

Dear colleagues, friends, scientists and all governmental IPCC focal points

CAN is writing to you today because in one week in Interlaken in Switzerland the IPCC will start the governmental negotiation on the approval process of the IPCC Synthesis Report of the Sixth IPCC assessment cycle including the three Special IPCC reports on 1.5°C, land use and climate change, oceans and cryosphere.

For the global CAN community, this is a very important report and civil society will be present as observers.

CAN represents more than 1900 civil society organisations (CSO) in about 130 countries.

Though we might not in all cases agree with you and some of your rules, and many of you know that CAN has a long and friendly history with IPCC and we are happy to work with you while accept your overall scientific authority.

For us, the following key points are crucial ones to address appropriately in the Synthesis Report as laid out in the underlying reports already. There are certainly many other issues that will be negotiated but those below seem to be the core issues for governmental follow up and actions on mitigation, adaptation and Loss and Damage in line with equity and a Just Transition towards a credible, environmentally safe, economically sound pathway towards not exceeding the 1.5 C objective:

- → Support and agree on strong wording on 1.5°C as a survival target
- → Include strong assessment on limits to adaptation, need for provisions for Loss and Damage, irreversible climate change and risks of overshoot
- → Maintain and strengthen text on ecosystem/nature protection and restoration including oceans
- → Insist on fossil fuels being the overwhelming problem of the climate crisis
- → <u>Strongly push renewables and energy efficiency as key solutions for the climate crisis</u>
- → Accelerate significantly the funding/financing for poorer countries and communities, and grow financing from private sector to clean energies
- → IPCC should encourage governments to leave silos and address cross-cutting issues of poverty, pollution, food security and agriculture, international cooperation, technology development, governance etc
- → Escalate good governance

Support and agree on strong wording on 1.5°C as a survival target

IPCC had stated earlier that almost half of the Earth's population, mostly in the Global South, will be increasingly vulnerable or already affected by climate change impacts in one way or the other depending on the climate policies, the temperatures etc.

Though it will be increasingly challenging, based on the analysis by IPCC, our key points include the clear assessment and confirmation by science that the objective can still be met. It is a matter of political will to do so, and not of technological or financial barriers, and mobilise the necessary financial resources while implementing strong national and international policies to prepare for this necessary industrial transition. Meeting 1.5° C pathways in a sustainable and equitable way is one prerequisite for global solidarity with those most affected by present and future climate change impacts that mostly occur exponentially and not linearly with temperature increase like number and frequencies of heatwaves and droughts, flooding and torrential rains, exponential glacier melting and sea level rise as well as forest fires. This all already impacts very fragile natural ecosystems like warm water coral reefs, but also food security and livelihoods of poorer and frontline communities. There is no doubt that 1.5° C trajectories can only be met with a solid, just, equality-based, democratic and participatory approach by all countries but also within their own societies. Growing inequality within nations strongly prevents from meeting 1.5° C pathways since the global rich take a super-inappropriate share of the pie of the rapidly dwindling remaining carbon budget. IPCC must address that strongly.

Include strong assessment on limits to adaptation, need for provisions for Loss and Damage, irreversible climate change and risks of overshoot

The risks of irreversible climate change impacts will grow with every increment of global warming as shown by IPCC. Even meeting a 1.5° C objective requires strongly enhanced adaptation funding and the start of significant financial support by the rich nations for likely unavoidable Loss and Damages of poorer and vulnerable communities. Even only temporary overshoot of temperature limits generates irreversibility risks for the climate system, nature and people. It must be clearly said that 1.5 C is certainly not in the planetary convenience zone. This objective and the identified pathways to meeting it, are the result of about 40 years of inaction by the large polluters and the growing carbon legacy in our atmosphere which requires strong support by nations for adaptation in line with ambitious mitigation policies.

Maintain and strengthen text on ecosystem/nature protection and restoration including oceans

Only protected and restored biodiverse- and carbon-rich rich ecosystems like primary forests, savannas, mangroves and corals reefs provide the opportunity by their natural diversity and resilience to contribute to adaptation, storing and enhancing carbon in the vegetation while maintaining the global web of life on which many people and species depend living both inside and outside these ecosystems. Maintaining biodiversity and ecosystem services resilience depends on effective and equitable conservation of 30% - 50% of Earth's land, freshwater and ocean areas, including near-natural ecosystems as the IPCC has shown earlier and these findings need to be part of the SPM. Deep emissions reductions and nature protection will contribute to that dual goal of protecting biodiversity in threatened ecosystems and the climate system. This is true in particular for the oceans that store over 90% of the global warming heat. Reduced CO₂ emissions will decrease the rate of ocean acidification threatening tropical coral reefs in particular that have many benefits for the local and regional peoples. And eventually it will lower the rate of sea level rise while we know that sea level

will still rise, albeit slower as today, for centuries if not millennia resulting from the legacy global warming in the atmosphere even under a 1.5°C scenario.

Insist on fossil fuels being the overwhelming problem of the climate crisis

Fossil fuels contribute about three quarter to all greenhouse gas emissions worldwide across all energy sectors, mostly CO2 but also recently rapidly growing atmospheric methane (CH4) concentrations from mining and transport leakage of fossil gas in particular play a large role. Well documented by the IPCC. And noting that CH4 has over 20 years a Global Warming Impact of more than 80 times that of the same amount of CO2 and hence is a key contributor to a potential temperature overshoot in the next decades. The IPCC must accept that meeting the 1.5°C goal requires the managed phase out of fossil fuels by mid-century globally to be in line with meeting the 1.5°C trajectory by end of the century in a sustainable way. IPCC scenarios and projections should not be relying on "abated" fossil fuels through CCS.

CCS remains a high cost approach with the least potential to contribute to rapid emissions cuts in the near future. CCS has been around for several decades and continues to phase feasibility and cost constraints in addition to bringing additional harms and risks to communities and ecosystems. The energy penalty for instance requires more coal and fossil gas mining in the electricity sector of up to 44% and use per unit electricity produced which in turn causes higher freshwater consumption for coal in particular and does not reduce deadly air pollution from fossil fuels that kill annually between four to seven million people, mostly from coal plants and diesel exhausts. Costs, feasibility and liability issues as well as lack of geological storage availability have up today led to approximately only 0.1% of all energy-related CO2 to be stored annually.

Strongly push renewables and energy efficiency as key solutions for the climate crisis

The IPCC has shown since decades that overall energy use and fossil fuel production including for processes in the energy-intensive industries is responsible for most of the atmospheric climate pollution. Therefore, as shown by IPCC as well, the move to rapidly deploying deep, ambitious and long lasting sustainable renewable energy infrastructures is mandatory. Hence a move to 100% renewables in all energy sectors eventually is the yardstick for a credible 1.5°C pathway. Renewable-based hydrogen for the 'hard-to-decarbonize' sectors and processes in industry will play a limited role. Electrification, the expansion of a better grid infrastructure regionally, nationally, and internationally, the support for mini- and off-grid developments as well as energy storage facilities are key strategies to point out.

But this all is not enough without a strong push for enhanced energy efficiency in all economic sectors. Which is the other side of the energy-solution medal. The IPCC should clearly state that all actions elsewhere to protect the climate are nothing without the focus on clean renewable energy solutions and energy efficiency. The IPCC needs to repeat its own analysis that renewables, in particular wind and solar and energy efficiency combined, already present the largest economic, cost-effective, technologically viable and sustainable option for 2030 and beyond. Not nuclear or CCS or "low carbon" gas.

While science is right to demonstrate that the world needs atmospheric CO_2 reduction eventually to go well below 400ppm to meet the 1.5° C limit, certain presently promoted CO_2 removal (CDR) interventions like bioenergy with CCS (BECCS) are speculative and unsustainable and would come with new and additional harms and risks, for example for biodiversity and food security due to the enormous land requirements and the promotion of industrial monocultures. Direct Air Capture and CCS (DACCS) has a very high energy penalty as the IPCC had shown earlier. For removing 1 Gt of CO2 annually, or about 2% of all, one would need about 10% of present total electricity production.

The only present sustainable CDR consists of storing carbon in protected and restored biomass-rich ecosystems like forests and savannas. Pathways that are designed to include large-scale CDR are inherently overshoot pathways since technologies like BECCS and DACCS would not begin removing carbon dioxide from the atmosphere at any meaningful scale until 2050 or later. Keeping temperatures below 1.5°C of warming is only possible through rapid, immediate, and sustained

emission reductions in the coming decade. The Synthesis report must foreground pathways that focus on near term emission reductions and avoid overshoot.

Accelerate significantly the funding/financing for poorer countries and communities, and grow financing from private sector to clean energies

There is no shortage of global cash to do the right things. But there is greed, mistrust and inequality growing both within countries and among countries. IPCC needs to strongly endorse earlier findings that the financing for clean technologies, adaptation programs in poor developing countries by richer countries is far from where it needs to be even if the USD 100 billion/y benchmark agreement is met.

IPCC and others had analysed recently that the world needs to roughly invest annually about USD 4.2 – 4.6 trillion into the composition of clean energy infrastructure, based on renewables, energy efficiency, grid and storage infrastructure needs etc. by 2030 and beyond to meet the challenge for staying in the trajectory of 1.5 C. These are *investments* that might generate economic profits for the investor and the economy from reduced energy bills from fossil fuels, avoided health costs from pollution and climate damages. These are not *costs* as this is often falsely portrayed in the media. IPCC should make that clear.

To also grow finance from public money, IPCC should highlight from its findings innovative options for governments raising money for domestic and international purposes for adaptation, mitigation, Loss and Damage but without further burdening governmental budgets. This could include introducing a novel wealth tax for the domestic rich and super-rich, a regular and increasing upstream fossil fuel levy for the mining companies, closing international tax evasion havens overseas etc.

IPCC should encourage governments to leave silos and address cross-cutting issues of poverty, pollution, food security and agriculture, international cooperation, technology development, governance etc.

There are many issues in the context of an equitable approach to climate science and resulting implementation of national policies that go beyond mitigation or adaptation or ecosystem protection. Many issues do strongly interconnect. The IPCC had various examples in their reports that need to be considered. Social science and reality shows that without adequate social policies, public support and funding, it will be very difficult to overcome poverty which includes energy poverty but also lack of education, health provision and diseases which all will undermine communities motivations to address climate change as a more "exotic" issue. Pollution of water, air and soil in rivers, seas and lands hits the health of local people, affects drinking water quality and biodiversity, as well as food security. Agricultural development is based in most countries on the expansion of a large-scale industrialized mono-cultural meat-based system to the detriment of local small farm holders that are the guardians of centuries of indigenous knowledge and a plethora of species varieties, characteristics for resilient farming, soil conservation and pest control. These industrial farming systems significantly increase CH4 and N20 emissions, while contributing to deforestation, soil erosion and unhealthy diets by the consumer. IPCC had already analysed that our global food system in a "farm to fork" analysis is responsible for more than 30% of all global GHG emissions. Hence, IPCC is called upon to strongly support agroecology and agroforestry, and in consistency with the underlying science and its own conclusions earlier, to call on plant-rich diets as necessary mitigation and adaptation strategies with strong co-benefits on livelihoods, health and ecosystems protection.

International cooperation between countries (multilateralism), but also among other non-governmental stakeholders like cities or clean business is crucial to provide commonly agreed solutions and drive progress including joint policies and approaches including technology development, deployment, and marketing.

Escalate good governance

Good governance is a precondition on national, regional and local level alike to generate trust for success and acceptance by those who invest, govern, legislate as well as by those who are governed. The people. Good governance is crucial for engagement, long-lasting reliability of common decisions,

for monitoring and broad democratic participation of the respective communities during consultation, planning and implementation of policies, technologies or/and investments. The IPCC had addressed good governance several times as a lever for credible climate policy and therefore good governance by stakeholders needs to be an important part of a rapid and deep decarbonisation and any other climate policy.

For CAN, if the world and the global community want to achieve a credible, ambitious and sustainable net-zero pathway in the next three decades and with a focus on 2030 for immediate actions on all sectors, in all countries and on all GHG, the adherence to these principles, and this is only a short version, are imperative. All the six IPCC reports that are concluded in this upcoming Synthesis Report generally come to similar results.

CAN and including other CSO delegations is glad and prepared to talk with you, meet with you and your delegation representatives in Interlaken as appropriate, discussing your and our viewpoints

Sincerely yours

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