

13 October 2025

# COP 30 in Brazil: A Call for More Ambition Better Integrated

Society is a contract, ... a partnership not only between those who are living, but between those who are living, those who are dead, and those who are yet unborn (Edmund Burke).

Climate policy, like policy in many other areas, is increasingly at risk from populism and identity politics. This trend is systemically corrosive of the rational basis of all and any policy, in whatever field. It thus becomes a threat to constitutional norms. The reason is that the quest for votes proceeds by weaponizing the subject of every incomprehension, every ignorance, every court decision, every complaint or fear as a threat to the individual persona, typically as part of an 'international' or 'European' or 'elitist' conspiracy. Thereby the other is portrayed as the fundamental threat to the self. Yet climate science has not changed. Tragically, the consequence of the failure to invest adequately in the switch to clean energy is to place future generations with the others. This paper proceeds on the principle, practical as well as ethical, that policy must be timely, and must have a rational and intergenerational basis.

#### **Current Levels of Emissions**

Global emissions rose in 2023 to a record high of 57.1 Gt CO<sub>2</sub>eq, an increase of 1.3 per cent on 2022, the biggest emitters being China at 16,000 Mt CO<sub>2</sub>eq, US 5,970 Mt CO<sub>2</sub>eq, India 4,140 Mt CO<sub>2</sub>eq, EU 3,230 Mt CO<sub>2</sub>eq, Russian Federation 2,660 Mt CO<sub>2</sub>eq and Brazil 1,300 Mt CO<sub>2</sub>eq. Seven G20 countries, including China, India and Indonesia, have not yet peaked emissions, although China has just promised to do so. Most of the ten who have already peaked will need to accelerate the transition after 2030, 'in some cases dramatically', to achieve their net zero goals. Despite the Methane Pledge launched at COP26 and now signed by 158 countries, methane emissions are still rising (notably in the US), while significant reductions have been made in Australia and Turkmenistan. (*The Global Methane Pledge, Three Years On: Partial Progress Report*, Kayrros, 2024.)



Full implementation of conditional and unconditional NDC pledges (as at early autumn 2025) reduces expected emissions in 2030 by 4 per cent and 10 per cent respectively, whereas a reduction of 28 per cent is needed to align with a warming target of +2 degrees or 42 per cent to align with +1.5 degrees. On current policies, there is a 66 per cent chance of keeping peak warming to +3.1 degrees, with a 97 per cent chance of warming exceeding +2 degrees. However, there is significant annual mitigation potential by 2035, with the correct policies, of 41 Gt CO<sub>2</sub>eq (priced at US\$200/t CO<sub>2</sub>eq) including 14.7 Gt CO<sub>2</sub>eq from energy (mostly electricity) and 12.8 Gt CO<sub>2</sub>eq from AFOLU (mostly forestry). (*Emissions Gap Report*, 2024).

This situation is also reflected in the so-called Production Gap, which shows some countries (notably India) actually planning to increase coal production by 2030. Projected production in 2030 exceeds levels required to keep warming to +1.5 degrees by 120 per cent, and most fossil-fuel producing countries have not yet begun to align production plans with national or international climate goals. (*Production Gap Report*, 2024). The UK is currently on course to reduce emissions to 145 Mt COeq by 2050, rather than Net Zero (DNV, *Energy Transition Outlook UK* 2025).

Unsurprisingly, there are (anecdotal) reports that the oil industry, which has backed away from earlier commitments, is planning for a 'dangerous' rise in temperatures.

#### Weather and Politics of 2025

Atmospheric carbon reached a level of 430 parts per million in May 2025, compared with 400 ppm in May 2013, and the pre-industrial level of 280 ppm. This is the highest level for 14 million years. On 2 February, the temperature at the North Pole was 20 degrees above average. It is estimated that the world's net forest carbon sink, which was -10 Gt CO<sub>2</sub>/a. in 2001 and approximately -8 Gt CO<sub>2</sub>/s. in 2023 is now approximately -5 Gt CO<sub>2</sub>/a (*World Resources Institute*). This is due to forest clearance and wildfires: in particular, the Canadian forest has flipped from sink to source (an area of forest larger than Austria burned this summer), but it has been the worst year on record for fires in Spain, Portugal and the South of France. Rainfall was well below average across northern and north-western Europe, reaching only 68 per cent of average between 1 February and 13 April in Germany, where some south-eastern regions saw reductions of 50 to 80 per cent. Yet much higher winter rainfall in the Iberian peninsula was followed by the summer's devastating forest fires, with temperatures over 40 degrees for



three weeks. An estimated 640,000 ha were burned, and by mid-August the EU Civil Protection Mechanism had been activated 16 times. Before climate change, such events would have been expected every 500 years but, on warming of +1.3 degrees so far, can now be expected every 15 years. Warming of +3 degrees would be catastrophic here. (*Centre of Environmental Policy, Imperial College, London*).

It need not be so bad: for example, with appropriate measures there has been a 65 per cent reduction in the area affected by fires in Brazil, and in parts of the eastern US and China, the forest sink is still strongly resilient.

Meanwhile, the Trump administration has carried out an unprecedented attack on research undertaken by NASA and the National Oceanographic and Atmospheric Administration (NOAA), including some databases taken offline, and on the US Environmental Protection Agency, and cancelling US €3.7 billion in grants for clean energy projects, despite the clear investment case, since onshore solar and onshore wind are cheaper forms of energy than fossil fuels. Much of this action is now also subject to the growing raft of climate litigation. Meanwhile, it has been calculated that an increase in severe weather events and in insurance costs will reduce home values in the US by US\$1.47 trillion over the next three decades (*First Street*).

Meanwhile, such moves are only likely to strengthen the role of China as the major player in the climate talks. Not all States follow the Federal Government, however, and The State of California extended its cap-and-trade law, due to expire in 2030, as cap-and-invest.

## The ICJ opinion and climate litigation

This year, the ICJ responded to the question of the UN General Assembly that all parties to the Climate Change Convention (including parties to the Paris Agreement) have an obligation to ensure protection of the climate system, but added that under customary international law, all states have a duty under customary international law 'acting with due diligence and using all means at their disposal' to prevent activities within their jurisdiction or control from causing significant harm to the climate system or other parts of the environment, including a duty of co-operation in taking such measures. These obligations apply also to parties to the Vienna Convention and Montreal Protocol on the Ozone Layer, the Convention on Biological



Diversity, the Convention to Combat Desertification, and the Convention on the Law of the Sea. The Court's opinion stated that breach of these obligations entails consequences which may include full reparation, subject to establishing 'a sufficiently direct and certain causal nexus'.

This has important, especially longer-term, implications as regards loss and damage, and not only at the level of UNFCCC., but in the wider context of climate change litigation. Here, the Northeast Organic Farming Association of New York successfully challenged the US Department of Agriculture, resulting the restoration of withheld data, and the Northern Alaska Environmental Center is challenging Trumps's decision to overturn Biden's protection of areas of the US outer continental shelf from oil and gas development. But there are currently 164 climate cases running in Australia, 133 in UK, 131 in Brazil and 69 in Germany. In China, where climate litigation was first recognised in 2019, the government is encouraging litigation against polluters. .In the EU, NGOs have challenged the adequacy of the climate plans of a number of member states, echoing the KlimatSeniorinnen Case in Switzerland in 2024, which required the Swiss government to give more detail on its quantification methodology and on how its objectives align with the remaining global carbon budget for meeting +1.5 degrees. Cases involving the role of livestock have been launched in the US and Brazil. In Norway, the Supreme Court is considering the government's failure to consider Scope 3 emissions in approving three North Sea oil fields: an interim ban imposed by the Oslo District Court has been restored and the EFTA Court emissions should be taken into account. This echoes the position taken by the UK Supreme Court in Finch v. Surrey County Council (2024). Other cases have focussed on 'climate-washing' (Blumm v. NorthWest Natural Gas Co.). Again in Brazil, a methodology developed for calculating general damage from deforestation by assigning a monetary value to emissions in tCO<sub>2</sub>eq was adopted in 2024 by the National Council of Justice. In the case Milieudefensie v. Shell, the Dutch court in 2024 found on appeal that while Shell was not obliged to reduce its emissions by the particular amount agreed in the lower court, it did have a duty to prevent dangerous climate change. Milieudefensie has now launched a case against the bank ING, claiming that it is in breach of its duty of care under Dutch civil law in failing to reduce its own emissions in line with the Paris Agreement. (Global trends in climate change litigation: 2025 snapshot). Meanwhile, calculations have been made to show that heatwaves are 51 times more likely as a result of the activities of Exxon Mobil.



# Long-term policy distortions and positive tipping points

Fossil Fuel subsidies remain, both implicit, where the cost of fuel is lower than the externalised costs of local and global environmental damage, and explicit, where the price is lower than the supply cost because governments cushion consumers against price rises, or (for example) impose a lower rate of VAT on aircraft fuel. Explicit subsidies rose during the COVID-19 pandemic, and were estimated at US41.3 trillion in 2022. By product, these are accounted for by petroleum, natural gas and electricity at respectively 26, 48 and 25 per cent in 2022. (In 2022, the EU accounted for 16 per cent of explicit subsidies.) Coal benefits almost entirely from implicit subsidies, and 55 per cent of the CO2 reduction required by 2030 would come from coal. (IMF, Fossil Fuel Subsidies Update 2022; Fossil Fuel Subsidy Reform). Subsidies tend, as in the case of aircraft fuel, to benefit disproportionately the better-off, and are better spent on structural changes. Per se, 'high fuel prices are no substitute for climate policies' (World Energy Outlook, 2022).

However, certain positive tipping points have been reached. Ninety per cent of new renewable energy schemes are now cheaper than fossil fuels. In 2024, solar overtook coal as a source of energy in the EU, which is likely to save 20 million tonnes CO<sub>2</sub> from electric vehicles during 2025. Globally, electric vehicles are likely to account for half of car sales in 2030. (*IEA*).

Here one should note the urgent need to improve local grid capacity which currently constrains solar farms. The Club de Madrid's proposals for a World Investment Plan (US\$125 trillion by 2035) would include '189,000 solar farms or 7 million wind turbines, equivalent to 19,000 nuclear reactors'.

#### The contribution of land management: AFOLU

At the time of the Paris Agreement, Brazil was virtually the only country in whose NDC land use was a major component. Clearly, this is an important factor, as recognised in the EU target for an increase of -42 Mt  $CO_2$ eq in net removals compared to 2016-2018. However, agriculture will contribute to this figure only in so far as arable land is converted to permanent pasture, or in do far as agricultural land is afforested. The inclusion of agriculture in future NDCs would imply successful policies for the reduction of Nitrous Oxide ( $N_2O$ ) and, above all, Methane ( $CH^4$ ).



One way to analyse the potential for land use is to look at Agriculture, Forestry and Land-Use Change as a single sector. The EU has an AFOLU emissions gap, being the difference between agricultural emissions and carbon sequestration. In 2015, this was 386-319=67 MtCO<sub>2</sub>eq; in 2019: 429-234 = 195 MtCO<sub>2</sub>eq; in 2020: 384-194=190 MtCO<sub>2</sub>eq; in 2023: 365-198=167 Mt CO<sub>2</sub>eq. While agricultural emissions have slightly declined from 386 Mt CO<sub>2</sub>eq in 2020 to 365 MtCO<sub>2</sub>eq in 2023, the carbon sink has declined from an average of -335 Mt CO<sub>2</sub>eq in the period 1991-2013 to -198 Mt CO<sub>2</sub>eq in 2023, the principal causes being the maturation (and therefore slower growth) of forest stands, increase in harvest, loss of stored carbon through forest fires and disease, and a reduced rate of afforestation.

## Forestry

In particular, countries where removals from forest land remaining forest land have fallen between 1990 and 2023 include Sweden (-62,263 KtCO<sub>2</sub> to -33,315 KtCO<sub>2</sub>), Finland (-31,689 KtCO<sub>2</sub> to -1,105 KtCO<sub>2</sub>) and Austria (-10,624 KTCO<sub>2</sub> to 6,763 KtCO<sub>2</sub>). However, significant increases in net removals occurred over this period in Italy, France and Spain. Unsurprisingly, all countries (except Sweden) showed net removals from land converted to forest land. (Annual European Union Greenhouse Gas Inventory 1990-2023 and inventory document 2025.)

Increased harvest, in particular, has been identified as a primary reason for the reduction in removals in Scandinavia (National Resources Institute, Finland, Swedish University of Agricultural Sciences) but in itself is also likely to reflect past planting dates of even-aged forest.

However, there remain some methodological issues here. Typically, national forest inventories rely on repeated measurements of permanent sampling plots. Annual values are often obtained through 'interpolation and extrapolation of available data sets'. In the case of afforestation, mineral soils are reported as a source where soils have been disturbed during tree-planting, and organic soils have typically been reported as sources: differences may arise from the length of the time series or the use of time-averaged annual growth.

These are relevant for the ongoing debate on the EU Deforestation Regulation.

Looked at in the context of CBAM, the EUDR requirements are (surely) more stringent than those of non-EU trading partners. However, a principal difficulty is that a number of issues need to be separated. There is not a risk, in general, of deforestation in terms of land-use



change, not least due to forest laws. Degradation is technically possible, but is not necessarily the same as operating a sylvicultural system based on even-aged clear felling, typical of monocultures, which naturally has a 'lumpy' carbon profile, something that goes back to the time the forest was planted. Nevertheless, even-aged monocultures are particularly vulnerable to insect damage (*lps typographus*), disease and windthrow, and could achieve greater resilience with conversion to mixed-species, continuous-cover forestry (*jardinage*, *Plenterwald*), a conversion that was undertaken in many Swiss forests from the end of the nineteenth century. Alternatively, the effects on the carbon profile of a forest managed on a clear-fell system can be mitigated where it is managed by compartments. However, conversion to a continuous cover system can take over a century, and requires an effective forest inventory to monitor progress. As always, the design of the correct solution must be site-specific. The ongoing debate over the EUDR needs to address these issues more directly, including how conversion to more resilient forms of forestry could be handled, how these would be reflected in national stocks, and what is the realistic expectations, in terms of removals, for forest in the process of conversion from one silvicultural system to another.

This is not important simply in isolation. It is estimated that EU consumption leading to the production of cattle, cocoa, coffee, palm oil, soya and wood has the potential to drive deforestation rising to 248,000 ha annually by 2030. The sourcing of biomass also becomes more difficult: the UK power station at Drax, which supplies 6 per cent of the country's electricity, paid a £25 million penalty to OFGEM in 2024 for misreporting data and burning pellets from Canada, including primary forest in British Columbia, in 2021-22, although the breach was found to be technical rather than deliberate. It appears that s further year of misreporting may also be at issue.

Afforestation remains an important measure, especially for countries with significant areas of marginal land and/or less than 25 per cent forest cover.

Much peatland is degraded and restoration has the potential to reduce long-term carbon emissions and significantly increase long-term sequestration by re-wetting, although there will be initial increases in methane emissions.



# Agriculture

When agricultural emissions are calculated as CO2eq on a 20-year rather than 100-year Global Warming Potential to take account of the short (approx. 12-year) atmospheric life of methane, enteric fermentation from cattle accounts for over half (54 per cent in 2019) of emissions, with a further contribution (14 per cent in 2019) from manure management.

A significant proportion of arable land is also dedicated to growing livestock feed. EU figures indicate that nearly two-thirds of cereals grown in the EU are used for livestock, with one third for human consumption, and 3 per cent for biofuels.

However, emissions from cattle in the EU are declining in most countries, driven principally by a decrease in numbers (between 2022 and 2023, -480 Kt CO<sub>2</sub>eq in France, - 301 Kt CO<sub>2</sub>eq in Ireland, -298 Kt CO<sub>2</sub>eq in Spain, -149 Kt CO<sub>2</sub>eq in Germany, with significant increases only in Poland, 218 Kt CO<sub>2</sub>eq and The Netherlands, 103 Kt CO<sub>2</sub>eq (Annual European Union Greenhouse Gas Inventory 1990-2023 and inventory document 2025).

Policy measures, however, risk being caught between a desire to reduce livestock emissions at the margins (digestion, manure), implying intensification in housed units, and achieving reductions by lower numbers of cattle integrated in a system which supports extensive grazing and land-use management. In reality, an effective control on emissions will come not from husbandry but livestock population.

Practically, moreover, the fragmented structure of much European agriculture is not ideal for making reductions, and investment in the rural economy should be seen as a necessary part of enabling a just transition within the sector, and shifting the political argument away from support for units that are not viable.

Denmark will introduce a marginal tax on agricultural emissions at Danish kroner 120 (€16) /tCO₂eq from 2030, rising to DKK 300 (€39)/tCO₂eq from 2035, with a 60 per cent discount applied to farms meeting a given reduction target. This will be combined with investment in afforestation and peatland restoration, including from arable land. This would include restoring natural hydrology over 60,500 ha of agricultural land with extensification of a further 38,000 ha, out of a total of 171,000 ha of cultivated peatlands. Livestock measures include measures affecting digestion and better manure management, and there will be encouragement of plant-



based foods. The intention is to achieve a reduction in emissions from the AFOLU sector of between 55 and 65 per cent on 1990 levels by 2030, or 6 to 8 Mt CO₂eq.

# Mitigation: COP 30 and Nationally Determined Contributions

Although the Paris target of limiting warming to +1.5 degrees has not been abandoned, it is now likely that that the world is headed for over +2 degrees of warming. Projected production levels of fossil fuels and certain infrastructure investments (new airports, runways) are not compatible with the +1.5 degrees target. The last-minute watering down of the Glasgow pledge from 'phase out' to 'phase down' coal in 2021 has been part of this.

It should be remembered that because of the atmospheric lifetimes of Greenhouse Gases, atmospheric stabilisation will not be achieved until 50 years after Net Zero is achieved in terms of emissions.

At COP 30, to be held at Belém, Brazil, in November, the stocktake at which parties to the Paris Agreement revise their Nationally Determined Contributions should be completed. Logically this should include, as a matter of urgency, plans for the phase-down (phase-out) of coal. The EU still expects to reduce emissions by 55 per cent by 2030, with a reduction of between 66 and 72 per cent by 2035 and is working on a 90 per cent reduction by 2040. (The revised NDC details are awaited as at early October.)

China has pledged a 7 to 10 per cent reduction on its 2020 levels of emissions by 2035, and an expansion of wind and solar energy by six times its 2020 levels during the same period, increasing the level of non-fossil fuels in domestic energy consumption to over 30 per cent. It also plans to increase forest stocks by 6 billion cubic metres above 2005 levels to 24 billion cubic metres of timber. Together, this is expected to deliver an annual reduction of -1.4 billion tonnes CO<sub>2</sub>. This is too little to save the +1.5 degrees target, but the good news would be that Chinese emissions would have peaked.

Canada, which in 2021 committed to reduce emissions by 40 to 45 per cent below 2005 levels by 2030, had achieved only a reduction of 8.5 per cent in 2024, and trends indicate that the reduction will only be 20 to 25 per cent by 2030. This arises partly from increases in emissions from oil and gas cancelling out progress in electricity generation and in the climate-proofing of



buildings, and partly from the increase in wildfires. Meanwhile the new government has abolished the carbon tax on consumers.

Australia, which has offered to hold COP 31 in 2026, intends to reduce emissions by between 62 and 70 per cent on 2005 levels by 2035.

Brazil, the host nation, has committed to a reduction of between 59 and 67 per cent by 2035.

Japan's offer is currently awaited.

It remains the case that these commitments will still be inadequate to keep temperature rise to +2 degrees, unless greater efforts can successfully be made to reach Net Zero in the years 2035-2050.

#### Adaptation

As the world heads for higher than planned levels of warming in the current century, the need for adaptation measures presses ever more strongly.

Cropping rotations will require continuing research into drought-resistant varieties. Greater resilience could be introduced by encouraging the planting of hedgerows. Tree planting should also be encouraged in hedgerows and on permanent pasture. In arid regions, there will be scope for saving Nitrous Oxide emissions by introducing longer rotations including legumes.

Water resources and wetlands are already under increasing pressure. Water stress affects 20 per cent of European territory every year, and 30 per cent of population. In 2021, only 37 per cent of surface water bodies achieved good or high ecological status, and only 29 per cent good chemical status. (*Europe's State of Water 2024*, EEA). In particular, investment in water for agricultural irrigation, particularly winter storage reservoirs, and there needs to be greater investment in cleaning up rivers, especially from sewage discharges from water companies and statutory undertakers, and stopping leakage from distribution systems.

The need for resilience in the structure of European woodlands is greater every year. This includes the urgent provision of firebreaks in forest at all latitudes. Much of Europe's woodlands consist of undermanaged and unprofitable small ownerships, which need support, for example as cooperatives, and management advice.



Sea-level rise and coastal management. Coastal zones will be under extreme pressure from mean Sea-Level Rise, predicted to be between 2 and 6 metres with +2 degrees of warming, and adaptation costs are expected to exceed US\$ 2.3 trillion for a rise in temperature of this scale (Wong et al. 2025). However, there are already 570 coastal towns and cities with a combined population of over 800 million which are considered vulnerable to sea level rise of 0.5 metre (Munich Re, 2024). Numerous coastal management schemes, wherever possible based on beach stabilisation techniques rather than hard defences, will be needed. The Club de Madrid suggests that its World Investment Plan should provide some 290,000 km of defences by 2035 and 260 major flood protection schemes.

Biodiversity is particularly at risk, as species are forced to move northwards or upwards. In particular, migration corridors need to be secured.

#### **Concluding recommendation**

The EU remains a forum where rational, intergenerational and transboundary policies can be developed and implemented. This is a critical moment in which it needs to strengthen its broad objectives, while continuing the internal dialogue on the detailed design of some of the more ambitious measures that will be needed to achieve them. As the UK moves to link Emissions Trading Schemes, it is to be hoped that a deeper partnership will now develop. If climate change mitigation falls significantly short in the next ten years, adaptation costs are likely to become unmanageable, and to fall overwhelmingly on local and private actors without the necessary resources to meet them.

Acknowledgement: Professor David Viner

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About the European Landowners' Organization (ELO)

The European Landowners' Organization (ELO) is a leading voice representing the interests of landowners, rural entrepreneurs, and rural land managers in Europe. ELO promotes sustainable land management practices, fosters innovation, and advocates for the recognition of landowners' crucial role in shaping Europe's landscapes and rural areas.