

- Country: Republic of Iraq
- Committee: The United Nations Development Programme (UNDP)
- Topic: Production of Sustainable Biomass Energy

I.What is Biomass?

Biomass is renewable, non-fossil organic matter derived from plants and animals. It contains oxygen, nitrogen, hydrogen, and carbon. In this sense, all plant and animal matter that contains carbohydrate components is biomass.

II.What is Biomass Energy?

Renewable energy that can be obtained in less than 100 years from all plants and animals, forest products, urban and food waste is called biomass energy. Energy can be derived from biomass in solid, liquid or gaseous form.

Approximately 14% of the world's energy is derived from biomass. Most of this energy is used for heating purposes. The processing of waste in an increasing number of plants is accelerating, and the areas of use for bioenergy are increasing year by year.

III. What is Iraq's place in UNDP?

The Republic of Iraq, with its deep culture and history, embraces an ambitious development reality that seeks to achieve high-quality and sustainable human development for its citizens. It is a path engraved in the country's 2005 constitution as well as in its long-term national development vision, based on strong national partnerships and commitment to implementing, monitoring, and tracking Sustainable Development Goals (SDGs) and reporting on progress made. It is backed by strong political will, integrated planning, and supportive legal frameworks.

The "Safe Society" approach was adopted within the framework of strong national coordination and monitoring of the SDGs, which have been translated into medium-term national development plans, as well as strategies and development policies, taking into consideration the three dimensions of sustainable development: economic, social, and environmental.

The SDGs have helped Iraq to compare our reality at home with the outside context, as well as to review national plans and re-examine our approach in Iraq- Our vision extends beyond healing wounds, to addressing quality of life, societal cohesion, our human and social capital, and how to preserve our heritage for future generations.

It must be recognized that we do not have all the levers of development, and that sustainable development cannot be achieved through government efforts alone, but requires the

complementarity with the efforts of the civil society and the private sector.

IV. What is Iraq's Main Energy Source?

Two decades on from the 2003 U.S. invasion of Iraq, efforts to improve the our country's electricity infrastructure have lagged. Despite massive hydrocarbon reserves, including the world's fifth-largest proved crude oil and 12th-largest proved natural gas reserves, Iraq struggles with chronic electricity shortages. Our citizens do not have access to reliable electricity service and have to rely on expensive neighborhood diesel generators to cover some of the gap. There is a clear, we need to explore cleaner alternatives, such as renewable energy systems.

Iraq's electricity sector is almost entirely dependent on fossil fuels, which account for more than 80% of power generation.

Considering the need to diversify the energy sector, and the growing shortages in power supply and reliance on generators, the need to explore alternative resources, particularly renewable energy, may seem evident.

Iraq boasts a strong potential renewable energy base: It has significant solar irradiance levels, economically-viable wind speeds in some areas, and hot springs that could present an opportunity for the geothermal development. Power generation from renewable energy sources would increase Iraq's energy security and reduce the power sector's greenhouse gas emissions, which account for almost half of Iraq's total emissions, due to its high dependence on fossil-fuel-fired power plants and the heavy deployment of polluting diesel generators.

Recommendations

While renewable energy systems are vital for energy security and diversification in Iraq, broader power sector reforms are critical for ensuring the viability, sustainability, and optimization of these systems. Investment climate reforms are also required to attract the necessary financing for these capital-intensive systems and to ensure low cost of financing. Some additional policy recommendations are listed below:

- a.** Develop a renewable energy expansion plan.
- b.** De-risk renewable energy investments through measures addressing the power market and off-taker risks, procurement risks such as transparent auctions risks, and political uncertainty risks.
- c.** Promote energy efficiency measures, especially for buildings.
- d.** Adopt a renewable energy law and establish a dedicated institution.

Thank you.