Country: Republic of Poland

Committee : UNCED

Agenda : Evaluating the prevalence of green technologies to enhance energy management and reduce carbon footprint

On June 1992, the United Nations Conference on Environment and Development (UNCED), brought together 172 governments and over 2,400 NGOs to address global environmental challenges, resulting in key outcomes such as the adoption of Agenda 21, the Rio Declaration on Environment and Development, and the formation of the Commission on Sustainable Development, Conservation and Management of Resources, climate change mitigation, and Means of Implementation.As Poland is working to achieve the goal of Agenda 21, at some sectors, noticeable growth are happening as well as facing challenges for its geographical location,Natural calamities, lack of alternative jobs to switch people who are directly employed in fossil fuel energy sectors, high initial infrastructure cost, economic barriers, insufficient number of expertise and insufficient amount of funding. Poland is trying to implement its all opportunities to overcome this problem and a rapid improvement is visible and Poland can be an example for countries which are heavily dependent on fossil fuel, similar geographical area.

Coal-fired power plants for electricity generation cause 46% of its carbon emissions. Implementing green technologies and government policies as Poland's geographic location provides access to renewable sources like wind power (offshore & onshore) , biomass, and solar energy contributing 27% of its total energy production and reducing the dependency from fossil fuel 87% to 63% during the last 8 years. According to the “Energy Policy of Poland until 2040(EPP2040)” goal, the share of RES will be 32 percent in 2030 and 40 percent in 2040 related to the Agenda 21-**Chapter 9:Protection of the Atmosphere**, respectively. As nearly 24% carbon emitted from industry, Poland takes it seriously to reduce emission. Implementation of Carbon Capture and Storage (CCS), Electric Arc Furnaces (EAFs), Polish Hydrogen Strategy 2030 (Strategia Wodorowa), Electrification and Renewable Energy Integration, ”Waste management system” could cut emissions in the industrial sector by 20-30% by 2030. Since industries account for 25% of total emissions, this translates to a 5-7.5% national reduction.
The transportation system is responsible for almost 14% of total carbon emission. Poland is trying to mitigate this by introducing Electric Vehicles in the country. ElectroMobility Poland (EMP), a venture by four Polish energy companies aiming to produce 100,000 EVs by 2023 under the Izera brand. The Polish government provides €115 million for subsidies for customers buying EVs,€ 232.9 million for the electricity grid, € 202.6 million for charging stations under Poland's state-owned (NFEP&WM). The Government also runs the “My e-car” program for financial support for leasing EVs. At the same time, Poland is focusing on battery cell manufacturing that makes Poland rank second in Global for battery cell manufacturing capacity, contributing 6% to the global share. "Green Public Transport Program", "Central Communication Port (CPK) Project", "Regional Transport System Development" are run in Poland to increase public transportation systems and discourage their citizens from using private transportation.

"Remote Monitoring Systems","GNSS technology" etc are used in Agriculture to optimise the use of resources and reduce environmental impact. To fulfil the Agenda 21-**Chapter 7: Promoting Sustainable Human Settlements Development**. Poland is implementing smart urban planning strategies to improve energy efficiency in cities.

By addressing the challenges, Poland is suggesting these solutions:

1. Recognizing the urgent need for sustainable energy transition, *Collaborating with UNEP*, promoting global subsidies for green technologies, and incentivizing renewable energy investments in high-carbon-emission nations.
2. Collaborating with UNIDO, under the United Nations Development Programme (UNDP), develop the infrastructure for green technology in developing and less developing countries.
3. Encouraging countries to implement smart grid technologies for grid monitoring and optimization and develop the storage capacity to ensure effective energy use.
4. Introducing electric vehicles after developing their required infrastructure, upgrading roads and highways, and training the citizens to adopt them. Improving the public transportation systems with upgraded facilities and less fare to attract civilians to reduce the use of personal vehicles
5. Suggesting recognizing the need for employment for the people losing their jobs due to transforming energy priorities.
6. Formulation of a regulatory body along with UNEP, UNDP, and IPCC to track down countries policies and efforts mentioned in the NDC.

Reference:

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8. EVMarketsReports.com
9. Poland: greenhouse gas emissions by sector 2022 | Statista
10. Agenda 21