



ACCELERATING SDG 7 ACHIEVEMENT

POLICY BRIEF 07

ENHANCING CAPACITY-
BUILDING FOR SDG 7

7 AFFORDABLE AND
CLEAN ENERGY



POLICY BRIEF #7

ENHANCING CAPACITY-BUILDING FOR SDG 7

Developed by

TERI University and United Nations Development Programme (UNDP)

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KEY MESSAGES

Status of capacity-building and progress towards achieving SDG 7

- A number of capacity-building strategies and activities have been used to promote access to clean energy, and a wider deployment of energy efficiency and renewable energy technologies and services, including: knowledge transfer, technology cooperation, policy advice, investment measures, technical know-how transfer, learning by doing, pilot programmes and training of staff.
- Human and institutional capacity-building activities are contextual and often designed as “one off” interventions that are undertaken in silos and lacking synergies; therefore, their impacts may not be long-lasting or lead to transformational changes. Gender aspects of capacity-building are often neglected, especially in the context of access to modern energy uses.
- Guidelines for national and regional capacity-building are presented in the Implementation Framework for Energy Capacity-building, which emphasizes the inclusion of stakeholders associated with each of the three SDG 7 targets.
- There are several capacity needs assessment tools that have been developed for the energy sector, but often these have not been used in national plans and training programmes or by educational institutions or the private sector.

Priority actions over the next four years

- National governments must take the lead in developing human and institutional capacities in support of the energy transformation, advanced through a coordinated approach by development partners.
- Establish a platform or integrate/consolidate existing platforms and institutions dealing with capacity-building. The focus needs to be on integrated multi-stakeholder approaches to designing capacity-building plans, with holistic, gender-inclusive, integrated frameworks for SDG 7 in a relevant global institution.
- Effect capacity-building at the country and regional level by designating national focal institutions and adequately resourcing them. These institutions would have responsibility for undertaking integrated capacity-building needs assessments at various levels, involving policymakers, the private sector, academia and communities; determining the delivery mechanisms; and putting in place exacting monitoring and dynamic tracking mechanisms. The broader and integrated approach needs to be complemented with targeted and specialized SDG 7 capacity-building, with specialized agencies and institutions.
- Define cross-sectoral integrated targets between SDG 7 and other SDGs, and track their achievement through an appropriately designed monitoring and evaluation framework.

Priority actions towards 2030

- Create a network of the global and national institutions identified above to institutionalize capacity-building for SDG 7 and related SDGs. This network should evolve to function as a:
 - f) Knowledge bank: repository for contextually mapped knowledge resources on policies, regulations and actions for energy access, energy efficiency and renewable energy;
 - g) Clearinghouse(s): platform for active information and experience exchange at international, regional, national, subnational or local levels;
 - h) Resource centre: provide online tools for capacity-building needs assessments to facilitate project development, resource assessments, access to finance, public-private partnership models; and
 - i) Help desk: an online help desk for customizing actions/interventions at the local level.
- Refresh and realign the curriculum in higher education institutions including doctoral and post-doctoral works to better respond to the needs of SDG 7 and related goals.

CB and SDG 7

Current status

Sustainable energy availability influences people's lives and is an engine for poverty alleviation, social progress, empowerment of women and youth, equity, enhanced resilience, economic growth and development, and environmental sustainability. SDG 7's focus on access to affordable, reliable, sustainable and modern energy is underpinned by three targets: ensuring universal access to energy services (7.1), increasing the share of renewables in the energy mix (7.2) and doubling the rate of energy efficiency improvements (7.3). At the same time, the Agenda 2030 document stresses the integrated, indivisible nature of all goals and targets and the need to balance the three pillars of sustainable development.

Despite decades of efforts on the above three targets of sustainable energy, the task of achieving them continues to be daunting (see Policy Briefs on each of the targets), in part because these three targets are often dealt with through different institutional mechanisms with very little coherence in approach. Little capacity (the means to plan and achieve) exists to address the inter-linkages between SDG 7 and other sustainable development goals. Therefore, a renewed, concerted effort on capacity-building is required to achieve the energy and related goals of Agenda 2030.

One of the most comprehensive definitions of capacity-building (or development) comes from UNDP: "Capacity development starts from the principle that people are best empowered to realize their full potential when the means of development are sustainable—home-grown, long-term, and generated and managed collectively by those who stand to benefit." In the same document, UNDP goes on to make an important distinction between skill and capacity development: "For an activity to meet the standard of capacity development ..., it must bring about transformation that is generated and sustained over time from within. Transformation of this kind goes beyond performing tasks; instead, it is more a matter of changing mindsets and attitudes." (UNDP, 2009)

However, operationalizing capacity development in such terms has proven to be a challenge. In line with the global conventions that contribute to SDG 7 directly and indirectly, specific programmes targeting capacity-building have been funded by the Global Environment Facility. In addition, many bilateral agencies, multilateral development banks and UN agencies support national capacity-building measures through programmes for knowledge transfer, technology cooperation, policy advice and investment measures, or a combination of know-how transfer, training of local staff and preparation of studies. Such approaches are expected to lead to long-term and sustainable results by strengthening the strategic capacity of partner institutions and organizations. However, these are often narrowly targeted programmes with insufficient resources

and fragmented mandates to deal with capacity issues across the energy services value chain.

Are we on track to achieving capacity-building for SDG 7 energy goals?

Several innovative approaches have been adopted to effect transformational changes in the energy sector. On the technical side, innovations include: pay-as-you-go (PAYG), net metering, prepaid meters, and mobile apps. On the institutional side, efforts to combine energy demand and uses have led to increased productivity and livelihood opportunities. The Global Fuel Economy Initiative, a partnership of concerned international bodies, is working towards ensuring real improvements in fuel economy and the deployment of fuel economy technologies. Employment generation in sustainable energy has been increased through several trainings. Different financial mechanisms and business models have been tested through piloting and creating credit guarantee schemes, setting up ESCOs, and addressing barriers in financial, technical, regulatory, policy and institutional and implementation of energy sector projects. Technology and business model demonstrations, pilot programmes, and new innovative schemes all need to be scaled up; building capacity to operationalize at a wider level is critical for this, but has been lacking so far.

It is now well recognized that the need for further capacity-building to achieve the ambitious SDG 7 energy goals is critical at all levels across all countries. The capacity-building linked to programme-specific innovations are narrowly focused and often the capacity so built is lost to the sector over time. There is no systematic plan to ensure that the capacity-building infrastructure of a country is aligned to meet the needs of the energy sector.

Knowledge sharing, learning by doing, pilot studies, education and capacity-building programmes are a few examples of capacity-building interventions.¹ Different donor and expert agencies have analysed and implemented capacity-building initiatives in different context and locations. Some of the results indicate the need for capacity development to centre around development of human resources along entire value chains, build institutional capacities and support generation of data and improved analytical capabilities.

Key challenges

Fragmented approaches to capacity-building, neglect of gender concerns and limited institutional mandates are key challenges to an integrated approach to SDG 7. Significant resources are needed to address the organizational weaknesses in adapting tools and implementing capacity development efforts. Dedicated institutional networks for addressing energy issues are lacking. While the need for capacity-building has been emphasized in all

¹ PAGE (2016), Integrated Planning and Sustainable Development: Challenges and Opportunities

major intergovernmental meetings, on both climate change and sustainable development, as well as in all key global agreements, capacity-building remains largely at the project level and not leading to transformational changes and sustainability of impacts.

Several observations have also been made on the need to vest capacity-building responsibilities in institutions of higher learning within countries/regions (Hugo et al. (2017); African Development Bank (2013)). Alluding to the inadequacy of resources allocated towards capacity-building efforts, AfDB noted that “A critical review of capacity development for the power industry indicates that donors are typically experiencing difficulties with funding stand-alone capacity-building programmes. Once again, this is partly due to problems related to measuring the tangible impact of such initiatives relative to their cost.” (African Development Bank, 2013).”

Clearly the need for capacity-building is stronger in developing countries. Developing countries with a large unmet demand for energy have to address the challenges of achieving access to all and ensure overall sustainability through energy efficiency and renewable energy adoption. Developed countries, on the other hand, need a greater push towards meeting the energy efficiency and renewable energy targets of SDG 7. Hence, depending on development priorities, the capacity development needs of different countries and clusters such as developing, developed and transition economies would be quite different. Besides country priorities, the capacity-building framework and its implementation for achieving SDG 7 also has to recognize the fact that energy is a means to address various other developmental goals.

Interlinkages with other SDGs

The complex and often nonlinear linkages of SDG 7 with other SDGs require a holistic and systematic approach to building capacities for a wide range of stakeholders across different sectors. It can be done only with recognition of the enabling role of energy for meeting other goals, which demands strengthening of cross-sectoral and inclusive planning, policy formulation and implementation processes. Hence, any capacity-building measure must be implemented through a mechanism that is sensitive to cross-cutting institutional aspects, decision-making processes, and upstream-downstream linkages with other goals. For example, once the focus narrows from providing energy to agriculture as a sector to meeting the need for irrigation, the solutions can vary from biotechnology to higher water-use efficiency, better water management, selling surplus electricity generated from solar PV panels to distribution companies, water conservation (drip irrigation), and pumps operating on conventional or on renewable energy. The range of partnerships and actors involved, and also the efficiency and coverage of the solutions, could be vastly different from those in practice today. Such a change would contribute to achieving not only SDG 7 but also SDG 2, SDG 6, SDG 12, and

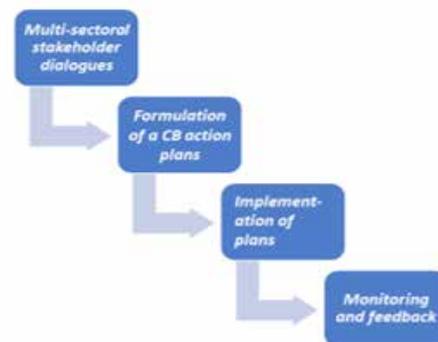
SDG 13. Therefore, for an integrated approach to tackling SDG 7 the framework or design of capacity-building initiatives has to include processes that are cross-sectoral and institution-driven as opposed to siloed project-driven approaches.

Design of capacity-building initiatives for SDG 7

The African Development Bank has observed that (i) capacity-building must be viewed as a core goal in its own right rather than as a collateral objective, (ii) capacity-building is a long-term exercise and should be viewed as an investment project with limited immediate pay-offs and (iii) to succeed, capacity-building must be stakeholder-owned rather than donor-driven, while making use of local and regional expertise wherever possible (African Development Bank, 2013). UN agencies (UNDP, UN Women, UNEP) engaged in supporting capacity-building programmes pursue dedicated capacity development goals with partner agencies for SDGs. Recent years have seen a major focus on developing country action plans for implementing sustainable energy goals. Elements of capacity-building and training are included in these documents, but there is still a demonstrable lack of a systemic and long-term approach to capacity-building. An implementation framework of capacity-building for different groups of countries and regions should ideally comprised four steps, as shown in figure 7.1.

Figure 7.1

Implementation framework for energy capacity-building



Step 1 must include stakeholders associated with each of the three energy targets but must also address itself to gender concerns and the synergies within the SDG 7 targets and the interlinkages with other SDGs. Step 1 also emphasizes a scenario analysis related to the implications of addressing SDG 7 and sensitization of policymakers and implementers at the same time. Finally, it stresses the importance of discussing and defining cross-sectoral integration targets between SDG 7 and other SDGs at the country level.

Step 2 asserts that each country should develop an action plan for capacity-building of stakeholders to address energy needs in a manner that favourably impacts achievement of SDG 7 and linked SDGs. The need to develop an understanding of the needs for capacity-building across all sectors and stakeholders is therefore a prerequisite for establishing a plan of action for capacity-building. Further, it will be natural to have different sets of capacity-building needs and skill provision for countries in the short, medium and long terms.

Step 3 involves implementation of the action through national systems and processes for the most sustainable long-term results, and finalizing targets and indicators to monitor progress in implementation. It signifies the criticality of setting in place cross-sectoral governance mechanisms to ensure coherence of the implementation of the overall capacity-building efforts.

Step 4 involves 360 degree data-based review and feedback for tracking changes in performance and facilitating dialogues to improve policies and practices (Acheson Report, 1988). In this context, it is critically important to rapidly build the capacity of organizations dealing with data collection and analysis in order to ensure relevant analysis and timely feedback for course correction or modification.

Policy Implications/Recommendations

Policy frameworks for SDG 7

A clearly defined, long-term policy framework for achieving nationally determined energy targets, which would lend confidence to market players and financial institutions, is an essential prerequisite for investments that stakeholders along the value chain would make in capacity-building. Such a policy framework itself would need to be comprehensive in its formulation and must recognize the vertical (national to local) and horizontal (cross-sectoral) interlinkages of SDG 7.

Administrative empowerment

Several countries, developing countries in particular, offer energy and related services through government ministries/ departments and public sector organizations. Siloed functioning of administrative entities is counterproductive to an integrated, indivisible approach to SDGs. Unless new rules or empowering mechanisms are designed and implemented, it would be difficult to translate intent into output (Hugo, et. Al, 2017). At the same time, the role of the private sector is still limited and can be enhanced for innovations and resource mobilization to SDG 7 capacity-building. It is important to emphasize the need to find resources for capacity-building, such as those being provided by the Global Environment Facility for efficiency of vehicles, where the smallest amounts of funding can create massive resource savings.

Institutionalize capacity-building

Assign responsibilities to a key institution or institutions to ensure that the trained workforce needed to support energy transformation is in place. This would have to be done across the value chain of specific energy activities. From a longer-term perspective, vest the responsibility for refreshing and realigning the higher education curriculum feeding into SDG 7 in appropriate higher education and regulatory institutions (Warren, A. et al., 2014; Weidner, H., M. Jänicke, 2002). Eventually this should lead to a governance framework that would ensure a smooth transfer of knowledge from the capacity-building institutions identified above to the energy delivery related institutions in the country.

Create a network of the global and national institutions

Once key institutions are identified and operational at the national level, it would be desirable to develop a network of such institutions. This network should evolve to function as a:

- a) Knowledge bank: repository for contextually mapped knowledge resources on policies, regulations and actions for access, energy efficiency and renewable energy;
- b) Clearinghouse(s): platform for active information and experience exchange at international, regional, national, subnational or local levels;
- c) Resource centre: providing online tools for capacity-building needs assessment to facilitate project development, resource assessments, access to finance, and public-private partnership models; and
- d) Help desk: an online help desk for customizing actions/ interventions at the local level.

Refresh and realign the curriculum in higher education institutions to better respond to the needs of SDG 7 and related goals.

Provisioning for delivery and monitoring

The focused capacity-building national plan developed for SDG 7 would be designed through appropriate stakeholder engagement but would need to be supported by the resources required— financial, knowledge, tools and human resources—to get desired outcomes. Governments would need to identify the organizations that would implement the capacity-building plan, ensure that they are adequately resourced or have access to international resources, build accountability systems and monitor for delivery against performance indicators.

Design and implement an exacting monitoring and evaluation framework to ensure that the institutions are adequately responding to the rapidly evolving needs of the sector. Prepare an accompanying incentive framework for performance.

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