HIGH-LEVEL POLITICAL FORUM ON SUSTAINABLE DEVELOPMENT

POLICY BRIEF #21

ACHIEVING SDG7 IN LATIN AMERICA AND THE CARIBBEAN

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This document is a part of a series of Policy Briefs being developed to support SDG7 review at the UN High-Level Political Forum to be held in July 2018. The objective is to inform intergovernmental discussions by providing substantive inputs on SDG7 and its interlinkages with other SDGs prepared through inclusive multi-stakeholder consultation processes. The development of these Policy Briefs is coordinated under the auspices of the Ad Hoc Informal Multi-stakeholder Technical Group of Advisors on SDG7.

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KEY MESSAGES

Progress towards achieving SDG 7

If recent trends continue, the energy goals set for 2030 are unlikely to be met, except in the case of access to electricity. Countries vary greatly in terms of how far they are from attaining the targets, and efforts will need to be concentrated more on those with the furthest to go.

Access

The number of people without access to electricity fell from 44 million in 2000 to 18 million in 2014. In urban areas, coverage in the latter year was 99% while in rural areas it reached 88.6%. If current growth rates are maintained and if additional resources are provided for the countries with the largest deficits (Haiti, Nicaragua, Guatemala and Guyana), the target could be attained by 2030. Although access to modern energy sources for cooking has been improving, over 84 million people still lacked access as of 2014. At current rates of progress, the target set is unachievable.

Efficiency

The starting situation is good since Latin America and the Caribbean is the region of lowest energy intensity in the world; but it also displays the lowest annual rates of improvement. Although the energy intensity indicator has been trending down, driven mainly by efficiency gains in the industrial sector, at the current pace of progress it will be impossible to achieve the target set for 2030 (particularly in view of the declining rates of improvement observed in recent years).

Renewable energy

Renewable energy sources are widely used in the region (27.2% of total final energy consumption); and modern renewable energies represent five sixths of this share, which places the region in a privileged position. Nonetheless, this is partly clouded by a slight downward trend in both indicators, which will undoubtedly be reversed if the non-conventional renewable energy (NCRE) and hydroelectric plants foreseen in most countries' current national energy plans materialize, and if the policies for sustainable use of firewood are strengthened.

Priority actions over the next four years

- Generate suitable institutional and regulatory frameworks for attracting the investment needed to universalize access to electricity and develop human and organizational capacities to distribute it efficiently.
- Mainstream non-conventional renewable energy technologies in policies, programmes and projects to improve energy access, particularly in rural areas.
- Implement government policies that encourage the development of renewable energies and are sustainable over time.
- Intensify national programmes to promote the use of efficient and clean wood-burning stoves, with emphasis on environmental care, protection of people's health and respect for the sociocultural contexts in which families live their lives.
- Strengthen the institutional and regulatory frameworks for energy efficiency and boost their national capacities, particularly as regards statistical information and indicators.
- Draw up national energy efficiency plans, that define targets and instruments and provide the resources needed to implement them.

Priority actions towards 2030

- Promote greater rationalization of the transport sector, incorporating cleaner and more efficient technologies, multimodality and greater use of renewable energies.
- Foster greater convergence between energy prices and their production costs. Any subsidies should be implemented through mechanisms that ensure they benefit the target populations.
- Promote the gradual replacement of traditional biomass fuels for cooking and heating with modern energy sources.

Access to electricity and the Sustainable Development Goals

The Sustainable Development Goals (SDGs) are a global call to action to adopt measures aimed at ending poverty, protecting the planet and ensuring that all people enjoy peace and prosperity. Energy plays a key role in nearly all the major challenges and opportunities facing the world today. Consequently, for these objectives to be achievable and for the world to develop in a sustainable manner, it will be necessary to ensure access to affordable, reliable, sustainable and modern energy services, while reducing greenhouse gas emissions and the carbon footprint. in the energy sector. It is for this reason that SDG 7 defined a set of energy targets for 2030, which represent an important step in efforts by the United Nations to focus on social, environmental, economic and regulatory challenges, which are related both to each other and to the production, distribution and access to services that depend on energy supply.

Access to clean, modern and sustainable energy is crucial for promoting improvements in people's health, the production of goods and services, employment, security, climate change and household livelihoods. In this connection, there is increasing evidence linking socioeconomic benefits with access to a reliable and affordable electricity supply. Electric power provides lighting, heating, cooling, motive power and transportation, among other services. Thanks to the modernization of these services and their availability to all people, especially the poor, employment and income opportunities are generated, the quality of education and health services are improved, agriculture systems become more productive, and poverty is alleviated.

Similarly, the sustained adoption of clean and affordable energy sources for cooking can improve the health and well-being of millions of people. Suffice it to note the harmful effect on health (particularly among women and children) caused by the burning of traditional solid fuels such as firewood, charcoal or agricultural waste for cooking in the home. Avoiding their use generates additional benefits by enabling savings in time that would otherwise be used in gathering or buying solid cooking fuels, thus allowing children to spend more time studying and enabling women to generate livelihoods and incomes through other productive activities.

It is universally acknowledged that current approaches to energy are not sustainable in economic, environmental or social terms, given world population growth and the burgeoning demand for energy services. Consequently, there is a need to move towards more sustainable energy systems, in which both the greater use of renewable energy and a significantly more efficient use of fossil-fuel-based energy sources have important roles to play and are not mutually exclusive. This means focusing the debate on the essential role of energy in the global sustainable development agenda, while at the same time emphasizing the need to protect the environment (paying special attention to the harmful environmental impact of conventional energy use) and promoting the conservation of non-renewable resources.

The promotion of energy efficiency cuts across the four dimensions of sustainability, since it positively impacts the productivity and competitiveness of the economies, reduces investment needs in the energy industry, has positive effects on the external sector of a country's economy, makes supply more secure, reduces household energy bills, facilitates access to new and modern energy sources, promotes technological improvement, mitigates harmful effects on the environment and contributes to the conservation of non-renewable energy (thus increasing its future availability). As a result, greater energy efficiency has a positive impact on most SDGs.

Access to Energy

In Latin America and the Caribbean, major efforts are being made to universalize access to electricity. The deficit has been reduced progressively (from 8.3% in 2000 to 3% in 2014); and, although most of the areas that are still without electricity are the hardest to reach (mainly in rural zones, which in 2014 had coverage of 89.6%), the goal of extending coverage to 100% of homes by 2030 could be achieved if current rates of expansion are maintained. Nonetheless, this encouraging prospect is marred by a significant lag in the Caribbean subregion (81.9% access as of 2014), where rates of increase in electricity coverage have faltered in recent years. The situation in Haiti (with 38% coverage) largely explains the low level of this indicator for the Caribbean subregion generally, since 6.5 million of its 7 million inhabitants without access to electricity live in that country. Despite the enormous momentum that has been given to rural electrification over the last 25 years (an increase of more than 30 percentage points), over 14 million rural inhabitants of Latin America and the Caribbean still had no electricity service in 2014. This deficit is explained by access difficulties and the higher costs of electrification in remote rural areas.

In countries such as Guyana, Honduras and Nicaragua, where more than 10% of the population does not have access to electricity, coverage has been expanding at annual rates above 1.3 percentage points, so the goal will be achieved if the effort is maintained. The other countries with the largest coverage deficits (particularly Guatemala, Haiti and the Plurinational State of Bolivia), need to make additional efforts to attain rates close to 100% by 2030. As a general conclusion, if efforts are targeted on countries with the least coverage, there is a

reasonable chance that the region as a whole will achieve the target set in SDG 7 by 2030.

The indicator of access to modern energy sources for cooking has improved (from 78.1% in 2000 to 86.5% in 2014), driven by urbanization processes and the progressive replacement of traditional solid fuels by liquefied petroleum gas (LPG), vigorous expansion of electricity and, in some countries, the intensive use of natural gas in domestic consumption. In recent years, however, annual rates of expansion have declined; and if these rates are maintained at their current values (roughly 0.5 of a percentage point per year), the region will be unable to attain the target set in SDG 7 by 2030. There is also a larger deficit in Caribbean countries, although that subregion is doing its utmost to close the gap, as shown in annual rates of coverage increase above those of Latin America and the Caribbean as a whole. As is the case with the region generally, however, the pace of expansion is slackening; but even if the current annual rates (approximately 0.6 of a percentage point) were to be sustained, the subregion would be a long way from attaining the relevant targets by 2030.

The global figures on access to modern energy sources for cooking conceal great heterogeneity, with a large group of countries enjoying 100% access or very close to that, alongside a group of countries in which less than half of their respective populations have access to these sources (Guatemala, Haiti, Honduras and Nicaragua). In general, the countries with the largest deficits are making strenuous efforts to close the gap, as exemplified by El Salvador, Paraguay and Peru, which have annual average growth rates above 1.6 percentage points. Nonetheless, countries that start from very low levels will be unable to meet the established targets even if their rates of expansion double. Here again, the situation in Haiti deserves special consideration (only 9% access). The very poor socioeconomic conditions in which the vast majority of the population lives means that firewood and charcoal are the main energy sources for cooking in nearly all households. In short, if the region as a whole is to attain the targets set in this area, a major additional effort will be needed; and this also includes addressing the sociocultural issues present in several countries, which play a key role in maintaining the use of firewood as a cooking fuel.

Energy efficiency

Latin America and the Caribbean is the lowest energy-intensity region of the world; but, in contrast, it displays the lowest rates of improvement in the respective indicator (approximately 0.5% per year on average in 1990-2010). Although the energy-intensity indicator for the Caribbean is currently approaching the regionwide levels, the subregion started from a higher range of energy intensity, so its average annual rates of improvement have surpassed those of the region as a whole. No more than moderate rates of efficiency gain have been compounded by an actual decrease in efficiency levels in recent years, which dropped to around 0.3% per year in the 2012-2014 biennium.

Improvements in energy efficiency in the region have essentially been achieved by reducing the use of firewood and replacing it with more efficient sources such as gas, supported by a vigorous expansion of electricity and the adoption of energy efficiency programmes, with the industrial sector contributing the most to reducing energy intensity. The efficiency of electric power generation has increased significantly from 33% in 1990 to 40% in 2014, thanks to major increases in the thermal efficiency of natural gas-fired power generation and, to a lesser extent, coal- and oil-fired thermal power plants. Against this, electricity and gas transmission and distribution losses remain at relatively high levels.

If the faltering trend in the global rate of improvement in energy efficiency is not reversed, the region will be unable to achieve the target of doubling the average value recorded in 1990-2010. Thus, achieving this target poses a major challenge for the region, since energy intensity must not be reduced at the expense of people's quality of life or the productivity of economic sectors. Energy efficiency must play a leading role, by helping to decouple economic growth from energy consumption and raising population comfort levels, with the minimum possible energy consumption.

Renewable energy

The region's large share of renewable sources (27.2%) in its total final energy consumption places it well above the world average (18.3% as of 2014). This significant share of renewables is mainly due to the traditionally dynamic development of hydropower in the region, in conjunction with the vigorous programme to promote the use of biofuels implemented in several countries, and abundant forestry resources (which explain the high rate of consumption of modern and traditional solid biofuels). If the analysis is limited to modern renewable energies, the region is ranked first worldwide, with a 22.9% share as of 2014. The Caribbean subregion's use of modern renewable energies is well below the regional average; but it is encouraging to note that many Caribbean countries are promoting greater use of renewables, owing to their multiple economic advantages, protection of the ecosystem, modernization of the sector and the benefits in terms of supply resilience offered by the new technologies.

Notwithstanding these auspicious figures, the trend of the respective shares has been slightly downward in recent years. One of the causes of this trend, which is also evident in the other developing regions, is the substitution of traditional biomass consumption for modern fuels (such as gas), in both residential and industrial uses. The most recent data reflect great momentum in the development of non-conventional

renewable energies and also hydroelectric sources, which suggest that this trend can be reversed in the short term. Based on the above and given the qualitative specification of the SDG target for this area, the region faces the challenge of reversing the downward trend, aiming to raise the overall share of renewables above 30% and continuing to expand the use of modern renewable energy sources.

Policy implications/recommendations

The results presented in the previous chapter constitute a wake-up call to redouble efforts on several fronts, including an increase in funding, bolder policy commitments and a willingness to adopt new technologies on a broader scale. The great heterogeneity among the countries of the region in energy matters implies the search for solutions that are appropriate to the specifics of each case, depending on their socioeconomic characteristics, the degree of development of their energy infrastructure, and the geographical conditions and the technologies available to address the challenges facing their energy systems. Nonetheless, a number of general energy policy guidelines can be identified that are appropriate to the situation of most countries.

- The bulk of the electricity access deficit is found in the poorest settlements and remote places that are difficult to reach and where new connections are generally more expensive. Achieving universal access to electricity, will require a major and permanent flow of economic resources from either public or private funds, from multilateral banks or from international cooperation. To enable this, it is crucial that the respective governments put appropriate institutional and regulatory frameworks in place and develop human and organizational capacities to make sure the resources in question are allocated efficiently. The mainstreaming of non-conventional renewable energy technologies in policies, programmes and projects for energy access, particularly in rural areas, are playing an important role in the process of expanding electricity coverage; and everything suggests that this should be intensified. An approach that combines the development of rural electrification with the general provision of educational and health services as part of an integrated SDG agenda can help give the final push in this area.
- In general, the region has an outstanding debt in terms of the affordability and quality of the electricity service. The heavy burden of the energy bill relative to income among the most vulnerable sectors of the population, requires specific policies for these sectors. These should include a wide range of instruments that enable low-income households to access electricity consumption under advantageous conditions —such as the introduction of social rates, promotion of energy efficiency both to improve housing conditions and to make it easier to acquire efficient electrical equipment, and programmes to regularize illegal connections.
- Efficient resource allocation requires moving towards convergence between energy prices and production costs. The use of subsidies as public policy instruments must be done through mechanisms that ensure they benefit the target populations. Such targeting determines not only the potential impact on poor households, but also possibilities for reasonably limiting the consumption-decision distortions that stem from subsidies and for redirecting resources to other priority uses.
- Policies implemented in the last few years have contributed to the formation of more renewable power generation mixes, through the development of large-scale hydroelectric projects and the incorporation of non-conventional renewables such as wind and solar energy. To achieve the desired results, it is imperative that these policies be made sustainable through time, by becoming consolidated as State policies. In addition, stable institutional and regulatory frameworks will be needed, with clear rules and transparent procedures, to attract the large-scale investments (both public and private) needed to increase the share of renewable energy sources. The transport sector offers great opportunities for increasing the use of renewables. A comprehensive approach to the problem could yield major benefits for sustainable development.
- Everything indicates that traditional biomass will continue to play a prominent role for cooking and heating in several countries of the region. In this context, and alongside efforts to continue improving access to modern energy sources for cooking, the implementation of national programmes to promote the use of efficient and clean wood-burning stoves should be intensified, with emphasis on environmental care, protection of people's health and respect for the sociocultural contexts in which families live their lives. Experience shows that the programmes that are most likely to succeed are those that encourage direct and conscious participation by the beneficiaries, rely on the communities' technical skills and stimulate the innovative capacity of their organizations, and mainstream gender in the processes of developing, designing and implementing technology.
- To be able to develop energy efficiency, countries need consolidated regulatory and organizational frameworks, trained technical teams and well-oiled and robust funding mechanisms that enable them to sustain their activities through time. Only in this context can energy efficiency become a permanent component of energy policies and form a substantial part of energy-sector planning.
- The region has significant experience in the development of energy-efficiency programmes and projects, and also in the implementation of technical standards. Nonetheless, the lack of a comprehensive approach to the issue often results in inefficiencies and the squandering of resources.

In this situation, national energy efficiency plans that set targets and provide instruments to attain them can help break down the barriers to such an approach and boost the development of market mechanisms that facilitate private-sector participation —through energy service companies (ESCOs) for example.

- Adequate monitoring of such plans requires a sound base of energy statistics and a set of specific and methodologically consistent indicators. It would be useful to improve and expand data collection and processing and develop useful-energy balances to facilitate the ex post evaluation of the programmes.
- It is crucial to boost the development of energy-efficiency standards for electrical equipment and appliances, with the aim of generating energy labelling systems that inform users and thus encourage rational purchase decisions. Similarly, minimum energy-efficiency standards need to be promoted, to gradually eliminate the least energy-efficient equipment and appliances from the market.

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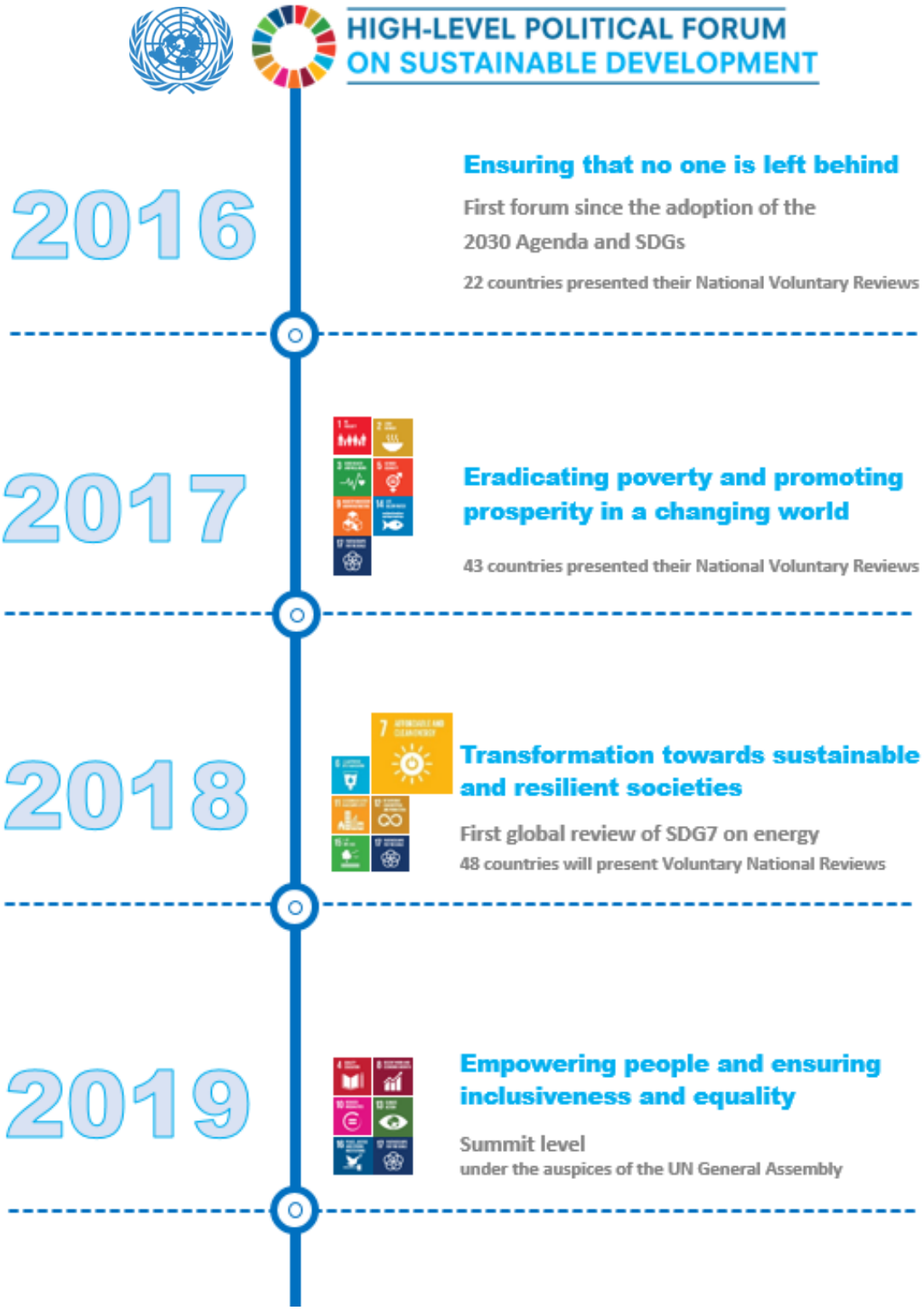

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