7 AFFORDABLE AND CLEAN ENERGY

SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all in Latin America and the Caribbean[1]

Key regional statistics on SDG 7

- In Latin America and the Caribbean, more than 26 million people (4% of the population) do not have access to electricity and at least 87 million (15% of the population) use biomass from non-sustainable sources —wood and charcoal— for heating.
- In the region, the share of fossil fuels in the energy matrix is close to 75%, 44% in electricity generation and over 90% in transport. Oil is being replaced by natural gas, which accounts for 23% of the total primary energy demand.
- In absolute terms, renewable energy generation has increased, but its share of total primary energy has dropped; this trend goes against the goal of reducing the environmental footprint. Between 1990 and 2016, the proportion of renewable sources in the energy matrix shrank from 28.9% to 26.5%.
- Energy consumption and production account for two thirds of greenhouse gas (GHG) emissions and 81% of the global energy matrix is still based on fossil fuels.
- According to data from 2016, of the investments under way in the region, approximately 60% were in hydropower, 5% in non-conventional renewable energy, 5% in nuclear energy and 30% in thermal energy; of new investments (to 2030), 40% will be in hydropower, 37% in non-conventional renewable energy, 6% in nuclear energy and 17% in thermal energy.
- However, this increased investment in non-conventional renewable energy will increase the installed capacity to only around 7.6% of the electricity matrix in 2030, compared to the current 3.9%. This would mean 5.3% of effective generation coming from the electricity matrix in 2030, up from the current 2.9%.
- The Caribbean relies on imported fossil fuel for more than 90% of its energy needs and electricity tariffs in the Caribbean are among the highest in the world. There is widespread recognition that the high cost of energy is undermining the subregion's competitiveness and growth.

1 The analysis of the Sustainable Development Goals (SDGs) presented here is the outcome of the discussions held within the framework of the third meeting of the Forum of the Countries of Latin America and Caribbean on Sustainable Development, convened under the auspices of the Economic Commission for Latin America and the Caribbean (ECLAC) in Santiago, from 24 to 26 April 2019.

UNITED NATIONS
ECLAC
70 ECLAC FOR SUSTAINABLE DEVELOPMENT WITH EQUALITY
Forum of the Countries of Latin America and the Caribbean on SUSTAINABLE DEVELOPMENT
Santiago 24–26 April 2019

7 AFFORDABLE AND CLEAN ENERGY

SDG 7

Key messages from the region on the issues addressed by SDG 7 and its targets

- Energy is central to addressing almost all of the region's great challenges and opportunities, whether it is to promote employment, improve security, combat climate change, secure food production or increase incomes.
- Latin America and the Caribbean occupies a key place in the global context due to its large reserve of natural resources that are critical and strategic to moving towards greater availability of renewable energies, achieving global climate goals and combatting climate change. This new central role entails taking proper advantage of the new global demand for certain mining resources, to build more sustainable and equal development.
- In the region, the development challenge lies in reconciling economic growth with changes in the pattern of energy production and consumption in order to decouple economic growth from rises in GHG emissions, giving more space to renewable energy sources, above all in transport, thereby making the production structure and the functioning of cities more efficient. In addition, energy access and affordability must be increased for the poorest, ensuring that no one is left behind.
- Electrification of transport is one of the main tools for meeting the intended nationally determined contributions stated in the Paris Agreement and improving air quality in cities.
- The transition to renewable, sustainable, affordable and secure energy is imperative. In this regard, lithium is a critical resource for the development of energy storage batteries, which are important for electromobility and the transition to more sustainable energy matrices.

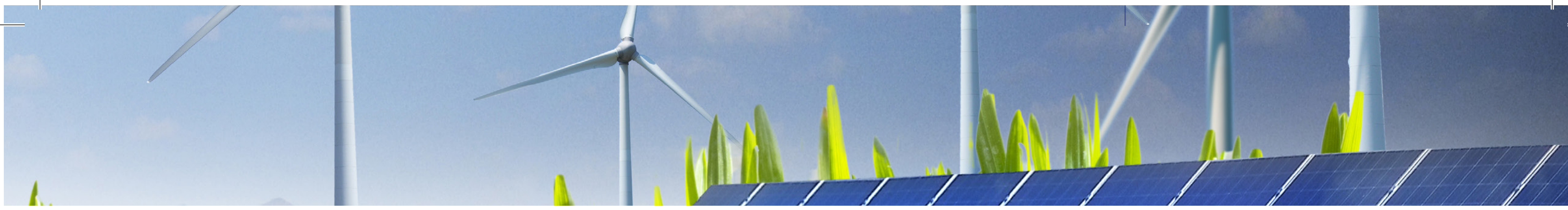
Challenges and opportunities for implementation, follow-up and review of SDG 7 and its targets

Challenges

- Although investment in renewable energies has been on the rise this century, more recently there has been a slowdown due to the inertia of regulatory and fiscal policies, a decline in public investment and falling technology costs.
- Expenditure on domestic fuels, electricity and gas accounts for a disproportionate percentage of the budget of the lowest income households.

Opportunities

- For South America, projections to 2030 point to new investments totalling US$ 74 billion in renewable energy projects, US$ 36 billion in non-conventional renewable energy and US$ 38 billion in hydropower.
- The manufacture of electric vehicles and the processing of raw materials for electric mobility (for example, lithium and copper) present an opportunity for industrialization for the region, in accordance with international best practices. The countries in the region that are making greatest strides in this area are implementing national strategies that include the public and the private sector. Despite this, user and consumer participation remain low.



Lessons learned and good practices with respect to SDG 7 and its targets

- Brazil's Alternative Sources of Energy Incentive Programme (PROINFA), with an investment of around US$ 5.4 billion, expanded wind energy and made prices as competitive as hydropower, which was previously the cheapest energy source. In 2016, 80% of the production chain was national.
- Some municipalities in the region have implemented actions faster and further than national governments, with solutions focusing heavily on electric buses and taxis. Though still small, the market is growing constantly. With the exception of Mexico and Colombia, the fleet of electric vehicles in most countries stands at under 1,000 units, but as electric mobility continues to be explored, technologies and incentives are being tried out and the first generation of recharging infrastructure is being set up. In almost all countries, electricity companies play a key role in the installation of recharging infrastructure, as well as in demonstration projects for buses, taxis and electric fleets.
- In an effort to mitigate greenhouse gas emissions and offset energy price shocks, many countries in the Caribbean have started to implement renewable energy programmes, with renewable energy targets ranging from a 10% share up to 85% of the energy matrix by 2030. However, small economies in the subregion have considerable difficulty in financing renewable energy projects, which typically require high upfront financial capital. Innovative financing instruments, such as combining loans and grants in blended financing, are an option to address the constraints of size and risk associated with renewable energy projects in the subregion.

Recommendations from Latin America and the Caribbean to achieve SDG 7 and its targets

- Regional multi-stakeholder dialogue between government, civil society and the private sector is important in leveraging potential and discussing the challenges of lithium as a strategic resource for the transition to sustainable and low-carbon renewable energies, electromobility, generation of local and regional production linkages and diversification of production.
- In view of the challenges posed by mining in the region, public policies must be developed in relation to lithium extraction practices that guarantee respect for human rights and incorporate a gender perspective, ensure good environmental practices are followed, manage income in a sound fiscal and macroeconomic manner, and promote diversification of production, with greater added value, within the framework of effective governance of natural resources.
- From the point of view of technological feasibility, installation capacity and management of market prices, there is room for the expansion of renewable energies. In order to move forward, policies are needed that promote new energy-efficiency projects, systems for storing large volumes of energy produced intermittently by renewables, taking advantage of the region's abundant natural resources (water and lithium) and production linkages associated with their production and their technological applications.
- In most countries of the region, there is potential for development of renewable wind and solar energy, as well as enormous room to increase the penetration of these sources.
- One of the policies in the renewable energy sector that should be explored more extensively in the region is promotion of investment by national public financial institutions, which have offered attractive conditions for capital formation and acted as a catalyst for private financing. It is essential to develop the financial system and regulatory frameworks to renew the energy matrix and build resilient, sustainable, inclusive infrastructure.

Economic Commission for Latin America and the Caribbean (ECLAC)
Comisión Económica para América Latina y el Caribe (CEPAL)
www.eclac.org