

## GREEN DEAL GUIDANCE NOTE

### CLIMATE CHANGE

#### 1. Why Climate Change matters?

Climate change is the defining challenge of the 21<sup>st</sup> century and represents an existential threat to mankind.

Human induced activities resulting in emissions of greenhouse gases (GHGs) are estimated to have already caused approximately 1.0° C of global warming above pre-industrial levels and temperature increase is likely to reach 1.5° C before 2050 on the current path<sup>1</sup>. Carbon dioxide (CO<sub>2</sub>) is not the only greenhouse gas. These also include methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and a range of smaller concentration trace gases such as the so-called group of fluorinated gases ('F-gases')<sup>2</sup>.

Likely consequences include increased mean temperatures in most land and ocean regions, more frequent extreme weather events, such as extreme rises in temperature and precipitation, higher probability of floods, heatwaves, droughts and wildfires – leading to desertification and land degradation in several regions. On land, climate change impacts also include species loss and extinctions, reduction in agricultural productivity and nutrient content of food crops, threats to livestock, and amplified risks of vector borne diseases such as dengue fever and malaria. Climate change will thus negatively affect many of the social and environmental determinants of health – clean air, safe drinking water, sufficient food and secure shelter

Oceans are projected to transition to unprecedented conditions over the 21st century with increased temperatures, further acidification, oxygen decline, and altered net primary production. Sea level rise projections estimate that 200 million people could fall permanently below the high tide line by end century<sup>3</sup>, while sea rise is projected to continue beyond 2100 even if temperature rise remains below 1.5°C. Increasing ocean water temperatures directly lead to increased frequency and intensity of tropical storms and related weather events. Besides surplus heat, oceans also absorb a significant part of surplus GHG causing acidification which forms a substantial threat for biodiversity, fisheries and ecosystems<sup>4</sup> affecting income, livelihoods, and food security of marine resource-dependent communities.

Many of the sources of greenhouse gases are also sources of air and noise. Some pollutants are simultaneously a climate forcer and an air pollutant – or a precursor to air pollutants

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<sup>1</sup> IPCC, 2018: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways.,

<sup>2</sup> Greenhouse gases vary in their relative contributions to global warming; e.g. one tonne of methane has 28 times the impact of one tonne of carbon dioxide over a 100-year period, but 86 times as much over a 20-year period. Methane is one of a number of short-lived or near-term climate forcers whose impact occurs primarily in the first decade following their emission. Fluorinated gases have an even higher impact.

<sup>3</sup> The threat is concentrated in coastal Asia. Climate Central, 2019: Flooded Future-Global Vulnerability to Sea Level Rise Far Worse than Previously Thought

<sup>4</sup> IPCC, 2019: Summary for Policymakers. In: IPCC Special Report on the Ocean and Cryosphere in a Changing Climate.

(e.g. black carbon, methane) – advocating for an integrated approach in addressing climate and clean air.

The consequences for human systems in terms of health, livelihoods, food and human security, environment and natural resources as well as economic growth are large. Recent studies estimate economic damages to be USD 54 trillion in 2100 rising to USD 69 trillion at temperatures of 1.5° or 2°C respectively. Without additional actions, 7% of world GDP could be lost by 2100<sup>5</sup> and the World Bank estimates that climate change impacts could push 100 million people below poverty line by 2030<sup>6</sup> and job losses could be as high as 80 million full time jobs by 2030<sup>7</sup>

The impacts on people, planet and prosperity are unevenly distributed as developing countries will suffer most of the consequences while being responsible for a limited share of cumulative global emissions. Climate change is also a major driver and amplifier of disasters and environmental degradation that disproportionately impact low income countries and people already living in vulnerable situations, thus contributing to deepening inequalities within and across countries and increasing forced displacement and migration (particularly in parts of Africa and Asia) as conflict risks are correlated to climate change impacts and growing pressure on natural resources<sup>8</sup>.

Regions that will be at higher risk include dryland regions, small island developing states (SIDS) – particularly in the Caribbean and Pacific - and least developed countries (LDCs). The world's poor and vulnerable (e.g. indigenous people, women and youth, elderly people, people working in the informal sector) are likely to suffer most. Children in particular are the most vulnerable to the resulting health risks and will be exposed longer to the health consequences.

### ***Policy context***

The EU is among the strongest champions of global climate ambition and transition to climate neutrality. Furthermore, the EU and its Member States remain the largest contributor of public climate finance to developing countries, including to the multilateral climate funds, with EUR 21.7 billion in climate finance for 2018.

The **European Green Deal (EU GD)** adopted in 2019 is the new EU growth strategy. Its vision is to transform the EU into a fair and prosperous society with a modern, resource-efficient and competitive economy where there are no net emissions of GHG in 2050, and where economic growth is decoupled from resource use<sup>9</sup>. The proposal for a European Climate Law, proposed in 2020, is an important element of the EU GD. It has the ambition to set an irreversible pathway toward climate neutrality by 2050. The EU GD is a roadmap for the economy wide policies and measures that will make this vision reality.

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<sup>5</sup> Kahn. M., Mohaddes, K., Ng, R., Pesaran, H., Raissi, M., Yang, J., 2019: Long-term Macroeconomic Effects of Climate Change: A Cross Country Analysis

<sup>6</sup> Hallegatte, S. et al., 2019: Shock Waves: Managing the Impacts of Climate Change on Poverty, World Bank Group.

<sup>7</sup> “Working on a warmer planet: The impact of heat stress on labor productivity and decent work” – ILO (2019)

<sup>8</sup> Joint Communication “ A Strategic Approach to Resilience in the EU External Action”, 2017 - [https://www.consilium.europa.eu/media/30862/en\\_clim\\_change\\_low.pdf](https://www.consilium.europa.eu/media/30862/en_clim_change_low.pdf)

<sup>9</sup> At the same time, the EU GD recognises access to raw materials, in particular critical raw materials, is also a strategic security question for Europe's ambition to deliver the green transition.

The EU GD is a transformative agenda for Europe, but recognises that its ambitions will not be achieved by Europe acting alone as the drivers of climate change and environmental deterioration are global. Being responsible for some 8% of global emissions the EU will need to work with its partners. A strong global action is required to achieve its transformative goals<sup>10</sup>. Thus, the EU GD advocates for amplified EU foreign, trade and international development policies and actions to tackle climate change drivers and encourage partners to raise their ambitions to cut emissions and adapt to the impacts of climate change.

On the clean air aspects, the EU GD notably includes the zero pollution ambition where air pollution plays a prominent role but also looking in an integrated way at pollution to water and soil, including noise, chemicals hazards, plastics and other pollution aspects.

The EU GD also aims to enhance climate adaptation (e.g. enhance climate proofing, resilience building, disaster prevention and preparedness), to protect and conserve EU's and global natural capital and to protect the health of citizens. It touches upon many drivers of change, from energy to biodiversity, from food systems to circular economy, from digitalisation to sustainable financial markets – striving to shape a just and inclusive transition. The European Green Deal announced that the Commission would adopt by the first quarter of 2021 a new more ambitious EU Adaptation Strategy.

The COVID crisis has shown how important it is to ensure that ecosystems can also play their role as buffers from diseases and health hazards. They are currently affected by climate change to the extent that their contribution to mitigation and adaptation is in turn severely impacted. In September 2020, President von der Leyen launched the idea of a Global Recovery Initiative (GRI), linking debt relief and investment to the SDGs. The GRI is not only about economic recovery and relaunch, it is about shifting to the right policy choices. It should support EU geo-economic agenda, promote a green, healthy, inclusive and resilient recovery by linking it with the twin green and digital transitions, and social inclusiveness.

The 2030 Agenda, together with the Addis Ababa Action Agenda (AAAA), the Paris Agreement on Climate Change and the Sendai Framework on Disaster Risk Reduction, provide the overarching international framework for sustainable development and for climate change mitigation, adaptation and disaster risk reduction (DRR).

In the **2030 Agenda**, sustainable development goal (SDG) 13 on climate action requires “taking urgent action to combat climate change and its impacts”. It includes targets related to strengthened resilience and adaptive capacity to climate-related hazards and natural disasters; integration of climate change measures into national policies, strategies and planning; and improvements in education, awareness-raising, human and institutional capacity to tackle climate change. Exploiting synergies between SDG 13 and other SDGs is also relevant in tackling climate change.

The **AAAA** stresses the importance of stepping up investments for low-carbon and climate-resilient development, and for developed countries to meet their financial commitments towards supporting developing ones in this regard.

**The Paris Agreement** establishes a long-term goal to limit global temperature rise to ‘well below 2° Celsius’ and to pursue efforts towards a 1.5°C temperature goal before the end of the century. It also aims at increasing the ability to adapt to the adverse impacts of

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<sup>10</sup> This is particularly valid for the EU's immediate neighbourhood and more specifically for the Western Balkans, given their European accession perspective.

climate change and foster climate resilience. It establishes a legally binding framework to guide global efforts for this purpose, whereby signatory countries have to submit on a regular basis Nationally Determined Contributions (NDCs) and Long Term Strategies (LTS) detailing how they intend to reduce their GHG emissions.

**The Sendai Framework** is the main international reference on disaster risk reduction and it aims to limit environmental, economic, social, physical and cultural losses associated with natural and man-made disasters and risks. Long term adaptation and DRR measures are indeed mutually reinforcing; there are a several benefits from increased coherence between DRR and climate change adaptation.

### *Challenges and Opportunities*

In 2018 global GHG emissions reached 55.3 Gt CO<sub>2</sub>eq (see Annex 1), 55% more than what will be necessary in 2030 to keep global temperature rise below 1.5°C<sup>11</sup>. To reach this goal, emissions need to be reduced globally by 7.6% every year between 2020 and 2030. The reductions implied by existing nationally determined contributions (NDCs) are not sufficient. Even if all unconditional NDCs were implemented, the world is on track for a 3.2°C increase in temperatures by 2100<sup>12</sup>.

The energy sector<sup>13</sup> is by far the largest contributor to global GHG emissions followed by transport and Agriculture, Forestry and Land Use 5AFOLU<sup>o</sup> representing altogether approximately two-thirds of global emissions<sup>14</sup> (see Annex 1). Though developing countries are responsible for a minority of historical energy emissions, energy demand is growing exponentially in those countries and there are opportunities to ‘leap-frog’ carbon-intensive models of economic development, avoiding locking in carbon-intensive capital with multi-decade lifespans (e.g. coal and gas fired power plants) incompatible with the Paris Agreement’s 1.5 °C target.

Cities have a particularly large carbon footprint as they consume over two-thirds of the world’s energy, and thus emit more than 70% of global CO<sub>2</sub> emissions. But as the home of large populations and economic activities, cities are also highly vulnerable to the consequences of climate change. Including heatwaves, droughts, floods and sea-level-rise. It is estimated that 90% of the world’s urban areas are situated on coastlines, highlighting the need to drastically increase climate resilience. Despite these challenges, cities also provide concrete opportunities for effective solutions to the climate challenges as the level of governance is closer to citizens, and on the first line of defence to implement local climate solutions<sup>15</sup>.

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<sup>11</sup> United Nations Environment Program (UNEP), Emissions Gap Report 2019.

<sup>12</sup> UNEP, 2019.

<sup>13</sup> Energy, manufacturing and construction industries and fugitive emissions: Energy emissions are normally inclusive of public heat and electricity production; other energy industries; fugitive emissions from solid fuels, oil and gas, manufacturing industries and construction.

<sup>14</sup> IPCC, 2018

<sup>15</sup> Ex. The Global Covenant of Mayors is the world’s largest network of cities taking action on climate change. As of today, the initiative brings together more than 11,000 cities on all continents of the world. – particularly active in Latin America. In the ASEAN region, several initiatives and strategies already contribute to the resilience to cities to climate change. These include: the ASEAN Sustainable Urbanisation Strategy (ASUS), the ASEAN Initiative on Environmentally Sustainable Cities (ESC), the ASEAN Smart Cities Network (ASCN).

Achieving the 1.5 °C path would imply, for instance, that by 2050 renewables should represent 75-85% of the global energy mix<sup>16</sup>, GHG emissions from industry should be 65-90% lower compared with 2010 levels, while increased energy efficiency in buildings would mean that the clean electricity share of energy demand would be about 55-75% of total energy demand<sup>17</sup>. Simultaneously, agricultural land for food and feed crops could augment emissions by a limited amount and substantial portions of pasture-land could be reconverted to energy crops or afforested/reforested. In addition, the impacts of air pollution include around four million premature deaths every year globally; nine out of ten people in the world breathe air containing high levels of pollutants. Air pollution also causes eutrophication, acidification and ozone damage to ecosystems, harming biodiversity and environmental resilience.

To achieve the needed level of societal transformation requires large investments (Annex 2). The IPCC estimates that USD 1.6 -3.9 trillion needs to be invested annually between 2016 and 2050 in energy generation alone to be consistent with the 1.5°C targets<sup>18</sup>. At the same time, other studies estimate that ambitious climate action could generate by 2030 USD 26 trillion in global economic benefits following a business as usual scenario of USD 90 trillion global investments in infrastructure - including 700,000 fewer premature deaths from air pollution; 65 million new low-carbon jobs; an additional USD 2.8 trillion in government revenues; and increased female labour force participation<sup>19</sup>. Cutting GHG emissions will also help reduction of air pollutants (and vice-versa).

The same is true for adaptation. In 2019, the Global Commission on Adaptation estimated adaptation costs would average USD 180 billion annually from 2020 to 2030. Current investment flows fall far short of these estimates, with tracked climate finance reaching around USD 546 billion in 2017/18 of which only about USD 30 billion was for adaptation.<sup>20</sup> A wide range of adaptation options are currently available, from nature based solutions such as ecosystem restoration to sustainable agriculture<sup>21</sup>, land use and planning, from climate resilient infrastructure to coastal areas protection.

The good news is that Governments have a wide array of tools at their disposal via fiscal, monetary, procurement and financial policies. These tools can create incentives among both private and public actors to foster a climate neutral societal transition as well as to contribute efforts to adapt to climate change. Leveraging private investments is essential to match the magnitude required by the transition. Sustainable finance policies, such as the ones being pursued by the EU as part of the Renewed Sustainable Finance Strategy, including the EU Taxonomy for sustainable investments, the Green Bond Standard and provisions for reporting and disclosure of sustainability-related information are good examples to be promoted internationally including through the International Platform on Sustainable Finance (IPSF).

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<sup>16</sup> With the caveat on biomass burning as an energy source: any promotion of biomass should be accompanied by measures substantially reducing air pollution emissions, especially of particulate matter.

<sup>17</sup> IPCC, 2018, 'No or limited overshoot' scenario

<sup>18</sup> IPCC, 2018.

<sup>19</sup> Global Commission on Economy and Climate 2018: Unlocking the Inclusive Growth Story in the 21<sup>st</sup> Century: Climate Action in Urgent Times, NCE.

<sup>20</sup> Buchner B., et al., 2019: The Global Landscape of Climate Finance 2019, CPI

<sup>21</sup> Agriculture, forestry and land use have the specificity of being essential both mitigation and for adaptation purposes. Sustainable agro-ecological practices have the potential to provide multiple purpose solutions.

## ***EU background and experience in the sector***

The EU and its Member States remain the largest contributor of public climate finance to developing countries, including to the multilateral climate funds, with EUR 21.7 billion in climate finance for 2018. This is additional to finance directed towards environmental objectives. This figure includes climate finance sources from public budgets and other development financial institutions. It also includes EUR 2.65 billion climate finance from the EU Budget and the EDF, and EUR 2.97 billion from the EIB. Annex 2 provides a picture of climate finance at global level. It also provides further details on DEVCO's financial commitments towards climate action (adaptation and mitigation) across relevant sectors over the last years.

## **2. The proposed approach/ response (WHAT)**

In the context of the forthcoming Multiannual Financial Framework 2021-2027, the EU international cooperation will support partner countries in the implementation of mitigation actions in line with the Paris Agreement's objective to limit global temperature rise. As adverse climate impacts are already occurring and expected to increase, EU cooperation will also support actions towards adaptation and disaster risk reduction, in line with the Paris Agreement and the Sendai Framework, with a view to limiting adverse consequences of climate change, especially on the world's poorest and most vulnerable citizens. Strong and coordinated mitigation and adaptation actions need to ensure that future economic growth is socially inclusive and environmentally sustainable. Climate action will have to be systematically integrated with programmes targeting environment (including pollution), but also economic and social development (cf nature-based solutions, gender<sup>22</sup>), thereby fully contributing to the 2030 Agenda on Sustainable Development and the leave no one behind principle.

### **The main axis of intervention will be the following**

#### ***A) Mainstreaming climate objectives into EU cooperation across sectors and modalities***

To achieve the transition to a climate-neutral, circular and climate-resilient world, it is a priority that climate objectives and solutions are integrated across practically all sectors of our intervention from the design stage. Being Energy, Transport, Agriculture and food systems, Forestry, Oceans, Industry and manufacturing processes, Waste management, Public Finance Management, Private sector development, Trade, Conflict prevention, Health and Education. Specific actions in cities will also be key to advance climate smart solutions.

The good news is that, although some trade-offs between selected SDGs are likely to remain even after they are reduced to a minimum, the integration of measures contributing to climate change mitigation and adaptation offers multiple opportunities to reinforce other sustainable development goals – frequently delivering economic, social and environmental “co-benefits” such as cost savings, employment creation, pollution reduction, health benefits, ecosystem protection and more.

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<sup>22</sup> [https://www.un.org/womenwatch/feature/climate\\_change/](https://www.un.org/womenwatch/feature/climate_change/)

As far as mitigation is concerned, efforts to integrate or “mainstream” climate change should prioritise the largest emitting sectors. With regard to adaptation, efforts to integrate climate change should prioritise the most vulnerable sectors.

Multiple actions integrating climate goals into sector strategies have been identified in the other Green Deal guidance notes, namely on Green Energy Transition, Circular Economy, Biodiversity, Sustainable Mobility, AgriFood Systems, Forest Partnerships, Water and Oceans, Green and Smart Cities and Sustainable Finance<sup>23</sup>.

### ***B) Support the implementation of the Paris Agreement***

The EU will support the full implementation of the Paris Agreement with particular focus on:

- **Nationally Determined Contributions (NDCs) and Long-Term Strategies**: The EU will keep supporting partner countries in the revision and implementation of their NDCs and the development of long-term strategies, as regards both mitigation and adaptation aspects. Depending on partner countries’ needs, stage of development and emitter and vulnerability profile, the EU will prioritise its support to the implementation of mitigation and adaptation measures, or a combination of both - including their articulation with environmental policies (e.g. National Biodiversity Strategies and Actions Plans).
- **Monitoring, reporting and verification (MRV)**: MRV of countries’ efforts to combat climate change is the cornerstone of effective global efforts. The ability to base public policies for both mitigation and adaptation on robust data, including on the effectiveness of measures, supports effective development planning and implementation. The EU will work with partners to build capacity to generate and use data to plan and implement NDCs and/or consolidate their MRV capacity in order to ensure that as many developing countries as possible are ready to participate in the Paris Agreement’s Enhanced Transparency Framework by 2024.
- **International carbon market mechanisms** foreseen under art. 6 of the Paris Agreement: The EU supports a conclusion to Article 6 negotiations that allows all countries which so desire, to access carbon market mechanisms to lower abatement costs and to help finance sustainable development in new sectors and regions. The EU will share its technical expertise to tailor such policies and tools reflected in NDCs and will assist partner countries to be ready to join such mechanisms as part of broader economic and fiscal approaches to low carbon growth.
- **National Adaptation Plans (NAPs)**: The EU will keep supporting partner countries in the process of formulation, implementation and monitoring of their NAPs to enhance resilience at national and community level – including their articulation with environmental policies and plans and favouring deforestation free and nature based solutions.

### ***C) Enhance climate adaptation and disaster risk reduction in line with the Sendai Framework provisions and instruments***

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<sup>23</sup> Some examples of mainstreaming based on ongoing interventions are included for reference in Annex 3.

The EU will strengthen partner countries' resilience to disasters, including those associated with climate change, as well as their capacity to prepare and respond to disaster events with priority to most vulnerable regions (e.g. dryland areas in Africa, SIDS, LDCs):

- National disaster risk reduction strategies (NDRRS): The EU will keep supporting partner countries in the revision and implementation of their NDRRS in alignment with Sendai Framework targets and in coordination with the revision and implementation of NDCs and NAPs. This will include supporting comprehensive risk management approaches.
- Data analysis, collection and management: The EU will continue promoting the collection and sharing of climate related risk and disaster loss data and the strengthening, as appropriate, of international voluntary mechanisms for monitoring, assessing and reporting on disaster risks. The EU will work with partner countries to support the online Sendai Framework Monitor as the official reporting mechanism for states. The EU will also support partner countries' efforts to provide climate services through geo spatial information systems (e.g. Copernicus), being the collection of climate data to the development of products that help understanding climate impacts and support decision-making.
- Investment in disaster risk reduction (DRR) for resilience: Through its external action, the EU will promote risk-informed and climate-proofed investments, particularly on infrastructure and nature based solutions, as well as the use of innovative mechanisms for disaster risk analysis and financing. Integration of disaster risk and prevention in urban planning and expansion will be an important area of action in this sense. Investments will complement EU actions on other aspects of resilience, such as fragility, food security, and health and give special attention to vulnerable groups and community mobilisation.

#### *D) Promote economic policies fostering climate action*

The EU will support partner countries' governments to adopt fiscal, monetary, procurement and financial policies that favour climate change adaptation and mitigation. This could be achieved through policy dialogue, technical assistance or capacity building including on public financial management (PFM) in the context of **budget support operations** and Integrated National Financing Frameworks (INFFs) and through EU climate and Green Deal diplomacy efforts at all levels. Example of actions to be promoted include:

- Phasing out environmentally harmful subsidies (EHS): Subsidies can be useful economic instruments but become questionable when they are socially inequitable and environmentally harmful. The fiscal burden imposed by subsidies means fewer resources are available to fund alternative approaches, such as renewable energy technologies. The absolute value of fossil fuel subsidies remains large, estimated by the Global Subsidies Initiative (GSI) at around USD 400 billion in 2017. According to IMF estimates, in 2015 the introduction of carbon pricing and elimination of fossil fuel subsidies would have lowered global carbon emissions by 28% and air pollution deaths by 46%, as well as increasing governments' revenue by 3.8% of GDP<sup>24</sup>. Current lower fossil fuel prices mean that countries have a unique opportunity to remove subsidies for fossil fuels (and/or raise taxes on high

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<sup>24</sup> IMF Working Paper, Global Fossil Fuel Subsidies Remain Large: An Update Based on Country-Level Estimates, May 2019.



emission fuels) without any or limited additional impacts on the end-consumer. This could lower the risk of negative distributional effects and social unrest which frequently blocks reform.

The EU has a long-standing commitment to remove or phase out EHS, including fossil fuels, in line with international commitments under the G7 and G20. The EU, in close cooperation and coordination with the relevant stakeholders such as the International Monetary Fund (IMF) or the Organisation for Economic Cooperation and Development (OECD), should engage with partner countries in promoting conducive policy dialogue and support for EHS reporting and phase-out, noting significant benefits that could result to public budgets and encouraging the use of such benefits for more efficient and sustainable activities.

- Promoting carbon pricing and carbon market-based mechanisms: Although the rules to guide carbon markets under the Paris Agreement have not been finalised, they will build on the evolution of international carbon markets under the Kyoto Protocol flexibility mechanisms, which have delivered many economic and climate benefits. Carbon pricing via taxation or cap and trade schemes is a powerful incentive for the transition. The EU Emissions Trading Scheme (EU ETS) is a key instrument for driving the transition towards a climate neutral and circular economy. The EU should promote policy dialogue on how to effectively design and apply carbon pricing mechanisms covering activities that make a significant contribution to climate change, including compensating measures to correct for negative distributional effects. Similarly, under the auspices of the Farm to Fork Strategy, measures will be introduced on sustainability labelling to measure the climate and environmental footprint of agricultural products placed on the EU market.
- Mobilize additional public and private finance for climate action: to implement the Paris Agreement and the 2030 Agenda, additional investments across all sectors of the economy are needed. The regulatory measures and approaches developed at EU level on sustainable finance could provide pertinent elements for the design of fiscal, monetary, budgetary and development strategies of partner countries' governments (local and national) and international financial institutions. The EU should use sustainable finance tools such as the EU Taxonomy for sustainable activities and the future EU Green Bond Standard to maximise the mobilisation of domestic and international, public and private financing to support climate action in our partner countries consistent with the SDGs – including through the International Platform for Sustainable Finance (IPSF). This should be complemented by actions on regulatory frameworks and business environment to promote investments with positive impact on climate change and avoiding significant harm to other environmental objectives. The EU should also support partner countries in accessing climate finance from international sources, such as the Green Climate Fund, Adaptation Fund, and Global Environment Facility.
- Enhance disaster risk financing: the EU should engage with partner countries in order to promote the use of financing instruments for disaster risk reduction, to be mobilised either before or after a disaster strikes and addressing the evolving needs for funds, such as fiscal buffers, catastrophe bonds (CAT bonds), insurance of public assets, contingency funds, contingency credit lines, sovereign and private insurance. Investments will complement risk financing actions under humanitarian aid and disaster preparedness funding.

### 3. What does this mean in practice? (HOW)

Financial resources available to EU Delegations as part of the 2021-2027 programming period should be used to reduce the gap between countries' assessed mitigation potential and/or their assessed vulnerability and resilience needs and the objectives of their NDCs, long-term strategies (LTSs), NAPs and DRR strategies, in the context of sustainable development, with co-benefits for other SDGs

In line with EU climate diplomacy objectives, EU international cooperation and external action approach will be tailored to match partners' level of economic development, emissions profiles and climate vulnerability<sup>25</sup>:

- **Group 1:** countries accounting for increasingly large shares of global emissions that must be addressed as part of a Paris-aligned response to climate change (e.g.: China, India, Brazil, South Africa, Mexico, Indonesia, etc.);
- **Group 2:** emerging economies whose ascending emissions patterns can turn them into future large emitters behind the countries of the first group (e.g.: Iran, Thailand, Nigeria, Vietnam, Ukraine etc.). Development policy decisions in these low to middle-income countries may either lock in or avoid high future emissions. Other countries covered by enlargement and neighbourhood policies are also part of this group. They would not turn into large emitters as individual countries but cumulative and lock-in effects must also be addressed, within EU's specific cooperation frameworks;
- **Group 3:** countries that are highly vulnerable to climate change impacts and have poor capacities to adapt or to increase their resilience, and where the impacts already are or may become root causes of conflict or migration (LDCs, SIDS, etc.).

EU climate change funding support should prioritise policies and actions identified in partner countries' NDCs, using a mix of modalities:

- **Group 1:** focus on mitigation action through political and trade dialogues including for example negotiations for trade agreements, improved market access for low-carbon goods and services, carbon pricing, EHS removal and the development and implementation of carbon border adjustments; policy dialogue, partnerships between relevant stakeholders, and pilot projects.<sup>26</sup>
- **Group 2:** focus on sectoral policy dialogues including dialogue aimed at decreasing environmentally harmful subsidies; technical assistance on mitigation and adaptation; mitigation-focused project interventions to make countries' development paths less carbon intensive and towards zero pollution at an early stage (e.g. economic diversification) while also supporting adaptation and resilience, in particular through nature-based solutions.
- **Group 3:** focus on resilience building, adaptation actions and risk reduction initiatives.

Interventions will be implemented at the national and regional level with EU Delegations in the lead and under the responsibility of the DEVCO geographical service. The role of EU Delegations will be essential to assess and support the ambitions of our partner countries to truly integrate climate ambitions into their development policies.

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<sup>25</sup> See Annex 4 for a proposed grouping of countries.

<sup>26</sup> The policy dialogues for Groups 1 and 2 could include focused dialogue on Integrating NDC priorities into the national SDG-oriented development plan and financing strategies and policy instruments.

EU Delegations may engage in the following courses of action:

- **Support institutional development** by demand-driven and integrated **capacity building programmes** and encourage partner countries to further integrate their NDCs with their national development strategies. A number of technical assistance facilities are in place or in the process of being set by Headquarters to support EU Delegations in this endeavour and can be mobilised to improve formulation and implementation of EU funded interventions as well as enhance policy formulation in partner countries<sup>27</sup>.
- **Establish alliances with relevant global and regional initiatives.** Partner countries can benefit from capacity building, research, innovation and analytical tools developed by EU funded global and regional initiatives. Effectively deploying such tools through EUDs can support vulnerable nations in mitigation actions as well as in improving resilience and reduce risk related to disaster events.<sup>28</sup>
- **Project approaches** will continue to be suitable to address specific capacity needs and respond to governance challenges. Climate action could be supported in the form of stand-alone programmes or be mainstreamed into specific sectoral programmes (see Green Deal Policy Notes).
- **Twinning and TAIEX arrangements** to adjust and transfer the EU experience and good practices to the development context may be established where relevant.
- **Policy dialogue, technical assistance or capacity building including on public financial management (PFM)** in the context of budget support operations and in support of INFFS shall be used to promote fiscal and macroeconomic policies in line with EU climate diplomacy objectives.
- **Engaging on climate smart, zero pollution urban development.** Many of our partner countries are facing massive expansions of urban areas and urban infrastructure that represent a major area for the effective implementation of climate mitigation and adaptation strategies - including through initiatives such as the Global Covenant of Mayors.
- **Boosting climate change compatible investments** is required. Financing institutions and the private sector would need to take full account of this when proposing projects for financing. The role of the EU blending and bank guarantees facilities (EIP/EFSD+) would continue to be crucial as well as support to sustainable finance strategies (e.g. taxonomy, green bonds standards) and the promotion of the International Platform on Sustainable Finance. Co-financing with national, regional or global climate funds is also an option.

Specific risks related to fragile and conflict-affected countries should be taken into account and mitigated according to overall EU policy frameworks. The implementation of actions will be financed through future programmes under the NDICI geographical envelopes as well as ongoing relevant geographical and thematic programmes.

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<sup>27</sup> Ex. Environment and Climate Change Mainstreaming Facility; Global Climate Change Alliance Plus (GCCA+) Support Facilities (global and intra-ACP); Forest Facilities; B4Life on Biodiversity; Global Technical Assistance Facility for Sustainable Energy; Switch-to-Green and Water Facilities; Climate Services Technical Assistance Facility; NDC Support Facility (to be established in 2021)

<sup>28</sup> Ex. Global Facility for DRR (GFDRR); CREWS Initiative; InsuResilience Initiative; NDC Partnership; African Risk Capacity, Caribbean Catastrophe Risk Insurance Facility (CCRIF), Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI)

Strong technical coordination is foreseen with other relevant DGs, in particular DG CLIMA and DG ECHO, DG ENER, DG ENV and DG AGRI, as well as the EEAS.

An integrated European response in the framework of Team Europe country level Initiatives should be privileged.

#### **4. Communication and outreach**

The communication strategy will disseminate the ambitions as well as the challenges which the European Green Deal pursues among all EU partners. The EU will step up its cooperation with partner countries and provide integrated responses that ensure development is sustainable, looking at the interconnections with environment and natural resources, health, education and youth jobs and inequalities but also governance and migrations.

Communication activities will focus on how the EU's cooperation helps tackling climate change with an emphasis on results and on the Team Europe approach. Monitoring and evaluation systems on programmes will provide the necessary information for the elaboration of communication materials.

Communication and outreach will be fostered as well by means of sectoral dialogue, sector steering arrangements, stakeholder (public/private) and beneficiary consultation/participation, amongst others, with the objective of promoting climate change mainstreaming and climate action integration in national and regional policies and action plans.

## **ANNEXES**

**ANNEX 1: Greenhouse Gas Emissions Data**

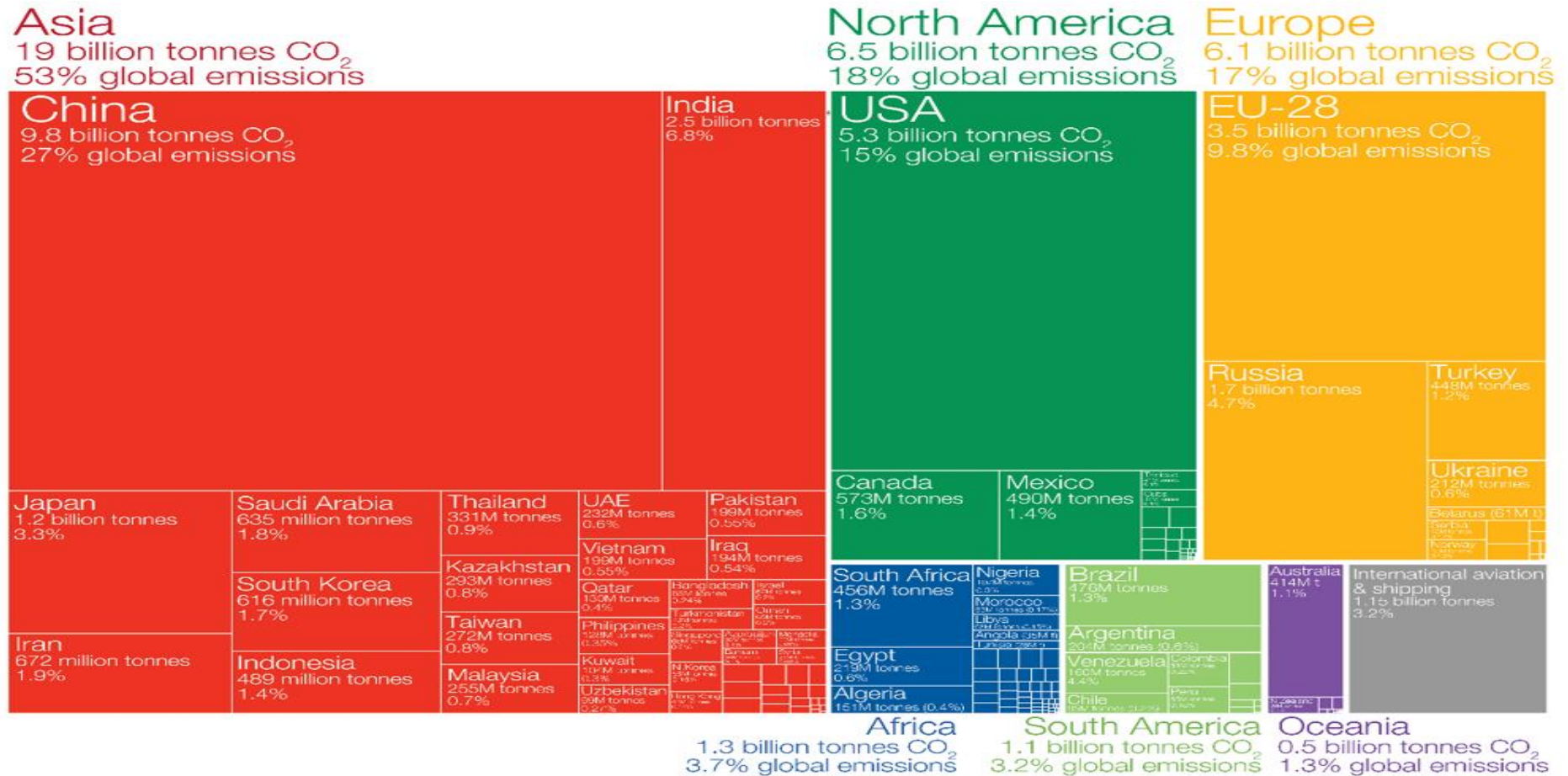
**ANNEX 2: Global climate finance and the EU contribution to climate action and DRR 2014-2019**

**ANNEX 3: Integrating climate change in sector policies and actions: examples of measures across sectors**

**ANNEX 4: Indicative country types**

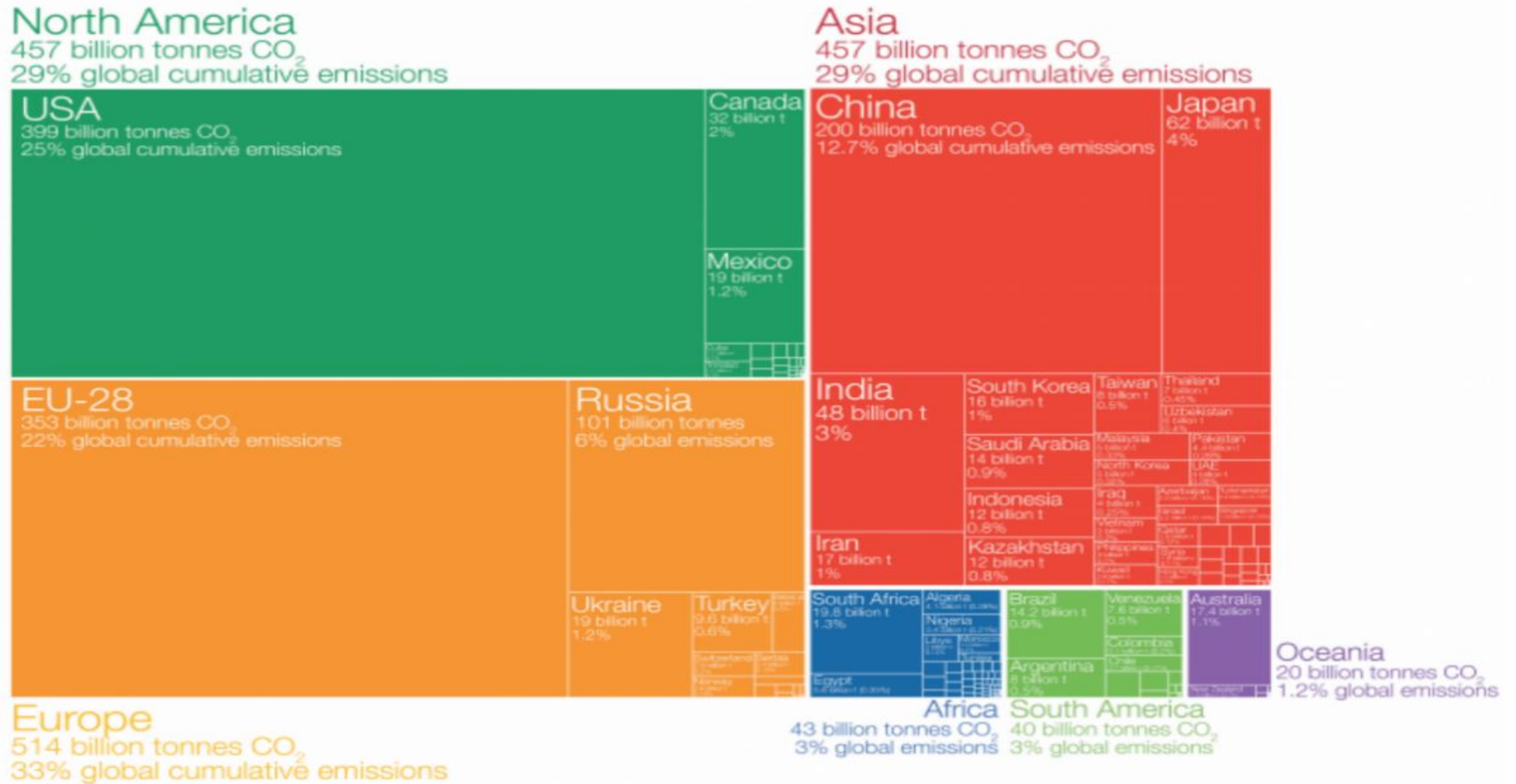
## ANNEX 1: GHGs EMISSIONS DATA

Figure 1: Global CO<sub>2</sub> Emissions in 2017

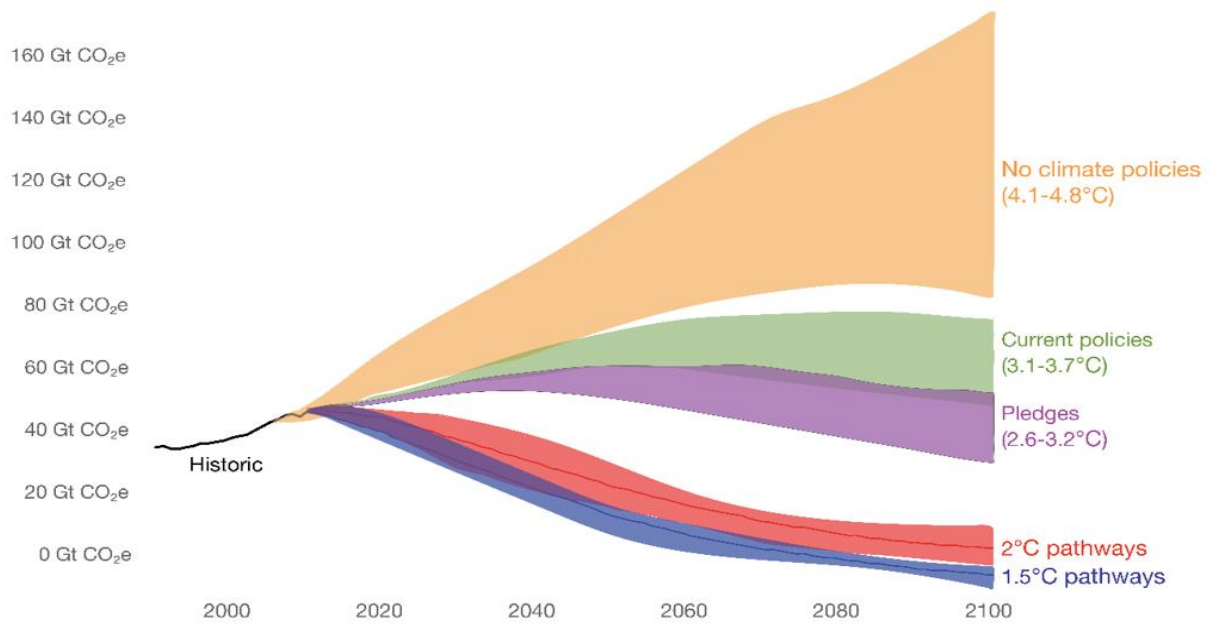


Sources for Figures 1 and 2: Global Carbon Project, visualized by Our World in Data.

**Figure 2: Cumulative (historically) global CO<sub>2</sub> Emissions**



**Figure 3: Projecting Global GHG Emissions' Scenarios Commitments to Temperature Outcomes**



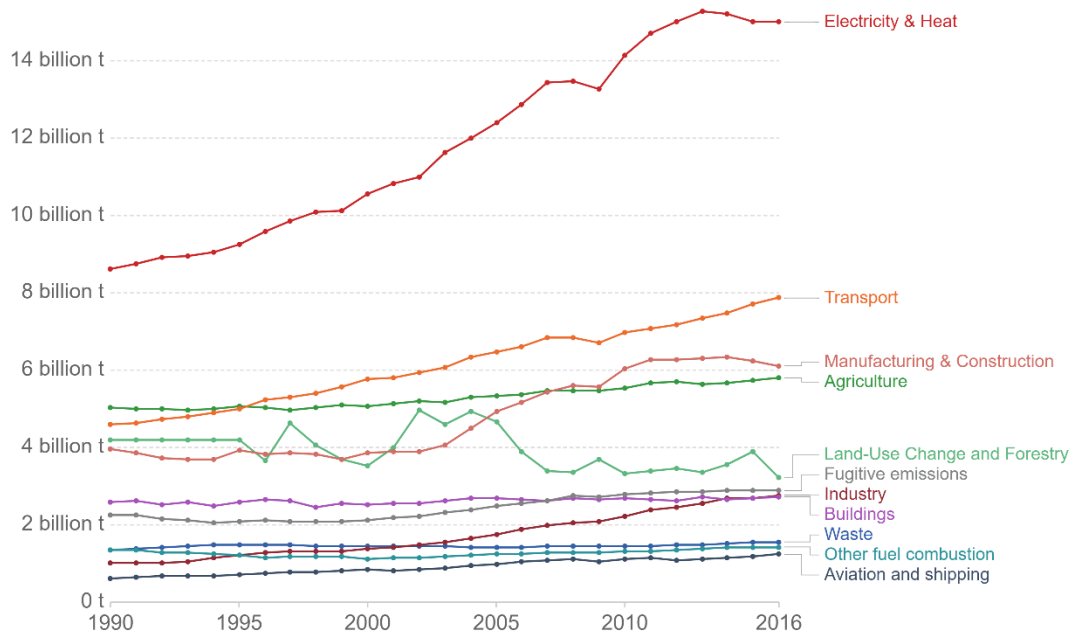
Source: Carbon Action Tracker visualised in Our World in Data

Figure 3 illustrates the likely impact of different emissions scenarios on arresting or increasing rates of global warming. The Scenario in purple, titled ‘pledges’, represents the actions currently table in countries’ NDCs. Many of these are not yet implemented and exceed by far existing Paris Agreement goals to hold temperature rises below 2°C, or 1.5°C.

**Figure 4: CO2 Emissions by Sector, 2017**

Greenhouse gas emissions by sector, World

Greenhouse gas emissions are measured in tonnes of carbon dioxide-equivalents (CO<sub>2</sub>e).



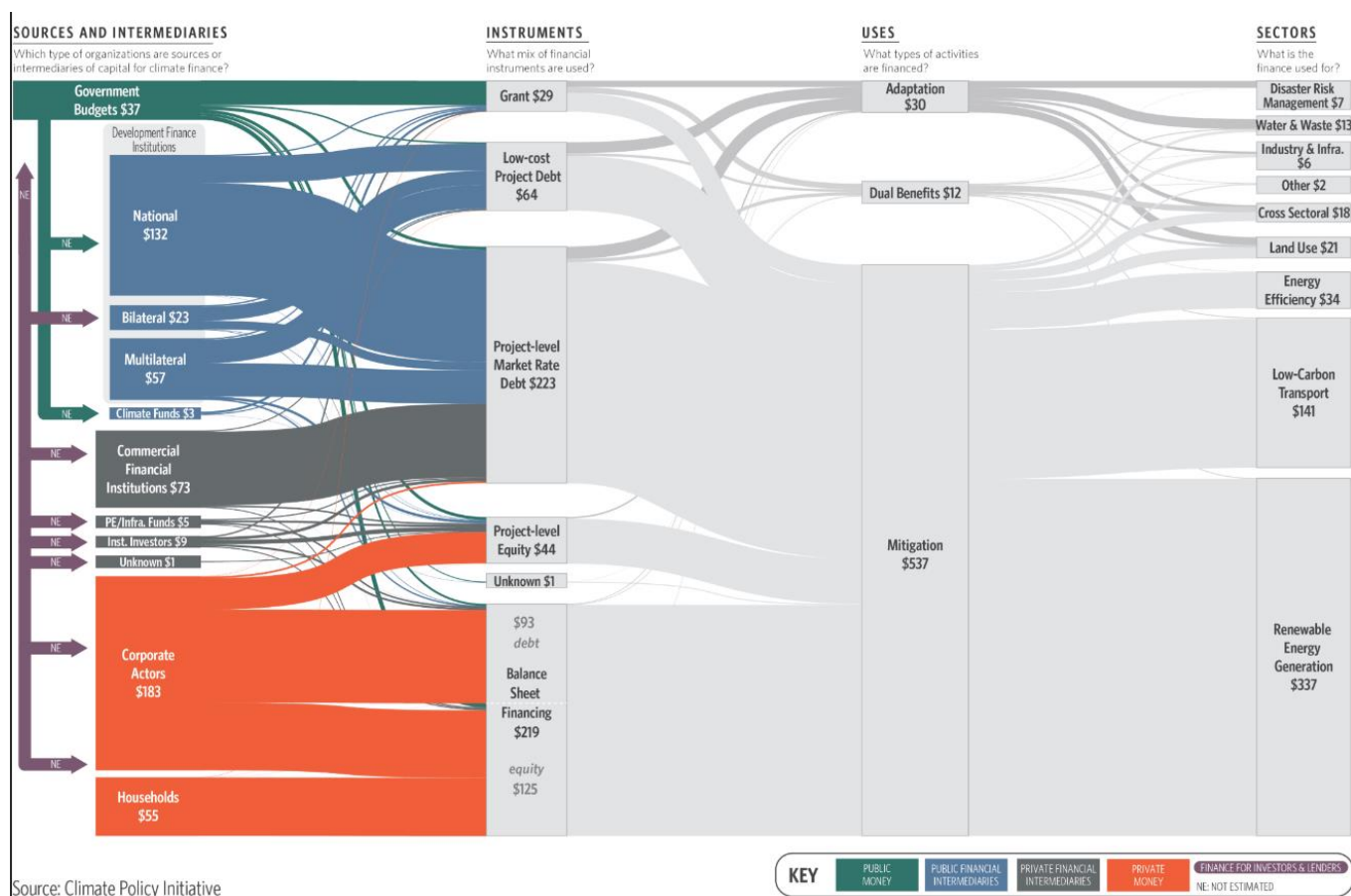
Source: CAIT Climate Data Explorer via Climate Watch OurWorldInData.org/co2-and-other-greenhouse-gas-emissions • CC BY

Source: Our World in Data based on CAIT 2.0



## ANNEX 2: GLOBAL CLIMATE FINANCE AND THE EU CONTRIBUTION TO CLIMATE ACTION AND DRR (2014-2019)

Figure 1: The Global Landscape of Climate Finance



To achieve the scale of transition required, finance from multiple sources, public and private, is needed. Figure 1 illustrates the global landscape of climate finance from sources to end uses in 2018:

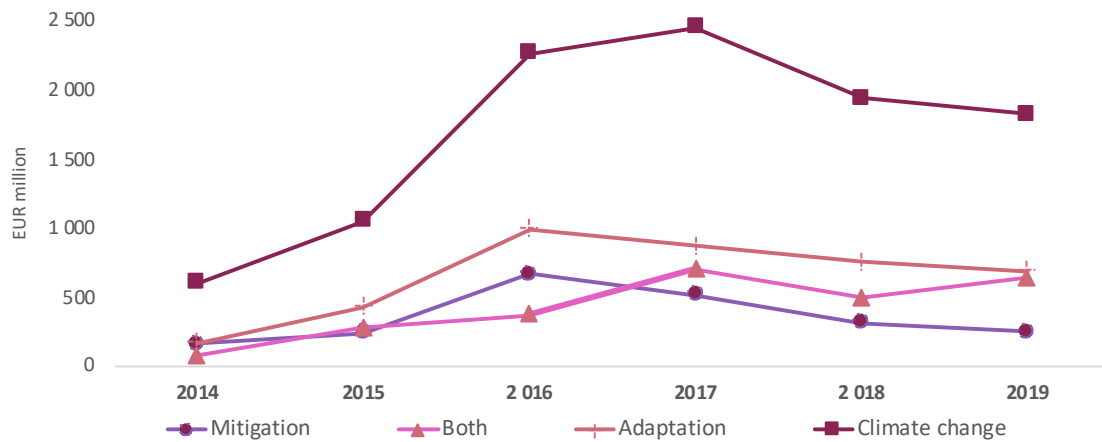
- Total finance in 2017/18 reached USD 579 billion
- Finance for mitigation reached USD 537 billion or 93% of total flows. Adaptation finance reached 5% with USD 30 billion. A growing share, 2.1%, was markets adaptation and mitigation.
- Private actors contributed USD 326 billion of the total while public actors provided USD 253 billion.

**The EU is the largest source of global climate finance with EUR 21.7 billion in 2018 alone.** This is additional to finance directed towards environmental objectives. This figure includes climate finance sources from public budgets and other development financial institutions. It also includes EUR 2.65 billion climate finance from the EU Budget and the EDF, and EUR 2.97 billion from the EIB.

DEVCO elements of the EU's international climate finance and between 2014 and 2019 contributed a total of € 10.150 billion to international climate finance (Figure 2 below). Since 2014 the DEVCO managed climate finance contributions have increased by almost 15 % and DEVCO is currently on track to meet the EU target of dedicating 20% of total commitments over the period and including 2020, to climate change action. Since 2016,

21% has targeted mitigation, and 39% adaptation. A growing proportion targets both outcomes (41%).

**Figure 2: DEVCO Contributions towards climate action 2014-19**



**Figure 3: DEVCO commitments towards climate action by Sector 2014-19**

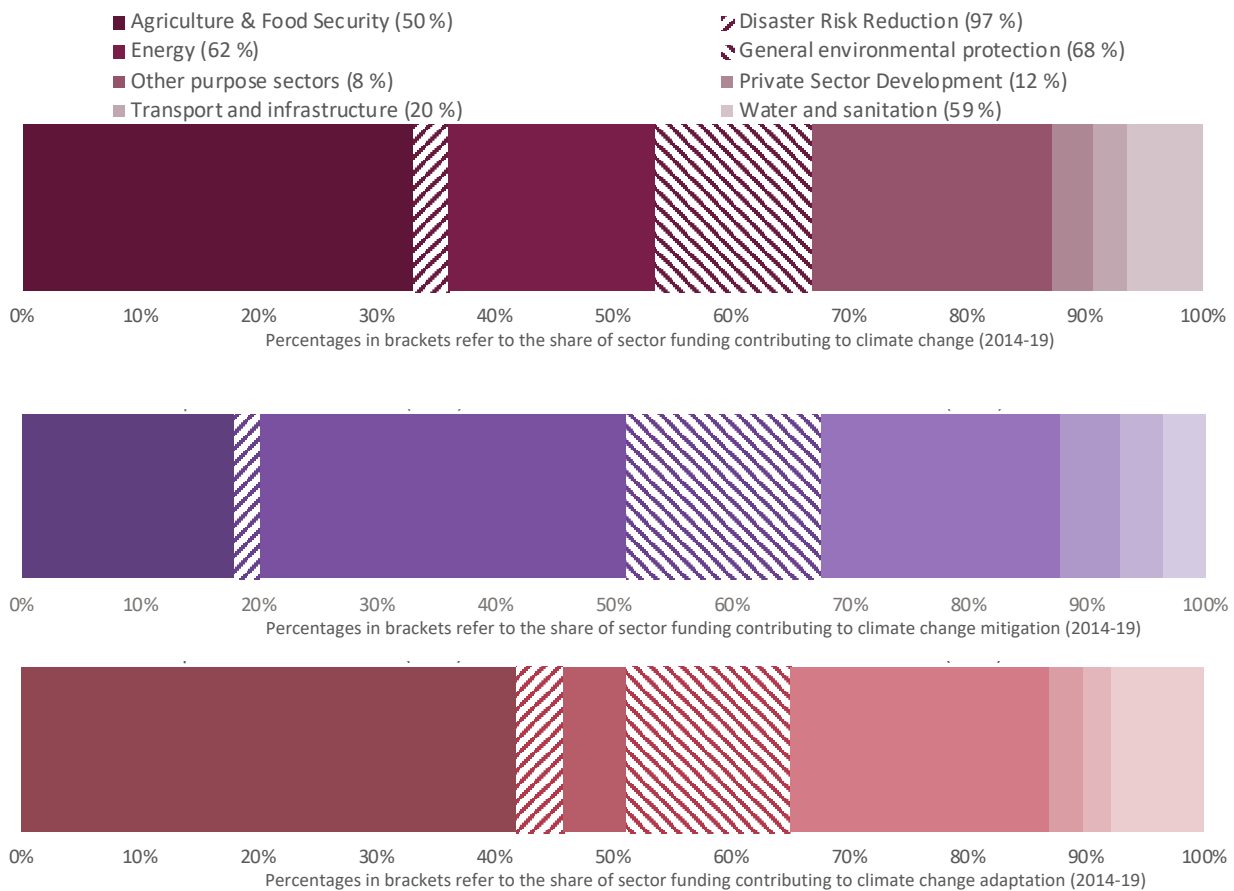
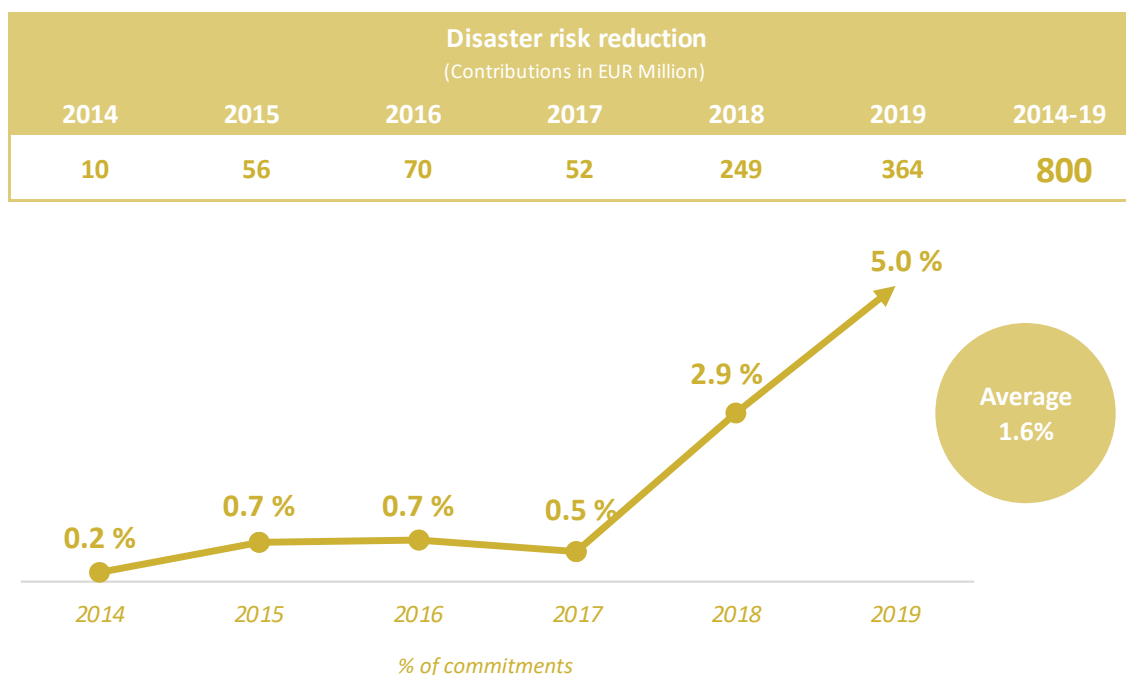


Figure 3 breaks down DEVCO managed aid contributions by climate relevant sector. The brackets indicate that while not all can be counted as climate finance, for example if it supports fossil-fuel power generation in the energy sector or some forms of agriculture

subsidies, much of the overall amount can. Agriculture and food security contributions reached €3.361 billion, followed by energy (no including transport) with € 1.793 billion and general environmental protection (€1.336 billion) together account for 67% of the contributions to climate action. It is important to note that agriculture and food security, energy and transport, are all highly climate relevant sectors, suggesting there may be significant untapped opportunity to ‘green’ up some billions of EU overseas development assistance in these sectors.

**Figure 4: EU contributions to disaster risk reduction (2014-2019)**



**Between 2014- and 019, 1.6% or €800 million of DEVCO managed EU climate finance flowed to Disaster Risk Reduction (DRR)** (Figure 4). DEVCO uses the OECD-DAC disaster risk reduction (DRR) marker to track the value, use and destination of financial contributions with DRR as a ‘significant’ or ‘principal’ objective. Of the total 32% (€259million) was marked as ‘significant’ with the remaining 68% (€542 million) a ‘principal objective’. The sharp increase in contributions since 2017 is partly due to increased number of post-emergency actions that responded to extreme weather events. In fact, 86% of the actions marked for DRR are climate change relevant.

DRR makes up around 2% of total EU overseas development assistance flows. Africa is the largest beneficiary of DRR-related EU climate finance and received around €344 million between 2014 and 19. This represented 7 % of EU aid to the region over the same period. SIDS in the Americas received a relatively large share with €218 million, much of which responded to extreme events including Hurricanes Maria and Irma. **Error! Reference source not found.**

## ANNEX 3: INTEGRATING CLIMATE CHANGE IN SECTOR POLICIES AND ACTIONS

**Table 1 – Climate change mitigation examples in key GHG emitting sectors**

Sector	Examples of mitigation options
Energy	<ul style="list-style-type: none"> <li>• Develop on-grid and off-grid renewable energy sources (RES) with a view to meeting growing energy needs and securing access to energy for all while phasing out fossil fuels</li> <li>• Phase out fossil fuel subsidies (and consider a carbon tax or equivalent)</li> <li>• Upgrade power grids and develop energy storage systems to accommodate a growing share of intermittent RES (solar, wind) in the energy mix</li> <li>• Reduce accidental leakages (“fugitive emissions”) of methane in the oil and gas sector (exploration, extraction, processing and transport)</li> <li>• Promote energy efficiency measures across the board, on the supply side (e.g. in power generation and transmission) as well as the demand side (e.g. improved energy performance of engines, vehicles, buildings, infrastructure and equipment, electrical appliances)</li> <li>• Promote access to clean (ideally non-biomass) cooking and heating fuels – and where biomass remains in use, the utilisation of fuel-efficient cook stoves</li> </ul>
AFOLU	<ul style="list-style-type: none"> <li>• Prevent further agricultural encroachment on carbon-rich ecosystems (such as peatlands, forests, wetlands) by sustainably intensifying agriculture</li> <li>• Improve cropland and grazing land management (e.g. conservation agriculture, agroforestry, mixed crop-livestock systems, perennial cropping systems, reduced tillage, residue retention, revegetation, improved grazing management), and restore cultivated peatlands and degraded lands, to enhance their carbon sink potential</li> <li>• Reduce methane emissions from the agricultural sector through livestock feeding and breeding practices that reduce enteric fermentation (in particular by ruminants), improved manure management, and improved rice cultivation practices (e.g. periodic or mid-season draining, intermittent irrigation)</li> <li>• Reduce nitrous oxide emissions by improving manure management and fertiliser application practices</li> <li>• Reduce deforestation and forest degradation (notably associated with woodfuel supply), and promote afforestation, reforestation, forest restoration and sustainable forest management (including sustainable woodfuel plantations)</li> <li>• Promote the use of agricultural and forestry residues for energy production</li> </ul>
Transport and sustainable mobility	<ul style="list-style-type: none"> <li>• Phase out fossil fuel subsidies and consider a carbon tax or equivalent - compensating eventual negative distributional effects on poor segments of population with revenue and/or spending measures</li> <li>• Gradually promote more stringent emission standards for all vehicles as well as ships and airplanes – and where low-carbon electricity is available, encourage and facilitate the uptake of electric vehicles</li> <li>• For passenger transport, promote the development of reliable, affordable, and if possible decarbonated or low-carbon public transport options as a substitute for individual car transport – and where relevant (i.e. mostly in urban and peri-urban areas), also promote the use of non-motorised options</li> <li>• For freight, promote multimodal approaches involving rail and waterborne transport, including short sea shipping where feasible</li> <li>• For both, promote the production and deployment of sustainable alternative (i.e. non-fossil) transport fuels</li> </ul>

Sector	Examples of mitigation options
Industry	<ul style="list-style-type: none"> <li>• Promote sustainable production models also through circular economy approaches and by increasing resource and energy efficiency in industrial production and manufacturing</li> <li>• Promote the use of RES for powering industrial production processes</li> <li>• Where GHG emissions (other than those associated with energy use) are an intrinsic feature of industrial processes (e.g. in iron and steel making, cement, lime and glass production, ammonia and other chemical / petrochemical product manufacturing from fossil fuels, semiconductor production), mandate the adoption of best practices or promote new technologies (e.g. electrification of steelmaking) that reduce emissions</li> <li>• Where GHGs are integrated in industrial and/or consumer products (e.g. refrigerators, foams, aerosol cans, electrical equipment), promote the uptake of safe, greener alternatives where they exist, or support the development of systems for GHG recovery at the end of product life</li> </ul>
Waste	<ul style="list-style-type: none"> <li>• Promote waste prevention and reduction across all sectors (e.g. product and material reuse, lighter packaging, resource-efficient manufacturing processes, improved food storage facilities, food waste prevention)</li> <li>• Encourage recycling and, for organic waste, composting</li> <li>• Promote energy recovery from waste, with the recovered energy used for heat and power generation (“waste-to-energy”) (e.g. anaerobic digestion of organic waste, including wastewater sludge, to produce biogas; or waste combustion as a partial substitute for fossil fuels in power plants, industrial boilers and cement kilns)</li> <li>• Where landfilling cannot be avoided, support landfill gas recovery and use as a source of energy</li> <li>• Strongly discourage unmanaged open-air dumping and low-temperature burning (common in developing countries)</li> <li>• Switch to RES to power waste and wastewater collection and treatment</li> </ul>

**Table 2 – Climate change adaptation options in climate-vulnerable sectors**

Sector	Examples of adaptation options
Agriculture and food security	<ul style="list-style-type: none"> <li>• Adapt the range of crops and livestock breeding activities to match changes in agro-climatic zones</li> <li>• Adjust seeding/planting, harvesting and grazing periods to take account of new seasonal patterns</li> <li>• Develop water harvesting, wastewater recycling and reuse in farming and market gardening, sustainable and water-efficient irrigation systems, livestock watering points</li> <li>• Promote techniques that improve the climate resilience of crops and livestock and reduce soil erosion (e.g. drought-, heat-, flood- or salinity-resistant crop varieties, drought- and heat-resistant animal species, sustainable land management and erosion control techniques, conservation agriculture, agroforestry and other agroecological techniques, integrated pest management, diversification of forage / feed sources, ventilation of buildings that house livestock)</li> <li>• Improve the availability of climate-smart extension and veterinary services</li> <li>• Facilitate farmers’ access to financial services including insurance</li> <li>• Promote the diversification of producers’ livelihoods and income sources</li> </ul>

Sector	Examples of adaptation options
	<ul style="list-style-type: none"> <li>• Develop approaches for preventing the emergence of and managing land- and water-related conflicts (e.g. between farmers and pastoralists)</li> <li>• Develop agro-hydro-meteorological services, and early warning systems for disaster risks and food insecurity</li> <li>• Strengthen drought and flood management systems</li> <li>• Set up mechanisms for averting and responding to climate-induced food crises (e.g. food security information systems, maintenance of strategic food stocks, regional cooperation mechanisms, scalable social safety nets)</li> </ul>
Fisheries and aquaculture	<ul style="list-style-type: none"> <li>• Map changes in the range of fish species, strengthen the monitoring of fish stocks, and adjust fishing quotas to the size and evolution of fish stocks</li> <li>• Develop a network of marine protected areas where all fishing is banned</li> <li>• Protect and if necessary restore fish breeding areas, and more generally, protect coastal ecosystems and wetlands</li> <li>• Implement measures aimed at preserving the availability and quality of freshwater resources used for aquaculture</li> <li>• Facilitate fishermen's and fish farmers' access to financial services including insurance</li> <li>• Promote the diversification of fishermen's and fish farmers' livelihoods and income sources</li> </ul>
Water supply and sanitation	<ul style="list-style-type: none"> <li>• On the demand side, promote improvements in water use efficiency (including through water metering and pricing and the use of water-saving devices), recycle and reuse municipal wastewater</li> <li>• On the supply side, extend and develop piped and point source water supply systems to service un- and underserved areas, protect or rehabilitate groundwater recharge areas, invest in rainwater harvesting systems, sustainably develop new sources of freshwater, desalinate seawater or brackish water using RES</li> <li>• Climate-proof water supply, sanitation and wastewater treatment infrastructure, and adapt their design to accommodate fluctuating water and wastewater volumes</li> <li>• To maintain water quality and protect health, develop or enhance water supply treatment infrastructure, systematically develop sanitation infrastructure along with water supply infrastructure, and protect water sources from contamination by flood water and other pollution sources</li> <li>• Systematically match the development of irrigation with support for the adoption of good farming and irrigation practices</li> <li>• Implement integrated water resources management (IWRM) and integrated watershed management approaches at various scales, and use nature-based solutions such as watershed revegetation (for groundwater recharge and flood prevention) and wetland restoration (for water purification)</li> <li>• Reallocate existing water rights among users, devise more equitable, efficient and transparent ways of allocating these rights, and develop approaches for preventing the emergence of and managing water-related conflicts</li> <li>• Monitor water resources, and develop hydro-meteorological services and early warning systems for droughts, floods and water stress</li> </ul>
Ecosystems and biodiversity	<ul style="list-style-type: none"> <li>• Implement ecosystem protection and restoration measures (e.g. increased number and size of land-based and marine protected areas, maintenance of a critical mass of diversified natural ecosystems connected by green corridors, restoration of damaged ecosystems)</li> </ul>

Sector	Examples of adaptation options
	<ul style="list-style-type: none"> <li>• Improve natural resources governance (e.g. bio-based and green infrastructure approach to land use planning and management, clarification of property rights and access to resources, enforcement of environmental legislation, monitoring of ecosystem change and biodiversity loss, economic valuation of ecosystem services, promotion of “payment for environmental services” mechanisms)</li> <li>• In forestry, alter the mix of tree species, gradually switch to species better adapted to the new climatic conditions, adopt harvesting techniques that reduce soil erosion and the incidence of wildfires, adjust and strengthen fire management systems and procedures, improve insect control techniques</li> </ul>
Coastal zone management	<ul style="list-style-type: none"> <li>• Implement integrated coastal zone management (ICZM) practices, with specific attention to coastal erosion prevention (e.g. by banning sand mining from beaches and dunes), flood control measures, flood and storm disaster risk management</li> <li>• Strengthen natural coastal defences (e.g. sand dune strengthening, mangrove, coral reef and seagrass restoration) and/or build man-made sea defences (with due regard for environmental sustainability and possible impacts on other parts of the coastline)</li> <li>• Improve water resource management practices to avoid or slow down the salinization of coastal aquifers</li> <li>• In vulnerable coastal and delta areas where coastal protection is not feasible or affordable, adopt “managed retreat”</li> </ul>
Sustainable urban development and infrastructure <sup>29</sup>	<ul style="list-style-type: none"> <li>• Plan and manage urban development with climate resilience in mind, e.g. through effective land use planning to reduce vulnerability, prevention of informal settlements in high-risk areas, extension of water supply and sanitation infrastructure to un- and underserved neighbourhoods, careful siting and climate-proofing of essential infrastructure, integration of green spaces for microclimate regulation, development of green infrastructure and adequately sized drainage infrastructure for flood prevention, provision of access to safe land and shelter, diversification of energy, water and food supply sources, etc.</li> <li>• In both urban and rural areas, integrate climate change considerations in the planning and siting of all new infrastructure (e.g. high carbon sequestration forests and soils, avoidance of flood- or fire-prone areas, use of medium-to long-term rainfall projections to inform the capacity of hydropower plants and reservoirs or drainage infrastructure)</li> <li>• Climate-proof existing infrastructure, and build all new infrastructure to standards that ensure its resilience to current and anticipated extreme weather events (e.g. application of storm-, flood- or fire-proofing standards or measures, effective insulation, installation of energy-efficient or RE-powered cooling systems)</li> <li>• Promote disaster preparedness at various levels of government (local and national), in utilities and in other organisations in charge of infrastructure management</li> </ul>
Health	<ul style="list-style-type: none"> <li>• Climate-resilient health infrastructures, improve the insulation of buildings, equip them with (energy-efficient) air conditioning systems, safely access and store clean water and diversify energy sources to ensure availability at times of supply interruption</li> </ul>

<sup>29</sup> Including transport, energy, ICT, water and sanitation, health and education infrastructure, as well as industrial, commercial and tourism facilities, government buildings and housing.

<b>Sector</b>	<b>Examples of adaptation options</b>
	<ul style="list-style-type: none"> <li>• Invest in clean and renewable sources of energy to tackle air pollution</li> <li>• Adapt or upgrade storage and distribution systems for drugs, vaccines, medical supplies and equipment for increased resilience to climate</li> <li>• Improve access to health services for the most vulnerable populations</li> <li>• strengthen primary health care provisions and access to family planning services and SRHR</li> <li>• Strengthen programmes aimed at fighting the effects of malnutrition</li> <li>• Develop or enhance systems for monitoring drinking water, food and air quality, and enforce quality standards</li> <li>• Promote water, sanitation and hygiene (WASH) good practices in communities and schools and as part of public health care programmes</li> <li>• Develop, test and build capacity for emergency preparedness</li> <li>• Develop epidemiological surveillance and early warning systems for climate-sensitive vector-and water-borne diseases in support of disease outbreak preparedness</li> <li>• Develop heatwave-related health action plans</li> </ul>



## ANNEX 4: INDICATIVE COUNTRY TYPES

