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POSITION PAPER

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The EU's long term climate strategy

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This paper sets out WWF views on the EU's role in meeting the objectives of the Paris Climate Change Agreement, and what the European Commission's long term EU climate strategy needs to cover to make that a reality.

THE EU'S LONG TERM CLIMATE STRATEGY

Headline messages

Climate change is a challenge unprecedented in human history. Indeed the current rate of global warming is almost unprecedented in geological history, and the window for limiting temperature rise to 1.5°C is closing rapidly. This means that action on an unprecedented scale is needed, and that traditional views of what is politically possible must be re-examined. With this in mind, and for the reasons discussed in detail below, WWF believes that the EU's new long term climate strategy should:

Aim for the EU as a bloc to reach zero net emissions domestically[1] by 2040, recognising that individual Member States may wish to set an earlier or later date in their long term strategies, based on their national circumstances, and that this date should be reviewed and brought forward as necessary in light of future scientific evidence and technological developments.

To achieve this goal the strategy should set out how the EU could:

i. **Reduce emissions** in different sectors to zero (or near zero) by 2040, notably by **phasing out fossil fuels, moving to an efficient and 100% renewable energy system and accelerating the shift to a circular economy**; and:

ii. **Increase removals by sinks**, using environmentally sustainable approaches such as the **restoration of forests** and other ecosystems. This should **include phasing out EU bioenergy policies that increase deforestation or reduce sinks** and are counterproductive in climate terms, namely incentivising the use of land for purpose-grown biofuel or energy crops and incentivising the burning of tree trunks and stumps for energy[2].

To achieve zero net emissions by 2040 it is also crucial to:

1. Increase and strengthen the EU's **2030 climate and energy targets** in line with this new long term goal.

2. Identify where major additional **research and innovation funding** is needed to help EU businesses seize a leading role in breakthrough technologies, and how that can be provided.

3. Provide for a **just transition** that supports regional development and leads to new jobs for workers leaving polluting and outdated industries such as coal, oil and gas.

4. Outline mechanisms for assessing the consistency of new EU policies or infrastructure investment with the goal of zero net emissions in 2040, in order to facilitate emissions reductions and reduce the risk of **stranded assets**.

5. Assess, in light of global equity issues such as responsibility for historical emissions[3], how the EU can contribute to **emissions reduction elsewhere in the world**, both by reducing demand for imported goods that have high carbon footprints and by increasing direct public and private financial support for climate action in developing countries.

6. Set out how EU public and private financial flows – starting with the **EU budget** should be reoriented towards the above objectives, to help all Member States benefit from the transition to a clean economy.

[1] Meaning a situation in which emissions and removals within the Union are in balance.
[2] http://d2ouvy59p0dg6k.cloudfront.net/downloads/eu_bioenergy_policy__wwf_briefing_paper__final_4.pdf
[3] http://civilsocietyreview.org/wp-content/uploads/2017/11/CSO_Report_COP23_Equity_and_the_Ambition_Ratchet_SCREEN.pdf

Detail

The Paris Agreement marked a significant shift in global ambition on climate change, and committed EU Member States and other UNFCCC parties to keeping average global temperature rise 'well below' 2°C and to pursuing efforts to limit it to 1.5°C. This was because world leaders recognised that the impacts associated with even 2°C of warming were morally, economically and socially unacceptable.

Indeed, the differences between 1.5°C and 2°C are significant – even dramatic. For example:

- With a rise of 1.5°C we may lose about 70%-90% of tropical coral reefs. But if temperatures rise by 2°C, we could easily lose all of them[4]. Such reefs are home to a quarter of all marine species, meaning this would constitute a **mass extinction event** in the Earth's history, and a billion people depend on them to some extent for food and income from fishing. Serious impacts are also likely in terrestrial ecosystems.
- Models used by the IPCC identify 37 abrupt **tipping points** in the overall climate system (meaning abrupt and irreversible changes to things such as ocean currents or ice sheets). Under a 1.5°C scenario the thresholds for around 20% of these tipping points are crossed; but under a 2°C scenario that figure rises to 50%[5].
- The **costs** of exceeding 1.5°C could be overwhelming - natural disasters have already contributed to 2017 being a year of record insurance losses, at $135bn[6]. Staying below 1.5°C in contrast is likely to save tens of trillions of dollars and to be in the economic interest of countries containing close to 90% of the world's population[7].

On this basis, and given the requirement under the EU treaties for political leaders to follow the precautionary principle[8] - and EU commitments to implement the UN Sustainable Development Goals - WWF believes that the EU must do its utmost to keep global warming below 1.5°C, without temporarily overshooting that temperature.

Staying below 1.5°C is still possible, but the chances of doing so are shrinking rapidly, and based on IPCC estimates are probably now below 66%[9]. This means that very urgent action is now essential: every additional tonne of carbon that the EU emits from now on is one that will further reduce the chances of the world meeting the 1.5°C target or that will need to be removed from the atmosphere later (and while some carbon dioxide removal may be possible, relying on its deployment at large scale would be high risk[10]).

It is also clear, however, that the EU cannot turn carbon neutral overnight. Reaching zero net emissions within a decade, for example, would to all intents and purposes be technically impossible, for example due to the time required to build new infrastructure and develop high levels of carbon dioxide removal through forest restoration. Such a target would arguably also be morally unacceptable, given that the drastic changes required would impact most quickly and most severely on the vulnerable parts of society least equipped to cope with them.

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[4] See https://www.earth-syst-dynam.net/7/327/2016/

[5] http://www.pnas.org/content/112/43/E5777

[6] https://www.economist.com/finance-and-economics/2018/01/11/natural-disasters-made-2017-a-year-of-record-insurance-losses

[7] Researchers have calculated that the overall global benefits of keeping future temperature increases to 1.5 degrees would likely be over 30 times greater than the most recent estimates of what it would cost to achieve the 1.5°C goal https://news.stanford.edu/2018/05/23/reducing-emissions-save-trillions/

[8] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM%3Al32042

[9] Table 2.2 of the IPCC AR5 report (https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full_wcover.pdf) contains no data for a 66% chance of limiting global warming to 1.5°C without overshooting that temperature at some point during the century, implying that the remaining global carbon budget consistent with such a scenario is minimal. We expect the IPCC special report on 1.5°C to reach similar conclusions.

[10] https://easac.eu/fileadmin/PDF_s/reports_statements/Negative_Carbon/EASAC_Report_on_Negative_Emission_Technologies.pdf

Nevertheless, WWF believes that a step change in ambition is possible. For example the Global Calculator model[11] suggests that with 'very ambitious' action in all sectors, including a shift in developed countries to diets lower in meat and dairy products[12] (but with no further expansion of nuclear, CCS power stations or bioenergy) the whole world could reach zero net emissions by 2050. If for the same sectors the model is set to 'extremely ambitious' action (the highest level possible) then the world reaches zero net emissions in 2030. Further work on radical decarbonisation pathways is needed, but this suggests that even using existing technologies, reaching zero net emissions well before 2050 would be technically feasible, and that a mixture of very ambitious and extremely ambitious approaches could deliver zero net emissions by around 2040. Any chosen date should be kept under review: since the Global Calculator was created there have been dramatic and unforeseen falls in the costs of wind, solar and battery technologies – an example of the sort of non-linear progress that can happen given sufficient political will.

In addition to addressing serious climate threats and being in our long term economic interest, the rapid shift to a high-tech clean economy has numerous nearer term advantages. An accelerated roll-out of electric vehicles, for example, would deliver massive reductions in air pollution and major benefits to public health. Similarly, the rapid deployment of energy efficiency and renewable energy technologies - and the consequent reduction in wasted energy and our reliance on imported fossil fuels - could bring significant benefits in terms of jobs and energy security. The future competitiveness of EU industry will depend critically on innovation and circularity[13], and if the EU is not to lose out to other countries it must give businesses entrepreneurs and financial institutions a clear and ambitious framework for future investment.

For the reasons discussed above, WWF believes that the EU as a whole should aim to reach zero net emissions by 2040, and that the new EU long term strategy should set out what needs to happen to meet such a goal. The strategy should also examine the implications of that long term target for other policies and issues, including the 2030 targets, the EU budget, the Common Agricultural Policy, EU bioenergy policies, support for climate action in developing countries and the need for a just transition to a safe and sustainable future.

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[11] http://tool.globalcalculator.org/
[12] https://www.eea.europa.eu/data-and-maps/figures/carbon-material-and-water-footprint
[13] http://materialeconomics.com/publications/the-circular-economy

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