STUDY GUIDE UNDP

TOPIC A: Climate Change Adaptation And Renewable Energy In Developing Countries

Introduction to the Committee:

The United Nation Development Programme was established in 1965, It works in over 170 countries and territories to help eradicate poverty, reduce inequality and build resilience so countries can sustain progress. As the UN's global development network, UNDP strives to make a real, concrete difference in the lives of the people whom it ultimately serves. UNDP in Action 2009/2010: Delivering on Commitments showcases results. All of UNDP's policy advice, technical support, advocacy and contributions to strengthening human development are aimed at one end result: real improvements in people's lives and in the choices and opportunities available to them. UNDP works within four core focus areas: poverty reduction and the Millennium Development Goals (MDGs); democratic governance; crisis prevention and recovery; and environment and sustainable development, as detailed in this report, which complements the Annual Report of the Administrator on the Strategic Plan to the Executive Board. However, much of UNDP's work in these four areas is cross-cutting.

Introduction to the Topic:

2024 saw six of the nine "planetary boundaries" for environmental health crossed, with a seventh boundary in jeopardy. These boundaries are critical in maintaining the stability of the world's life support system, including our economies and societies. Climate change is an underlying driver of several other risks that rank highly, for example, involuntary migration or displacement. While pollution doesn't dominate the news cycle, it is the world's largest environmental risk factor for disease and premature deaths. Its impacts are unequal, with 92% of pollution-related deaths and the greatest burden of related economic losses occurring in low and middle income countries.

As the Caribbean emerges from a record-breaking year of climate-induced disasters and ecosystem decline, with real-time consequences for affected communities and serious risks for

reversing countries' hard-won development gains in coming years. Indeed, these risks now call into question the assumption that progress will continue on the road to the 2030 targets set under the Sustainable Development Goals (SDGs).

Ecological change is a primary animating force in this regard; an overarching existential threat to equity, justice and the future of development globally but with disproportionate impacts on SIDS. The existential risk posed by the planetary crisis for the Caribbean is no longer seen as a dystopian tale of the future. Rather, it is a hard reality which communities and practitioners face on a daily basis, threatening to derail development pathways and reverse results in coming years.

Key Terms And Definition

1. Climate Change

Climate change refers to the long-term changes in the Earth's climate that are warming the atmosphere, ocean and land. Climate change is affecting the balance of ecosystems that support life and biodiversity, and impacting health. It also causes more extreme weather events, such as more frequent and more intense hurricanes, floods, heatwaves and droughts, and leads to sea level rise and coastal erosion as a result of ocean warming, melting of glaciers and loss of ice sheets.

2. Resilience

Resilience is the ability to adapt to adversity, stress, and significant life changes by successfully

bouncing back from difficult experiences. It's not an inherent trait but a skill that can be learned and developed through flexible thinking, coping strategies, strong social connections, and self care.

3. Greenhouse gases

Greenhouse gases are gases that trap heat from the sun in our planet's atmosphere, keeping it warm. Since the industrial era began, human activities have led to the release of dangerous levels of greenhouse gases, causing global warming and climate change.

4. Renewable Energy

Renewable energy comes from natural sources like solar, wind, hydropower,geothermal and biomass that replenish themselves on human timescales unlike fossil fuels.

Historical Context

1. Shift Towards Adaptation

Developing countries have been pushing for acknowledgement of how climate change hits them harder, with issues like droughts, floods, and rising seas.

. 2001 Marrakech accords:

Established the Least Developed Countries Fund (LDCF) to finance National Adaptation Programmes of Action (NAPAs).

. Renewable energy:

Renewable energy transitioned from a concept discussed after oil shocks to small-scale NGO-led

projects in the 1990s. It is now a central pillar of global energy policy, driven by plummeting costs. For developing nations, it's no longer just about climate, it's a tool for energy access, security, and economic development, allowing them to potentially "leapfrog" fossil fuel infrastructure.

2. Main Streaming Adaption And Renewable Energy

. **The Finance Gap:** The consistent theme across all eras is a shortfall in funding. Pledges for adaptation and clean energy support made in Rio, Kyoto, and Paris have largely gone unfulfilled, creating a significant barrier to action in the Global South.

· **Climate Justice:** The fundamental tension between historical responsibility (emissions from the Global North) and present vulnerability (impacts on the Global South) has shaped every negotiation. The current demands for "loss and damage" funding are the latest manifestation of this decades long struggle for equity.

· **From Projects to Systems:** Early renewable and adaptation efforts were often small-scale and project-based. The current challenge is to scale up and mainstream these solutions into national economic planning, agricultural policies, and energy grids.

Current situation

. higher-income countries generally have more resources to deal with unavoidable climate risks. Low-income countries do not. In almost all of the countries where Concern works, these risks pose an existential threat and are already causing disproportionate loss and suffering for the most vulnerable people.

. Many of the countries where Concern works are, in one way or another, struggling with climate risks

and natural disasters. We find nature-based solutions that protect, sustainably manage, and restore natural or modified ecosystems to address societal challenges.

. We promote eco-friendly farming techniques, such as Climate Smart Agriculture, that are tailored to local environments. CSA is shown to improve food security and nutrition, while helping communities to sustainably manage water and other natural resources. Concern is committed to rolling out CSA to 600,000 farmers as part of our strategic plan, while also supporting the African Union to roll out CSA to 6 million farmers across the continent.

Past UN Actions

1. UNFCCC (1992)

. The UNFCCC established the UN Framework Convention on Climate Change and also recognized the special needs of developing countries in adapting to climate change. It laid the foundation for funding and technology transfer.

2. Paris Agreement (2015)

. Central UN climate deal, emphasizing mitigation, adaptation, and finance. Called for scaling up renewable energy and ensuring $100 billion per year for climate finance to developing countries, Pushed for technology transfer and capacity-building.

3. UN Sustainable Development Goals (2015)

. SDG 7: Ensure access to affordable, reliable, sustainable, and modern energy (focus on renewables). SDG 13: Take urgent action to combat climate change and its impacts (adaptation focus).

4. COP26 Glasgow (2021)

. Countries pledged to phase down coal and scale up renewables. Commitments to double adaptation finance by 2025 to help developing nations.

5. COP27 Sharm el Sheikh (2022)

. Historic decision to create a Loss and Damage Fund for vulnerable developing countries and Strengthened financing mechanisms for adaptation and renewable energy.

6. Green Climate Fund (GCF) (2010)

. It was established under the UNFCCC. It is the largest UN fund which focuses on helping developing countries. It opens thematic funding windows and is governed by a board of 24 people.

STATE AND NON STATE ACTORS

STATE ACTORS

1. National Governments:

National governments hold the primary responsibility for setting the strategic direction and creating the enabling environment for action.

Agencies: Rural electrification agencies, meteorological services, disaster management authorities

State owned enterprises: national utilities, transmission companies, renewable energy agencies and funds.

1. Capacity Building

State institutions are crucial for building capacity at national and local levels to implement adaptation and renewable energy projects effectively

2. Regulatory Frameworks:

States establish the legal and regulatory environments that enable the growth of renewable energy and the integration of climate resilience into national development.

3. Coordination

They coordinate diverse actors including international organizations, the private sector, and local communities to align climate action with national development priorities.

Challenges and Opportunities

4. Financial and Capacity Constraints:

- Many developing countries face limitations in developing integrated adaptation and financing strategies, particularly at the local level.

5. Power Dynamics:

- The interplay of power between various actors can influence climate policy-making, sometimes leading to short-term planning or the exclusion of certain groups, according to a study from South Asia.

6. Equity and Justice:

- Ensuring that climate action leads to just and socially equitable transitions is a key consideration, requiring careful planning and stakeholder engagement.

Non state actors

1. Implementing Adaptation Solutions:

Non-state actors implement projects for climate resilience, such as sustainable farming practices, improved water management, and community-based disaster risk reduction.

2. Promoting Renewable Energy:

Businesses and NGOs drive the adoption of renewable energy by offering accessible technologies and financial models, particularly in rural areas where state infrastructure may be lacking.

3. Mobilizing Finance and Investment:

Organizations and private companies provide funding and direct investment for climate adaptation and renewable energy projects, often filling gaps left by national budgets

4.Advocacy and Policy Influence:

NGOs and civil society groups advocate for stronger climate policies, influencing national governments and participating in international forums like the UNFCCC to push for action.

5.Technical Expertise and Innovation:

Research bodies and industry groups develop and share knowledge, providing technical assistance and innovative solutions to enhance climate resilience and deploy renewable technologies.

Examples:

1. NGO'S: Work on community based adaptation projects, advocate for policy change and raise awareness on climate impacts.

2. Businesses: Invest in renewable energy, develop green technologies, and implement sustainable corporate practices.

3. Community Groups and Indigenous People: Implement traditional knowledge, build local resilience, and ensure that climate solutions are culturally relevant and equitable.

Sustainable Development Goals (SDG'S):

SDG 13: Climate action

This goal is the most directly linked, with efforts focusing on mainstreaming climate policy, reducing disaster mortality, and increasing national strategies for risk reduction.

SDG 7: Affordable and Clean Energy

Investing in renewable energy sources like solar, wind, and hydro helps achieve energy targets and directly supports climate action by reducing fossil fuel reliance and improving air quality.

SDG 3: Good Health and Well Being

The transition to renewable energy, which improves air quality by reducing fossil fuel burning, has significant public health benefits, reducing premature deaths linked to air pollution.

SDG 9: Industry,Innovation, and Infrastructure

Investing in clean energy infrastructure and technologies is the key for building resilience and fostering sustainable industrial development.

SDG 11: Sustainable Cities and Communities

Adaptation efforts that create more resilient communities and infrastructure are critical for sustainable urban development in the face of climate change.

CASE STUDIES

Colombia:

This country uses nature-based approaches, such as restoring mangroves and wetlands, to protect against floods and drought. They also leverage the valuable expertise of their Indigenous communities for climate adaptation strategies.

Malawi and Pakistan:

Both nations are modernizing their capture and use of climate data and early warning systems to equip communities, farmers, and policymakers with the information needed to protect lives and livelihoods.

Kenya:

The success of its geothermal energy sector is an example of how a nation can harness its specific geographic advantages to advance energy security, lower greenhouse gas emissions, and promote socioeconomic development.

Brazil:

The flourishing bioenergy industry in Brazil serves as a model for using abundant natural resources to diversify the energy mix and address environmental concerns.

SOCIAL AND ECONOMIC CAUSES

Social Causes

1. Poverty and Inequality:

Low income and unequal societies are more vulnerable to extreme weather and have less capacity to adapt, making climate change a greater threat to their development.

2. Lack of Public Awareness:

Limited public understanding and concern about climate change can impede widespread adoption of adaptation measures and renewable energy.

3. Dependence on Natural Resources:

Many developing nations heavily rely on agriculture, which is highly sensitive to climate change, leading to disruptions in livelihoods and economic stability.

Economic Causes

1. Dependence on Fossil Fuels:

Many developing countries still rely on fossil fuels for electricity, contributing to climate change and making the transition to renewables a significant economic challenge

2. Insufficient Funding and Resources:

A lack of financial resources and investment capacity can hinder the development of both climate adaptation infrastructure and large-scale renewable energy projects.

3. Weak Economic and Environmental Policies:

The absence of integrated policies that support climate-compatible development and sustainable resource use can create barriers to climate action.

QARMA Questions

1. How should the UNDP define and prioritize climate change adaptation in developing countries?

2. What renewable energy sources should be emphasized to balance sustainability, cost, and accessibility?

3. How can developing countries gain equitable access to renewable energy technology and infrastructure?

4. What financing mechanisms (climate funds, debt relief, public–private partnerships) can ensure affordability and long-term sustainability?

5. How can the UNDP support capacity-building, including education, training, and local expertise, in renewable energy sectors?

6. What role should international cooperation and technology transfer play in enabling renewable energy adoption?

7. How can adaptation and renewable energy strategies be tailored to different regional needs (e.g., small island states, landlocked countries, least developed countries)?