

PLATO Society

Taking Stock: the Paris Climate Agreement Conference of the Parties in Dubai, December, 2023

January 19-February 16, 2024

Peter Krug

Third Meeting: February 2, 2024

Tentative Course Outline

- **Week 1 (Jan. 19th): Paris Climate System; COP28 introduction**
- **Week 2 (Jan. 26th): COP28 and mitigation**
- **Week 3 (Feb. 2nd): COP28 and adaptation**
- **Week 4 (Feb. 9th): COP28 and means of support for implementation**
- **Week 5 (Feb. 16th): Prospects for effective implementation of COP28**

Today's Meeting

- **Week Two summary**
- **Today's material: adaptation in the Paris System and COP28 Decision**

Mitigation in the COP28 Decision (summary of Week Two)

- **“Mitigation”**: the stabilization and eventual reduction of greenhouse gas emissions

The Climate Change Threat: Status of the Climate

- **Global warming continues to increase**
- **Impacts from climate change rapidly accelerating**
- **“Urgent” action needed to address the climate crisis in this “critical decade”**

Mitigation Progress Report

- **Significant collective progress has been made**
- **Despite this, significantly greater emissions reductions are required**
- **Parties must accelerate their actions**

Collective Goal, Targets, and Implementation Measures

- **The COP28 Decision reaffirms the Paris Climate Agreement temperature goal:**
 - Hold the global average temperature increase to well below 1.5 degrees Celsius (2.7 F) above pre-industrial levels and
 - Pursue efforts to limit the temperature increase to 2.0 degrees Celsius (3.6 F) above pre-industrial levels

Collective Interim Targets (signposts toward a goal):

- **By 2030: reduce the level of 2019 GHG emissions by 43%**
- **By 2035: reduce the level of 2019 GHG emissions by 60%**
- **By 2050: achieve net zero carbon dioxide emissions**
 - **“Net zero” = human-based emissions minus removal by “sinks” (any process, activity or mechanism that removes a GHG from the atmosphere)**

Mitigation

Implementation Measures

- **Finance and technology are available for accelerated action: “Feasible, effective and low-cost mitigation options are already available” to keep the temperature goal “within reach in this critical decade with the necessary cooperation on technologies and support”**

The COP28 Roadmap Toward Effective Mitigation

- **Two primary elements:**
 - 1. Creation and embedding of enabling conditions for effective mitigation measures; and**
 - 2. Reduction of greenhouse gas (GHG) emissions**

Embedding of Enabling Conditions

- Parties must promote support for developing countries, eradication of poverty, sustainable development, and protection of natural resources and ecological systems, and just transitions.

Enabling Conditions: “Just Transitions”

- A term with multiple meanings
- One is the maximizing of positive and minimizing of negative economic and social impacts of the implementation of “response measures”
 - “Response measures”: implementation steps to address climate change

Reduction of Greenhouse Gas Emissions

- **Starting point: “Human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming of about 1.1 degrees Celsius” (1.98 degrees Fahrenheit)**

Necessary Implementation Measures for Reducing GHG's

■ In nature:

- Enhanced efforts toward halting and reversing deforestation and forest degradation by 2030
- Preservation and restoration of oceans and coastal ecosystems and scaling up of ocean-based mitigation action
- Protection, restoration, and enhancement of biodiversity

Implementation Measures for Emissions Reductions (continuing)

- **Lifestyle: transition to sustainable lifestyles and sustainable patterns of consumption and production, including through circular economy [*recycling*] approaches**

Implementation Measures for Emissions Reductions (continuing)

- **In energy systems:**
 - **Must be deep, rapid and sustained reductions in greenhouse gas emissions**
 - **A combination of measures to decrease deployment of fossil fuels and increase deployment of alternate fuels and technologies**

Decrease Specific Deployments

- The Decision calls upon the Parties to “[*transition*] away from fossil fuels in energy systems...accelerating action in this critical decade, so as to achieve net zero by 2050 in keeping with the science”

Decrease Specific Deployments (continuing)

- Accelerate efforts toward the “phase-down of unabated coal power”
- Accelerate and substantially reduce “non-carbon-dioxide emissions globally, including in particular methane emissions by 2030”

Decrease Specific Deployments (continuing)

- Accelerate the “reduction of emissions from road transport”
- “Transitional fuels”: can “play a role in facilitating the energy transition while ensuring energy security”

Decrease Specific Deployments (continuing)

- “[*Phase out*] inefficient fossil fuel subsidies that do not address energy poverty or just transitions, as soon as possible”
- [*Peter Krug’s question*]: while the full Decision does not expressly mention fossil fuels production (extraction, distribution) in regard to reduction of GHG emissions, does the above text includes subsidies for production as well as for consumption?

Background: Two Categories of Energy Subsidies

- **Production subsidies**
 - Lower costs for producers

- **Consumer subsidies**
 - Lower costs for consumers

Identifying “inefficient fossil fuel subsidies”

- **A Canadian government document:**
- **“All Initiatives identified as Fossil Fuel Subsidies will be considered as potential ‘Inefficient Fossil Fuel Subsidies’ unless they meet one or more of the following criteria:**
 - **Subsidies that enable significant net GHG emissions reductions in alignment with the Paris Climate Agreement**

Inefficient fossil fuel subsidies (continuing)

- Subsidies that support clean energy, clean technology or renewable energy
- Subsidies that provide an essential energy service to a remote community
- Subsidies that support Indigenous Peoples' economic participation in fossil fuel activities
- Subsidies that support abated production processes

GHG Emissions Reductions: Energy Efficiency

- The Decision calls for doubling the global average annual rate of energy efficiency improvements by 2030

GHG Emissions Reductions: Increase Specific Deployments

- **Renewable sources of energy:**
 - **Tripling renewable energy capacity globally by 2030**
- **Accelerating efforts globally towards net zero emission energy systems, utilizing zero- and low-carbon fuels well before or by around mid-century**

Increase Specific Deployments (continuing)

- In road transport: development of infrastructure and rapid deployment of zero- and low-emission vehicles
- “[*Accelerate*] zero- and low-emission technologies, including renewables, nuclear, abatement and removal technologies such as carbon capture and utilization and storage (particularly in hard-to-abate sectors), and low-carbon hydrogen production”

Today's Material: Adaptation in the Paris System and COP28

1. Adaptation: brief definition
2. A multifaceted concept
3. Adaptation in the Paris Climate System
4. Duties of Parties in the Paris System
5. Adaptation at COP28:
 - Outside the negotiations
 - Adaptation in the COP28 Decision

Adaptation: Short Definition

- **The process of addressing those aspects of climate change, current or anticipated, that cannot be prevented through mitigation**
 - **A multifaceted concept: impacts and implementation measures can take many forms**

Adaptation: A Multifaceted Concept

- Impacts and actions can take many forms:
- Stand-alone projects against specific preventable or reversible impacts; for example, sea walls, early warning systems
- “Resilience”: socio-economic, ecological measures to reduce or prevent long-term risks
- “Loss and damage”: resources for recovery from irreversible damage

Stand-alone Projects

- Can take many forms, depending on the unique context of a community, business, organization, country or region; no 'one-size-fits-all-solution
- Damage from impacts (extreme weather events, slow-onset developments) can be anywhere, but the threat of rising sea levels is of particular concern to small-island states

Resilience

- **Development of a society's adaptive capacity (poverty reduction, capacity-building) to cope with a range of possible climate futures, thereby reducing vulnerability to climate change**
- **Closely associated with the goals of sustainable development, as set forth in the UN's "2030 Agenda for Sustainable Development" and 2015 "Sustainable Development Goals"**

Climate Impacts Underlying Resilience Approach:

- increasing extent and magnitude of impacts are causing severe and widespread disruption in nature and in human systems,

Long-term Impacts in Nature

- Climate change already has altered terrestrial, freshwater and ocean ecosystems at global scale, with multiple impacts evident at regional and local levels.
- Impacts are evident on ecosystem structure, species geographic ranges and timing of seasonal life cycles (phenology)

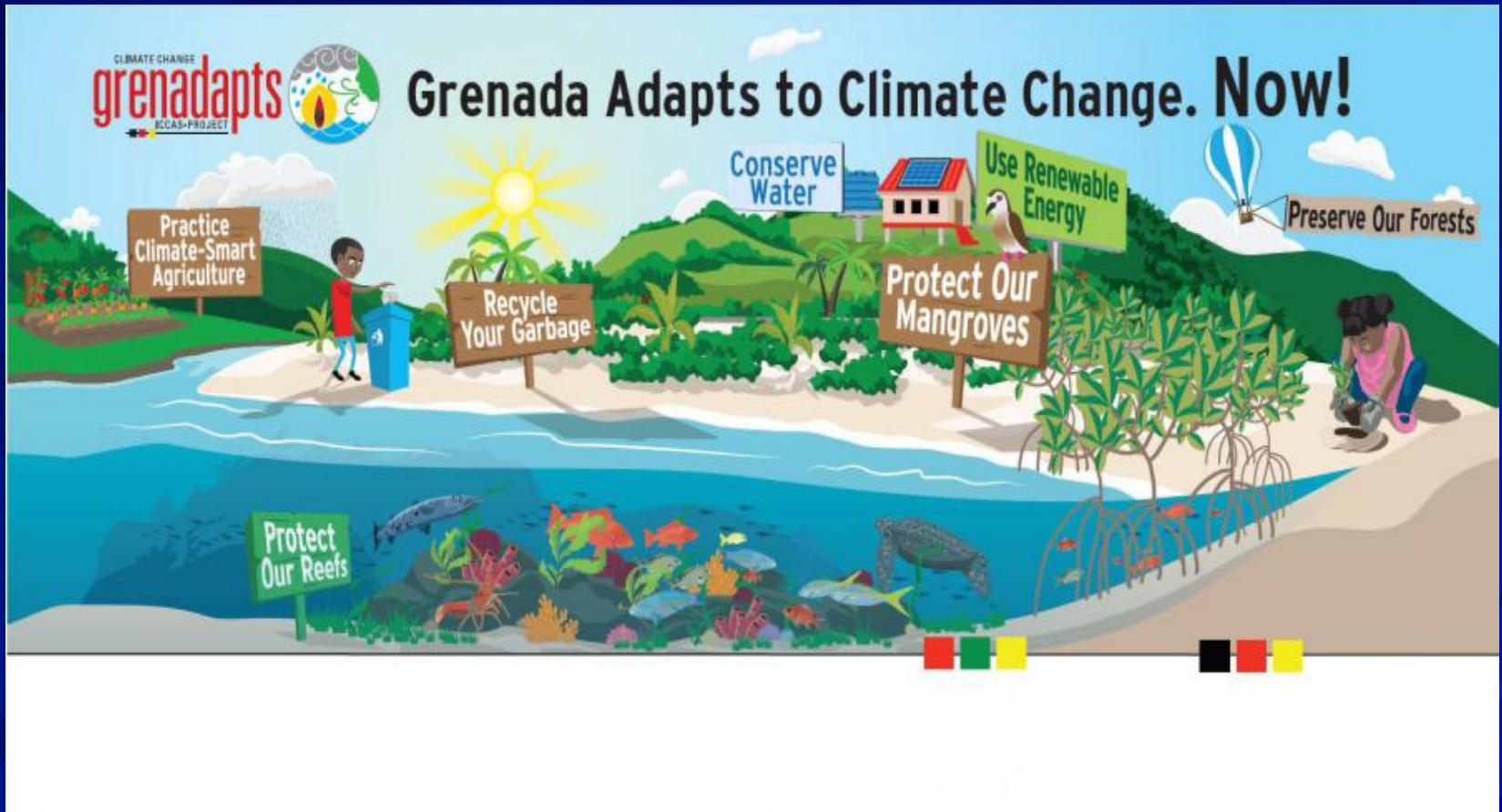
Long-term Impacts on Human Systems

- For example: water security and food production, health, and infrastructure
- Economic damages from climate change have been detected in climate-exposed sectors, with regional effects on agriculture, forestry, fishery, energy, and tourism, and through outdoor labor productivity
- Climate and weather extremes are increasingly driving displacement in many regions

The Paris Climate Agreement's “Global Goal on Adaptation”

- Illustrates the resilience approach
- Article 7.1: “Parties hereby establish the global goal on adaptation of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing to sustainable development and ensuring an adequate adaptation response in the context of the temperature goal referred to in Article 2.”

Grenada: Adaptation Actions



Adaptation Facets: “Loss and Damage”

- Irreversible climate impacts in particularly vulnerable societies
- For example: land loss due to sea level rise; loss of freshwater resources due to desertification
- A controversial question in the evolution of the Paris System: characterization of financial support for loss and damage

Adaptation in the Paris System:

- 1. Adaptation and mitigation**
- 2. Duties of the Parties**

Adaptation and Mitigation In the Paris System

- From a legal perspective, adaptation is of equal status to mitigation
- Paris Climate Agreement, Article 2.1(b):
 - “This Agreement, in enhancing the implementation of the [UNFCCC]...aims to strengthen the global response to the threat of climate change...including by:
 - [i]ncreasing the ability to adapt to the adverse impacts of climate change and foster climate resilience...”

Adaptation a Different Focus From Mitigation

- **Mitigation: a global objective (reduction of emissions), with specific collective temperature and emissions reduction targets. All Parties share in the pursuit of this objective.**
- **Adaptation: more individualized and diffuse: all decision-making entities (national, local) have different circumstances and different needs.**
 - **Therefore, must choose solutions from among a range of options**

The “Adaptation Deficit”: 1992-2009

- Although cited in the 1992 UNFCCC, adaptation received little attention until the second decade of the 21st century
- A number of reasons:
 - Mitigation: global benefit; adaptation: local benefits
 - Adaptation less closely defined
 - Costly: developed country fears of open-ended costs

Greater Attention, 2009-Present

- **Disputes at 2009 COP15 (Copenhagen): concerns that the climate change system unraveling**
- **Two major steps to rectify:**
 1. **Developed countries' \$100 billion mobilization pledge (COP15)**
 2. **Adoption of “Adaptation Framework”, including Green Climate Fund (COP16, Cancun, 2010)**

Paris System: Adaptation Duties of the Parties

- **Planning:** all Parties periodically must submit “National Adaptation Plans” (“NAP’s”)
- **Support:** Unlike mitigation collective duties and adaptation planning, this not universal; developed countries have collective duty to support developing countries (funding, capacity-building, technology development and transfer)
 - Major question: degree of specificity of the support obligation

Funding for Adaptation

- **Historically and currently, adaptation has been a lower priority for financing than mitigation**
- **In particular, far less private sector investment**

Adaptation at COP28

- **Activities separate from negotiations on the final Decision**
- **Adaptation in the COP28 Decision**

Adaptation at COP28: Matters Separate from the Decision

- Loss and Damage Fund; and
- Thematic sessions, declarations, and pledges

Adaptation at COP28: Loss and Damage Fund

- For almost 30 years, developing countries (including small-island states) pushed for funding to help them deal with irreversible impacts
- COP27 (2022) agreed to creation of a loss and damage fund. A “transitional committee” of climate diplomats was set up to develop details to be presented to COP28.
- Opening day of COP28: adoption of a detailed agreement on loss and damage funding

Loss and Damage Fund (continuing)

- **The Funding agreement text:**
 - Numerous operational details (e.g., housing at World Bank)
 - No firm obligation for developed countries to pay into the fund; instead, will be dependent on Parties' donations and any other sources of money that can be leveraged.
 - Some contributions immediately announced: UAE, Germany, U.K., EU, and Japan

Adaptation at COP28: Thematic Days, Declarations, Pledges

- Peter Krug's note: I must hold this over to Week Four

Adaptation in the COP28 Decision

- **Status report**
- **Goal**
- **Targets (2030)**
- **Implementation measures**

Adaptation in the COP28 Decision: Status Report

- Despite overall progress on mitigation, adaptation and means of implementation and support, Parties are not yet collectively on track towards achieving the purpose of the Paris Agreement and its long-term goals

Status Report (continuing)

- Most observed adaptation responses are fragmented, incremental, sector-specific and unequally distributed across regions;
- Despite the progress made, significant adaptation gaps still exist across sectors and regions and will continue to grow under current levels of implementation

Status Report (continuing)

- ***Recalls*** that developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention and that other Parties are encouraged to provide or continue to provide such support voluntarily

Status Report (continuing)

- **The adaptation finance gap is widening; current levels of climate finance, technology development and transfer, and capacity-building for adaptation remain insufficient to respond to worsening climate change impacts in developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change**

Status Report (continuing)

- Notes the efforts of developed country Parties to make progress in at least doubling adaptation finance from 2019 levels by 2025
- The adaptation finance needs of developing countries are estimated at USD 215–387 billion annually up until 2030

Status Report (continuing): the Loss and Damage Fund

- The COP welcomes the new funding arrangements and the immediate pledges of USD 792 million to the Fund

Adaptation in the Decision: Goal, Targets, Implementation Measures

■ The Goal reaffirmed:

- The Global Goal on Adaptation: “Parties hereby establish the global goal on adaptation of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing to sustainable development and ensuring an adequate adaptation response...”

The Global Goal on Adaptation Reaffirmed (continuing)

- **Par. 43: “[the COP] emphasizes the importance of the global goal on adaptation of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change with a view to contributing to sustainable development and ensuring an adequate adaptation response in the context of the temperature goal referred to in Article 2 of the Paris Agreement”**

Adaptation Targets (by 2030) in the COP28 Decision

- **Significantly reducing climate-induced water scarcity and enhancing climate resilience to water-related hazards towards a climate-resilient water supply, climate-resilient sanitation and access to safe and affordable potable water for all**

2030 Targets in the Decision (continuing)

- **Attaining climate-resilient food and agricultural production and supply and distribution of food, as well as increasing sustainable and regenerative production and equitable access to adequate food and nutrition for all**

2030 Targets in the Decision (continuing)

- **Attaining resilience against climate change related health impacts, promoting climate-resilient health services, and significantly reducing climate-related morbidity and mortality, particularly in the most vulnerable communities**

2030 Targets in the Decision (continuing)

- **Reducing climate impacts on ecosystems and biodiversity and accelerating the use of ecosystem-based adaptation and nature-based solutions, including through their management, enhancement, restoration and conservation and the protection of terrestrial, inland water, mountain, marine and coastal ecosystems**

2030 Targets in the Decision (continuing)

- **Increasing the resilience of infrastructure and human settlements to climate change impacts to ensure basic and continuous essential services for all, and minimizing climate-related impacts on infrastructure and human settlements**

2030 Targets in the Decision (continuing)

- **Substantially reducing the adverse effects of climate change on poverty eradication and livelihoods, in particular by promoting the use of adaptive social protection measures for all;**

2030 Targets in the Decision (continuing)

- **Protecting cultural heritage from the impacts of climate-related risks by developing adaptive strategies for preserving cultural practices and heritage sites and by designing climate-resilient infrastructure, guided by traditional knowledge, Indigenous Peoples' knowledge and local knowledge systems**

Week Four Meeting

- Continuation and summary of Week Three
- Support in the COP28 Decision