

CAN EUROPE'S POSITION ON EU CLIMATE TARGETS AND AN EQUITABLE GREENHOUSE GAS EMISSION BUDGET FOR THE EU

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Climate Action Network (CAN) Europe is Europe's leading NGO coalition fighting dangerous climate change. We are a unique network, in which environmental and development organisations work together to issue joint lobby campaigns and maximise their impact. With over 200 member organisations active in 40 European countries, representing over 1,700 NGOs and more than 40 million citizens, CAN Europe promotes sustainable climate, energy and development policies throughout Europe.

EXECUTIVE SUMMARY

To align with the Paris Agreement 1.5°C, the EU should reduce its domestic greenhouse gas emissions by at least 65% gross reductions compared to 1990 levels by 2030 and increase net removals in the LULUCF sector to at least 600 MtCO2e by the same date and maintain them at least at this level thereafter (therefore achieving at least 76% net emission reductions by 2030). The EU should reach net zero by 2040 at the latest based on at least 92% gross emission reductions. Furthermore, the EU should commit to adopt 5-year policy cycles and establish a 2035 climate target and NDC of at least 82% gross (at least 94% net) emission reductions relative to 1990.* The EU should establish separate targets for a) greenhouse gas emission reductions, b) net sequestration in the LULUCF sector, c) permanent industrial removals, and vastly increase its international climate finance and support for cooperation measures. Ensuring nature protection and a just transition is key in the implementation of these climate targets.

The 200+ CAN Europe membership supports the Paris Agreement's call to limit temperature rise to 1.5°C as the only acceptable threshold to avert even more dangerous climate change, based on the social and economic opportunities of the zero-carbon transition and the growing evidence of extreme impacts of climate change. Currently, global temperature increase is moving dangerously close to the 1.5°C threshold. With warming already of 1.2°C, action and ambition of the EU remain insufficient. The EU Climate Law requires the European Commission to present by May 2024 a proposal for a 2040 climate target and an indicative greenhouse gas emission budget for the period 2030-2050. Furthermore, at COP26 in Glasgow the EU committed to present, at the latest by 2025, a new climate target (NDC - Nationally Determined Contribution) for 2035. This is why CAN Europe is updating its position on EU climate ambition, as set out in this paper.

Based on the most recent science available and equity principles of historical responsibility and

capacity to act that underpin the Paris Agreement, the European Union needs to act in accordance with its equitable share of any remaining greenhouse gas budget. In light of the EU's role as a major historic emitter and a wealthy region, implementing steep domestic net emission reductions alone will not be sufficient to achieve this; additional support for mitigation to countries in the Global South, in the form of climate finance and other means of implementation needs to be provided.

CAN Europe calls for the European Union and its Member States to:

- Recognise that the only acceptable temperature target is to limit temperature rise to 1.5°C, which means that global greenhouse gas emissions need to be substantially and immediately reduced so that the world can be fully decarbonised by the middle of this century.
- Adopt immediate urgent actions additional to the Fit for 55 agreements to enable steep emission reductions in the short term and move substantially beyond the inadequate 55-57% net EU emission reductions target for 2030, enabling the EU to achieve at least 65% gross emission reductions by 2030, compared to 1990 levels, with a maximum of 1758 MtCO2e gross emissions in the year 2030. Based on at least 600 MtCO2e annual net sequestration in the LULUCF sector, the overall EU net reduction therefore shall equate to at least 76% net emission reductions by 2030 compared to 1990 levels.
- Align the EU climate policy cycles with the 5-year common time frames agreed at UNFCCC-level, including by establishing a 2035 climate target and NDC of at least 82% gross emission reductions, compared to 1990 levels, with a maximum of 900 MtCO2e gross emissions in the year 2035. Based on at least 600 MtCO2e annual net sequestration in the LULUCF sector, the overall EU net reduction therefore shall equate to at least 94% net emission reductions by 2035 compared to 1990 levels.
- Adopt a target to achieve domestic net zero greenhouse gas emissions (100% net emission reductions) in the EU by 2040 at the latest, based on at least 92% gross emission cuts, compared to 1990 levels, with a maximum of 419 MtCO2e gross emissions in the year 2040.
- Define the EU greenhouse gas budget considering the EU fair share along the following principles: alignment with a high likelihood of meeting the 1.5°C limit; a focus on the 2020-2050 timeframe, not starting only in 2030; factoring in historical responsibility and capacity to act; acknowledgement of the role of consumption-driven emissions.
- The definition of the EU's greenhouse gas budget and climate targets must be based on the latest available science. CAN Europe welcomes the advice provided by the European Scientific Advisory Board on Climate Change (ESABCC) which underlines the need for the EU to further accelerate climate action in the near and long term in order to get on a path consistent with the 1.5°C temperature rise limit.
- Deliver steep domestic net emission reductions in order to stay within a limit of approximately 27.5 GtCO₂e cumulative greenhouse gas emissions, including LULUCF, in the period 2020-2050. Ensure regular reviews of the targets above based on actual emissions so as to ensure total cumulative emissions in the period 2020-2050 do not go beyond the 27.5 GtCO₂e budget.

- As these domestic efforts are not sufficient to fulfill the EU's fair share of any remaining global budget taking into account historical responsibility and capacity to act, it will be necessary for the EU to deliver significant additional support to enable mitigation in Global South countries, through climate finance and other means of implementation (technology transfer, technical assistance, capacity building). This additional support should not undermine ambition on domestic action and should not divert resources from adaptation and loss and damage climate finance obligations.
- Adopt a separate at least 600 MtCO₂e annual target for net sequestration in the LULUCF sector by 2030 and maintain it at at least the same level up to 2040. This requires significantly increased action for nature protection and restoration and a rapid expansion of ecological farming and forestry practices that are a win-win for climate and biodiversity and that are in full support of human, economic, social and cultural rights. This includes significantly reducing EU production and consumption of animal products, reforming of bioenergy rules and supporting a just transition in the land use sector.
- After a thorough assessment of the risks, benefits and trade-offs, adopt a separate
 permanent industrial removal target for 2040. The scale of the industrial removal
 target should be a result of a rigorous impact assessment conducted in a holistic
 and interdisciplinary manner taking into account all potential impacts of industrial
 removals on planetary boundaries (including land and water use and pollution,
 indirect land use change, biodiversity and biosphere integrity) and on energy
 consumption and human rights.
- When defining the EU's level of ambition, fully acknowledge the co-benefits of early and ambitious climate action, and the societal costs of delayed or lack of action.
- Ensure the transition is fair and just, globally, as well as within the EU, tackling
 existing inequalities and addressing the needs of the poorest and most vulnerable
 households, communities and regions at national and international level, and
 applying strong environmental and social safeguards to the measures to be
 implemented.
- The European Commission should consider potential implications of the enlargement of the Union, and identify dedicated financial and administrative support to candidate countries, to ensure the necessary policies and measures are put in place to meet climate objectives. This should include leveraging existing mechanisms, such as the Green Agenda for the Western Balkans and the Energy Community Treaty. In addition, any potential adjustment of the EU targets should ensure no decrease in ambition for EU Member States, or the accessing countries.
- EU targets to date only cover emissions within the EU. Targets should also account
 for and address consumption-based emissions occurring outside of the EU and
 contribute to a sustainable and fair natural resources management by addressing
 climate and resources/materials in an integrated way.

INTRODUCTION

Our world is warming and the impacts of climate change are more and more visible, also in Europe. The recent heat waves, droughts, forest fires, flooding, failed crops, and so on are all features we will need to cope with more and more in the coming years. And while the damage in Europe is already significant and devastating, people suffer even more disastrous impacts in many vulnerable countries and communities around the world, which have contributed much less or negligibly to causing climate change.

From the impacts that we are witnessing with the current +1.2°C warming¹ and the available science, CAN Europe concludes that we have already gone beyond the limit to keep our planet and humanity safe and that, even with 1.5°C of warming, the world is going to experience worse and more frequent impacts such as extreme weather events and rising sea levels. The recent IPCC synthesis report of the Sixth Assessment Report underlines that with incremental global warming, the risk of irreversible damage and coming close to or even crossing systemic tipping points increases accordingly.

Faced with the climate crisis, the EU <u>declared a climate emergency</u> and agreed in 2020 to reach at least 55% net emissions reductions by 2030 compared to 1990 levels and net zero greenhouse gas emissions by 2050. Through the revised <u>EU climate policy framework agreed under the 'Fit for 55' package</u> implementing legislation between November and December 2022, the EU could slightly overachieve its 2030 goal reaching 57% net emission reductions. However, this current level of ambition is still hugely inadequate to meet the required EU emission reductions to align with the Paris Agreement 1.5°C limit and equity principles.

Both the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement emphasise the need for countries to act faster based on their historical responsibilities for greenhouse gas emissions and their economic capabilities to act. It is clear that the EU has both greater than average historical emissions and greater than average GDP/capita, and so it should accept that it needs to act faster than others. Luckily, the EU also has an abundant potential to act fast.

The EU needs to undertake a steep reduction in greenhouse gas emissions from all sectors. This will require a very rapid transition to a 100% renewable energy system, a fast phase-out of the use of fossil fuels² and a significant reduction of demand for energy and materials. The EU should also take decisive action to reduce emissions from land use, land use change and forestry, while increasing the capacity of our forests, wetlands, grasslands and farmlands to remove carbon from the atmosphere. This should be done through much greater efforts to conserve and restore these ecosystems and enhance their natural carbon removal capacity through ecosystem and forest landscape restoration. Furthermore, to avoid the most dangerous impacts of climate change, industries and people in Europe also need to strongly invest in order to adapt production and consumption models to make them compatible with planetary boundaries, such as in the fields of transport, buildings and agriculture, as well as fully support the further development of the circular economy.

The proposed solutions offer multiple benefits in terms of economic development, employment, health improvement, biodiversity conservation, better use of raw materials,

¹ IPCC AR6 (2023). Synthesis Report, Summary for Policy-makers. https://report.ipcc.ch/ar6syr/pdf/IPCC_AR6_SYR_SPM.pdf

² CAN Europe calls for the EU to phase out coal by 2030, gas by 2035 and to attain a fully renewable based energy system by 2040.

improved soil and water management and access to energy systems. In the energy sector for instance, the cost of renewable energy is lower than the generation cost of fossil and nuclear energy sources. Similarly, investments in energy savings, demand side flexibility, and electrification all offer socio-economic opportunities³.

As provided by the European Climate Law, the European Commission is currently working to propose a 2040 climate target and define a projected indicative EU greenhouse gas budget for the 2030-2050 period⁴. In this undertaking, the Commission is required to consider, among other elements, the advice of the recently created European Scientific Advisory Board on Climate Change (ESABCC), as well as social, economic and environmental impacts, including the costs of inaction. In this respect, in January 2023 the ESABCC published qualitative advice⁵ on the principles informing the 2040 target and the 2030-2050 greenhouse gas budget, including the necessity for the EU to consider its emission "fair share" in the context of the remaining global carbon budget to achieve the Paris Agreement.

In June 2023, the ESABCC presented its quantitative advice⁶, recommending that the EU should remain within a 2030-2050 greenhouse gas budget of 11-14 GtCO₂e and set a 2040 climate target of 90-95% net emission reductions, compared to 1990 levels⁷. It also highlights that additional action before 2030 (the report refers to "up to 70% or more") would further reduce the EU's cumulative greenhouse gas emissions and increase fairness, showing that significantly higher ambition levels than the current targets are feasible. In addition, in line with the agreement in COP26 in Glasgow, the EU needs to prepare a Nationally Determined Contribution (NDC) for 2035, by 2025 at the latest.

PRINCIPLES TO DEFINE THE EU'S FAIR SHARE

In order to define the amount of the equitable EU greenhouse gas emission budget, the following principles need to be applied.

Alignment with the 1.5°C temperature rise limit of the Paris Agreement

First, the budget needs to be aligned with the Paris Agreement objective of limiting global temperature rise to 1.5°C by the end of the century. The IPCC provides remaining global carbon budget figures from 2020 onwards for 67% (400 GtCO₂) and 83% (300 GtCO₂) likelihood of global temperature peaking at 1.5°C or below⁸. Any global carbon budget with a

http://www.oecd.org/environment/investing-in-climate-investing-in-growth-9789264273528-en.htm

³ See: OECD (2017). Investing in Climate, Investing in Growth.

⁴ Defined as the indicative total volume of net greenhouse gas emissions that are expected to be emitted in that period without putting at risk the Union's commitments under the Paris Agreement, providing separate information for emissions and removals.

⁵ ESABCC (2023). Setting climate targets based on scientific evidence and EU values: initial recommendations to the European Commission.

https://www.eea.europa.eu/about-us/climate-advisory-board/setting-climate-targets-based-on

⁶ ESABCC (2023). Scientific advice for the determination of an EU-wide 2040 climate target and a greenhouse gas budget for 2030.

https://climate-advisory-board.europa.eu/reports-and-publications/scientific-advice-for-the-determination-of-an <u>eu-wide-2040/esabcc advice eu 2040 target.pdf/@@display-file/file</u>

⁷ These target and budget figures refer to net domestic greenhouse gas emissions, not including emissions from international aviation and maritime transport.

⁸ See IPCC (2021). Table SPM.2 Working Group I contribution to AR6. https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf

limited likelihood such as 50% to meet this temperature threshold9 is hardly consistent with the intention of the goal of the Paris Agreement, as it still would bear high risks of triggering too dangerous near- and long-term adverse climate change impacts. Therefore, global budgets and pathways ensuring a higher chance to stabilize temperature below this threshold by the end of the century with no overshoot, or admitting only a minimal overshoot, need to be taken as a reference to define the EU greenhouse gas budget. However, in line with typical scientific assessments the IPCC provides budget figures for CO₂ only, considering the near-linear relationship between cumulative CO₂ emissions and increases in global surface temperature, while at EU level, the budget will be defined for all greenhouse gasses as CO₂ equivalents¹⁰. Based on the average share of CO₂ emissions in total greenhouse gas emissions in the last decade, CAN Europe assumes that the global greenhouse gas budgets from 2020 onwards consistent with achieving the 1.5°C limit amount to 533-552 GtCO₂e for 67% likelihood and 400-414 GtCO₂e for 83% likelihood of global temperature peaking at 1.5°C or below¹¹. Given the past decades of inaction and insufficient ambition to achieve deep and rapid emission cuts, it appears more and more challenging to comply with carbon and greenhouse gas budgets consistent with a high likelihood of meeting the 1.5°C limit, and many pathways with high likelihood of meeting the 1.5°C threshold with no or limited overshoot are not physically possible to be followed anymore. However, the IPCC identifies global mitigation pathways compatible with reaching the 1.5°C objective of the Paris Agreement, with no or limited temperature overshoot, underlining that - even if challenging pathways to stay below the Paris Agreement temperature limit are still available.

Not neglecting necessary action in the current decade: identifying a 2020-2050 greenhouse gas budget

Action in the short term, and in particular emission cuts before 2030, are vital to limit climate risks and keep the chance of still staying below the 1.5°C limit as big as possible¹². The European Climate Law, however, only refers to the greenhouse gas budget for the period 2030-2050 and therefore ignores the need for additional cumulative emissions reductions before 2030. Instead, the exercise of defining the EU's equitable share of efforts should take into account the period of 2020-2050 and not assume emission reduction levels for 2030 are already fixed to current inadequate levels of ambition. Such an assessment will support fit-for-purpose, science-based climate policy making and inform of any gaps that need to be addressed in policy design for the current as well as the next decade.

Equity: historical responsibility and capacity to act

Under the fundamental concept of common but differentiated responsibilities and respective capabilities (CBDR-RC), industrialised or "developed countries" (UNFCCC terminology) have a particular responsibility to lead with higher emission cuts due to their accumulated emissions

⁹ ENDS (2023). MEPs pressure new EU climate policy director on carbon removals and forests. https://www.endseurope.com/article/1813026/meps-pressure-new-eu-climate-policy-director-carbon-removals-forests?bulletin=bulletin/endseuropedaily&utm_medium=EMAIL&utm_campaign=eNews%20Bulletin&utm_source.

^{=20230210&}amp;utm content=ENDS%20Europe%20Daily%20(158)::www_endseurope_com_articl_3&email_hash

¹⁰ Expressed as GtCO₂e.

 $^{^{11}}$ Based on the observation that CO_2 on average represented a share of 72.5-75% of total greenhouse gasses at the global level in the past 10 years.

¹² This is also supported by the recent report of the Indicators for Global Climate Change (IGCC) Initiative which found that with current emissions levels the global carbon budget for a 50% chance of limiting temperature rise to 1.5°C will be completely used up before 2030.

and their availability of financial resources, technology and know-how. So far, the EU targets have been proposed by EU decision-makers mainly based on cost-effectiveness considerations, often disregarding cost of inaction and principles of global fairness. Including equity principles when defining the EU's climate ambition is not only vital to ensure that Europe fulfills its fair share to meet global targets, but also to fully apply the polluter pays principle¹³, which is at the core of EU environmental policy, as well as the principles linked to sustainable development and a just and socially fair transition, embedded in the European Climate Law¹⁴.

Historical responsibility

Historical responsibility matters because emissions, in particular CO₂ emissions, have a long-term effect. This is why past emissions are relevant for determining equitable emission budget shares today and in the decades to come. Historically, developed countries still hold the majority of the responsibility for creating today's climate crisis, even if other larger emitters' shares have grown in recent decades¹⁵. Ignoring the overall contribution of emissions would create an imbalance of responsibility across countries. Therefore, it is important to define the EU's equitable greenhouse gas emission budget in light of its historical responsibility since the start of the industrial revolution, hence at least since the year 1850.

Capacity to act

A key element in equity considerations, both at global, EU and country level, is to ensure progressive distribution of climate action, with those capable of shouldering more efforts taking more responsibility for enacting and financing a higher share of global efforts. These also include technological and knowledge-transfers to support countries which are willing to move quicker towards achieving or even over-achieving what their fair share would suggest in terms of mitigation efforts. Globally, this means that a relatively higher share of the necessary global action should fall on higher-income countries compared to least developed and low-income countries. Clearly, this concept is closely linked to the idea of just transformation and the need to ensure equity and fairness considerations at all levels¹⁶.

Acknowledging the role of consumption-driven emissions

Under the UNFCCC reporting system, countries are only responsible for emissions produced within their national borders. However, in a globalised economy, emissions embedded in trade flows of imported goods should also be considered to best capture countries' responsibilities, as also highlighted by the ESABCC¹⁷. This is particularly relevant for Europe,

¹³ Art. 191(2) of the Consolidated Version of the Treaty on the Functioning of the European Union

¹⁴ The recitals of the European Climate Law refer to UN Sustainable Development Goals, while art 4.5 requires the Commission to consider various elements when proposing a 2040 target, including the need to ensure a just and socially fair transition for all.

¹⁵ Evans, S. (2021). Analysis: Which countries are historically responsible for climate change?, Carbon Brief. https://www.carbonbrief.org/analysis-which-countries-are-historically-responsible-for-climate-change/

¹⁶ The capacity to act should also differentiate action between EU Member States, the wealthier need to increase their support for the transition of countries with limited resources. At EU level, this is already common practice, for example through the methodology of distributing emission reduction obligations among EU Member States under the Effort Sharing Regulation which takes variations in economic capacity into account. However, it is important to further strengthen and ensure equity remains a key principle in translating EU-wide action into national obligations.

¹⁷ ESABCC (2023). Setting climate targets based on scientific evidence and EU values: initial recommendations to the European Commission.

which through its consumption and as a rich and globally connected economic bloc contributes to and drives extraction, emissions and deforestation across the world. Accounting for consumption-driven emissions also helps to unveil and address the risk of developed countries hiding territorial emission reductions behind shifting consumption towards a higher amount of imported goods, instead of tackling their consumption levels. Despite different approaches and challenges in accounting for consumption-driven emissions, it is important to understand that their inclusion to assess EU's emissions levels suggests an increase in the region's responsibility beyond an approach that would only consider territorial emissions¹⁸ (although in determining the EU equitable budget this parameter appears less relevant compared to those of historical responsibility and capacity to act).

DEFINING THE EU'S FAIR SHARE

In order to define the EU's fair share, CAN Europe starts by identifying what the EU can deliver domestically in terms of reducing emissions between 2020 and 2050 through ambitious EU climate action. Then, it estimates the EU's theoretical, equitable greenhouse gas budget in light of historical responsibility and capacity to act. The remaining gap between the ambitious domestic EU greenhouse gas budget, and the equitable EU greenhouse gas budget fully aligning with equity principles, needs to be addressed through additional international climate finance and support measures.

Assessment of the domestic EU greenhouse gas budget

Starting without delay, the EU must be highly ambitious in its efforts to drastically curb domestic emission reductions. Based on CAN Europe's demands for the EU to achieve at least 65% gross emission cuts by 2030 compared to 1990 levels and achieve net zero emissions by 2040 at the latest, it's estimated that the share of these ambitious domestic efforts amount to a greenhouse gas emission budget of $27.5~\text{GtCO}_2\text{e}$ (including LULUCF) in the period $2020\text{-}2050^{19}$.

Assessment of the equitable EU greenhouse gas budget

When accounting for historical responsibility and capacity to act, however, the EU's equitable greenhouse gas budget for the period 2020-2050 results negative. CAN Europe estimates²⁰

¹⁸ Jakob, M., Ward, H., Steckel Jan, C. (2021). "Sharing responsibility for trade-related emissions based on economic benefits" *Global Environ. Change*, 66 (2021), Article 102207, 10.1016/j.gloenvcha.2020.102207 Evans, S. (2021). Analysis: Which countries are historically responsible for climate change?, Carbon Brief. https://www.carbonbrief.org/analysis-which-countries-are-historically-responsible-for-climate-change/

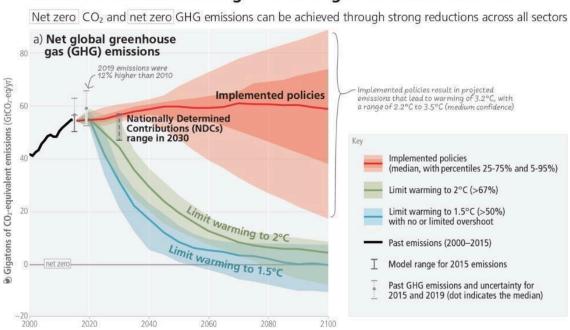
The indicated EU domestic emissions reductions should be achieved while avoiding any increase in EU consumption-driven emissions through imports or reliance on unproven technologies such as carbon capture and storage (CCS).

¹⁹ This figure includes LULUCF and half of international aviation and maritime transport emissions. It is supported by both CAN Europe's <u>Paris Agreement Compatible (PAC) Energy Scenario</u> and a domestic linear reduction pathway based on CAN Europe's positions. This figure reflects fairness resulting from a per-capita sharing of the remaining greenhouse gas budget aligned with a high likelihood of meeting the 1.5°C threshold. A more restrictive budget is needed in order to reflect equity approaches accounting for historical responsibility and capacity to act.

²⁰ Different approaches exist to calculate equity. The figures displayed are based on an analysis conducted by the Climate Equity Reference Project making use of the Climate Equity Reference Calculator (CERc) methodology (https://calculator.climateequityreference.org). The EU's fair share figures are indicated as a range, reflecting assessments under different assumptions on baseline emissions: the CERc7.3.3 scenario, and the Shared Socioeconomic Pathways (SSP) SSP2, SSP3 and SSP4.

that this theoretical equitable budget amounts to an indicative range of -60 and -75 GtCO $_2$ e for the period 2020-2050 21 . Clearly, there is currently no physically possible pathway available for the EU to fulfill this fair share only through domestic contributions; as highlighted above, ambitious domestic emission cuts won't bring the EU in line with its full equity responsibility. From this, it follows that the EU on the one hand needs to reduce its domestic emissions and reach net zero as fast as possible and no later than by 2040, and on the other hand needs to support developing countries in curbing emissions outside of the EU in light of its responsibility. It is important to note that rapid and early action on both domestic and international levels is essential in keeping the 1.5°C limit attainable (see graph below).

Limiting warming to 1.5°C and 2°C involves rapid, deep and in most cases immediate greenhouse gas emission reductions



Bridging the gap: international climate finance and support for mitigation

Source: IPCC AR6 Synthesis for Policy Makers

The EU needs to address the remaining portion of its fair share obligation, which it is not possible to implement just by reducing domestic emissions, through additional commitments towards reducing emissions in so-called developing countries, as also highlighted by the ESABCC²². Such commitments should support and enable corresponding emissions reductions globally, in line with the principle of CBDR-RC through international support for climate mitigation measures, such as providing new and additional climate finance and other means of implementation (including capacity-building, technical assistance and technology transfer²³). Moreover, such efforts should not only consider countries with larger emission shares, such as the G20 "developing countries" and other lower/middle income countries, but also and especially Least Developed Countries (LDCs) and Small Island Developing States (SIDS). Efforts should be according to countries' and communities' mitigation and development needs and priorities, including energy access, underpinned by principles of

https://climate-advisory-board.europa.eu/reports-and-publications/scientific-advice-for-the-determination-of-an <u>eu-wide-2040/esabcc_advice_eu_2040_target.pdf/@@display-file</u>

²¹ This figure includes CO₂ and non-CO₂ emissions, and excludes the LULUCF sector.

²² ESABCC (2023). Scientific advice for the determination of an EU-wide 2040 climate target and a greenhouse gas budget for 2030.

²³ In particular, technology transfer should promote leapfrogging through the adoption of clean technologies.

human rights and Free Prior and Informed Consent.

These additional commitments must not be used as a means to offset required domestic emission reductions. They are also different in purpose and nature from adaptation and loss and damage financing and support obligations; therefore, they should come additionally and not divert resources from adaptation and loss and damage contributions in the framework of both the USD \$100 billion climate finance obligation and the future climate finance goal²⁴. The outcomes of the negotiations on the New Collective Quantified Goal (NCQG) may further inform and impact on appropriate ways to cater for the additional mitigation action the EU would have to support to comply with its fair share. Failure to deliver on domestic mitigation and international mitigation support will lead to devastating increases in climate change impacts, adaptation costs and loss and damage in developing countries.

EU CLIMATE TARGETS

EU 2030, 2035 and 2040 climate targets and 5-years policy cycles

CAN Europe's assessment of the equitable EU 2020-2050 greenhouse gas budget shows that urgent, ambitious domestic emission reductions are needed for the EU to align with its commitments under the Paris Agreement 1.5°C temperature rise limit and equity principles, alongside additional international commitments to support developing countries' action. In particular, this analysis highlights that action before 2030 is crucial to enable the EU to comply with its equitable budget.

To this end, by 2030 the EU should reduce its domestic greenhouse gas emissions by at least 65% gross reductions relative to 1990 (with a maximum of 1758 MtCO2e gross emissions in the year 2030), therefore in combination with an increase in its removal capacity achieving at least 76% net emission reductions. By 2035, the EU should achieve domestic gross greenhouse gas emission reductions of at least 82% relative to 1990 (with a maximum of 900 MtCO2e gross emissions in the year 2035), implying at least 94% net reductions. Furthermore, the EU should reach net zero by 2040 at the latest based on at least 92% gross emission reductions relative to 1990 (with a maximum of 419 MtCO2e gross emissions in the year 2040)²⁵. This ambition level is supported by different studies²⁶, including CAN Europe's Paris Agreement Compatible (PAC) scenario²⁷, and aligns with what has been recently highlighted by the latest IPCC synthesis report and the UN Secretary General, António Guterres²⁸.

ESABCC (2023). Scientific advice for the determination of an EU-wide 2040 climate target and a greenhouse gas budget for 2030.

https://climate-advisory-board.europa.eu/reports-and-publications/scientific-advice-for-the-determination-of-an eu-wide-2040/esabcc advice eu 2040 target.pdf/@@display-file/file

²⁴ Under the UNFCCC (Article 4) Annex II parties are obligated to provide new and additional climate finance to non-Annex I parties, along with the related climate finance obligations under Article 9 of the Paris Agreement; there is currently an annual goal of \$100 billion 2020-25 (2/CP.15; 1/CP.16).

²⁵ All figures on gross emission reductions refer to all economic sectors, except LULUCF. Achieving net zero emissions in the EU must be based on steep emission cuts and the restoration and enhancement of removals through such agricultural and forestry practices that are a win-win for the climate and biodiversity, and not on unproven technologies that risk delaying mitigation efforts, such as carbon capture and storage (CCS).

²⁶ Climate Analytics (2021). 1.5°C Pathways for Europe: Achieving the highest plausible climate ambition https://climateanalytics.org/publications/2021/15c-pathways-for-europe-achieving-the-highest-plausible-climateambition/

²⁷ https://www.pac-scenarios.eu/

²⁸ See March 2023, Secretary-General Calls on States to Tackle Climate Change. https://press.un.org/en/2023/sgsm21730.doc.htm. And IPCC AR6 (2023). Synthesis Report, Summary for Policy-makers. https://report.ipcc.ch/ar6syr/pdf/IPCC AR6 SYR SPM.pdf

At COP26 in Glasgow all Parties, including the EU, committed to present by 2025 a new climate target (NDC - Nationally Determined Contribution) for 2035. EU climate policy is currently based on 10-years policy cycles which are unfit for the purpose of tackling such a serious, urgent and constantly developing threat as the climate emergency. Hence, shorter policy cycles are needed to make sure EU policy can effectively respond to this reality. For this reason, and in view of article 4.7 of the European Climate Law, the EU should align with the 5-years common time frames agreed at UNFCCC-level to provide shorter cycles for EU climate targets and policy architecture to ensure sufficient additional moments to review, ratchet up ambition and avoid lock-in into inadequate emission reduction pathways which otherwise lead to postponement of urgently needed deep emission cuts. This includes 5-years revision periods for climate policy instruments and establishing a 2035 climate target, as also suggested by the ESABCC²⁹. CAN Europe calls the EU to establish a 2035 target of at least 82% gross emission reductions, implying at least 94% net reductions, compared to 1990 levels (with a maximum of 900 MtCO2e gross emissions in the year 2035)³⁰.

The limited remaining domestic EU greenhouse gas budget needs the immediate implementation of pathways aiming for these targets. Failure to increase climate action in the short term should lead to a review and subsequent strengthening of these targets and relevant policies so as to ensure the EU's cumulative greenhouse gas emissions do not overshoot the 27.5 GtCO₂e domestic budget for 2020 to 2050.

Separate targets for net sequestration in the LULUCF sector and for permanent industrial carbon removals

The latest IPCC synthesis report of the Sixth Assessment Report affirms that limiting warming to 1.5°C requires first and foremost immediate and deep emissions reductions during this decade, as well as additional carbon removals from the atmosphere in the coming decades. Biogenic sequestration and permanent industrial carbon removals will only be able to play a limited role in climate mitigation efforts, and in order for them to have a desired impact on the atmosphere they must be additional to emission reductions, not done instead of them. To reduce mitigation deterrence, the EU needs to adopt separate targets for biogenic sequestration and permanent industrial carbon removal that are not fungible with emission reductions, and scaled up via separate and dedicated policy instruments ensuring no flexibility with the sectors covered by the Emissions Trading System (ETS) and the Effort Sharing Regulation (ESR).

Natural carbon sinks are not permanent in the way that fossil carbon is; the length of the biogenic carbon cycle varies from a few years to a few decades, whereas the fossil carbon cycle is millions of years. Nature-based sequestration and carbon stocks are vulnerable to both intentional and unintentional reversals: they are being depleted by industrial agriculture and forestry, and susceptible to events such as fires, floods, droughts, and pest and disease outbreaks. Climate change is already intensifying these hazards and will certainly do so even more in the future. Measuring, accounting and modelling emissions and sequestration in the land sector is also less accurate. For these reasons, any land-based activities need to support ecosystem restoration and biodiversity protection including the use of biomass (imported or

²⁹ ESABCC (2023). Scientific advice for the determination of an EU-wide 2040 climate target and a greenhouse gas budget for 2030.

https://climate-advisory-board.europa.eu/reports-and-publications/scientific-advice-for-the-determination-of-aneu-wide-2040/esabcc advice eu 2040 target.pdf/@@display-file/file

³⁰ These climate targets should be met through the rapid expansion of nature restoration and protection and such agricultural and forestry practices that are a win-win for the climate and biodiversity.

domestic) for energy and other economic purposes (such as the "bioeconomy"). The climate and biodiversity crises are intimately linked and must be tackled together; protecting biodiversity and enhancing nature's resilience are also the best route for long-term nature-based carbon storage and sequestration.

CAN Europe calls on the EU to set a separate of at least 600 MtCO₂e annual target for net sequestration in the LULUCF sector by 2030 and to maintain it at at least the same level up to 2040. This requires significantly increased action for nature protection and restoration and a rapid expansion of farming and forestry practices that are a win-win for climate and biodiversity and are in full support of human, economic, social and cultural rights.

An additional EU-wide separate permanent industrial removal³¹ target should be set, after a thorough assessment of the risks, benefits and trade-offs associated with permanent industrial removals in order to ensure they are deployed in a responsible and sustainable manner. The size of the permanent industrial removal target should be made specific to the various technologies available or considering when these can deliver a climate and biodiversity benefit, and result from a rigorous impact assessment conducted in a holistic and interdisciplinary manner taking into account all potential impacts of permanent industrial removals on planetary boundaries (including land and water use, indirect land use change, biodiversity and biosphere integrity) and on energy consumption and human rights. Only non-biogenic, additional and fully renewable energy that respects the 'Do No Significant Harm' principle should be eligible for use for industrial removals, and only options that can guarantee permanent storage³² should be considered. It is important that any form of offsetting or compensating of emissions in the sectors covered by the Emissions Trading System (ETS) and the Effort Sharing Regulation (ESR) with removals is explicitly excluded when formulating governance on carbon removals.

Ensuring a socially just ecological transformation

Taking action now will limit the economic and social cost that is linked to the impacts of climate change³³. The economic costs for the EU already amounted to 145 EUR billion per year in the previous decade, with average costs indicating a clear trend of increasing by 2% annually³⁴. Furthermore, the costs in human suffering and ecosystem destruction outside the EU, and in particular in the most vulnerable countries, while being too easily ignored, will go far beyond what people in the EU will be witnessing. These costs are already mainly borne by the most vulnerable groups in society today and are set to multiply in the future in light of current levels of insufficient action.

While the zero-carbon transition will bring jobs and development, the benefits will differ

 $\underline{www.lse.ac.uk/granthaminstitute/wp-content/uploads/2022/05/What-will-climate-change-cost-the-UK-risks-imp} \ \underline{a\ cts-mitigation-1.pdf}$

 $^{^{31}}$ To qualify as carbon removal CO $_2$ must be removed from the ambient air and stored permanently. Carbon Capture and Storage (CCS) and Carbon Capture and Utilisation (CCU) are not removals. CCS can only be considered an abatement method and CCU a temporary parking of emissions.

³² Industrial removals qualifying as "permanent" in specific EU legislation should be bound for at least several centuries, with high likelihood of continued storage over a timeframe exceeding 1000 years.

³³ In an effort to transpose the result of a global cost of inaction study by the London School of Economics to the EU, it was assessed that while implementing the Fit for 55 Package would reduce annual GDP loss (by the end of the century) from 7% to 2.5%, a more ambitious, 1.5°C aligned approach, would lead to a GDP increase of 1%. see: Rising J. et al., (2022). What will climate change cost the UK? Risks, impacts and mitigation for the net-zero transition.

³⁴ Eurostat (2022). Losses from climate change: €145 billion in a decade. https://ec.europa.eu/eurostat/en/web/products-eurostat-news/-/ddn-20221024-1

across sectors and regions. It is therefore imperative that governments at all levels ensure the transition will be fair and just, taking into account the needs of workers and vulnerable communities so as to make sure the transition will provide a better life for all. This includes cohesion and support between and within Member States, and cooperation mechanisms with EU enlargement candidates, such as the Green Agenda³⁵ with respect to the Western Balkans. Potential implications of the enlargement of the Union should be considered for defining any future adjustment of the EU climate targets. These adjustments should be made in a way that ensures no decrease in ambition for EU Member States, nor for the accessing countries. Governments also need to engage and not shy away from making necessary choices and setting targets and policies that go against vested corporate interests, while expanding social protection of vulnerable groups, low and middle income households and reducing income and wealth inequalities and fighting poverty.

³⁵ The Green Agenda for the Western Balkans is part of the EU Green Deal, as an effort of ensuring Europe-wide climate neutrality ambition. In November 2020, the Western Balkans heads of states and governments signed the Sofia Declaration on the Green Agenda for the Western Balkans, which stipulates cohesion on climate ambition in line with the EU Climate Law. It will be important to start a process to help define a target and emission budget for the region, based on principles of equity, and in line with the 1.5°C target of the Paris Agreement. CAN Europe further urges the EU to cooperate with countries of Eastern Partnership and Turkey as well, in order to ensure climate neutrality in the whole Europe.

Notes:

 * Germanwatch does not subscribe to the indicated figure for the EU 2035 and 2040 climate targets.



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