PARLIAMENTARY ASSEMBLY OF THE MEDITERRANEAN
ASSEMBLEE PARLEMENTAIRE DE LA MEDITERRANEE
برلمان البحر الأبيض المتوسط

Briefing Note on the outcome of the Synthesis for Policymakers of the IPCC Sixth Assessment Report (AR6)

Executive summary

As international cooperation struggles to find concrete solutions to combat climate change and its repercussions, the Sixth Assessment Report (AR6) [1] of the Intergovernmental Panel on Climate Change (IPCC)- approved by **scientists from all the 195 member states** of the IPCC- summarizes the state of knowledge on climate change, its widespread impacts and risks, and climate change mitigation and adaptation strategies.

The IPCC AR6 is the result of **9 years of work** of the Panel on the topic. It consists of **30 pages summarizing over 10000 scientific studies** from all over the world produced since 2014. It will also be the last report before 2030, the year set by the Paris Agreement to achieve a 45 per cent decrease in emissions, to limit global warming to no more than one and a half degrees and reach climate neutrality by 2050.

The report found that today the world faces the highest CO2 concentration in two million years and the fastest rate of sea level rise in 3000 years. Moreover, it outlines that "**human activities**, principally through emissions of greenhouse gases, have unequivocally caused global warming", as global temperatures have reached 1.1°C and it are likely to breach 1.5C in the 2030's.

With a "high-level of confidence", the synthesis report states that **human-caused climate change** has resulted in **weather extremes,** such as heat waves, droughts, torrential rains, floods that have already caused **damages** and losses to nature and people. Most importantly, the report finds that some impacts of climate change are now **irreversible** but can be limited by deep and rapid greenhouse gas emissions reduction. **Overshooting** the 1.5°C barrier, the report states, will lead to some adverse irreversible impacts. In addition, according to the synthesis, the current fossil fuel infrastructures and relative emissions are set to exceed the remaining **carbon budget**. In such a scenario, to limit further raises in temperatures, the world would need to reach **net negative global CO2 emissions** ("overshooting").

The AR6 Report contains **several precise policy recommendations for leaders and policymakers** to avert these effects, including scaling up in the energy transition, adaptation, and mitigation measures. As such, the report will be the basis for the climate negotiations that will be held at the forthcoming COP28 in Dubai, UAE.

---

[1]Intergovernmental Panel on Climate Change, Synthesis for Policymakers of the IPCC Sixth Assessment Report (AR6), AR6 (SPM, 2023):
https://report.ipcc.ch/ar6syr/pdf/IPCC_AR6_SYR_SPM.pdf

I: Status and trends on climate change

The report highlights that human activities, mainly through emissions of greenhouse gases (GHGs), have unequivocally caused the current level of global warming. Human-caused climate change is contributing to the raise of climate extremes in every region across the globe. This has led to widespread losses and damages to nature and people. Moreover, **vulnerable communities** that have historically contributed the least to climate change appear to be the most affected on account of severe consequences caused by natural disasters.

The report also highlights that **some future changes are unavoidable and/or irreversible** but can be limited by deep, rapid and sustained global greenhouse gas emissions reduction. Nonetheless, the report finds that 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. **Maladaptation** (i.e., actions intended to reduce the impacts of climate change that create more risk and vulnerability) can be avoided by flexible, multi-sectoral, inclusive, long-term planning and implementation of adaptation actions, with benefits to many sectors and systems.

At the current rate, greenhouse gas emissions will lead to increasing global warming, with the best and ideal estimate of reaching 1.5°C in the near term, thus exceeding the current carbon budget. The carbon budget is the maximum amount of cumulative net global anthropogenic carbon dioxide (CO2) emissions that would result in limiting global warming to a given level with a given probability, taking into account the effect of other anthropogenic climate forcers. In its latest assessment, **The Global Carbon Budget 2021**[2]**,** concluded that fossil CO_2 emissions rebounded from pandemic levels by around +4.8% relative to 2020 emissions – returning to 2019 levels.

II: Responses in the near term[3]

Climate resilient economic development integrates adaptation and mitigation policies to advance sustainable development and is enabled by increased international cooperation including improved access to adequate **financial resources**, particularly for vulnerable regions, sectors and groups, and inclusive governance and coordinated policies.

Adaptation outcomes are enhanced by increased support to regions and people with the highest vulnerability to climatic hazards. This support can only be provided by political commitment, well-aligned **multilevel governance**, institutional frameworks, laws, policies and strategies and enhanced access to finance and technology. Clear goals, coordination across multiple policy domains, and inclusive governance processes facilitate effective climate action, regulatory and economic instruments can support deep emissions reductions and climate resilience if scaled up and applied widely. Changes in the **food and energy systems**, the **electricity sector, transport, industry, buildings** and **land** use can substantially contribute to the elimination of existing adaption barriers.

In this framework, finance, technology, and international cooperation are critical enablers for **accelerated climate action**. There is sufficient **global capital** to close the global investment gaps but there are barriers to redirect capital to climate action, the report attests. Overall, global climate capital is sufficient to rapidly reduce greenhouse gas emissions, as long as existing barriers such as lack of private sector and citizens' engagement, low climate literacy, lack of political commitment are reduced.

---

[2] Pierre Friedlingstein et al., Global Carbon Budget 2021, 2021: https://essd.copernicus.org/articles/14/1917/2022/

[3] "Near-Term" in the report is intended by 2040.

Deep, rapid, and sustained **mitigation** and **accelerated implementation** of adaptation actions in **this decade** would reduce projected losses and damages for humans and ecosystems and deliver many co-benefits, especially for air quality and health. Delayed mitigation and adaptation action would lock-in high-emissions infrastructure, raise risks of stranded assets and cost-escalation, reduce feasibility, and increase losses and damages.

Near-term actions involve high up-front **investments** and potentially disruptive changes in the current economic structure that can be lessened by a range of enabling policies, such as regulatory reforms, safety nets and enhanced social protection. These policies are already partially available, despite differences across systems and regions, and can significantly contribute to accelerate climate actions.

III: Responses in the long term and future scenarios

Every increment of global warming will intensify multiple and concurrent hazards. Risks and projected adverse impacts and related losses and damages from climate change escalate with every increment of global warming. For any given future warming level, many climate-related risks are higher than assessed in the fifth and previous report and projected **long-term impacts** are up to **multiple times higher** than currently observed. However, rapid, and sustained reductions in greenhouse gas emissions would lead to a discernible slowdown in global warming within around two decades.

The AR6 reports recommends that the interventions to reverse the course of the events must be structured around two axes: **adaptation and mitigation policies**. Those policies and plans have progressed across all sectors and regions, with documented benefits and varying effectiveness. However, despite progress, adaptation gaps exist, and will continue to grow at current rates of implementation. Hard and soft limits to adaptation have been reached in some ecosystems and regions. **Maladaptation** is happening in some sectors and regions. Current global financial flows for adaptation are insufficient and constrain the implementation of adaptation options, especially in developing countries.

In addition, limiting human-caused global warming requires **drastic reductions of CO2 emissions.** However, such reductions will most likely require time, during which countries will continue to emit CO2. The level of emissions on the road to net-zero, and the ratio of CO2 cuts applied this decade, will largely determine whether global warming can be limited to 1.5°C or 2°C. At the current trend, and with the existing fossil fuel infrastructures, projections indicate that emissions will exceed the current carbon budget, thus overshooting the 1.5°C barrier.

It is therefore essential to implement what the report refers to as "**mitigation pathways**": all global modelled pathways that limit warming to 1.5°C (>50%) with no or limited **overshoot**, and those that limit warming to 2°C (>67%), involve rapid, deep and, in most cases, immediate greenhouse gas emissions reductions in all sectors this decade. Global net zero CO2 emissions are reached for these pathway categories, in the early **2050s** or around the early **2070s**, respectively.

In addition, the report highlights that if global warming exceeds a specified level such as 1.5°C, it could only be reduced again by achieving and sustaining net negative global CO2 emissions. This would require **additional deployment of carbon dioxide removal**, compared to pathways without overshoot, leading to greater feasibility and sustainability concerns in the long-run.

IV: Conclusion

Rising environmental challenges demand profound and rapid interventions with a clear responsibility incumbent on policymakers around the world. The report outlines that **adaptation and mitigation**

policies are now to be considered as the focal axes on which to design future global policies. A concrete implementation of such policies could provide both a **mitigation** of the irreversible effects cause by climate change and a reduction of future adverse climate events. Greenhouse Gases Emissions must be drastically reduced as quickly as possible, as indicated also by the recent Global Carbon Budget's outcomes.

In addition, the report also stresses the importance of prioritizing equity, climate and social justice, inclusion and just transition processes to guarantee a climate resilient action.

The outcome of the AR6 Synthesis report will represent the basis for climate negotiations at **COP28.** The conference will represent a crucial opportunity to engage Parties at both ministerial and technical levels to lay the groundwork needed to drive global transformation towards a low-emission and climate-resilient world, foster ambitious climate action and facilitate implementation of adaptation and mitigation policies, by contributing in providing policymakers concrete solutions to face the climate emergency.