

in the NAPA is to make the Somali people more resilient to climate change, recognizing their high vulnerability in an economy that is dominated by a high dependence on natural resources. Somalia's National Determined Contribution (NDC) estimates that reducing GHG emissions by 30% will require \$9.96 billion of investment into mitigation measures by 2030. The proposed action will demonstrate the way forward for achieving not only relevant GHG emission reductions, but even more so is hoped to demonstrate to domestic and foreign investors the potential of renewable energy in Somalia.

The provision of electricity services from the private sector is growing, mainly through private independent power producers (IPPs) and off-grid solar providers, but at a slow pace. The market is dominated by sub-standard products and services due to the high cost-sensitivity of customers. As a result, low energy access continues to significantly affect Somali households and businesses. In addition, retail power prices in Somalia are among the highest in Africa (at about \$1/kWh) because IPPs still rely primarily on inefficient diesel generators, with high fuel costs. Other challenges include the lack of cooperation between the Somali government and the ESPs, limited regulation and oversight of the sector, and the lack of implementation and follow-up of government policies and regulations.

There is nevertheless significant potential in all Somali areas in terms of renewable and alternative sources of energy, such as solar and wind power, but so far, due to among others security and funding problems deployment has been limited. The average daily solar energy received on a horizontal surface is about 5.5 - 7.5 kW/m², making it one of the highest in the world. The solar energy distribution in Somalia is also almost uniform, giving almost the same energy, disregarding the place or angle of installation. The average sunshine duration is estimated between 2900 - 3100 hours/year with modest temperatures, benefitting the service life of solar panels. With regard to wind energy, the annual average wind speed is about 4-10m/s with continuous flow throughout the year. The intensity is abundant in the Northern region and moderate in central and coastal areas. A large portion of the country's power demand can be covered using wind turbines of low to medium capacity. As a recent example, the installation of a 3 MEUR Hybrid Power Plant in Garowe city allows the reduction of diesel consumption by more than 2,000 litres per day, powering approx. 100,000 people by renewables only. The Hybrid Power Plant serves a 3.5 MW load and is expected to be shortly further extended with 450 kW of wind energy, covering with renewables and storage more than 25% of the energy needs of the city.

Currently, both the lack of modern energy and electricity availability and the high costs of energy whenever available have a negative impact on the country's economic growth. Indeed, Somalia's gross domestic product (GDP) per capita has consistently been ranked among the five lowest in the world throughout the last decade and in 2020 it was the second lowest in the world. The primary sector remains the biggest employer of both men and women at 79.2% and 83.9% of the labour force respectively. The main livelihood systems are agriculture and livestock production, which all rely on adequate rainfall. Given several decades of conflict and political instability, these systems are vulnerable to shock, such as consecutive seasons of rain failure, drought, flood and inflation, all of which have a direct impact on the population's food security and nutrition situation. Somalia's population is suffering from a chronic nutrition crisis with global acute malnutrition (GAM) rates exceeding the emergency threshold of 15% in most areas.

In 2015, the Federal Government State (FGS) approved a law on private foreign investments (i.e., the Foreign Investment Law) that is reaping its first rewards with foreign companies and DFIs (e.g., EIB, AfDB) now taking their very first tentative steps in Somalia after decades of absence. International donor organisations are also again active in Somalia and Somaliland in the electricity and renewable energy sectors. The World Bank (WB) has assisted the country with some major initiatives, including the Power Master Plan, Somalia's Electricity Project (SEAP), and the Somali Electricity Sector Recovery Project (SESRP). The latter project, which was recently launched in close collaboration with the Ministry of Energy and Water Resources (MoEWR), has the goals of increasing access to lower-cost, cleaner/modern electricity supplies as well as re-establishing the electricity supply industry. More specifically, the SESRP aims to increase renewable energy generation by optimising and scaling up the generation infrastructure of existing Electricity Service Providers (ESPs), to enhance electricity access to existing public facilities, and to strengthen the capacity of both public and private institutions to set up an enabling institutional and regulatory environment for the electricity sector. In this context, the WB recently expressed interest in cooperating with the European Union (EU) on Somalia's energy sector. Potential areas of cooperation span from the establishment of a national energy regulatory authority to the implementation of the Electricity Bill,