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TOPIC: Limits Look on Extraction of Carbon-Based Fuels in Vulnerable Conditions

*"In the end, we will conserve only what we love; we will love only what we understand, and we will understand only what we are taught."*

*- Baba Dioum*

Carbon dioxide (CO2) perform a delicate and life-sustaining function on Earth, but the increase in greenhouse gases since industrialization has emitted too much CO2 into our atmosphere. CO2 is the ultimate by-product of combustion of hydrocarbons such coal, oil, and natural gas. Hydrocarbons deplete the ozone layer and contribute to climate change causing an increase in the average temperature of Earth by 2°F every decade. CO2  accounts for 0.04% of our atmosphere which is double of the requirement for plants. Every month 3-4 tons of oil are put into the sea and among the main sources of marine pollution. UNEP has undertaken several actions to limit fossil fuel extraction in vulnerable regions by implementing a plethora of frameworks.

Saudi Arabia has a predominantly oil-based economy and is the world leader in oil producing and exports, accounting for 11% of oil production in the world. In 2023, Saudi Aramco's average hydrocarbon production was 12.8 mboe/d (thousand barrels of oil equivalent per day), a 6% decrease compared to 2022 (13.6 mboe/d), including 10.7 mb/d of crude oil. The Kingdom of Saudi Arabia is facing the realization that the era of fossil fuel dominance is ending, and the future of energy lies in renewable energy investments. In the last decade, solar and wind power became cost-competitive with fossil fuels even without financial support. The NEOM Green Hydrogen Company (NGHC) being built in Oxagon will be operational by 2026 and will produce an initial 600 tonnes of green hydrogen per day, saving as much as 5 million tonnes of CO2 emissions per year.

Saudi is scoping to have zero net emissions by 2060. The Kingdom has committed to have 50% of its power generated from renewable sources by 2030. Huge investments are being made in solar and wind power, to diversify its energy sources and reduce its carbon footprint. Saudi Arabia and Aramco have adopted the Circular Carbon Economy Framework which is a cyclical model on reducing, reusing, recycling, and removing carbon from the environment. The Kingdom also plans to plant more than 600 million trees and protect a third of the countries land and sea from climate change. The success of these efforts will not only shape the country’s future but also contribute to global environmental health.

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