Norway's Fair Share of Meeting the Paris Agreement Goals

Enhanced Domestic Action, Massive Climate Finance Increase, and Substantial International Cooperation Urgently Required to Earn Climate Champion Status

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KIRKENS NØDHJELP
actalliance

FRONT PAGE: Fawaz Alkhaled cleaning the solar cells at a borehole in rural Hama, Syria.

PHOTO: Håvard Bjelland/ Norwegian Church Aid

Study for Norwegian Church Aid, Save the Children Norway, Rainforest Foundation Norway, and the Norwegian Forum for Development and Environment (ForUM)

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http://kirkensnodhjelp.no/sites/default/files/2026-05/fair-share.pdf

FORORD

Klimakrisen forverres år for år, og vinduet for å begrense den globale oppvarmingen til 1.5 grader i tråd med Parisavtalen lukkes raskt. Vi ser allerede hyppigere ekstremvær, tap av livsgrunnlag og økende humanitære konsekvenser. Særlig de som har bidratt minst til utslippene, som barn og sårbare grupper i lav- og mellominntektsland i det globale sør, rammes hardt. For dem er klimaendringer ikke en abstrakt framtidstrussel, men en konkret realitet.

For å stanse utviklingen kreves en kraftig oppskalering av den globale klimainnsatsen. Alle land må bidra, men noen land har både større ansvar og mer kapasitet enn andre. Norge, som et rikt land med høye historiske utslipp, er blant dem som både kan og bør bidra mer. Så hvor stor del av den globale klimainnsatsen er det rettferdig at Norge bidrar med? Hva er Norges rettferdige klimaansvar? Dette forsøker denne rapporten å svare på. Analysen bygger på en lang rekke tidligere rapporter om Norges klimaansvar.

Konklusjonene viser at Norge har et ansvar som er nesten ti ganger større enn folketallet vårt skulle tilsi på grunn av et høyt inntektsnivå og store historiske utslipp. Basert på utregningene i rapporten er vårt klimaansvar så stort at det overgår det som er mulig å kutte på hjemmebane. Selv de mest ambisiøse nasjonale klimatiltakene vil ikke være tilstrekkelige for å oppfylle Norges rettferdige andel av den globale klimainnsatsen.

Rapporten anbefaler derfor at Norge må finansiere store utslippskutt i andre land, i tillegg til å raskt kutte egne utslipp. Dette er i tråd med FNs klimaforhandlinger, der rike land som Norge er bedt om å bidra med støtte til klimatilpasning og å betale for klimaskader i fattige land.

I år skal Norge sette et nytt mål for klimafinansiering for 2035. Denne rapporten viser at Norge bør bidra med store beløp til utslippskutt, klimatilpasning og tap og skade – samlet om lag 100 milliarder kroner i året.

Beløpet er høyt, men samtidig er det lavt sammenlignet med de menneskelige og økonomiske kostnadene ved å ikke stanse klimaendringene. Det er også et beløp det er mulig å finansiere. Med et Oljefond på over 20 000 milliarder kroner vil et dedikert uttak til internasjonal klimafinansiering innenfor handlingsregelen, slik Helgesen-utvalget foreslår [1], gå langt i å mobilisere de nødvendige midlene.

Målet er å gi størst mulig klimaeffekt og samtidig utløse mest mulig innsats og kapital fra private aktører og andre land. Dette er nødvendig også for å sikre at klimafinansieringen ikke går på bekostning av andre utviklingshensyn.

Det er fortsatt mulig å begrense den globale oppvarmingen til et nivå der de verste konsekvensene kan unngås. Som et av verdens rikeste land, har Norge både en unik mulighet, og et stort ansvar, til å ta vår rettferdige andel av den globale klimainnsatsen. En oppskalert, effektiv og rettferdig internasjonal klimainnsats er en god og nødvendig investering i framtiden.

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1 Klimafinansieringsutvalget, «Helgesenutvalget» (2023) https://www.kirkensnodhjelp.no/sites/default/files/news/m/in-line-images/7e3a4a5f7bf14cbea5ae29578e76a672-hvis-ikke-norge-hvem.pdf

SAMMENDRAG

Hovedfunn	
Norges rettferdige andel av utslippsreduksjoner	**Reduksjon fra 1990-nivå**
Norges rettferdige andel av globale utslippskutt innen 2035	**411 %**
Norges innenlandske utslippskutt innen 2035	**60 %**
Andelen utslippskutt som må realiseres gjennom internasjonal klimafinansiering	**351 %**
Norges rettferdige andel av internasjonal klimafinansiering	**Milliarder kroner per år**
Norges klimaansvar for finansiering av utslippsreduksjoner i perioden 2026-2035	**62 mrd**
Norges klimaansvar for finansiering av klimatilpasning i perioden 2026-2035	**15-23 mrd**
Norges klimaansvar for finansiering av tap og skade i perioden 2026-2035	**20 mrd**

Denne rapporten gir en vurdering av hva som er Norges rettferdige andel av globale klimatiltak frem mot 2035, basert på hva vitenskapen sier kreves for å begrense oppvarmingen til 1,5 °C, og prinsipper for rettferdig fordeling av ansvar og innsats nedfelt i internasjonale klimaavtaler. Rapporten tallfester hva som bør være Norges bidrag til utslippsreduksjoner og klimafinansiering (inkludert finansiering for utslippsreduksjon, tilpasning og tap og skader) basert på disse kriteriene og sammenligner det med dagens ambisjonsnivå.

Analysen viser tydelig at Norges nåværende klimatiltak, både nasjonalt og internasjonalt, ikke samsvarer med Norges rettferdige andel av en global innsats for å nå 1,5 °C-målet. Å tette dette gapet krever en betydelig opptrapping av ambisjonene, ikke bare når det gjelder nasjonale utslippsreduksjoner, men særlig innen internasjonal klimafinansiering.

Omfanget av utslippsutfordringen - Behovet for globale utslippskutt: Det globale behovet for utslippskutt er fortsatt omfattende. Ifølge scenarier fra FNs Klimapanel (IPCC), kreves det raske og vedvarende utslippsreduksjoner i de kommende tiårene for å begrense oppvarmingen til 1,5 °C, selv om vi i en begrenset periode skulle overskride temperaturmålet. Innen 2035 må de globale klimagassutslippene (ekskludert LULUCF[2]) reduseres med omtrent 39 $GtCO_2eq$ i forhold til dagens utviklingsbaner (som fremskrives til globale utslipp på rundt 60 $GtCO_2eq$ i 2035). Landenes nåværende nasjonale klimamål (NDC-ene) ligger langt under dette, noe som resulterer i et økende gap mellom lovede og nødvendige tiltak.

Gapet mellom ambisjoner og behov reiser et sentralt politisk spørsmål: hvordan bør den nødvendige innsatsen for utslippsreduksjon fordeles mellom landene på en måte som både er effektiv og oppfattes som rettferdig?

Analytisk rammeverk: For å besvare dette spørsmålet anvender rapporten *Climate Equity Reference Framework*, som operasjonaliserer tre anerkjente prinsipper:

- **Historisk ansvar**: et lands bidrag til kumulative klimagassutslipp,
- **Kapasitet**: dets økonomiske evne til å bidra til klimatiltak, og
- **Rett til bærekraftig utvikling**: å sikre at klimatiltak ikke undergraver lavinntektslandenes evne til å dekke grunnleggende utviklingsbehov.

Disse prinsippene er forankret i FNs konvensjon om klimaendringer og påfølgende internasjonale klimaavtaler. I denne analysen tillegges historisk ansvar og kapasitet like stor vekt, og inntekt behandles progressivt for å gjenspeile ulik evne til å bidra. Det finnes andre tilnærminger til disse spørsmålene, men dette rammeverket gir et godt forankret, transparent og politisk relevant grunnlag for å vurdere nasjonale klimamål opp mot den nødvendige globale innsatsen.

Norge – stor kapasitet, stort ansvar: Norges økonomi og historiske utslipp plasserer oss blant land med stort ansvar og stor kapasitet. I 2025 står Norge for omtrent 1,0 % av global kapasitet og 0,30 % av det globale ansvaret. Samlet utgjør dette 0,65 %, som faller gradvis til 0,57 % innen 2035. Selv om Norges befolkning er liten, bare 0,07 % av verdens befolkning, medfører et høyt inntektsnivå og historiske utslipp en uforholdsmessig stor andel av det globale klimaansvaret i dette rammeverket.

Samlet vurdering av Norges rettferdige andel av globale utslippsreduksjoner: Analysen av Norges rettferdige andel av de samlede utslippsreduksjonene som kreves for å nå

2 Arealbruk, arealbruksendringer og skogbruk.

1.5 grader, gir Norge ansvar for utslippsreduksjoner på ca. 214 Mt CO_2-ekv. i 2035. Dette tilsvarer en reduksjon til 411 % under utslippsnivået i 1990. Ettersom dette er praktisk uoppnåelig i Norge kan ikke dette tallet forstås som et forslag til et nasjonalt utslippsmål, men som et estimat av Norges totale bidrag til globale utslippsreduksjoner, inkludert både nasjonale reduksjoner og internasjonal støtte, for at bidraget skal samsvare med vår rettferdige andel.

Nasjonale klimatiltak og internasjonale bidrag: En sentral del av analysen er at Norges rettferdige andel av utslippsreduksjonene ikke kan oppfylles gjennom nasjonale tiltak alene, selv med ambisiøse nasjonale mål. En reduksjon av nasjonale utslipp på 60 % innen 2035 sammenlignet med 1990-nivået ville gi om lag 36 Mt CO_2-ekv. i utslippsreduksjoner. De resterende 178 Mt CO_2-ekv. må oppnås gjennom internasjonal støtte til, og samarbeid om, klimatiltak i andre land.

Dette gjenspeiler et mønster i den globale fordelingen av klimainnsats. Høyinntektsland har større ansvar enn de kan oppfylle nasjonalt, mens lavinntektsland har større muligheter til utslippskutt enn de har ressurser til å realisere. Internasjonalt samarbeid er derfor avgjørende for å tette dette gapet. Internasjonal klimafinansiering spiller en avgjørende rolle i å matche muligheter for å kutte utslipp med ressursene som kreves for å gjøre det.

Klimafinansiering til utslippskutt: Ved å bruke estimater fra IPCCs scenariodata på hvor mye utslippskutt utenfor OECD forventes å koste regner rapporten om Norges internasjonale utslippsforpliktelser til kroner. Rapporten estimerer Norges rettferdige andel av årlig klimafinansiering til utslippskutt til **62 milliarder kroner**, som et årlig gjennomsnitt mellom 2026 og 2035[3].

Dette representerer Norges totale ansvar for bidrag til utslippskutt, inkludert både bilaterale og multilaterale kanaler, og viser størrelsesorden av innsats som er nødvendig for å leve opp til forpliktelsene i internasjonale klimaavtaler om utslippskutt *og* rettferdig byrdefordeling.

Finansiering til tilpasning: Behovet for tilpasning til klimaendringer forventes å øke betydelig fremover, på grunn av økende klimaendringer og eksisterende sårbarhet i samfunn, spesielt i utviklingsland. Basert på estimater fra UNEPs Adaptation Gap Reports kan de årlige globale *kostnadene* til tilpasning nå 315 milliarder USD årlig innen 2035, mens *behovene* for tilpasningsfinansiering er estimert til 365 milliarder USD innen 2035. Basert på Norges rettferdige andel gir det et årlig gjennomsnittlig bidrag på **15–23 milliarder kroner** i tiårsperioden 2026–2035[4]. Selv om det er en betydelig usikkerhet knyttet til disse estimatene, understreker de viktigheten av vedvarende og forutsigbar finansiering til tilpasning.

Finansiering av tap og skade: Tap og skade refererer til klimakonsekvenser som ikke kan unngås på tross av utslippskutt eller tilpasning. Kostnadsanslagene varierer mye, men det er enighet om at det er behov for dedikert økonomisk støtte, blant annet gjennom etableringen av fondet for tap og skade. Basert på konservative data beregner rapporten Norges rettferdige andel av finansieringen av tap og skade til gjennomsnittlig **20 milliarder kroner** årlig mellom 2026 og 2035. Dette området vil trolig bli stadig mer sentralt i internasjonale klimadiskusjoner og -politikk, med implikasjoner for både finansieringsmekanismer og internasjonal byrdefordeling.

Til sammenligning rapporterte Norge at de bidro med 18.7 milliarder NOK i internasjonal klimafinansiering i 2024, til både utslippskutt og tilpasning[5].

Gjennomføringsgap etter Parisavtalen: Rapporten vurderer også Norges bidrag siden Parisavtalen ble vedtatt. I perioden 2016–2025 utgjør Norges kumulative "underskudd" i forhold til den tidligere estimerte rettferdige andelen omtrent 501 $MtCO_2ekv$. Dette representerer et betydelig gap mellom det faktiske bidraget og hva Norges rettferdige andel burde ha vært basert på historisk ansvar og kapasitet. Selv om størrelsen på dette gapet i noen grad avhenger av metodiske valg, understreker det allikevel hvordan Norges klimatiltak ikke har holdt tritt med klimaansvaret. Fra et politisk perspektiv reiser dette spørsmål om hvordan fremtidige bidrag kan kompensere for kumulativ underprestasjon i fortiden. Denne rapporten påpeker dette problemet uten å foreslå en konkret løsning.

ANBEFALINGER

Funnene i denne rapporten gir flere viktige anbefalinger til norsk klimapolitikk:
Internasjonalt samarbeid og klimafinansering må være en sentral del av Norges samlede klimainnsats, og krever en økning av norsk klimafinansiering: Om klimapolitikken er effektiv eller ambisiøs måles ofte primært ut ifra nasjonale utslippsreduksjoner. Selv om det er avgjørende med nasjonale utslippskutt, viser denne analysen at internasjonale bidrag også må være en sentral del av Norges samlede klimainnsats. Dette er en sentral innsikt fra rapporten: Selv de mest ambisiøse nasjonale klimatiltakene vil ikke være tilstrekkelige for å oppfylle Norges rettferdige andel av den globale klimainnsatsen. Behovet for at Norge bidrar til utslippskutt utenfor Norge er faktisk flere ganger større enn det som er mulig for Norge å kutte nasjonalt. Internasjonal klimafinansiering for utslippsreduksjoner må derfor være en uatskillelig del av Norges samlede klimainnsats.

3 Beløpet ligger tett opp til resultatet i den forrige rapporten fra 2018 (50 milliarder kroner per år), justert for akkumulert (sammensatt) inflasjon i perioden 2018–2026.

4 Til sammenlikning ble beløpet i vår rapport fra 2018 anslått til 15 mrd. kroner per år. Justert for akkumulert (sammensatt) inflasjon gir dette et svært likt resultat.

5 Regjeringen (2025) https://www.regjeringen.no/no/aktuelt/klimafinansiering-malet-om-dobling-er-nadd-for-tredje-ar-pa-rad/id3117776/

MALAKAL, SOUTH SUDAN: As the White Nile spills beyond its banks more often, Opoth Adaing is forced to swim where he once could walk.

PHOTO: Håvard Bjelland/ Norwegian Church Aid

Økt klimafinansiering for tilpasning og tap og skade: For å oppfylle Norges rettferdige klimaansvar kreves det ikke bare en betydelig økning i klimafinansieringen til utslippsreduksjoner, men også økt og forutsigbar finansiering til klimatilpasning og tap og skade, i tråd med både utviklingslandenes behov og Norges rettferdige andel.

Samlet sett viser denne rapporten tydelig at i) Norges rettferdige klimaansvar er betydelig større enn dagens innsatsnivå, ii) innenlandske utslippskutt alene er utilstrekkelig for å oppfylle denne forpliktelsen, og iii) internasjonal klimafinansiering til utslippskutt, tilpasning og tap og skade er en sentral del av bidraget og må økes betraktelig.

Selv om den nøyaktige tolkningen av målene for rettferdig klimaansvar innebærer normative valg, er den overordnede konklusjonen klar: å føre en klimapolitikk i tråd med en rettferdig global fordeling av ansvar og innsats vil kreve en betydelig oppskalering av både nasjonale utslippsreduksjonsambisjoner og internasjonal klimafinansiering til utslippsreduksjoner, tilpasning og tap og skade. Dette vil ikke bare bidra til å lukke det globale utslippsreduksjonsgapet, men også støtte bredere mål om rettferdighet, samarbeid og effektivitet i den internasjonale klimainnsatsen.

1. INTRODUCTION

The purpose of this report is to articulate the results of a quantitative assessment of what Norway's fair contribution to an ambitious global climate effort should look like; an effort that is ambitious enough to comply with the Paris Agreement's temperature goal of limiting warming to 1.5 °C, while also ensuring that communities everywhere can effectively adapt to unavoidable climate change, that loss and damages from unavoidable climate impacts can be addressed as effectively as possible, and where countries profoundly deepen their international cooperation towards these goals.

This report is the third in a series that examines Norway's fair share of global mitigation and climate finance in the context of ambitious global climate action. The previous two reports, in 2014 (Kartha et al. 2014) and 2018 (Kartha et al. 2018) found that Norway had to substantially increase not only its domestic mitigation ambition but also its contributions to global climate finance provision, in order to fulfill its moral and legal fair shares obligation under the international climate regime. Since the last report, however, Norway has continued to fall short of its fair share as well as of the climate action target it has set for itself, having only managed to reduce emissions by about 20 % below 1990 levels (excluding LULUCF). Likewise, its provision of international climate finance fell short of what the previous reports in the series articulated.

This present report updates the previous analysis with most recent data and extends the analysis to 2035. This enables us to contrast Norway's NDC with its fair share of an ambitious global effort to 2035. As we will see, Norway's NDC, despite being praised as "ambitious … [and] something to be proud of" by Norwegian politicians (KLD 2025) falls far short of its fair share of a global mitigation effort that's consistent with limiting warming to 1.5 °C despite claims by the Prime Minister that it constitutes a "1.5 aligned NDC" (Støre 2025). Likewise, the findings of this report echo the general 2023 findings of the UNFCCC's Global Stocktake (though we articulate them with more clarity and urgency, and specifically apply them to Norway) that the mitigation targets of the NDCs are not sufficient to meet the Paris Agreement's temperature limitation goals, that domestic policies are not strong enough to meet even those goals, and that international cooperation is urgently needed to help address both of these shortcomings (UNFCCC 2023), all in line with the Global Stocktake's mandate to help "Parties in enhancing … their action and support" (UNFCCC 2015), including "transitioning away from fossil fuels" (UNFCCC 2023).

The Scientific Limits

The Paris Agreement's temperature goal is to hold global warming to well below 2 °C and to pursue efforts to limit it to 1.5 °C (UNFCCC 2015, Article 2.1.a). While this expression has been interpreted in different ways, in 2025, the International Court of Justice clarified that the 1.5 °C component of the phrase constitutes "the parties' agreed primary temperature goal" (ICJ 2025: para 224) and that the parties agreed to pursue this goal in line with the "best available science," which, as the court also notes, all parties agreed primarily referred to the IPCC's reports (ICJ 2025: para 74). As such, the present report will primarily draw on IPCC reports as scientific inputs, with additional information drawn from other UN agencies, and where necessary, other authoritative sources.

To situate our analysis in an ambitious and equitable future that is consistent with the Paris Agreement's temperature goal and the precautionary principle, we draw on the emissions pathways presented in the IPCC's Sixth Assessment Report (AR6). Specifically, we draw on the emissions pathways placed by the IPCC in the category of "limiting warming to 1.5 °C by 2100 with no or low overshoot." From this category, we select the Low Energy Demand (LED) scenario, which the AR6 highlighted as one of its "Illustrative Pathways." In addition to being one of the most ambitious mitigation scenarios in the AR6, we selected this scenario because it explicitly treats the universal achievement of a "decent living standard" as a guiding design criterion, making it well suited for an analysis that centers the developmental needs of the world's poorest and most vulnerable populations within the context of climate action. The pathway highlights and emphasizes major trends in energy demand that are already observable today and are expected to persist and intensify in the coming decades. These include urbanization, digitalization, the decentralization of energy systems, a shift from ownership-based to use-based consumption of services associated with the sharing economy, device convergence, and the emergence of a circular economy. Together with substantial improvements in energy efficiency across all sectors, these trends lead to very low future energy demand – reaching 42 % below 2020 levels by 2050 – despite ongoing population growth and a global increase in end-use energy services, such as thermally comfortable living space, food consumption per person, and the number of person-kilometres travelled.

In the LED scenario, the energy system that meets this reduced demand decarbonizes rapidly. The scenario's contraction of the demand side global energy system provides "breathing room" for supply-side decarbonization and facilitates the retirement of fossil-fuel-based generation. As a result, the scenario can meet energy needs without assuming the future availability of large volumes of negative emissions from carbon dioxide removal (CDR), such as those from large-scale bioenergy with carbon capture and storage (BECCS), which are often relied upon in other 1.5 °C scenarios. Nevertheless, the global forest sink is significantly enhanced, largely because reduced competition from bioenergy cropland and pastureland allows greater forest recovery and expansion.

Importantly, recent years have made it clear that the world has not yet started to undertake mitigation efforts at the scale envisioned by the LED pathway. While in 2020 actual historical greenhouse gas emissions were lower than

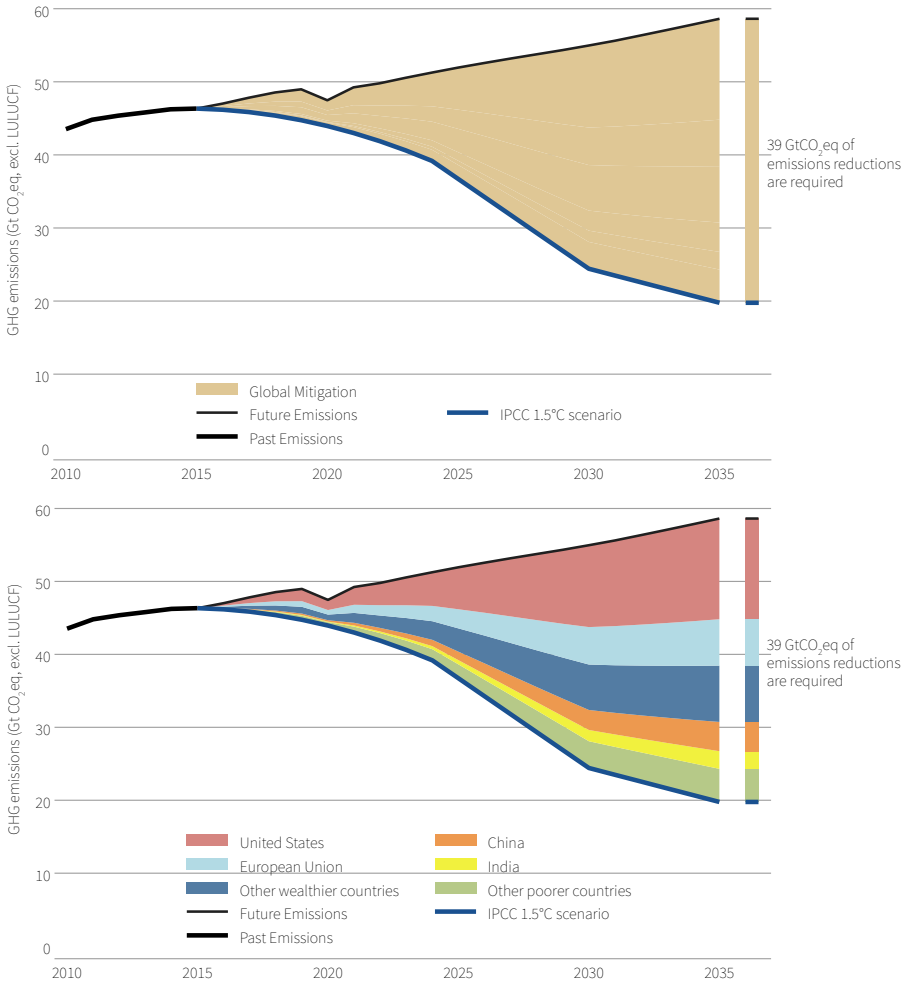

Figure 1: a. LED Pathway and baseline[2], showing necessary global mitigation (tan shading). b. LED Pathway and baseline, showing necessary global mitigation divided into illustrative national shares of the selected countries and groups

those of the LED pathway, these trajectories have since started to diverge and in 2025 carbon dioxide emissions reached approximately 39 $GtCO_2$ (Forster et al. 2025), compared to the only 29 $GtCO_2$ for the same year in the LED pathway. This mismatch, which will only increase with each additional year of insufficient mitigation ambition, indicates that these increasing excess emissions will have to be compensated for in the future – through even more stringent reductions than those modelled in the LED pathway or through carbon dioxide removal – or they will lead to higher temporary overshoot over 1.5 °C and a longer delay before warming returns to below 1.5 °C.

Relatedly, it has become clear that future emissions scenarios that can keep warming below 1.5 °C without at least temporarily exceeding the 1.5 °C threshold are no longer plausible – the carbon dioxide budget associated with a mere 50:50 change of achieving this outcome was only two more years of emissions at present rate at the beginning of 2026 (Forster et al. 2025). This means that the role of the 1.5 °C component of the Paris Agreement's temperature goal now clearly must be interpreted as one where temperatures return to, before the end of the 21st century, after temporarily exceeding it in the near future. This clarified understanding necessarily implies even greater urgency than before to limit the severity and duration of the temporary exceedance as well as the risk that returning to 1.5 °C or below before the end of the 21th century will become impossible (Rogelj and Rajamani 2025). Accepting this truth also means that governments and societies must grapple with the question of how to remove carbon dioxide from the atmosphere (which is required to lower temperatures). And given that the potential magnitude of removal by purely natural means is limited (Dooley and Kartha 2018), and that technological options like BECCS or DAC[1] have not been demonstrated at scale and carry the risk of deleterious side effects, the focus should remain on emissions reductions rather than carbon dioxide removal (Anderson 2015). In other words, the use of carbon dioxide removal options needs to be reserved to reverse global warming, rather than to further prolong the use of fossil fuel energy and other greenhouse-gas-emitting practices.

Returning to the LED pathway, a closer look reveals in figure 1a that by 2035, global greenhouse gas emissions (excluding emissions from Land Use, Land Use Change and Forestry, or LULUCF) would need to fall by slightly more than 39 $GtCO_2$eq relative to current trends. This required level of mitigation is more than four times greater than the reductions pledged over the course of 2025 under the new Paris NDCs (UNFCCC, 2016). This raises the central issue of equitable sharing of the global climate effort: how should the necessary mitigation effort be distributed among countries to shift the world from its present trajectory to one consistent with a safe climate? Figure 1 illustrates this challenge. In the left panel (a), the widening, tan-coloured area represents the global mitigation gap over time—the difference between current upward trend in emissions and the reductions needed to align with the LED pathway. The right panel (b) then schematically illustrates how one could think about allocating this growing gap across countries as shares of the total mitigation effort. The key question remains: what constitutes a fair distribution of this responsibility?

2. EQUITY IN THE CLIMATE CONVENTION AND THE PARIS AGREEMENT

Equity principles and indicators

Climate change represents the most far-reaching and complex commons challenge humanity has ever encountered, one that cannot be addressed without sustained and effective cooperation among countries with widely differing circumstances. In this context, equity is not only intrinsically important but also instrumental, as it underpins the willingness of nations to collaborate. Or, as emphasized by the Intergovernmental Panel on Climate Change, "outcomes seen as equitable can lead to more effective cooperation" (IPCC 2014: 5).

This report aims to provide a quantitative assessment of Norway's fair contribution to such global cooperation. International law (and national case law in several countries) has become increasingly clear that equity is a foundational principle that must be taken into account when determining countries contribution. That is, while the Paris Agreement established a bottom-up architecture where countries self-determine the level of ambition of their contributions, international law is clear that they nevertheless need to cohere to a minimum standard (ECHR 2024), one that reflects their equitable contribution to a global effort that is consistent with limiting warming 1.5°C (as the Paris Agreement's "agreed primary temperature goal," ICJ 2025). This puts the importance of clearly articulating what constitutes such an equitable contribution in the fore.

Defining and measuring equity is nevertheless inherently challenging. It is a fundamentally normative concept, shaped by values and therefore not reducible to a single objective formulation. While reasonable disagreement may persist regarding how fair shares should be specified, equity is not purely subjective. Widely accepted ethical principles – reflected in international agreements – offer a sufficiently robust foundation to enable analyses of national responsibilities that are both informative and policy-relevant.

To situate the issue of equitable action in a world marked by significant disparities, it is useful to revisit the foundational consensus embedded in one of the principles of the United Nations Framework Convention on Climate Change.

> "The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities." (UNFCCC 1992, Article 3 "Principles")

This principle is further elaborated in the Rio Declaration (adopted at the same 1992 "Earth Summit" as the UNFCCC), which explicitly links differentiated responsibilities to countries' respective contributions to environmental degradation and their capacities to address it:

> "In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command." (UN 1992, Principle 7)

In this framing, two core ethical principles emerge clearly: Responsibility and Capacity. Responsibility reflects the extent to which a country has contributed to the problem, while Capacity captures its ability to contribute to addressing it. These ideas mirror well-established norms in domestic governance, where individuals are expected to take remediatory responsibility for damages they have caused and when public costs need to be shared, tax systems invariably require wealthier members to contribute more than poorer members.

A third foundational principle is the Right to Development, articulated in the 1986 UN Declaration on the Right to Development. This principle affirms that

> "The right to development is an inalienable human right by virtue of which every human person and all peoples are entitled to participate in, contribute to, and enjoy economic, social, cultural and political development, in which all human rights and fundamental freedoms can be fully realized." (UNGA 1986, Article 1.1)

The Rio Declaration situates this right within the broader context of sustainability, emphasizing that development must proceed in a way that balances environmental and intergenerational considerations.

Within the climate context, these three principles can be operationalized as follows.

- **Capacity** implies that countries with greater means should contribute more to addressing climate change.
- **Responsibility** implies that those who have contributed more to the accumulation of greenhouse gases should bear a larger share of the mitigation burden.
- The **Right to Sustainable Development** implies that climate action – across mitigation, adaptation, and loss and damage – must not compromise the ability of countries to meet fundamental freedoms, protect human rights, and pursue equitable growth.

Although countries may differ in how precisely they interpret these principles, it is possible to translate them into quantitative indicators. Capacity, for example, is often proxied using financial measures such as income, not because income fully captures all relevant dimensions, but because it correlates strongly with other forms of capacity, including technological and institutional capabilities. To reflect equity considerations, income can be treated progressively – mirroring tax systems – by introducing thresholds below which income does not contribute to measured capacity and above which it is weighted more heavily.

Responsibility can similarly be quantified through cumulative greenhouse gas emissions over a specified period, capturing a country's historical contribution to climate change. This metric, too, can be adjusted progressively by distinguishing between emissions associated with basic needs and those linked to higher levels of consumption.

The Right to Sustainable Development, while inherently multidimensional, is interpreted here in a more focused way: as a constraint ensuring that the distribution of mitigation efforts does not impose undue burdens on countries, particularly those still striving to achieve fundamental development objectives.

Taken together, these principles and their associated indicators provide the conceptual basis for the fair shares framework applied in this analysis, which is elaborated in the following section.

A borehole and drip irrigation system in Gwembe district in Zambia. Zambia has been hard hit by drought.

PHOTO: Håvard Bjelland/ Norwegian Church Aid

3. WHAT IS NORWAY'S FAIR SHARE

Fair Effort Sharing

The Climate Equity Reference Framework, the fair-effort-sharing framework used in this report, involves allocating the total global mitigation requirement across countries in proportion to each nation's share of overall Responsibility and Capacity. Under this approach, each country is assigned a fair share, which evolves over time as its relative contributions to cumulative emissions and global income change. In the present analysis, Responsibility and Capacity are weighted equally – effectively averaged – reflecting the judgment of the commissioning organizations that both principles should carry the same normative importance. While alternative weightings could be justified, this choice provides a balanced interpretation of the two dimensions.

Operationalizing the Responsibility and Capacity indicators requires several methodological decisions, of which two are particularly consequential from an ethical standpoint. The first concerns the temporal scope of Responsibility: from which point in time should emissions be counted? Following internal deliberations, the organizations that commissioned this report adopted 1990 as the starting year for cumulative emissions. Other candidates – such as the 1970s, when climate risks were already recognized in policy circles, or the mid-19th century, marking the rise of industrial fossil fuel use – could plausibly be defended. The choice of 1990 is therefore relatively conservative, as it excludes a substantial portion of historical emissions from early-industrialized countries, and defining Responsibility in this manner is therefore *generous* to nations that had already been fully industrialized and had undertaken much of their fossil fuel-intensive development prior to 1990. Notably, while 1990 was later used as a benchmark year in the United Nations Framework Convention on Climate Change for assessing mitigation progress, it was not originally intended to establish a baseline for attributing historical responsibility. In legal terms, emissions after 1990 cannot be taken as the "ordinary meaning" of the term "historical emissions" in the context of a treaty that was signed in 1992. Even so, adopting this later start date still yields results that underscore the significant contribution expected from already industrialized nations, including Norway.

The second key consideration relates to how Capacity is distributed within countries – specifically, the degree of progressivity applied when distinguishing between lower- and higher-income populations. In line with the conceptual framework outlined earlier, this analysis introduces two income thresholds to reflect differing abilities to contribute. A lower "development threshold" is set modestly above a global poverty benchmark, itself estimated at roughly US$ 16 per person per day (PPP-adjusted,[3] 2005 dollars). This level is intended to capture the income at which fundamental deprivations—such as malnutrition, high infant mortality, and limited educational access—begin to recede.[4] So, taking a figure of 25 % above this global poverty line, these results assume a development threshold of US$ 20 per person per day (US$ 7,500 per person annually), aligning with typical poverty thresholds in developed economies.

An upper threshold is also defined, above which income is assumed to contribute fully to national Capacity. This level is intended to reflect a lifestyle where additional income is primarily spent on consumption beyond basic needs, where additional resources are more readily available for contributing to public goods such as climate mitigation. In this study, the upper threshold is set at US$ 100,000 per year (market exchange rates), a figure broadly consistent with high-income brackets in Norway's fiscal system.[5]

The quantitative analysis is conducted using the *Climate Equity Reference Calculator* (Holz et al. 2019; Kemp-Benedict et al. 2024)[6], an online tool designed to operationalize a wide range of equity assumptions. It enables users to specify parameters related to Responsibility and Capacity in accordance with their own interpretation of fairness. For this report, the selected parameters include a 1990 start date for historical emissions, progressive income thresholds at US$ 7,500 (PPP) and US$ 100,000 (MER), and

The key equity settings used in this report	
CAPACITY	
Lower income threshold ("development" threshold, below which per capita income does not count toward national capacity)	$USD 7,500/year
Upper income threshold ("luxury" threshold, above which income counts fully toward national capacity)	$USD 100,000/year
RESPONSIBILITY	
Historic responsibility starting year	1990
COMBINING CAPACITY AND RESPONSIBILITY	
Relative weighting of Capacity and Responsibility	equal (50 %-50 %)

Table 1: Key equity settings used in this report to parameterize the Climate Equity Reference Framework's capacity and responsibility calculations

Results: Norway's mitigation fair share
Given Norway's position among the world's wealthiest economies – with a GDP per capita of approximately US$ 87,000 in 2024, compared to a global average near US$ 13,500 (World Bank 2025) – it commands a disproportionately large share of global Capacity. While its population represents only about 0.07% of the world total, in 2025, it accounts for roughly 1.0 % of global Capacity as defined in this framework. Its share of Responsibility is also elevated, though to a lesser extent, at approximately 0.30 % of the global total. When these two dimensions are combined with equal weighting, Norway's overall share of global Capacity and Responsibility amounts to 0.65 % in 2025. Looking ahead to 2035, this combined share is projected to decline slightly to 0.57 %, primarily due to faster growth in income and emissions in developing countries, which increases their relative weight in both dimensions.

With this figure in hand, and given the definition of Capacity and Responsibility laid out here, one finds that in 2035 Norway's fair share is 0.57 % of the total required mitigation effort (about 38.9 $GtCO_2eq$), or 221 $MtCO_2eq$. This calculation can be performed for every year from now to 2035, generating a trajectory of annual fair share contributions. Table 5, toward the end of this report, summarizes the results of these calculations.

In light of Norway's assessed Capacity and Responsibility, this level of contribution represents a proportionate allocation of the global mitigation effort. Delivering less would imply underperformance relative to its fair share, while exceeding it would position Norway as a frontrunner in climate action, demonstrating leadership in the context of an ambitious collective response.

The following section turns to the practical implications of this fair share and considers how it might be operationalized in policy terms.

equal weighting of Responsibility and Capacity. Drawing on these inputs, along with standard demographic and macroeconomic data[7] – such as population, GDP, income distribution, and emissions intensity (Holz et al. 2024)– the model produces transparent estimates of national fair shares in the global mitigation effort.

Post-Paris Shortfall

The present report is an update to an earlier study that, in 2018, determined the fair share of Norway of a global 1.5 °C-consistent mitigation pathway through 2030 (Kartha et al. 2018), which was conceptualized as Norway's minimal mitigation contribution toward the internationally agreed goals of the Paris Agreement, which had been adopted in 2015, which Norway ratified in 2016, and which entered into force in 2016 (UN 2017). That report's calculations of Norway's fair share of global Paris-Agreement-consistent mitigation through 2030 concluded that Norway would have to implement measures that would reach an equivalent of a 420 % reduction below 1990 levels by 2030, consisting of a 53 % domestic reduction and a further mitigation impact outside Norway equivalent to a 198 $MtCO_2eq$ emission reduction through international cooperation, support, and climate finance.

However, in the years since the adoption of the Paris Agreement, Norway's action – both domestically and through international cooperation, support, and climate finance – has fallen short of this fair share.

Figure 2 below shows the scale of this shortfall. It utilizes Norway's National Emissions Inventory submitted to the UNFCCC (2026) for actual emissions for the period from 2016 to 2024 (and extrapolates them to 2025). As the

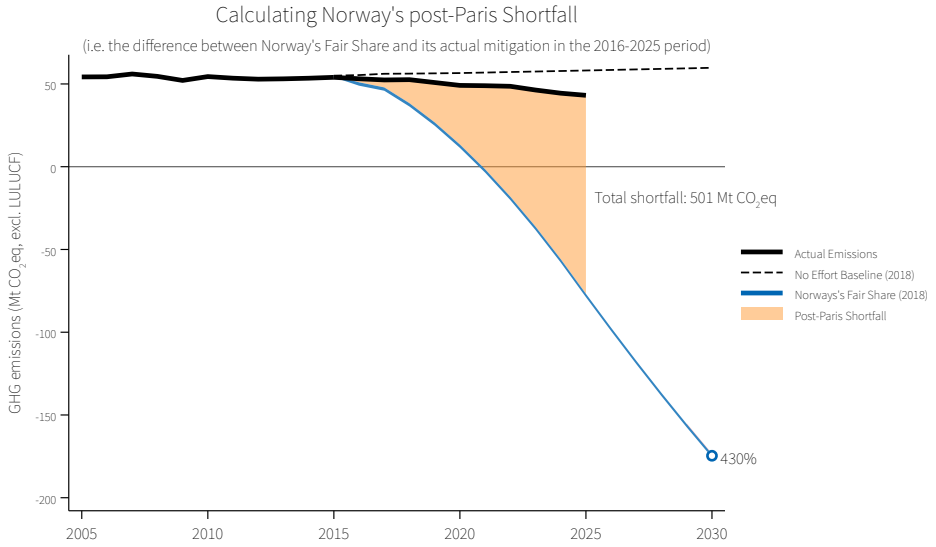

Figure 2: Norway's post-Paris climate action shortfall (orange shaded area), measured as the cumulative shortfall over the 2016-2025 period between Norway's actual GHG emissions (black line) and Norway's fair share of global 1.5 °C consistent mitigation as calculated by an earlier study in 2018 (blue line; Kartha et al. 2018).

ZALINGEI, DARFUR, SUDAN: In the dried-up riverbed, Kaltuma Umer digs for water. She remembers when water used to flow there most of the time.

PHOTO: Håvard Bjelland/ Norwegian Church Aid

figure shows, Norway's post-Paris shortfall relative to its fair share, as calculated in the 2018 report, amounts to a cumulative total of 501 $MtCO_2eq$ over the 2016-2025 period. Cumulatively, over this same period, the 2018 report calculated Norway's fair share of global mitigation to be 580 $MtCO_2eq$ – the shortfall represents 86 % of that amount. This is the amount of mitigation that Norway should have contributed toward the global effort, agreed in Paris and ratified by Norway, to limit global temperature increase to 1.5 °C, but which it has not yet contributed. Importantly, this calculation does not consider the mitigation impact of Norway's climate finance contributions since robust data is not available. However, it can be estimated that Norway's shortfall could be between 10 and 25% lower if accounting for the mitigation in other countries that was enabled by Norway's climate finance.[8] Either way, this shortfall represents further excess emissions accumulation in the atmosphere that increases the amount of emissions that must be reduced, avoided and/or removed in the future.[9] In the present analysis, this shortfall is not incorporated into the calculations of Norway's fair share, whereas similar studies in other countries have added the post-Paris shortfall to the country's near-future fair share obligation (e.g. for Canada (Holz 2024), Québec (Holz 2025), and Sweden (Holz 2026)), which would result in even more demanding fair shares than those articulated here.

4. THE DUAL NATURE OF NORWAY'S FAIR SHARE: DOMESTIC EFFORT & CLIMATE FINANCE

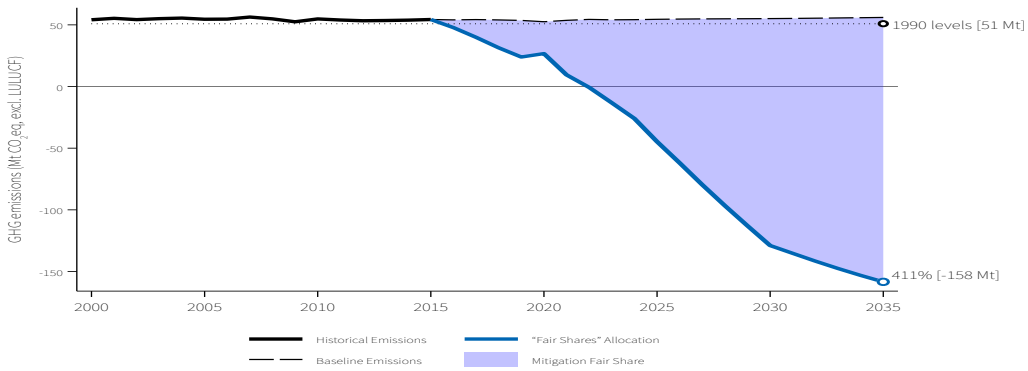

Figure 3: Norway's fair share of the global mitigation effort – increasing to approximately 221 $MtCO_2eq$ annually by 2035 shown as reductions relative to its domestic emissions baseline. A substantial portion of this fair share would need to be met outside its borders, through the provision of climate finance and technological support to enable additional mitigation in other countries.

Total Fair Share vs. Domestic Reductions

Figure 3 presents Norway's projected baseline emissions to 2035 (the upper line), alongside the time series of its expanding fair share (depicted as the blue wedge), which increases to approximately 221 $MtCO_2eq$ by 2035.

The implication of the size of the mitigation fair share relative to the domestic baseline is immediately clear: achieving it through domestic mitigation alone would require emissions to fall to zero within a very short timeframe, and then move into substantially negative territory thereafter. This, in turn, points to another implication that is as clear as it is important: the scale of Norway's fair share of global mitigation far exceeds what can realistically be accomplished domestically and therefore cannot be achieved through domestic action alone. Expecting otherwise would not only be unrealistic but potentially counterproductive. Norway is not an outlier in this respect; it shares this characteristic with many developed countries that possess high levels of Capacity and Responsibility, and whose fair shares exceed their domestic mitigation potential. By contrast, many developing countries – with comparatively lower Capacity and Responsibility – tend to have fair shares that fall below, sometimes well below, their technical mitigation potential. Yet, if global warming is to be limited to 1.5 °C, the full extent of available mitigation must be mobilized across all regions.

> **"it is entirely reasonable to expect both ambitious domestic reductions and the fulfilment of its remaining fair share through financial support to enable emissions reductions in other countries.**

Resolving this imbalance necessarily depends on *international cooperation*. While it is neither practical nor meaningful to demand that Norway implement domestic mitigation beyond what is possible, **it is entirely reasonable to expect both ambitious domestic reductions and the fulfilment of its remaining fair share through financial support to enable emissions reductions in other countries.** In this framework, wealthier nations contribute not only through domestic action but also – *as an integral part of their fair share* – by facilitating the full utilization of mitigation opportunities in lower-income countries. In turn, developing countries would be expected to leverage such support to pursue mitigation efforts that extend well beyond their own fair shares, provided these efforts align with their sustainable development priorities and are contingent on adequate external support. Importantly, such internationally supported mitigation is additional to – not a substitute or offset for – robust domestic action in wealthier countries.

At the same time, an additional layer of equity must be acknowledged. Even when supported, requiring developing countries to undertake mitigation beyond their fair shares reflects an underlying injustice rooted in the historical overuse of the global carbon budget by wealthier nations. As a result, developing countries are effectively constrained to pursue alternative development pathways that are less established and must be implemented at an accelerated pace. While this rapid transition to a low-carbon development path is essential to avoid severe climate impacts, it narrows the range of available policy options and complicates efforts to ensure a just transition – one that safeguards workers, communities, and economic sectors. This reality reinforces the importance of predictable and sustained international support, enabling long-term planning and reducing the risks associated with rapid structural change.

In Norway's case, determining the balance between domestic mitigation and international contributions is a somewhat open question. Figure 4 therefore offers an indicative, rather than definitive, partitioning of its fair share into domestic (red) and extraterritorial (blue) obligations. Here, the demands of Norwegian civil society

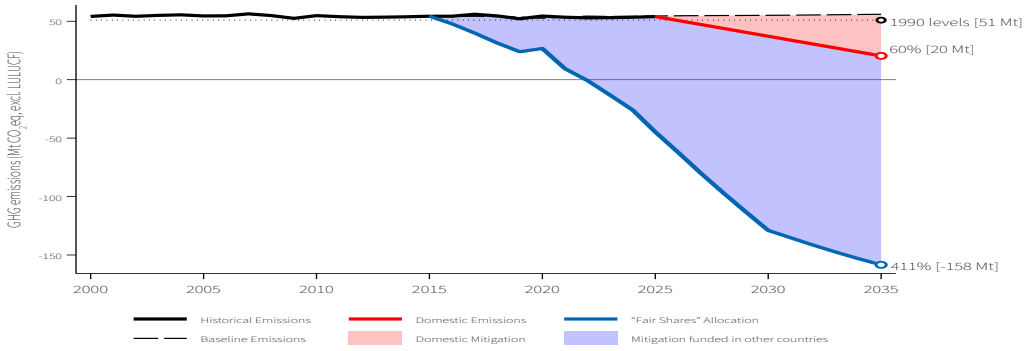

Figure 4: Norway's fair share of the global mitigation effort, divided into a portion that could be undertaken domestically (red wedge) and a much larger portion (blue wedge) that would be undertaken through international climate finance and other support.

to reduce domestic emissions by at least 60 % below 1990 levels has been used for this partitioning (ForUM 2024). This target would result in domestic emissions reductions in 2035 of about 36 $MtCO_2eq$ below baseline levels – compared to a mitigation fair share of 214 $MtCO_2eq$ of mitigation below baseline. This would leave the remainder of 178 $MtCO_2eq$ of Norway's 2035 annual fair share mitigation obligation to be implemented by Norway through providing international climate finance for mitigation in other countries. It is worth highlighting that this international portion of **Norway's total mitigation fair share is substantially larger than its domestic portion, in fact, it is almost five times as large.**[10] **This highlights that international cooperation and climate finance cannot be ignored, side-lined, postponed, or an afterthought to domestic initiatives but must be a most central component of Norway's overall strategy for contributing its fair share to global mitigation.**

> **Norway's total mitigation fair share is substantially larger than its domestic portion, in fact, it is almost five times as large.**

Expressing international support in terms of tons of CO_2eq of mitigation provides a useful degree of concreteness. It allows for direct comparison with a country's total fair share and can be translated into specific categories of mitigation activity in countries where those additional activities would take place – such as renewable energy generation, carbon sequestration through community-based forestry, and energy efficiency improvements across buildings and industry.

At the same time, it is important to consider the financial magnitude associated with the international component of a country's fair share. To illustrate this in the case of Norway, we utilize data from the IPCC Sixth Assessment Report's Scenario Database (Byers et al. 2022) to present a simple and transparent calculation, where average mitigation costs in developing countries for several 1.5 °C scenarios over the 2026 to 2035 period are applied to the international portion of Norway's fair share as calculated above.[11]

Table 2 shows the results of this calculation. The top part of the table shows, for each year between 2026 and 2035, Norway's total fair share of the global mitigation effort as well as the decomposition of this fair share in the domestic and international portions as described above and as depicted in figure 4. The bottom part of the table expresses the international portion of Norway's mitigation fair share as mitigation costs, based on the data from the IPCC's Sixth Assessment Report. **These calculations find that Norway's total annual international climate finance obligation for mitigation is NOK 23 billion in 2026 and gradually increases over time – as both the size of Norway's fair share and average cost of mitigation increases – to NOK 120 billion in 2035, for an average of NOK 62 billion per year over this period.**[12]

Norway's Fair Share and its Decomposition ($MtCO_2eq$)	**2026**	**2030**	**2035**	**2026 – 2035 total**
Fair Share Reduction below baseline, of which	117	184	214	1,769
Civil Society Domestic Mitigation Demand (60% below 1990)	4	18	36	197
Norway's International Obligation (remainder)	113	166	179	1,571

Norway's International Mitigation Finance Obligation	**2026**	**2030**	**2035**	**2026 – 2035 total**	**average**
NOK billions per year	23	45	120	616	62

Table 2: Norway's Mitigation Fair Share over the 2026-2035 period and its decomposition in domestic and international portions (top part, in $MtCO_2eq$) as well as implied total annual costs of Norway's international mitigation obligation, based on IPCC AR6 scenario database (bottom part, in billions of Norwegian Kroner per year).

This could be a low estimate since the mitigation cost figures used here are average costs across all mitigation in the non-OECD regions. It is plausible to assume that developing countries would prioritize low-cost mitigation for activities that they can fund with their own resources, which would mean that the remaining activities for which they would then seek (and need) international climate finance would have higher mitigation costs than those used here. Notably, the average amount calculated here is very similar to the amount that was calculated in the 2018 report (Kartha et al. 2018) – NOK 50 billion annually – when adjusted for compound inflation over the 2018-2026 period.

Box: Norway's NDC in International Comparison

As the green bars in figure 5 show, Norway does have somewhat higher fair share of global mitigation in 2035 than the other countries. Note that such comparisons are on a per capita basis, as it would be meaningless to compare countries of such vastly different size on an absolute basis. For example, China's fair share is markedly smaller than Norway's on a per capita basis, because of their considerably lower wealth and emissions, even though it is much larger on an absolute basis. More to the point, however, the per-capita fair shares of the other developed countries shown here are also somewhat (USA) or substantially (EU, UK) lower than Norway's. This owes overwhelmingly to Norway's greater wealth. Especially within an ethical framework in which the higher the income, the more it counts toward a nation's capacity Norway's prosperity translates into greater ethical responsibilities to the world (just as in typical taxation systems, with higher tax rates applied to higher marginal income). This is notable, and even if Norway's standing as a climate leader is assessed by comparing its efforts relative to other developed countries (rather than the actual demands of a 1.5 °C pathway), it must be gauged in light of Norway's greater capacity and responsibility.

The countries' NDCs are also shown in figure 5, expressed in tons of pledged mitigation below baseline in 2035, per capita. It is immediately apparent that Norway's NDC, and all the other developed countries, fall far short of matching their fair shares. It is also apparent that the gap between the NDC pledge and the fair share is greatest for Norway among all the countries depicted here (it is also worth noting that the current relevance of the USA's NDC is unclear, given its withdrawal from the Paris Agreement). China's NDC represents 85-95 % of its fair share, and the Marshall Island's NDC actually exceeds it.

This demonstrates that despite contrary claims by Norwegian politicians, Norway's NDC pledge exhibits a very substantial shortfall vis-à-vis a fair share contribution to a 1.5 °C-consistent global effort. This, once again, illustrates that even the most ambitious domestic targets and policies can only ever one component of Norway's overall contribution which has to also include substantial climate finance for mitigation.

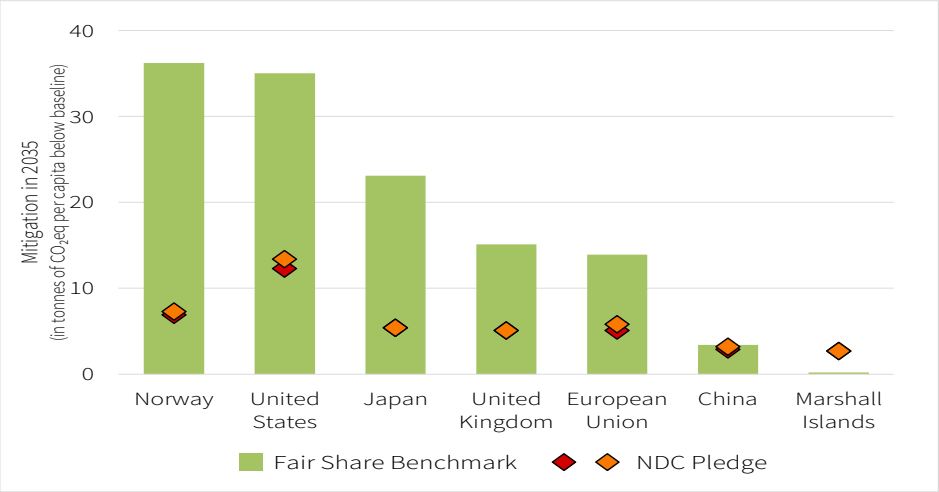

Figure 5: Norway's Fair Share compared with other countries or groupings, expressed on a per capita basis to provide a meaningful basis of comparison (green bars). In each case, the mitigation impact of the relevant NDC is also shown (orange and red diamonds – two markers for NDC that express their mitigation target as a range).

	Norway	United States	Japan	United Kingdom	European Union	China	Marshall Islands
(as mitigation in tonnes of CO_2eq per capita below baseline in 2035)							
Fair Share	36.2	35.0	23.1	15.1	13.9	3.4	0.2
NDC Pledge	6.9	12.3	5.4	5.1	5.1	2.9	2.7
	7.3	13.4			5.8	3.2	

Adaptation Finance

Estimates for adaptation needs are notoriously hard to develop with any degree of precision and comprehensiveness, since they strongly depend on assumptions, for example regarding the success of mitigation (since a lower warming world has less climate impacts to adapt to), the level of "acceptable" residual loss and damage (since it's impossible to reduce additional climate risk to zero, which non-zero level is "acceptable"?), the scope of the cost estimates, the role of "the private sector," including households in simply "absorbing" adaptation costs, and of course uncertainty around prices, impacts, and projections, to name but a few.

The figures used in the following are taken from the 2023 Update to the Adaptation Finance Gap Report (or AGR23; UNEP 2023a, 2023b, 2016) as well as from the 2025 Adaptation Gap Report (AGR25; UNEP 2025). Both reports draw on two main lines of evidence to specify adaptation costs/needs. First, they present a sectorally-disaggregated modelling study to find adaptation *costs* of USD $215 billion per year through 2030 (AGR23) and rising to USD $315 billion per year by 2035 (AGR25). Secondly, they offer an evaluation of the adaptation finance *needs* of developing countries, estimating them to be USD $ 365 billion per year through 2035.[13]

In chapter 3 (in the "Results" box on page 12), we have calculated that Norway's combined share of global capacity and responsibility is 0.65 % in 2025, gradually reducing to 0.57 % in 2035. Just as we applied this figure to the global mitigation need above, we can also apply it to the adaptation finance need to determine Norway's fair share of this figure. Table 3 shows the results of this calculation for both the adaptation costs and adaptation finance needs figures discussed above. **The calculations find that Norway's fair share for international climate finance for adaptation is NOK 14-24 billion in 2026 and NOK 18-21 billion in 2035, for a total of NOK 151-226 billion over the next decade, averaging NOK 15-23 billion per year.**[14]

Loss and Damage Finance

Just like adaptation cost/needs estimates, estimates of loss and damage costs or needs in developing countries are also subject to large uncertainties and sensitive to assumptions. While adaptation cost estimates are very sensitive to assumptions about the efficacy of mitigation efforts (since adapting to higher levels of warming is more costly), loss and damage estimates are sensitive to assumption about the efficacy of both mitigation and adaptation: on one hand, less success of mitigation leads to higher needs for adaptation, on the other hand, the scale of loss and damage is dependent on both the success of mitigation as well as the success of adaptation, as loss and damage is defined as the residual climate damages that occurred despite adaptation: "Risks and projected adverse impacts and related losses and damages from climate change will escalate with every increment of global warming [...] Adaptation options that are feasible and effective today will become constrained and less effective with increasing global warming. With increasing global warming, losses and damages will increase and additional human and natural systems will reach adaptation limits." (IPCC 2023)

Nevertheless, the literature offers several figures that can be used to inform an assessment of potential scale of finance that needs to be provided for addressing loss and damage in developing countries.[15] Based on this literature, and preferring to err on the lower side of possible ranges, the present study uses the figures from the Civil Society Equity Review: namely, USD $ 150 billion per year in 2025, increasing to USD $ 300 billion per year in 2030 and, further extrapolating at the same growth rate, to USD $ 450 billion per year in 2035.

It is important to stress the limitations of any estimates of loss and damage, some of which have important implications for the design of an international mechanism to provide loss and damage finance. For example, estimates usually disregard non-economic losses, such as losses of culture, home and belonging (which may imply migration), physical, mental and emotional human suffering, etc.

	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2026-2035
Adaptation Costs											
Total Costs in billion USD	215	215	215	215	215	235	255	275	295	315	2,665
Total Costs in billion NOK	2,234	2,234	2,234	2,234	2,234	2,442	2,650	2,858	3,065	3,273	25,458
Norway's Fair Share in billion NOK	14	14	14	14	13	14	15	16	17	18	151
Adaptation Needs											
Total Needs in billion USD	365	365	365	365	365	365	365	365	365	365	4,015
Total Needs in billion NOK	3,793	3,793	3,793	3,793	3,793	3,793	3,793	3,793	3,793	3,793	37,928
Norway's Fair Share in billion NOK	24	24	24	23	23	22	22	22	21	21	226

Table 3: Adaptation Costs and Adaptation Finance Needs in developing countries (UNEP 2023b, 2025) and Norway's fair share of providing them.

They also disregard the issue of irreversibility – i.e. even if damages are paid, some losses remain irrecoverable. They attempt to quantify the scale of potential loss and damage *ex ante*, while the true scale of losses and damages can only be known after they occurred, i.e. *ex post.* Furthermore, it is widely recognized that, especially in developing countries, climate disasters have profound impacts on economic and human development in the affected countries, often eliminating hard-won gains, and thus have longer term impacts on the broader development of the countries beyond the immediate impacts. Some of these broader issues around ethical questions of loss and damage finance are discussed in a recent discussion paper by Athanasiou, Kartha, and Holz (2023) and more fundamental questions by Barnet et al. (2016).

Following the same approach as that we used to derive Norway's fair share of adaptation finance, we can calculate its fair share of the provision of finance to address Loss and Damage. **The calculations, shown in Table 4, find that Norway's fair share for international climate finance for Loss and Damage is NOK 12 billion in 2026 and NOK 26 billion in 2035, for a total of NOK 203 billion over the next decade, averaging NOK 20 billion per year.**

	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2026-2035
Loss and Damage Finance											
Total in billion USD	180	210	240	270	300	330	360	390	420	450	3,300
Total in billion NOK	1,870	2,182	2,494	2,806	3,117	3,429	3,741	4,053	4,364	4,676	34,291
Norway's Fair Share in billion NOK	12	14	15	17	19	20	22	23	25	26	203

Table 4: Loss and Damage Finance for developing countries and Norway's fair share of providing them.

Main Results of the Fair Share Analysis		
Norway's share of global capacity in 2025		1.01 %
Norway's share of global responsibility in 2025		0.30 %
Norway's combined share of global capacity and responsibility in 2025		0.65 %
Norway's combined share of global capacity and responsibility by 2035		0.57 %
Norway's fair share of global mitigation in 2035	$MtCO_2eq$ below baseline	214 $MtCO_2eq$
	% below 1990	411 %
○ Norway's domestic emission reduction in 2035	$MtCO_2eq$ below baseline	36 $MtCO_2eq$
	% below 1990	60 %
○ Norway's international emission reduction in 2035	$MtCO_2eq$ below baseline	178 $MtCO_2eq$
	% below 1990	351 %
Norway's international emission reduction as mitigation finance	average per year 2026-2035 in NOK	62 billion
Norway's fair share of international adaptation finance	average per year 2026-2035 in NOK	15-23 billion
Norway's fair share of international Loss and Damage finance	average per year 2026-2035 in NOK	20 billion

Table 5: Summary of Results of the Fair Shares analysis for Norway

SAN MARCOS, GUATEMALA: Glendy Augustin (27) is in the forest where she played as a child. As an adult, this is also where she finds rest—and where her most important struggle takes place. “Mother Earth is facing great risk right now, and everything is interconnected: people, forests, and rivers. We cannot live without food, water, and clean air. We must raise awareness and encourage people to engage in the fight for the climate,” she says.

PHOTO: Håvard Bjelland/ Norwegian Church Aid

5. CONCLUSION

Sustained and effective cooperation among the world's nations—across both high- and low-income contexts—is indispensable to addressing the climate challenge. Such cooperation, however, can only be realized if it is grounded in equity, with all countries contributing in line with their fair share of the transformative effort required for climate stabilization. As Norway seeks to position itself as a climate leader, it is therefore critical that it advance an approach defined not only by ambition, but by a clear commitment to equity. This entails aligning its actions with the core principles embedded in the United Nations Framework Convention on Climate Change—namely Capacity, Responsibility, and the Right to Sustainable Development. As a high-income country whose prosperity has been closely linked to fossil fuel-based development, Norway bears a distinct and consequential responsibility within this framework.

Accordingly, Norway has an ethical obligation to pursue deep emissions reductions domestically. Current ambition levels do not match this obligation. At the same time, its fair share of the global mitigation effort necessarily extends beyond its borders, encompassing the provision of financial and technological support to enable additional substantial mitigation efforts in other countries. **This is crucial – even the most ambitious domestic mitigation action would fall far short of Norway's fair share and international climate finance for mitigation is therefore an inseparable portion of its overall contribution. In fact, this climate finance aspect is several times larger than the domestic portion and can therefore not merely be an afterthought.**

In this report, Norway's fair share has been quantified using the same equity framework that was adopted by the Civil Society Equity Review coalition, using specific normative choices made by the organizations publishing this report. On this basis, Norway's fair share of the global mitigation effort is estimated at 0.57 % in 2035, corresponding to approximately 214 $MtCO_2eq$ of reductions below baseline or an equivalent of 411 % below 1990 levels. Given Norwegian civil society groups' demand for a domestic mitigation target of 60% below 1990 levels by 2035, the remaining portion of its fair share amounts to 178 $MtCO_2eq$ in 2035, which would need to be fulfilled through international support. Using information on mitigation costs of 1.5 °C-consistent mitigation scenarios from the IPCC's Sixth Assessment Report, implies an annual climate finance contribution for mitigation averaging NOK 62 billion per year between 2026 and 2035.

With respect to adaptation, preliminary estimates based on adaptation cost and needs projections suggest that Norway's contribution could range between NOK 15 billion and NOK 23 billion annually between now and 2035 on average. However, such estimates are widely recognized as incomplete, omitting significant dimensions of adaptation needs. In this context, a substantially higher level of support would be justified, particularly as part of a precautionary approach to managing escalating climate risks in the absence of comprehensive cost assessments. Loss and Damage finance calculations are subject to similar uncertainties as discussed for adaptation finance. This report estimates Norway's fair share contribution to Loss and Damage finance to be NOK 20 billion annually on average between 2026 and 2035.

The report has placed Norway's climate finance in the context of fair shares of global efforts for mitigation, adaptation finance and Loss and Damage finance. This illustrates several things. First, it emphasizes that the appropriate benchmark for climate finance is not the quantity decided by the parties to the UNFCCC at COP29 in Baku as the "New Collective Quantified Goal," but rather the actual needs of developing countries across all aspects of climate action. This is important because the collective response to the climate crisis can only be successful if the resources needed to implement it are available. Second, the approach taken in this report illustrates that the global climate response will be insufficient if developed countries exclusively focus on the work they need to do domestically and ignore or neglect the effort they need to do via finance and support elsewhere. In other words, even countries that implement the most ambitious domestic decarbonization agenda imaginable will share the responsibility for climate breakdown if they don't also implement their climate finance obligations.

Norway possesses both the capacity and the responsibility to deliver its fair share of this effort – and, in doing so, to demonstrate leadership in the global response to climate change.

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ENDNOTES

1 BECCS = Bio Energy with Carbon Capture and Storage; DAC = Direct Air Capture

2 Our baseline emissions are based on GDP projections from the IMF's World Economic Outlook (up to 2029) (IMF 2024) and IPCC AR6 Scenario Database (for 2031-2035) (Byers et al. 2022), combined with the median carbon intensity changes modelled in the EMF27-Base-FullTech scenario from the IPCC AR6 Scenario Database. For more detailed information see Holz et al. (2024).

3 The lower threshold is adjusted according to Purchasing Power Parity (PPP) conversion rates, to reflect the different purchasing power of local currencies compared to their Market Exchange Rate (MER) conversion rates (that is, the normal exchange rates used in currency markets), particularly at low incomes where a smaller portion of goods is traded through international markets. The higher threshold is defined according to MER conversion rates, reflecting the fact that a higher proportion of goods is traded through international markets at higher incomes, as well as those products and technologies required for mitigation.

4 Lant Pritchett (2003, 2006) concluded that the use of this line "is justifiable, more consistent with international fairness, and is a better foundation for the World Bank's organizational mission of poverty reduction" and that "If the poverty line were defined as the level of income at which people typically achieve acceptable levels of the Millennium Development Goal indicators (such as universal primary school completion), it would be set at about [$16] per day."

5 For the Norwegian step tax (Trinnskatt) – a tax on gross salary and other personal income – the income cut-off for the two highest income brackets (defining the earners that are subject to the highest tax rates) is NOK 980,100 in 2026, or about US$ 94,000.

6 The *Climate Equity Reference Calculator* (Holz et al. 2019; Kemp-Benedict et al. 2024) has been developed by the Climate Equity Reference Project, which was commissioned to provide scientific, analytical and technical analyses and advice, and to assist producing this report. The interactive user interface to the calculator is at https://calculator.climateequityreference.org

7 The present report is based on calculations made with version 7.4 of the Climate Equity Reference Calculator core database of input data. We source these input data from high-quality, well-vetted authoritative data sources – these sources and our approach for processing these data is documented elsewhere (Holz et al. 2024).

8 Both the present report as well as the earlier 2018 report conceptualize Norway's total contribution to the global mitigation effort as the sum of its domestic mitigation and the mitigation impact of its climate finance. As such, the mitigation impact of Norway's climate finance should be deducted from the shortfall. However, not robust data exists to estimate this amount, as was also pointed out in a presentation by the director of the Norwegian Agency for Development Cooperation, Norad, when suggesting that Norway's climate finance may have resulted in as much as 22 $MtCO_2eq$ of avoided or reduced emissions in 2023 (Solhjell 2025). Substantial methodological issues surrounding permanence, additionality and double counting suggest a very large degree of uncertainty and further suggest that the real value would be much lower. However, if taken at face value, this would be about 25% of that year's shortfall between Norway's mitigation fair share and its domestic emissions (83 $MtCO_2eq$), thus reducing the shortfall by about 25 %. Additionally, an analysis of Canada's fair share shortfall estimated the mitigation impact of its climate finance – based on the mitigation performance of the Green Climate Fund's portfolio and Canada's overall climate finance disbursements for climate finance – and found that this reduced Canada's shortfall by less than 10 % (Holz 2024). Taken together, these data points suggests that a proper accounting of Norway's climate finance would reduce its shortfall by not more than 10 - 25 %.

9 It's worth noting that even this approach ignores the substantial additional shortfall that Norway has accumulated vis-à-vis what would have been its fair share of global mitigation prior to the adoption of the Paris Agreement (see, for example, Kartha et al. 2014):The prior climate commitments that Norway had officially adopted – such as the target of the 1988 Toronto Climate Conference, of the UNFCCC itself, and both of Norway's Kyoto Protocol targets – fell all short of what Norway's fair share would have been.

10 It is worth noting that this would remain true even if Norway adopted much more ambitious domestic emission reduction targets than this. For example, if Norway's target was net-zero GHG emissions by 2035, this would only amount to a reduction of 56 $MtCO_2eq$ below baseline levels – compared to a mitigation fair share of 214 $MtCO_2eq$ of mitigation. This would mean that even in this case, the international climate finance component of Norway's total mitigation fair share would be almost three times as large as the domestic fraction.

11 Specifically, all scenarios of the IPCC AR6's scenario categories C1 (limit warming to 1.5 °C by 2100 with no or low overshoot) and C2 (limit warming to 1.5 °C by 2100 with high overshoot) were selected from the AR6 scenario database (Byers et al. 2022). Of those scenarios, for a subset (N=23), information of policy costs of mitigation (variable "Area under MAC curve") was available by region and for the years 2025, 2030 and 2035. Mitigation and policy costs in the OCED were omitted, since this region is irrelevant as recipients of Norway's mitigation climate finance. The amount of mitigation in each scenario was calculated by subtracting scenario emissions (excluding LULUCF) for each region from the emissions in the scenario family's baseline scenario. Annual time series were calculated by linear interpolation for each scenario's average costs for mitigation outside the OECD (weighted by amount of miti-

gation in each region). The table below shows a summary of these data, in USD and NOK. The 2026-2035 average in the last column of the table is weighted by Norway's international mitigation obligation for each year in the period.

Average Mitigation Costs outside OECD (USD $/ton)	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2026-2035 weighted average**
Median	19.4	21.1	22.8	24.4	26.1	33.8	41.5	49.2	56.9	64.6	37.7
[interquartile range]	[13.2-30.5]	[13.6-37.4]	[14.0-44.3]	[14.5-51.1]	[14.9-58.0]	[20.9-63.2]	[26.9-68.4]	[32.9-73.6]	[38.9-78.7]	[44.9-83.9]	[24.6-61.2]
(NOK/ton)											
Median	202	219	236	254	271	351	431	512	592	672	392
[interquartile range]	[137-317]	[141-389]	[146-460]	[150-531]	[155-603]	[217-657]	[280-710]	[342-764]	[404-818]	[467-872]	[256-636]

Note that the mitigation costs in the AR6 scenarios (IPCC 2022; Byers et al. 2022) show somewhat lower mitigation costs outside the OECD than those in earlier IPCC reports, presumably owing to costs of renewable deployment and other key mitigation measures falling over time. Specifically, similar analyses to that reported here, found that the average mitigation costs in 2030 outside OECD in the scenario database of the IPCC's Special Report on 1.5°C (IPCC 2018; Huppmann et al. 2018) was USD $92.6 per ton of mitigation (median, with an interquartile range $69.7-109.6) (Holz et al. 2022), compared to only $26.1 here.

It is also worth noting that these mitigation costs reflect the average costs of all mitigation that is required to follow a 1.5°C consistent trajectory (technically speaking, the entire area under the MAC curve). As those trajectories are, by definition, very ambitious mitigation trajectories, the low-cost options are captured rapidly in the early years of the scenario pathway, thus shifting remaining mitigation options increasingly into higher-cost territories. As such, it is not surprising that the mitigation costs in these scenarios are much higher than those currently achieved through climate finance efforts (e.g. 48-182 NOK per ton in Norad's estimates for 2023 (Solhjell 2025), or approximately NOK 150 per ton in Holz' (2024) analysis of the Green Climate Fund's portfolio performance over 2015-2023): these mitigation cost estimates refer to projects that do not reflect the ambition required to achieve a 1.5°C consistent global mitigation pathway and can therefore be assumed to fall into the lower-cost range of the full set of mitigation actions included in the 1.5°C scenarios utilized here.

12 It is worth noting that this refers to Norway's total mitigation finance obligation not merely to bilateral climate finance. In the reporting on developed countries' climate finance contributions, the OECD differentiates between bilateral climate finance (which includes direct contributions to trust funds multilateral climate funds like the Green Climate Fund) and climate finance from multilateral financial institutions' core budgets that can be "attributed" to developed countries. For the OECD as a whole, the share of bilateral climate finance of the total (for mitigation and adaptation) ranges from 45-62 % (depending on the year) and was an average of 50 % over the 2013-2022 period (OECD 2024). This is to say, only about half of the amounts shown would need to be disbursed through bilateral arrangement or via the trust funds of the multilateral climate finance funds (if Norway's pattern match that of the average OECD donor country in this regard).

13 The central value of the modelling study for adaptation costs in developing countries over the 2020-2030 period is USD $215 billion per year (AGR23) rising to USD $315 billion per year by 2035 (AGR25). The second line of evidence utilizes the information provided by developing country parties to the UNFCCC in their Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAP). The Adaptation Gap report calculates the "normalized adaptation finance needs based on submitted country NDCs and NAPs, extrapolated to all developing countries. The results indicate that adaptation finance needs for developing countries is $ 387 billion per year, with a range of US$ 101–957 billion per year for 2021–2030" (UNEP 2023a). The AGR25 report updated this figure with a new methodology and found a slightly lower central estimate of USD $ 365 billion per year, with a range of USD $ 144-$1,032 billion (UNEP 2025).

14 It is Important to point out that the approach chosen here to calculate Norway's fair share of adaptation finance (as well as of loss and damage finance subsequently) implicitly assumes that it is appropriate that all countries contribute to the provision of finance in accordance to their capacity and responsibility. This approach is not consistent with the climate finance provisions of the United Nations Framework Convention on Climate Change or the Paris Agreement, where only developed countries are required to provide climate finance. The approach is chosen here for simplicity (and emphatically not to suggest that all countries should be providing climate finance). An alternative approach where only developing countries contribute to provision of climate finance according to their capacity and responsibility would yield a higher figure for Norway.

15 For example, looking back at climate impacts experienced by the world in 2010, DARA Foundation and the Climate Vulnerable Forum (2012) attribute a global macroeconomic net loss of USD $ 609 billion in 2010 to climate change, with over 80 % (USD $ 504 billion) of this figure incurring to developing countries, and projected this figure to increase to USD $ 4.3 trillion in 2030, USD $ 4.0 trillion of which in developing countries. Using the AD-RICE Integrated Assessment Model, research group Climate Analytics calculates that, depending on the future warming assumptions, macroeconomic damages in developing countries, even with substantial levels of adaptation, would reach USD $4 26 billion or $ 431 billion per year by 2030 in their 2.7 °C and 3.6 °C scenarios, increasing to USD $ 1.6

trillion or 1.8 trillion per year by 2050 (Baarsch et al. 2015). Using three different Integrated Assessment Models, Markandya and González-Eguino (2019) estimate residual damages (i.e. damages resulting from impacts that occur despite substantial adaptation efforts) in developing countries of USD $ 116–$ 435 billion per year in 2020, rising to USD $ 290–$ 580 billion in 2030, USD $ 551–$ 1,016 billion in 2040 and USD $ 1.1–$ 1.7 trillion in 2050. Given estimates such as the ones cited here, Richards and Schalatek (2017) propose, as a concrete practical solution, that UNFCCC parties should implement (innovative) finance mechanisms that are suitable to raise USD $ 50 billion per year by 2020, increasing to USD $ 200-$ 300 billion per year by 2030.

A similar approach is advanced by the Civil Society Equity Review, which, in its 2019 Loss and Damage report, suggests that annual finance for Loss and Damage should "reach at least USD$ 50 billion by 2022, and ratcheting up to USD$ 150 billion by 2025 and USD$ 300 billion by 2030" (Civil Society Equity Review 2019). It is worth noting that these figures are at or below the low end of the ranges identified from the literature on loss and damage estimates. More recently, primarily by updating figures from the literature, Richards et al. (2023) derive "midpoint estimates of economic loss and damage of US$ 425 billion in 2020 and US$ 671 billion in 2030" from which they conclude that loss and damage finance of USD $400 billion per year should be taken as "a floor and acknowledge that financing needs will have to be revised upward over time" (Richards et al. 2023: 6). Civil society groups have started echoing this USD $ 400 billion/year figure in their own demands, for example, by La Ruta del Clima for a "post-colonial Loss and Damage Fund" (Adrián Martínez et al. 2024), while another recent study uses a value of USD $2 75 billion for 2025 and USD $ 435 billion for 2030 (Schäfer et al. 2024). The broader discourse on the scale of loss and damage finance also includes lower figures, for example, developing countries have reportedly advocated for a USD $ 100 billion per year floor for funding for the UNFCCC's Loss and Damage Fund (Abnett 2023), though this figure was not reported to be based on a needs estimate but likely represents a possible political compromise.


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