some good news, though. Global carbon dioxide (CO₂) emissions –the largest source of man-made GhG emissions– have remained unchanged in 2016, according to analysis made by the Stanford University. However, this analysis attributes the slowdown to a combination of economic factors, including the decline in coal use in China, forced by a drop in the production of energy-intensive commodities; and the fall in coal use, the increase of gas, wind and solar power and the gains in energy efficiency in the US.

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¹ https://uneplive.unep.org/media/docs/theme/13/egr_2016_executive_summary_en.pdf.

² <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/8634.pdf>.

³ <https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/8862.pdf>.

⁴ <https://www.theguardian.com/environment/paris-climate-agreement>.

But real cuts in GhG emissions are needed in the biggest emitter countries.

Who the biggest emitters are depends on what you are measuring. Excluding the so-called 'land use change and forestry' (or LUCF), China, US, India, Russia, Japan, Brazil, Indonesia, Canada and Mexico emerge as the biggest polluters, according to the World Resources Institute.⁵ But if the LUCF factor is included, Indonesia and Brazil overtake Japan. Looking at the per capita emissions, though, Canada comes first, followed by US, Russia, Japan, European Union (28), Indonesia, China, Brazil, Mexico and India.

A glimpse at the level of GHG emissions per Gross Domestic Product, a metric of emissions intensity, puts Indonesia on top, followed by China, Russia, Canada, Brazil, US, India, Mexico, Japan and the EU (28). 'Seven of the top ten emitters actually have a below average emissions intensity; Russia, China and Canada are above the world average... While many countries focus their decarbonization plans on energy-related emissions, high emissions intensity could actually result from emissions from other sectors. For example, with emissions from deforestation and land-use change taken into account, Indonesia becomes the most intensive emitter,' says WRI.

If you look at the accumulative GhG emissions (1990-2011), on the other hand, the picture changes again. The ranking is headed by US, followed by China, EU (28), Russian Federation, Brazil, Indonesia, India, Japan, Canada and Mexico.

In any case, the same faces, in different positions. So, the question is whether these big emitters – not Bangladesh, DR Congo or Ethiopia— get serious.

Before the Paris Agreement in December 2015, governments 'in a position to do so' submitted an 'Intended Nationally Determined Contribution' (INDC) to the fight against climate change. When ratifying it, they submitted their first 'Nationally Determined Contribution' (NDC), or let their INDC become their NDC. Governments can review their NDC, provided the revision means a progress in right direction.

China, for example, has committed to peaking its emissions by 2030 at the latest, and to obtaining a fifth of all its energy from non-fossil sources by then. However, Climate Action Tracker (CAT)⁶ rates China 'medium with inadequate intensity targets'. Total GhG emissions 'could continue to increase until at least 2030. Although China's policies and actions appear set to achieve its NDC, the NDC itself is not yet ambitious enough to limit warming to below 2C,' adds CAT.

In spite of this, China's government may well become 'a world leader on climate change', according to Nicholas

Stern.⁷ He enumerates a series of initiatives that have placed China at the top of the fight: Chinese cities are dealing with poor air quality; it has invested \$88bn in renewable energy; Beijing is set to implement the world's largest emissions trading system later this year; its green bonds market could deliver about \$230bn for renewable energy investment in the next five years; furthermore, it spent a record \$32bn on renewable projects abroad.

Brazil was the first major developing country to commit to an absolute emissions cut by 37 percent over the next decade. It has also promised reduction targets, including LUCF, to 1.3 gigatonnes of carbon dioxide equivalent (GtCO₂e) by 2025 and 1.2 GtCO₂e by 2030, and has pledged to stop illegal deforestation in the Amazon by 2030.

However, some indicators of Amazon destruction have been increasing lately, and illegal logging is a key factor. In fact, illegal timber operations in the Brazilian Amazon 'spiked since 2015, bringing the rate to its highest level in eight years', says a Nature report. This trend should ring alarm bells.

CAT rates Brazil 'medium'. According to its analysis, Brazil's targets 'are at the least ambitious end of a fair contribution to global mitigation, and are not consistent with meeting the Paris Agreement's long-term temperature goal unless other countries make much deeper reductions and comparably greater effort.' Furthermore, 'Brazil's current policy is on track to meet its 2025 target, but will fall short of its 2030 goal.'

India plans to triple its renewable energy capacity by 2022, and is planning for 40 percent of its power to come from non-fossil sources by 2030, and to reduce its emissions intensity of GDP by 33 percent to 35 percent by 2030 below 2005 levels. But CAT rates India 'medium' as well. According to CAT, 'it is not ambitious enough to limit warming to below 2C... unless other countries make comparably greater effort.'

CAT classifies Indonesia as 'medium'. Indonesia's INDC, including a 2030 GHG emissions reduction target (including LUCF) of 29 percent below business as usual (BAU) and a conditional 41 percent reduction below BAU by 2030 (with sufficient international support), 'allows emissions to increase further until 2030. In contrast, to be consistent with the Paris Agreement temperature goal, emissions should be stabilising, if not beginning to decline, by that time.'

Canada is rated as 'inadequate'. Under its current policies, Canada will miss its 2030 NDC target to reduce GHG emissions by 30 percent below 2005 levels in 2030 'by a wide margin'. However, in October 2016, the government announced a national compulsory carbon-pricing plan that,

⁵ <https://wri.org/blog/2014/11/6-graphs-explain-world's-top-10-emitters>.

⁶ <http://climateactiontracker.org/indcs.html>.

⁷ <http://newclimateeconomy.net/content/commentary-china-shaping-be-world-leader-climate-change>.

if ratified, would mean ‘a major step towards policies that could change this adverse outlook’.

‘Inadequate’ is Japan’s rating too. ‘This is in stark contrast to Japan’s claim that its INDC target of 26% below 2013 emission by 2030 is in line with a 2C pathway’ says CAT. Climate Action Tracker concludes that it is doubtful that Japan will reach its INDC target with its current policies.

Mexico has committed to reduce its GHG emissions by 22 percent below baseline in 2030, equal to a rise of emissions by 56 percent above 1990 levels. Its NDC includes targets on black carbon, as well as targets depend on international aid. But ‘Mexico’s targets are not consistent with limiting warming to below 2C’, says CAT, although ‘there are a number of recent policy developments that are first steps in the right direction’. Mexico’s rating is ‘medium’.

The EU has committed to cut emissions by at least 40 percent below 1990 levels by 2030. It is also rated ‘medium’ by CAT. ‘This target is not consistent with limiting warming to below 2C... and represents a slight slowdown in the rate of climate action compared to the preceding quarter-century —at exactly the time when there needs to be a threefold acceleration,’ concludes CAT.

CAT rates Russia as ‘inadequate’. Russia’s INDC GhG emissions reduction target ‘lies significantly above emissions that would result from current policies. This target is one of the weakest put forward by any government,’ concludes CAT.

The situation in the US looks gloomier by the minute. Under former president Barack Obama, the US committed cut its emissions from 26 percent to 28 percent below 2005 levels (including LUCF) by 2025. But at the time of writing, current president Donald Trump may well pull out of the Paris Agreement, a campaign promise. In today’s US, news about the melting Arctic are welcome as opportunities for new shipping routes, and oil and gas fields. Trump’s decision to appoint Rex Tillerson, former chief executive officer of Exxon Mobil, as a secretary of state is extremely disturbing.

Before the alarming news delivered from US on a daily basis, CAT had rated US as ‘medium’. To meet their targets, the US ‘needs to fully implement the Clean Power Plan and the Climate Action Plan.’ Given the US’s accumulated and current level of emissions, as well as its influence across the world, only thing to hope for is that, if renewable energy continues to grow and become economically profitable, the US government’s position will be relatively less important.

Bottom line? None of the big emitters is doing great.

But it is not only a question of cutting emissions either. Climate finance must be mobilized in great numbers. There is a commitment to raise \$100bn a year by 2020 for

adaptation, mitigation, and Reducing Emissions from Deforestation and Forest Degradation (REDD) projects in developing countries.

One of former US President Barak Obama’s last decisions was precisely to transfer \$500m to the Green Climate Fund (although the US has delivered so far only \$1bn of the \$3bn that it has committed to transfer). In view of Trump’s position, the rest of the amount is at risk.

Another issue is how these funds are allocated. Some developing countries have been more successful than others in attracting climate finance, but it may not have to do with their ability to tackle climate change. For example, if you look at the landscape of climate finance globally, the major recipients of approved project spending are all middle-income countries: Brazil (\$846m), Mexico (\$720 m), Morocco (\$652 m), Indonesia (\$630m) and India (\$608m), according to the Climate Funds Update (CFU).⁸ But these countries are among the biggest emitters, excluding Morocco, and their commitments are not up to the expectations.

It may have to do with the resources these countries have devoted to their negotiating power. ‘Certainly, the ability to negotiate has some impact on how successful a country is in accessing financial resources,’ said Ram Chandra Khanal, CDKN’s Nepal Strategy Advisor, in a previous interview.⁹

However, urgent needs lie in other places as well. Poor countries, such as Honduras, Myanmar, Haiti, Nicaragua, Philippines, Bangladesh and Vietnam, are among the ones with the highest long-term climate risk, according to a 2015 report by GermanWatch,¹⁰ while receiving a smaller piece of the pie. Meanwhile, trillions are going to be needed only to tackle climate-related disasters. In 2012, there were 552 disasters costing just under \$158 billion, according to an Australian Red Cross Report.¹¹

Another matter is where the money is going. Adaption projects – needed in very poor countries that are low emitters and need to adapt to irreversible changes - have attracted so far only \$3.68 billion in funding, while mitigation projects gather \$8.26 billion and REDD projects, whose primary focus is also climate mitigation, attract \$2.38 billion, according to the CFU’s thematic analysis.¹²

An example is India, one of the biggest recipients of climate finance, where more than \$821 million pledged (not approved) are to be funnelled towards mitigation projects. There is certainly a need there. However, this country also faces great adaptation challenges and in

⁸ <http://www.climatefundsupdate.org/regions>.

⁹ https://cdkn.org/2016/03/feature-after-paris-a-perspective-from-ram-chandra-khanal-nepal/?loclang=en_gb.

¹⁰ <http://germanwatch.org/es/download/10333.pdf>.

¹¹ <http://www.redcross.org.au/world-disasters-report-2013.aspx>.

¹² <http://www.climatefundsupdate.org/themes>.

comparison only \$18 million have been pledged for adaptation projects.

A total of \$100bn a year may seem like a lot; but in comparison, as of 2015, G20 governments spend \$444 billion a year subsidising fossil fuel production, according to another ODI report.¹³

Climate funds are fundamental, but much more money needs to get mobilized, including the private sector. The fact that developing countries –such as Nepal, Argentina, Tanzania and Uganda— are investing increasing amounts of money from their national budgets to respond to climate

change (as reported by ODI)¹⁴ should embarrass rich countries.

In 2017, the world will be watching to see what big emitters do next — including at the G20 summit in July in Hamburg, where global climate policy is on the agenda. Possible participant leaders, as of today, include the representatives of Brazil, Canada, China, India, Indonesia, Mexico, Russian Federation, EU and US.

In the midst of a bleak scenario, there are good signs, but they are not enough. Less talk and more action is urgently needed.

¹³ <https://www.odi.org/publications/10058-empty-promises-g20-subsidies-oil-gas-and-coal-production>.

¹⁴ <https://www.odi.org/publications/9607-10-ten-things-know-about-climate-finance-2015>.