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SUMMARY & RECOMMENDATIONS

Four Key Facts

G20 FEEL CLIMATE IMPACTS & ADAPT

Climate impacts have already hit G20 countries, and analyses show they are not equally vulnerable nor prepared, but have started to adapt. However, many poorer countries are more vulnerable with less capacity.

CLIMATE CHANGE DISRUPTS DEVELOPMENT

One of the greatest inequalities in the world is reflected in the causes and consequences of climate change. People living in poverty, in particular women and girls, who are the least responsible for greenhouse gas emissions, bear the brunt of climate impacts. Without urgent action to limit warming to 1.5°C and to scale-up adaptation efforts immediately, it could become impossible for poor people to secure their livelihoods and to reach a wide range of Sustainable Development Goals (SDGs).

G20 CAN LEAD SHIFT TO 100% RENEWABLE ENERGY

In many G20 countries a renewable energy revolution has started, with falling prices helping to tackle energy poverty. This has opened up more mitigation potential to bring **the world** on a 1.5°C and 100% renewable energy pathway, but G20 still **subsidise** fossil fuels at unacceptable levels.

G20 ARE UNEQUALLY RESPONSIBLE

G20 countries are responsible for more than 99% of historic carbon emissions. While China and the US are the biggest current total emitters, US and the EU still remain the main polluters in a historic perspective since 1850, and India and Indonesia have the lowest per capita emissions. From this responsibility comes an obligation to act and support others, but the G20 action pledges are not yet sufficient, while some are worse than others.

Four Key Actions

PROTECT THE POOR FROM CLIMATE RISKS

The G20 countries should commit to increasing the protection of the poor and vulnerable, in particular women and girls, against climate risks through proactive adaptation, pro-poor insurance approaches, and investing into social protection systems in vulnerable developing countries. Developed countries in the G20 need to ramp up adaptation and loss and damage finance to poor countries and cooperation with V20 countries and Africa needs to be intensified.

PROMOTE RADICAL EMISSION REDUCTIONS TOWARDS 1.5°C LIMIT

All G20 governments should provide Nationally Determined Contributions (NDCs) under the Paris Agreement with high ambition levels that are consistent with the 1.5°C limit, backed up by mid-century strategies to be delivered by all G20 by 2018. This should be complemented by concrete action initiatives which deliver additional emission reductions before 2020, in particular by accelerating the shift to 100% renewable energy.

PROMOTE GENDER EQUALITY & HUMAN RIGHTS IN CLIMATE ACTION

G20 countries should commit to fully promoting gender equality and human rights in all climate action. G20 countries should promise to regularly exchange experience and report on progress achieved in this regard (incl. in relation to the NDCs). They should also promise to support the adoption and implementation of a strong gender action plan under the UNFCCC.

PHASE OUT FOSSIL FUEL SUBSIDIES & MAKE FINANCE SUSTAINABLE

G20 must agree on the equitable, pro-poor phase out of all fossil fuel subsidies and should redirect these to sustainable sources of renewable energy and energy efficiency by 2020. G20 must cooperate to make financial investments sustainable and advance poverty-sensitive carbon pricing to invest into climate and SDG action.

CLIMATE CHANGE DISRUPTS DEVELOPMENT

CARE'S FIVE KEY DEMANDS FOR CLIMATE JUSTICE

- 1. Governments must take concrete steps to put the 1.5°C limit into practice and shift to 100% pro-poor renewable energies in an equitable manner.
- 2. Governments must scale-up support for gender-equitable, pro-poor adaptation to climate change impacts in developing countries to build resilience.
- 3. Governments need to address the growing loss and damage from climate change impacts and scale-up finance for loss and damage.
- 4. Countries must promote sustainable, productive, equitable and resilient agriculture through domestic action and international cooperation on sustainable agriculture and food and nutrition security.
- 5. Governments need to promote and respect gender equality and human rights in all climate action.

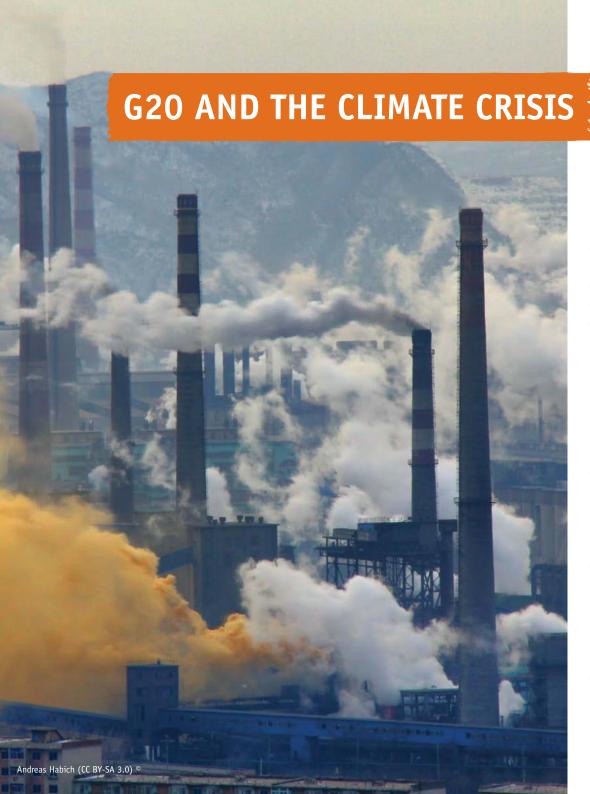


People living in poverty, who are the least responsible for greenhouse gas emissions, bear the brunt of climate impacts. CARE is already seeing how climate change is eroding and reversing development gains and exacerbating gender inequality and social and economic injustices across the world. Climate change is increasingly affecting everything that CARE does and poses a significant threat to our vision of a world of hope, tolerance and social justice where poverty has been overcome and people live in dignity and security. Without urgent action, this could make it impossible for poor and marginalised people to reach a wide range of poverty eradication and sustainable development goals. CARE is already very active in helping communities adapt to the impacts of climate change and build resilience, and has produced a range of learning tools based upon its experiences, and engages in advocacy and communications.

Globally, we have seen absolute record temperatures in 2015/2016 and the previous years. In 2016, every month was hotter, globally, than previously, and saw the biggest jump in atmospheric CO_2 concentrations. Millions of people have been suffering across the globe from the impacts of climate change. For example, the El Niño-driven drought, made worse by climate change, is exacerbating food insecurity, a strong indication of the severe climate adaptation and disaster preparedness gap. Globally, the number of people who are displaced from their homes, many of them due to extreme weather events, is unprecedented. This situation is regarded as the biggest humanitarian crisis since the 2nd world war.

"One of the greatest inequalities in the world is reflected in the causes and consequences of climate change which threatens the livelihoods of billions of people, especially women and girls."

Wolfgang Jamann, CEO and Secretary General of CARE International



The G20, created in 1999, is comprised of 19 countries - Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, United Kingdom, United States - and the European Union. As the world's largest emitters, responsible for over 80% of current greenhouse gas emissions and representing 85% of global GDP and 51% of the population, it is the responsibility of the G20 to lead the reduction of emissions though a transition to renewables and adequate climate finance.² Of course, within the group of countries the responsibilities vary, with different levels of cumulative historic and current emissions and different obligations under the UN Climate Change Convention. For example, current per capita emissions in the US and Canada are approximately 10 times higher than in India.³

As the Earth's temperature continues to increase, it is vital that the G20 countries commit to the mission of addressing and adapting to climate change and play a pivotal role in meeting the commitments to the Paris Agreement to prevent the global temperature from rising above 1.5°C.

G20 countries have significant influence on the design and implementation of the global climate change regime. The German G20 Presidency decided to put sustainable energy and climate change on the 2017 agenda, along with further work on advancing the 2030 Agenda and the Sustainable Development Goals. Vulnerable country groups, like the Climate Vulnerable Forum/V20, have urged G20 to take more ambitious actions. The aim of this report is to dive deeper into the G20's role in confronting climate change from the perspective of the poorest and most vulnerable, with a differentiated analysis recognising the block's diversity. It does so by analyzing various data sources, rankings and indices developed by other think tanks and scientific institutions in order to highlight which of the countries are performing well and which are not, as well as who needs to ramp up adaptive efforts based on risk and climate resilience. The report outlines the current G20 climate change picture and provides recommendations on key steps and agreements G20 countries need to take in 2017.

1.5°C: THE RECORD WE MUST NOT BREAK

The inclusion of the goal of pursuing efforts to limit global warming to 1.5°C above preindustrial levels in the Paris Climate Change Agreement was a major achievement from the perspective of vulnerable countries and civil society. This must now be followed up with decisive, fast and ambitious action to reduce emissions. It is vital that countries strive to stay within the 1.5°C limit, agreed upon in the Paris Agreement.

According to various analyses, with current emission reduction plans on the table, the world is still heading for disaster with a projected temperature increase of ca. 3 or more degrees.⁴ However, the adverse impacts of climate change on the planet and people increase significantly beyond a 1.5°C limit: Sea-levels will rise higher, heatwaves will become more common, and many agricultural yields are likely to be affected negatively (Figure 1).⁵

To prevent such a temperature increase, a quick and stringent reduction and long-term phase-out of emissions by shifting to renewable energies, decreasing consumption, and increasing sustainable investments is required. Many of the technologies required are already available at decreasing costs.



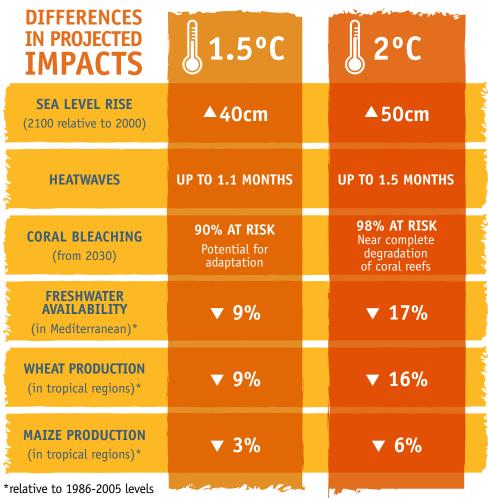


Figure 1: Impacts from 1.5°C compared to 2°C warming⁶

G20 COUNTRIES: MAJOR HISTORICAL CONTRIBUTORS TO HARMFUL EMISSIONS

The G20 produce a significant and disproportionate share of global CO₂ emissions. The astounding fact that the G20 represent 99% of historical CO₂ emissions (excluding land use), from 1850-2013, indicates their global share of responsibility to mitigate climate change and to help others adapt to its inevitable impacts. This perspective matters as CO₂ in the atmosphere has a long-term warming impact. The US and the EU are the main emitters in this perspective (see circle diagram). The top ten emitters of energy-related CO₂ in 2013 were almost entirely comprised of G20 countries: China, United States, India, Russia, Japan, Germany, Iran, South Korea, Canada, Saudi Arabia, respectively. While, Brazil, Argentina, and Indonesia have significant additional emissions from forest destruction and conversion.

In addition, current per capita emissions in the US and Canada are approximately 10 times higher than in India, reflecting another level of differentiation. Previous analysis also shows an extreme carbon inequality within the populations. In each country the per capita emissions of the richest 10% are estimated to be ca. 5 times higher than those of the poorest 50% of the population, with the poorest 50% in countries like USA still having higher per capita emissions than the average in many G20 countries.

The G20's steady increase in CO₂ emissions from 1850-2013, coupled with their share of 80% of current global emissions, allude to the profound impact that these countries have on climate change. The G20 countries are both able and have the historic responsibility to lead the rest of the world in a transition to renewable, sustainable energy.⁸

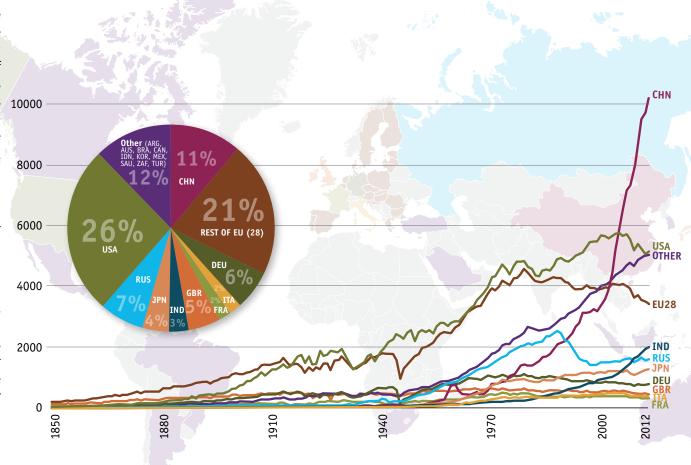
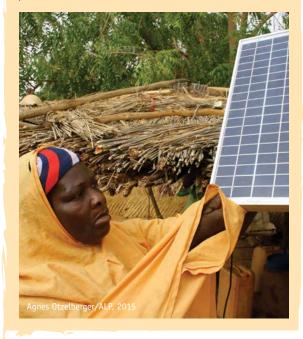


Figure 2: Historical CO₂ emissions excluding land-use change and forestry (MtCO₂) from G20 countries from 1850-2013. Data includes EU as a separate entity. Circle shows the share in accumulative emissions since 1850.9

PROMOTE RENEWABLE ENERGY FOR CLIMATE & PEOPLE

Employing more renewable energy is one of the main strategies to mitigate emissions, which further escalate climate change. Governments, business and other non-state actors must now follow-up the Paris Agreement with increased urgent action to prevent average global warming from rising 1.5°C above pre-industrial levels by transitioning to 100% renewable energy (and other measures). This transition must be just and equitable, and thus aid in granting energy access for the poor. 100% renewable energy must be the key strategy of fair, sustainable and equitable action for 1.5°C, rather than placing hopes on unproven, speculative technologies which entail significant environmental and social risks to marginalized and poor communities. The G20 produces 76% of the world's electricity from renewable sources, but has not come close to reaching its potential.

Disconnected from the grid, and challenged with long distances to towns and neighbouring villages, people living in Aman Bader, Niger, and other villages engaging in community-based adaptation, with CARE's Adaptation Learning Programme, now have a reliable source of power for their mobile phones – the sun.



Two indices, Allianz and EY RECAI, analyze investment energy attractiveness, particularly pertaining to renewable energy and sustainable finance. Allianz exclusively examines the investment attractiveness and needs of G20 countries, while EY RECAI analyzes 40 different countries¹⁰ including the G20, except for Saudi Arabia.

In the Allianz index, there is a discrepancy between investment needs and attractiveness. For example, India ranks 1 for investment needs, despite ranking 11 for attractiveness; the high level of investment needs are likely due to the large share of India's population, 21%, that still lacks access to electricity. Additionally, the five G20 countries with the highest investment needs, except for China, are in the bottom 10 for investment attractiveness.

However, when just considering renewable energy attractiveness, rather than the broader investment attractiveness analyzed by Allianz, many of the rankings of the G20 change considerably. Among the countries that EY RECAI ranked, Turkey is the only country that matches the attractiveness rankings from Allianz.¹²

	1		
EY	_	Allianz	Allianz
RECAI	Country	Investment	Investment
		Attractiveness	Needs
12	Argentina	16	15
5	Australia	7	18
15	Brazil	13	5
11	Canada	10	9
1	China	4	4
8	France	3	12
4	Germany	1	14
2	India	11	1
No rank	Indonesia	15	3
18	Italy	5	17
7	Japan	8	8
9	Mexico	14	19
No rank	Russia	19	7
No rank	Saudi Arabia	18	10
19	South Africa	12	2
33	South Korea	6	11
17	Turkey	17	16
10	United Kingdom	2	13
3	United States	9	6

Table 1: G20 investment attractiveness rankings from EY RECAI and Allianz Climate and Energy Monitor¹³

EXTREME WEATHER HITS G20 AND CAUSES LOSSES



Both the G20 countries and the rest of the world follow the pattern of a steep increase in the occurrence of natural disasters¹⁵ (Figure 3). From 1990 to 2016, the number of natural disasters worldwide has more than doubled the total from the previous 89 years. Scientists have detected the footprint of climate change in increasing the probability and severity of these extreme weather events. This significant increase is cause for alarm. As climate change continues to accelerate, this pattern will potentially become more severe and the impacts more catastrophic, despite efforts to reduce disaster risks.

Figure 3: Number of natural disaster occurrences from 1900-2016¹⁴

Rankings from the Germanwatch Global Climate Risk Index (CRI), which analyses the impacts of extreme weather events, vary substantially among G20 countries, from 14 (India) to 122 (Turkey) for the period 1996-2015. Five G20 countries are among the 30 most affected countries: India (14), France (18), Germany (23), Italy (25), US (28). Looking only at the relative impacts (in relation to population size and GDP), developing nations are some of the most affected by natural disasters. In addition to being amongst the most exposed regions to climate impacts, developing countries have a low ability to adapt and often lack sufficient economic and political structures. Among the 10 most affected countries from 1996 to 2015, all are developing countries: Honduras, Myanmar, Haiti, Nicaragua, Philippines, Bangladesh, Pakistan, Vietnam, Guatemala, and Thailand, respectively.

It is evident that the G20 countries are currently impacted by natural disasters exacerbated by climate change. However, given that the G20 represents 51% of the world's population, these financial superpowers are experiencing much fewer natural disasters per capita than their less equipped counterparts, particularly those in Africa and other vulnerable regions: 116 (39%) occurrences of natural disasters took place in G20 countries in comparison to 181 (61%) in the rest of the world in 2016. With the exception of India, G20 countries are experiencing fewer and less extreme instances of weather impacts compared to the rest of the world, and in particular the most vulnerable.

G20 PREPARE FOR IMPACTS, BUT OTHER COUNTRIES ARE MORE VULNERABLE

Many G20 countries undertake significant investments in either building new or updating existing infrastructure. The steep increase in natural disasters in G20 countries in the last decades, and the scientific projections for the future (including slow-onset risks such as sea-level rise), make it evident that G20 countries must adapt to climate change and develop close to zero-carbon infrastructure. Bringing investments in line with the need to build climate resilience and radically reduce emissions is reflected in the goals of the Paris Agreement. Many G20 countries have already developed comprehensive national climate change adaptation strategies.

G20 countries need to give special attention to the poorest and most marginalised populations, particularly women and girls, and build their resilience: this must be an essential component of broader national resilience strategies.

The ND GAIN index analyses countries' readiness and vulnerability to climate change impacts. The five most vulnerable G20 countries are India, Indonesia, Saudi Arabia, South Africa, and Argentina, respectively. Comparatively, the five countries least ready for climate change impacts are India, Indonesia, Brazil, Argentina, and Argentina, respectively. Thus, most of the countries that are least prepared for climate impacts are also the most vulnerable; these countries, such as India, Indonesia, and Argentina, are at the greatest risk within the G20 group.

The country rankings differ greatly for G20 countries among the three categories of readiness: Economic, Governance and Social. For example, despite ranking 1 (best) in social readiness, South Korea ranks 23 for economic readiness and 43 for governance. This discrepancy highlights the vulnerability of most G20 countries in at least one element of the readiness analysis. Though some countries have much lower rankings across all three categories than others, all G20 countries have at least one area of readiness that needs improvement.

	Readiness	Readiness			Vulnerability
Country (lowest rank: most ready)	Economic	Social	Governance	(lowest rank: (least vulnerable)	
Argentina	95				59
Australia	13				7
Brazil	99				40
Canada	17				4
China	71				30
France	19				12
Germany	10				3
India	122				118
Indonesia	109				89
Italy	32				23
Japan	16				26
Mexico	7				31
Russia	86				45
Saudi Arabia	49				5
South Africa	55				72
South Korea	90				71
Turkey	65				41
United Kingdom	11				1
United States	15				5

Colours in order from most ready to least: green, yellow, orange, red

Table 2: ND-GAIN indicators for vulnerability and readiness¹⁷

G20 FAIL TO STOP SUBSIDISING HARMFUL FOSSIL FUELS

Subsidies incentivise increased consumption of fossil fuels. For this reason, and many other complexities intertwined with such dirty investments, there has been a push for the G20 to divest from fossil fuel subsidies. The aim of this phase-out is to increase sustainable investments and decrease risks from unmitigated climate change impacts. Despite past pledges to phase out fossil fuel subsidies, the current level of subsidies by G20 countries is substantial and poses significant threats to the escalation of climate change. This is also indicated by the fact that most of the G20 countries, with the exception of Indonesia, Argentina, Brazil, Mexico and Saudi Arabia, substantially increased their post-tax fossil fuel subsidies from 2013 to 2015 (figure 4). 83% of global post-tax subsidies come from G20 countries with, by far, the greatest amount, 2272 billion USD, coming from China. However, in terms of per capita, China only ranks number 4 after Saudi Arabia, Russia and the US, respectively. The largest portion of post-tax subsidies comes from coal, with a total of 286 billion, or 91% of the global share coming from the G20. After signing the Paris Agreement and creating NDCs to mitigate climate impacts, G20 countries must now stop funding climate change through fossil fuel subsidies instead of climate action. These dirty investments must be halted to stay within the 1.5°C limit and extracted fossil fuel reserves must be decreased by 75%.

Country	2015 Post-tax Subsidies	2015 Post-Tax Subsidies Per Capita
China	2272	1652
United States	699	2177
Russia	335	2334
India	277	217
Japan	157	1240
Saudi Arabia	107	3395
Korea	73	1441
Indonesia	69	271
Germany	56	684
Brazil	55	271
South Africa	46	845
Canada	46	1283
United Kingdom	41	635
Turkey	39	500
Mexico	31	255
France	30	469
Australia	30	1259
Argentina	18	413
Italy	13	220

Table 3: Post-tax subsidies in USD Billions and per capita (Nominal) in 2015²¹

The 20% poorest households in the world are receiving only 7% of fossil fuel subsidies: the impact on poorer nations from divesting from fossil fuels would be less extreme then on their developed counterparts.²⁰ The lack of dependence of the world's poor on fossil fuel subsidies highlights the fact that pulling away subsidies for dirty fuel will have a much greater impact on the developing world and have minimal impact on the poor. The reduction of fossil fuel subsidies must be done, and such a divestment can be accomplished in a way that it doesn't harm the poor in terms of their access to energy and that it generates additional socio-economic benefits, such as improving health through reduced air pollution.

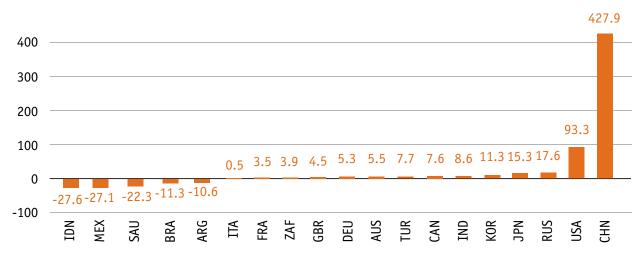


Figure 4: Change in post-tax subsidies in USD billions (nominal) from 2013 to 2015²²

CLIMATE CHANGE AND GENDER EQUALITY: MORE WORK AHEAD

Climate change is a major source of injustice as it disproportionately affects the people who are the least responsible for its causes and who have the least capacity to adapt. In many countries, there tends to be a disparity between sexes: women's roles are often carers and providers of food and water, and they have a lack of access to resources and decision-making power, making them particularly at risk. Neither gender equality nor resilience to climate change and disasters can be achieved without addressing how they impact each other. Climate action should therefore thrive to reduce, if not eliminate, inequalities. All G20 countries have committed to promote gender equality through adopting the 2030 Agenda for Sustainable Development. Meaningful climate action needs to tackle gender inequality and contribute to promoting, respecting and fulfilling all human rights. The UNFCCC recognises that women commonly face higher risks and greater burdens from the impacts of climate change in situations of poverty, with the majority of the world's poor being women, while they are crucial agents of change. Women must, therefore, play a critical role in addressing climate change, and barriers to unequal engagement and opportunities be overcome, through collaborative efforts of men and women.



CARE's work in the Asia-Pacific has promoted the use of four main strategies to enhance resilience through gender equality:

- a) Understanding the different dimensions of gender inequality;
- b) Engaging men and boys;
- c) Nurturing women's groups and alliances;
- **d)** Supporting government partners to build their capacity in gender equality.

In both the UNDP Gender Equality Index and the WEF Gender Gap Index, there are no G20 countries among the top five most gender equal. And for the WEF index, none of the G20 countries are in the top 10.

While some of the ranks are very similar between the two indices, others differ substantially, as different factors are being analyzed: UNDP looks at reproductive health, empowerment, and economic status, while the WEF looks at economic participation and opportunity, educational attainment, health and survival, and political empowerment.

With regard to the countries' Nationally Determined Contributions, only Mexico devotes a specific section on gender and climate change, with Brazil, India and Indonesia at least mentioning gender. The other G20 countries fail to address gender in their NDCs.

UNDP Gender Inequality Index	Country	WEF Gender Gap Index
77	Argentina	33
24	Australia	46
92	Brazil	79
18	Canada	35
37	China	99
19	France	17
9	Germany	13
125	India	87
105	Indonesia	88
16	Italy	50
21	Japan	111
73	Mexico	66
52	Russia	75
50	Saudi Arabia	141
90	South Africa	15
10	South Korea	116
69	Turkey	130
28	United Kingdom	20
43	United States	45

Table 4: WEF gender gap index column vs UNDP Gender Inequality Index^{23,24}

DEVELOPED COUNTRIES IN G20 MUST INCREASE ADAPTATION FINANCE

The countries most vulnerable to climate change are also those most in need of adaptation finance and support, which they are entitled to receive according to the UN Climate Change Convention. To limit human suffering, rich countries must scale-up financial support for the poor to adapt to climate change impacts: current capital plans allocate only 20% of finances to adaptation finance by 2020, compared to larger investments in emission cuts and despite the commitment made under the UNFCCC to achieve a balance between mitigation and adaptation. Additionally, the price of adaptation is likely to increase over time; by 2050 annual adaptation costs in developing countries could be as high as \$500 billion USD at a 2°C scenario.²⁵

In 2013-14, public climate finance from developed to developing countries amounted to about 23 billion USD on average, an increase compared to the previous years. In addition, 1.9 bn in 2013 and 2.5 bn in 2014 were channelled through multilateral climate funds. 17.9 billion has been reported by Multilateral Development Banks in the same period.²⁶ Developed countries committed to mobilize 100 billion USD, by 2020, for climate action in developing countries (from various sources), and to aim for a balance between adaptation and mitigation support. Currently, only about 16% of climate finance goes towards adaptation; this value must increase substantially until 2020 to achieve the promised balance with mitigation finance. In addition, G20 countries should promote innovative public finance sources which can generate additional tens of billions of USD to support climate action in developing countries, such as levies from air or sea transport, carbon pricing, etc.

Not all G20 countries are to be held equally responsible. Only developed countries have support obligations under the UNFCCC. When considering different factors, such as GDP and contribution to climate change, Oxfam found that 95% of adaptation finance should come from Japan, Canada, Australia, European Union, and the United States.²⁷ These countries are not only among the most responsible for climate change impacts, but are also among the most economically able to invest in adaptation finance. However, other G20 countries have also started to support poorer countries in climate action. For example, Mexico and Indonesia have contributed to the Green Climate Fund, and China has promised USD 3 billion to poorer countries.

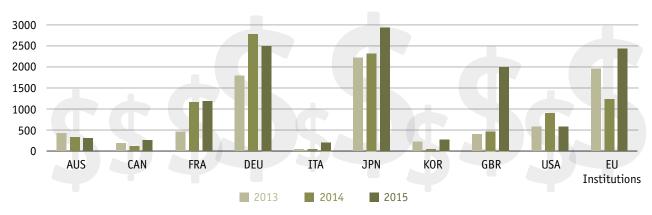


Figure 5: OECD country adaptation finance (sum of significant and principle) to developing countries in USD millions²⁹

Based on OECD figures, all OECD countries have contributed to adaptation finance in developing countries. However, there is a large difference among countries. While there has been an overall increase, Australia and Germany, show a declining trend in 2015 compared to 2014. It is important to note that various analyses show that many projects claimed as "adaptation" should not be counted (or with a lower share), due to their questionable climate relevance.

G20 CLIMATE AMBITION: NOT ENOUGH

The rapid acceleration of climate change simultaneously ramps up the need for more ambition. If G20 countries fail to increase ambition before 2020, future adaptation will become more challenging and, in some cases, impossible. To ensure sufficient ambition to meet the goals set out by the Paris Agreement and prevent an increase in temperature above 1.5°C, a rapid transition must be made to a near zero-carbon economy; this must be facilitated by support from developed countries and exchange and cooperation among all.

There are no countries within the G20 that have sufficient levels of ambition (according to the Climate Action Tracker) which are levels that are "fully consistent with below 2°C limit" (Figure 6).³⁰ The inadequate or medium levels of ambition from the G20 indicate that temperatures are likely to rise above 2°C, let alone 1.5°C, if nothing is changed given their substantial share of the world's emissions.

These findings coincide with the results from the CSO equity review, which found that mitigation ambition is only 30-44% of what's needed to prevent a rise above 1.5°C.³¹ However, when comparing a subset of G2O country's 2020 national pledges to their fair share emissions, China, India and Korea emit within or just slightly over their pledge, while the United States, the EU (28), Japan and Russia's emissions significantly exceed their national pledges. Relative to 2020 pledges, the US, EU and Japan are pledging far below their fair share of contributions to emissions.

Recent research also suggests that China and India are making good progress towards achieving and potentially over-achieving their Paris Agreement pledges. In stark contrast, the decision of the current US president to pull out of the Paris Agreement and the actions initiated to roll back climate-relevant regulation undermines the already only medium level of ambition and shifts it to inadequate. Hope rests on states, cities, business etc. in the US to fight a reversal of the declining emission trend.

This discrepancy in performance among G20 countries illuminates the fact that in terms of climate change policy the G20 should not be coupled together as one: while some countries are exhibiting increasing ambition to climate change mitigation, others are doing very little to alleviate their significant contributions to the problem.

MEI	DIUM NDC AMBITION
Brazil	43% emissions reduction by 2030 compared to 2005 levels**
China	60% to 65% decrease in carbon intensity of GDP by 2030 compared to 2005 levels
India	30%-35% decrease in emissions intensity of GDP by 2030 compared to 2005 levels
Indonesia	29%-41% emissions reduction below BAU by 2030**
Mexico	22%-36% emissions reduction below BAU by 2030
European Union (incl. France, Germany, Italy, UK)	40% emissions reduction by 2030 compared to 1990 levels**

^{*} Has not (yet) ratified the Paris Agreement

Figure 6: NDC targets & level of ambition³²

TNAD	EQUATE NDC AMBITION
INAD	EQUALE NOC AMBILION
Argentina	33% emissions above to 7% emissions below 2010 levels by 2030
Australia	26%-28% emissions reduction by 2030 compared to 2005 levels
Canada	30% emissions reductions by 2030 compared to 2005 levels
Japan	26% emissions reduction by 2030 compared to 2013 levels
South Korea	37% emissions reduction below BAU by 2030
Russia*	25%-30% emissions reduction by 2030 compared to 1990**
Saudi Arabia	350%-450% emissions above 1990 levels by 2030
South Africa*	20-82% emissions above 1990 levels by 2030
Turkey*	21% emissions reduction below BAU by 2030**
United States***	26%-28% emissions reduction by 2025 compared to 2005 levels**

^{**} including LULUCF

^{***}Shifted to inadequate due to announced Paris Agreement withdrawal and regulatory roll-back

RECOMMENDATIONS

The previous analysis has shed light on the differential, but overall high responsibility of G20 countries to increase the ambition in tackling climate change. CARE sees four main action areas where G20 should agree ambitious next steps in 2017.

Protect the poor from climate risks

The G20 countries should commit to increasing the protection of the poor and vulnerable, in particular women and girls, against climate risks. This should include pro-active adaptation, pro-poor insurance approaches and investing into social protection systems in vulnerable developing countries. In particular developed countries in the G20 need to significantly ramp up adaptation finance to poor countries by 2020 as well as additional finance to address loss and damage, when people experience climate impacts beyond what they can adapt to. The cooperation with other countries, in particular with the V20/Climate Vulnerable Forum and Africa, should advance climate resilience in all actions it takes, including infrastructure investments.





Promote radical emission reductions towards the 1.5°C limit

All G20 governments should provide Nationally Determined Contributions (NDCs) under the Paris Agreement with high and comparable ambition levels that are sufficient to put the world on rapid emission reduction pathways consistent with the 1.5°C limit. They should commit to back up their NDCs with concrete and transparent national low-GHG emission development strategies by 2018. This should be complemented by concrete action initiatives which further reduce emissions before 2020, in particular by accelerating the shift to 100% renewable energy and near-zero emissions, away from fossil fuels. Other ambitious countries, like the 48 countries in the V20/Climate Vulnerable Forum (CVF), should be ambitiously supported in their own transition to 100% renewable energies, with a particular focus on overcoming energy poverty.

Promote gender equality and human rights in climate action

Based on countries' commitments under human rights, the SDGs and the provisions of the Paris Agreement, G20 countries should commit to fully promoting gender equality and human rights in all climate action. G20 countries should promise to regularly exchange experience and report on progress achieved in this regard (incl. in relation to the NDCs). They should also promise to support the work on a strong gender action plan under the UNFCCC.





Phase out fossil fuel subsidies and make finance sustainable

The G20 must agree on the equitable, pro-poor phase-out of all fossil fuel subsidies by 2020: The G20 should create a process to initiate redirection of energy-related domestic and international public finance to only support cost-effective, clean, healthy and safe sources of renewable energy and energy efficiency by 2020, to be in line with the 1.5°C limit. The G20 must cooperate to make financial investments sustainable and advance poverty-sensitive carbon pricing, which can also generate additional public resources for climate and SDG action.

REFERENCES

- Thompson, A., 2016. 2016 was the Hottest Year on Record [Online]. Scientific American. Available 16. Kreft, S., Eckstein, D. & Melchior, I., 2016. Global Climate Risk Index 2017. Germanwatch. Available at: https://www.scientificamerican.com/article/2016-was-the-hottest-year-on-record/
- Kim, J. & Chung, S., 2012. The role of the G20 in governing the climate change regime. International Environmental Agreements: Politics, Law and Economics 12 (4), pp. 361-374. 2012.
- Carbon Offsets to Alleviate Poverty (COTAP). Per Capita Emissions Data by Country. Available at: 18. http://cotap.org/per-capita-carbon-co2-emissions-by-country/
- Pachauri, R. & Meyer, L. 2014. Climate Change Synthesis Report. IPCC: Geneva. Available at: http://ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full_wcover.pdf
- Chadburn, S., Burke, J., Cox, P. & Westermann, S., 2017. An Observation-based constraint on permafrost loss as a function of global warming. Nature Climate Change 7. Available at: http://www.nature.com/nclimate/journal/vaop/ncurrent/full/nclimate3262.html; Schleussner, C. et al. 2016. Differential climate impacts for policy-relevant limits to global warming. Earth System Dynamics 7. Available at: http://www.earth-syst-dynam.net/7/327/2016/esd-7-327-2016.pdf
- Pidcock, R., 2016. Scientists compare climate change impacts at 1.5C and 2. CarbonBrief. Available at: https://www.carbonbrief.org/scientists-compare-climate-change-impacts-at-1-5c-and-2c
- 7. The World Bank, 2013. CO2 Emissions (Metric Tons per Capita). Available at: http://data.worldbank.org/indicator/EN.ATM.CO2E.PC?display=graph
- Oxfam, 2015. Extreme carbon inequality. Why the Paris climate deal must put the poorest, lowest Oxfam, 2015. Extreme carbon inequality, why the rans climate deat made part in post of the property of the pro org/files/file attachments/mb-extreme-carbon-inequality-021215-en.pdf
- World Resources Institute (WRI). CAIT Climate Data Explorer. Available at: http://cait.wri.org/historical
- 10. EY RECAI looked at a set of countries different then the G20. The countries analyzed include: United States, China, India, Chile, Germany, Brazil, Mexico, France, Canada, Australia, South Africa, Japan, United Kingdom, Morocco, Denmark, Egypt, Netherlands, Argentina, Turkey, Belgium, Sweder, 6-Philippines, South Korea, Peru, Italy, Israel, Portugal, Spain, Taiwan, Kenya, Ireland, Jordan, Uruguay, Norway, Poland, Finland, Thailand, Pakistan, Indonesia, Greece
- 11. Liesch, T., Lauppe, R., Ruiz-Vergote, S. & Schneeweis, A., 2016: Allianz Climate and Energy Monitor. Germanwatch & NextClimate Instititute. Available at: https://www.allianz.com/v_1464968153000/28 en/sustainability/media-2016/climate_and_energy_monitor_full_report.pdf
- 12. Ernst & Young. Renewable Energy Country Attractiveness Index (RECAI), 2017. Availbale at: http://pg www.ev.dk/Publication/vwLUAssets/EY-RECAI-49-May-2017-index-at-a-alance/\$FILE/EYRECAI-49-May-2017-index-at-a-glance.pdf
- 13. Germanwatch & NextClimate Instititute, 2016. Allianz Climate and Energy Monitor. Available at: https://www.allianz.com/v_1464968153000/en/sustainability/media-2016/climate_and_energy_ monitor_full_report.pdf; Ernst & Young. Renewable Energy Country Attractiveness Index (RECAI). 31. Available at: http://www.ey.dk/Publication/vwLUAssets/EY-RECAI-49-May-2017-index-ataglance/\$FILE/EYRECAI-49-May-2017-index-at-a-glance.pdf
- 14. Kreft, S., Eckstein, D. & Melchior, I., 2016. Global Climate Risk Index 2017. Germanwatch, Available at: https://germanwatch.org/en/download/16411.pdf
- 15. Disaster is classified as meeting one of the following: "10 or more people reported killed, 100 or more people reported affected, declaration of a state of emergency, or call for international assistance." Em-DAT Database. The International Disaster Database: Centre for Research on the Epidemiology of Disasters. Available at: http://www.emdat.be/advanced_search/index.html

- at: https://germanwatch.org/en/download/16411.pdf
- 17. University of Notre Dame Global Adaptation Initiative (ND-GAIN), 2017. ND-GAIN Country Index. Indiana. Available at: http://index.gain.org/ranking/vulnerability
- UN Climate Change Newsroom: UNFCCC, 2017, G20 Must Phase Out fossil fuel subsidies by 2020. Available at: http://newsroom.unfccc.int/unfccc-newsroom/g20-must-phase-out-fossil-fuelsubsidiesby-2020/
- 19. International Monetary Fund, 2015. IMF Survey: Counting the Cost of Energy Subsidies. Available at: http://www.imf.org/external/pubs/ft/survey/so/2015/NEW070215A.htm
 - Bast, E., Doukas, A., Pickard, S., Burg, L. & Whitley, S., 2015. Empty Promises: G20 subsidies to oil, gas and coal. ODI & Oil Change International. Available at: https://www.odi.org/sites/odi.org.uk/ files/odi-assets/publications-opinion-files/9958.pdf
- 21. International Monetary Fund, 2015. IMF Survey: Counting the Cost of Energy Subsidies. Available at: http://www.imf.org/external/pubs/ft/survey/so/2015/NEW070215A.htm
- 22. International Monetary Fund, 2015. IMF Survey: Counting the Cost of Energy Subsidies. Available at: http://www.imf.org/external/pubs/ft/survey/so/2015/NEW070215A.htm
- 23. United Nations Development Programme, 2015. Human Development Reports. Gender Equality Index. Available at: http://hdr.undp.org/en/composite/GII
- World Economic Forum, 2016. Global Gender Gap Report Rankings. Available at: http://reports.weforum.org/global-gender-gap-report-2016/rankings/
- 25. UNEP DTU Partnership, 2016. UNEP's Adaptation Finance Gap Report. Available at: http://www. unepdtu.org/newsbase/2016/05/uneps-adaptation-finance-gap-reportreleased?id=377aa3d4-32c1-4100-8bee-ae65390b60ba
 - OXFAM, 2007. Adapting to climate change. Available at: https://www.oxfam.org/sites/www.oxfam.org/files/adapting%20to%20climate%20change.pdf
 - OXFAM, 2016. Climate Finance Shadow Report. Available at: https://www.oxfam.org/sites/www. oxfam.org/files/file attachments/bp-climate-finance-shadow-report-031116-en.pdf
 - OECD, 2017. Climate Finance in 2013-14. Available at: https://www.oecd.org/env/cc/Climate-Finance-in-2013-14-and-the-USD-billion-goal.pdf
 - OECD. Creditor Reporting System (CRS), 2016. Available at: https://stats.oecd.org/Index.aspx?DataSetCode=CRS1
 - Climate Action Tracker (CAT), 2017. Rating Countries. Available at: http://climateactiontracker.org/countries.html
- Civil Society Review, 2016. Setting the Path Towards 1.5C. Available at: http://civilsocietyreview.org/wp-content/uploads/2016/11/Setting-the-Path-Toward-1.5C.pdf
- 32. Climate Action Tracker (CAT). Rating Countries. Available at: http://climateactiontracker.org/countries.html



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Founded in 1945, CARE is a leading humanitarian organisation fighting global poverty and providing lifesaving assistance in emergencies. In 90 countries around the world, CARE places special focus on working alongside poor girls and women because, equipped with the proper resources, they have the power to help lift whole families and entire communities out of poverty. To learn more about CARE's work on climate change, visit:

