

Country: The Republic of Lebanon

Committee: United Nations Environment Programme (UNEP)

Agenda Item: Enhancing the transition to sustainable energy as a response to the energy crisis and climate change



The Republic of Lebanon, one of the smaller nations in the Middle East, is located south-west of Syria and north of Israel. While having a mostly mountainous geography, the Mediterranean climate is dominant. Its geopolitically important location and cultural diversity makes it a valuable country. This can be seen in its capital Beirut, hosting one of the most important ports of the Mediterranean Sea.

The Republic of Lebanon has been aware that it is one of the most vulnerable countries when it comes to climate change. Recent estimates show that economically important coastal plains could get flooded. Even though the majority of the nation's lands are far from sea, the nation's population centers are on the coastal cities, the three most important cities of Lebanon; Beirut, Tripoli and Saida, are located along the coast. The government bears in mind sea level has risen about 210–240 millimeters since 1880, with around a third happening in the last two and a half decades. At present the yearly rise is around 3mm per year. Regionally factors play a substantial role such as uplift or collapse of the ground, changes in water levels due to water removal or other water management and even cause the effects from local landslides.

The coastline is vulnerable to erosion as a result from natural factors such as strong hurricanes, and different regional, anthropogenic factors which act as pressures on coastal ecosystems. Vulnerability is higher in low-lying coastal regions such as in Tripoli, Chekka, Amchit, Jbeil, Jounieh, Damour, Jiyeh, Saida and Tyre which are more sensitive to ebb and flow, tides and have lower natural defense formation. Besides, the inappropriate management of countryside emigration to coastal cities, agricultural activities and urban expansion is causing the disappearance of the coastal agricultural soils which will lead to a reduction in water absorption in the soil and therefore create a major risk of flooding of the lower coastal plains in the incident of intense rainfall.

Lebanon faces difficulties in compiling energy data like other developing countries and thus is yet to achieve a complete energy balance.

The electrical sector in Lebanon is intertwined with the country's current crises. The failing Electricité du Liban (EDL) has contributed significantly to Lebanon's high government debt over the years, but because the country's main source of energy is fossil fuels, the government could no longer afford to import or subsidizing fuel, resulting in an energy crisis in which power failures have worsened and fuel shortages have translated into long lines at gas

stations. The country was thrown into darkness when the electricity system failed in summer 2021, and the army was forced to intervene by providing fuel.

Renewable energy sources have excessively been restricted to biomass heating in rural areas and hydroelectric power plants formed before the 1970s that represented more than 75% of the electricity produced in Lebanon at that time.

Hydropower was the first version of renewable energy to be deployed in Lebanon and plays a great role in providing renewable electricity to the country. Even so, low prices and dearth of maintenance and renewal of hydropower plants have led to an ongoing drop in the share of hydropower in the energy mix. The main potential of hydropower in Lebanon is acquired from four major sources: rehabilitation of existing power plants; construction of new power plants; micro- hydro run-of-river applications; and generation from non-river sources.

Wind energy is an unaddressed resource in Lebanon with extremely confined formation (Kinab, El Khoury, 2012). According to the Wind Atlas published in 2010, Lebanon has the potential to produce about 5,400 MW of wind energy (UNDP, 2010).

Solar energy is also a prized resource in Lebanon. With around 3000 hours of sunshine, the appendix of this energy source to the national system could enormously contribute to the growth of clean energy in Lebanon. At present solar energy represents around.

The government of Lebanon has made impressive improvements in its response to climate change. It agreed to a remodeled Nationally Determined Contribution (NDC) in 2021, which would be a critical component of countries' global dependence under the Paris Agreement. Climate action planned under the NDC up to 2030 can help Lebanon recover from COVID-19 in a sustainable way by addressing structural problems including energy, waste, and water, as well as creating jobs and improving economic circumstances. The Ministry of Environment (MoE) is in charge of climate change in Lebanon, and the Climate Change Coordinating Committee (CCCC) was established to cooperate with other major ministries.

In order to address many of the crises that Lebanon is facing, the government should incorporate and prioritize climate planning and disaster risk management within all future reforms. This would accelerate Lebanon's transition to sustainable development while also improving the economy, livelihoods, and ecosystem protection.

Governments must also cooperate with and empower individuals to play a significant role. People should have options and incentives in order to adopt new, more sustainable behaviors.

Climate change will increase the complexity and unpredictability that Lebanon already faces. What is obvious, nevertheless, is that action and full participation at all levels of the community are necessary now and in the future.

Sources:

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