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Department of
Economic and
Social Affairs



**Stakeholders Thematic E-Consultation
for the United Nations High-Level Dialogue on Energy
Summary Report
May 2021**



HIGH-LEVEL DIALOGUE ON
ENERGY
UNITED NATIONS, NEW YORK, SEPTEMBER 2021

Acknowledgments

This summary report was prepared based on inputs collected from stakeholders from several sectors by the Division of Sustainable Development Goals (DSDG) of the Department of Economic and Social Affairs (UNDESA).

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Stakeholders Thematic E-Consultation for the United Nations High-Level Dialogue on Energy

Summary Report

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Background

The United Nations General Assembly, through its [resolution 74/225](#), invited the Secretary-General, with the support of the relevant United Nations system entities, to convene a high-level dialogue in 2021 to promote the implementation of the energy-related goals and targets of the [2030 Agenda for Sustainable Development](#) in support of the implementation of the [United Nations Decade of Sustainable Energy for All \(2014–2024\)](#), including the global plan of action for the Decade, and the [High-Level Political Forum on Sustainable Development](#).

[The High-level Dialogue on Energy in 2021](#) represents the first global gathering on energy under the auspices of the General Assembly since the [UN Conference on New and Renewable Sources of Energy](#) held in Nairobi in 1981. It presents a historic opportunity to provide transformational action in the first years of the [SDG Decade of Action](#) and support the implementation of the [Paris Agreement](#).

The High-level Dialogue on Energy will be structured around five overarching themes:

- (1) Energy access;
- (2) Energy transition;
- (3) Enabling SDGs through inclusive, just energy transitions;
- (4) Innovation, technology, and data and
- (5) Finance and investment.

More information about the overarching themes can be found [here](#).

This report presents the main outcomes of the [Stakeholders Thematic E-Consultation](#), organized to compile technical inputs from stakeholders on the five themes of the UN High Level Dialogue on Energy. The e-consultation was open for inputs from all stakeholders. The summary of submitted inputs is reported hereby with the scope of outlining views and suggestions from stakeholders.

About the Stakeholders Thematic E-Consultation

UN DESA, through its Division for Sustainable Development Goals (DSDG), organized an [e-consultation](#) to compile technical inputs from stakeholders on the five overarching themes of the UN High-Level Dialogue on Energy.

The e-consultation was convened between 8 April and 7 May 2021 to support the mobilization and outreach of stakeholders at multiple levels and from different sectors to collaborate on energy action discussions. Information about the e-consultation was broadly disseminated through mailing lists, UN official websites and social media channels.

The consultation was held through five open forms, one for each of the High-Level Dialogue themes. The forms were intended to collect inputs from non-governmental organizations, civil society organizations,

academic institutions, the scientific community, the private sector, philanthropic organizations, major groups and other stakeholders as contributions to the preparatory process for the United Nations High Level Dialogue on Energy. A limited number of questions were proposed for each thematic area of the dialogue, and stakeholders were invited to contribute concise and straightforward inputs. All inputs are made [publicly available](#).

Outcomes

A total of **84 inputs** were received from stakeholders from all six regions of the world, with the following distribution: *Europe* - 30.5%, *Africa* - 24.4%, *Asia* - 20.7%, *North America* - 14.6%, *Latin America and Caribbean* - 7.3%, *Oceania* - 2.4%.

Stakeholders from **30 countries** submitted contributions: Australia; Austria; Bangladesh; Belgium; Brazil; Burkina Faso; Canada; China; Egypt; Germany; India; Japan; Kenya; Mauritius; Mexico; Netherlands; Nicaragua; Nigeria; Pakistan; Papua New Guinea; Peru; Philippines; Portugal; Saudi Arabia; South Africa; Spain; Sweden; Tanzania; United Kingdom; United States of America.



Stakeholders contributing to the e-consultation self-identified as representing: *Non-Governmental Organization* - 44%; *Education & Academic Entities* – 19.5%; *Business & Industry* – 12.7%; *Indigenous Peoples* – 7.7%; *Workers & Trade Unions* - 2.3%; *Children & Youth* – 2%; *Science & Technological Community* – 2%; *Local Governments* – 2.1%; and *other stakeholders active in areas related to sustainable development* – 7.7%.

The inputs submitted by stakeholders are publicly available and can be consulted at the sites indicated below.

Energy access	http://bit.ly/EnergyAccessEConsultation
Energy transition	http://bit.ly/EnergyTransitionEConsultation
Enabling SDGs through inclusive, just transition	http://bit.ly/InclusiveEnergyEConsultation
Innovation, technology and data	http://bit.ly/InnovateEnergyEConsultation
Finance and investment	http://bit.ly/FinanceEnergy

E-Consultation Questions

The consultation revolved around five overarching themes: (1) Energy access; (2) Energy transition; (3) Enabling SDGs through inclusive, just energy transitions; (4) Innovation, technology, and data and (5) Finance and investment.

The following questions were asked in the e-consultation surveys:

Thematic Area			
<i>Energy access</i>	What are the three main challenges towards achieving SDG 7 energy access targets today?	What are the three concrete measures that should be taken by governments and stakeholders to address the main gaps and challenges related to SDG 7 energy access targets?	Please, share one example of a concrete action that can be replicated/scaled up to support achieving SDG 7 targets related to energy access.
<i>Energy transition</i>	What are the three main challenges towards achieving SDG 7 energy transition targets today?	What are the three concrete measures that should be taken by governments and stakeholders to address the main gaps and challenges related to SDG 7 energy transition targets?	Please, share one example of a concrete action that can be replicated/scaled up to support achieving SDG 7 targets related to energy transition.
<i>Enabling SDGs through inclusive, just energy transitions</i>	What are the three main challenges to maximizing the positive impacts of inclusive and just energy transition on the achievement of the other SDGs?	What are the three concrete measures that should be taken by governments and stakeholders towards maximizing the positive impacts of inclusive and just energy transitions on the achievement of other SDGs?	Please, share one example of a concrete action that can be replicated/ scaled up to maximizing the positive impacts of inclusive and just energy transitions on the achievement of other SDGs.
<i>Innovation, technology, and data</i>	What are the three main challenges regarding the development and application of data, technology, innovation, research and capacity building in support of SDG 7 and carbon neutrality?	What are the three concrete measures that should be taken by governments and stakeholders regarding the development and application of data, technology, innovation, research and capacity	Please, share one example of a concrete action that can be replicated/ scaled up regarding the development and application of data, technology, innovation, research and capacity

		building in support of SDG 7 and carbon neutrality?	building in support of SDG 7 and carbon neutrality.
<i>Finance and investment</i>	What are the three main challenges to the mobilization and leverage of public and private finance and investment to achieve SDG 7 and carbon neutrality?	What are the three concrete measures that should be taken by governments and stakeholders to mobilize and leverage public and private finance and investment to achieve SDG 7 and carbon neutrality?	Please, share one example of a concrete action that can be replicated/ scaled up to mobilize and leverage public and private finance and investment to achieve SDG 7 and carbon neutrality?

Gaps and Challenges

Below follows some of the main challenges addressed by stakeholders in the e-consultation:

- Access to affordable, reliable, sustainable and modern energy is lagging due to a continued and widespread dependence on unsustainable fossil fuel resources. Most common causes are found to be the cultural reliance on traditional practices and infrastructures, and a general lack of awareness of new and existing renewable technologies that can enable safe energy access to all.
- Transition to affordable and clean energy is not adequately supported by economic incentives to invest in and generate these alternative sources. Moreover, lack of related policies does not reflect the urgent need to make the transformation to a low carbon society where emissions are halved by 2030 and net zero emissions by 2050.
- Multi-stakeholder consultations and partnerships were considered as key to support the implementation of SDG 7 and related targets. The needs of communities and affected populations must be fully considered at national and local level strategies and projects, to guarantee that no one is left behind.
- Technological transfer between developed and developing countries is based on disproportional and unequitable practices. This conventional model risks undermining the dynamic learning process needed to adapt and create market share for low-carbon technologies in developing economies. Moreover, high-risk in green investment projects is a great barrier in developing new technology solutions in many countries.

Key messages and recommendations

Below follows some of the main messages presented by stakeholders in the e-consultation:

- Sustainable **access to energy** and the targets supported by the Sustainable Development Goal (SDG) 7 of the 2030 Agenda can be achieved only through strong investment and the mobilization of financial planning. Governments, the private sector and other stakeholders need to operate towards enabling the production, distribution and raising awareness of clear energy sources following the strategic recommendations provided by multi-stakeholder consultations.

- An **efficient and timely energy transition** must be supported by adequate policy incentives for renewable energy project development and energy efficient initiatives. Furthermore, governments must give clear information through policies about the effects of non-rational use of energy for the environment, economy, and society.
- There is a need to **build a more dynamic and sustainable model of technology, innovation, data collaboration, and capacity building**: this should be addressed both between developing and developed countries, and in multilateral partnerships. Co-innovation is the key to give impetus to technological collaboration, sharing, and development.
- Smooth and streamlined administrative and permitting process for green investments is urgent to catch up with the ambitious investment pathways needed to meet climate neutrality by 2050. Finance and investment for sustainable, reliable, affordable and clean energy are essential catalysts to meet SDG 7.

E-Consultation Summary

The following sections will bring a summary of the main messages from the e-consultation. The summary is categorized in five sections to reflect the overarching theme structure of the High-Level Dialogue on Energy. A few examples of practices shared at the e-consultation are flagged in boxes.



Energy Access

A total of 29 submissions were received for the survey related to “Energy Access”. All inputs can be accessed here: <http://bit.ly/EnergyAccessEConsultation>

➤ **Main challenges towards achieving SDG 7 energy access targets.**

The main points discussed in the consultation referred to persistent inequalities, unfriendly policies, ineffective financial flows, and insufficient research for renewable and affordable technologies.

Stakeholders pointed out that “**inequality and poverty prevent access to affordable, reliable, and sustainable energy.**” Some groups emphasized how the lack of government subsidies to low-income households aggravates their ability to access affordable and clean energy. Energy Safety Nets for pre-market communities and people living in extreme poverty are essential to put an end to the cycle of inequalities and lack of opportunities: for this reason, more reliable products available on the market should be guaranteed in resource-constrained settings.

Some stakeholders indicated that energy access follows the tangible geographical disparities, with greater infrastructure development being carried out in urban settings rather than rural. Dispersed areas are often subjected to either sporadic availability of energy service during the day, or its limited access to some public areas. Usually, this problem concerns countries with extensive geopolitical territories, which creates enormous challenge in terms of searching multiple sources for decentralized energy solutions. The access barriers faced by some communities aggravates the already detrimental conditions of those groups that are left behind, such as women and girls, indigenous peoples and those living under the

poverty line. Stakeholders emphasized that extreme poverty could not be eradicated without ending energy poverty, the energy-climate-health nexus (especially on women and children), and the central role of energy access to advancing all dimensions of human and economic development.

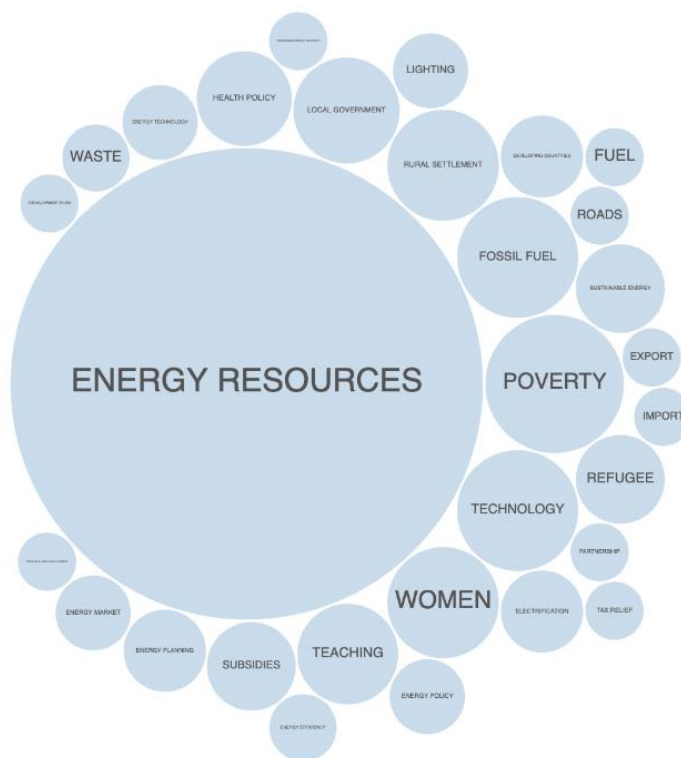


Figure 1 - Word Cloud for Inputs on Energy Access



F.A.L.C.O.N Association (Civil Society Organization), Mauritius

The P.E.A.S Model farm of [F.A.L.C.O.N Association](#) engages in Agroecological activities, including organic cultures, aquaponics, developing own seed banks, setting up of a solar sheltered green house (capturing light through solar photovoltaic positioned on top of greenhouse and selling the electrical energy to the Central Electricity Board of Mauritius while cultivating organic crops under the solar sheltered greenhouse).

Energy access for all is a critical goal to achieve in many communities due to what is considered **‘unfriendly policies’ and ineffective investment coordination**. Stakeholders representing different national realities, expressed that lack of multilevel governance is putting a hardship on the energy access for consistent segments of the global population. On one hand, “some policies that exist do not support achievement of SDG 7” due to extremely complicated administrative procedures. This leads to a general exclusion of small and local organizations in receiving funding opportunities and grants, which consequently prevents them from bringing energy access to remote communities. Similarly, establishing robust community energy

planning processes would “empower communities to shape energy systems to their local livelihoods and provide for system growth as energy demands increase or change.” The main cause of this inefficient planning process, accordingly to stakeholders, lays in the absence of multilevel governance in decision making and implementation, causing a delay from the local governments in responding to the energy needs of their constituents.

On the other hand, **deficit in financial investments and mobilization of resources** is another aspect flagged in submissions to the e-consultation with regards to the achievement of energy access targets. Numerous participants expressed that “governments and investors oftentimes focus on economic viable areas, where they can make huge profit”, creating severe gaps in providing reliable infrastructure to ‘unprofitable’ locations. These disparities are clear on the international horizon, with unattractive economies being excluded from the investment chain of sustainable and reliable energy. Finally, some stakeholders pointed out that financial flows should also be directed towards displaced populations and the host communities, since the energy access provided so far comes from humanitarian agencies and NGOs that can secure only ad hoc solutions, putting the refugees in unsustainable lifestyles.



Let There Be Light International (Civil Society Organization), United States:

Let There Be Light International implemented [Safe Births + Healthy Homes](#) which is a scalable maternal and infant health project in Uganda that pairs the solar-electrification of off-grid rural health clinics with awareness raising in the community about the benefits of safe solar lighting in off-grid homes and the incentive of a solar light for new mothers who deliver in the clinics with trained birth attendants rather than at home or in the community with a Traditional Birth Attendant (TBA). Impacts include increased rates of attended births and improved health and safety in off-grid homes during the critical infancy period as well as increased women's empowerment, productive use, educational indicators, and ITN usage when open-flamed kerosene and candles are eliminated.

The reliability of grid remains another challenge with several peri-urban and rural locations encountering poor quality of electricity, frequent power cuts due to load shedding during high demand season, and voltage fluctuations, being some of the commonly reported issues. High transmission and distribution losses also add on to the challenges with rural areas suffering the most.

This tremendous lack of efficient and effective electricity infrastructure reported by stakeholders inevitably makes electricity access unreliable. Accordingly, stakeholders demonstrated that this causes people to rely on other unsustainable sources, continuing the dependence on detrimental fossil fuel resources, especially coal. In fact, participants to the consultation elaborated on the fact that across the world biomass continues to be burned inefficiently, in unvented and pollution-emitting devices that are globally responsible for innumerable deaths annually, for severe forest degradation in specific areas, and for the large-scale emission of greenhouse gases. This is mainly supported by government’s fossil fuel subsidies and incapacity to charge fossil fuel corporations the full socio-environmental costs.

Another noteworthy input on existing challenges in energy access highlighted by some stakeholders concerned very **low technology and skills transfer** between developed and developing countries. This

process must be improved and accelerated through training and education in renewable energy. This is also important to augment awareness regarding the green energies and to create local applied research laboratories.

- **Concrete measures to address the main gaps and challenges related to SDG 7 energy access targets.**

With a particular focus on the **financial flows and investments**, stakeholders agreed on the fact that a programmed mobilization of finance by governments as well as the private sector is key to guaranteeing energy access for all. Some of the economic incentives suggested during the consultation include: facilitate financial guarantees for investors willing to work on energy access; develop innovative financial mechanisms that can enable greater affordability for the end-users; create a budget for research and development projects in research institutes and Universities, focused on driving down the cost power equipment; investment in innovative business models to ease distribution and enhance affordability, among others.

Some stakeholders called for the amplification of financial flows and for the private sector to be allowed to collaborate in some decentralized projects on energy infrastructure as well as in some complex humanitarian contexts to encourage greater ownership and sustainability of energy technologies by the private sector.



The Energy and Resources Institute (Civil Society Organization), India:

[The Energy and Resources Institute](#) has been working on a pilot under Mission Innovation initiative, which is being implemented in 2 remote villages in Orissa, India. The villages comprise of tribal communities with dependence on seasonal agriculture or daily wage labor for livelihood. 2 solar PV-biomass hybrid electricity micro grid solutions are being implemented in the respective villages along with cold storage system that will operate using waste heat from engine exhaust of biomass gasifier and will also be backed up by solar PV. Women self-help group in the villages will utilize the cold storage system for storage of perishable farm produce, solar PV will electrify households and biomass gasifier will be used for operating small cottage industries/ businesses.

Uplifting awareness creation among rural communities and vulnerable populations on energy access is another strong suggestion provided by stakeholders in advancing the SDG 7. On one side, this should be carried out by the government through policies that enable easier access to basic electricity such as: government subsidies on electricity price; incentives to renewable energy investments and the development of localized energy roadmaps to ensure inclusive and targeted end-users. On the other hand, “to close the energy gap, everyone needs to be carried along: small/medium organizations, NGOs, big companies/enterprises, government agencies, and other stakeholders in the private sector”, as stated in one of the submissions. Multi-stakeholder roundtables can help creating inclusive strategies for accessing energy sources by diverse communities and to generate mass public awareness of case-based solutions, operating as a cause-marketing campaign that leverages companies, conservationists, climate advocates, and consumers, both at the top and base of the pyramid, to generate awareness, inspire advocacy, activate, and spur SDG 7 actions. Some stakeholders even suggested efforts to create employment

opportunities in rural communities, which could generate motivation for investment in energy access in those communities.

Stakeholders also called for the amplification of **trainings and programs on renewable energy technologies** for stakeholders and communities. Emphasis was given on the creation of “off-grid renewable energy demonstration communities” that could form the basis for establishing energy governance training to underpin more robust energy planning and program development. The establishment of scientific partnerships between international academic institutions and research laboratories could also provide professional and academic local trainings and promote adequate technology transfer between developed and developing countries.

Finally, stakeholders urged governments of all nations to work on **aligning the environmental needs with the right to access affordable and clean energy** in every related policy. Most notably, stakeholders urged governments to charge fossil fuel corporations of the full cost of the pollution these are responsible for. Along these lines, stakeholders advocated for fossil fuel subsidies to be reduced or eliminated and for tariffs on solar products to be reduced.



Energy Transition

A total of 13 submissions were received for the survey related to “Energy Access”. All inputs can be accessed here: <http://bit.ly/EnergyTransitionEConsultation>

➤ **Main challenges towards achieving SDG 7 energy transition targets.**

Stakeholders emphasized the importance of energy transition to mitigate greenhouse gas emissions and combat climate change. Transitioning into a cleaner, more sustainable society also entails generating and consuming cleaner and more sustainable energy resources.

Stakeholders pointed out that there is still a widespread **absence of aggressive public policies on the usage of fossil fuels**. Lack of control, clarity and transparent data from public and private financial institutions, which constantly grant investments in fossil fuel energy projects, is a factor that perpetuates global reliance on traditional sources of energy. Stakeholders expressed that setting up a decided environmental taxation in relation to GHG emissions, including fiscal harmonization, could help to ensure fair competition and greener development solutions. To make them cost-effective, it is necessary that all users become aware of the environmental costs of energy, including embracing the principle of ‘polluters pay’.

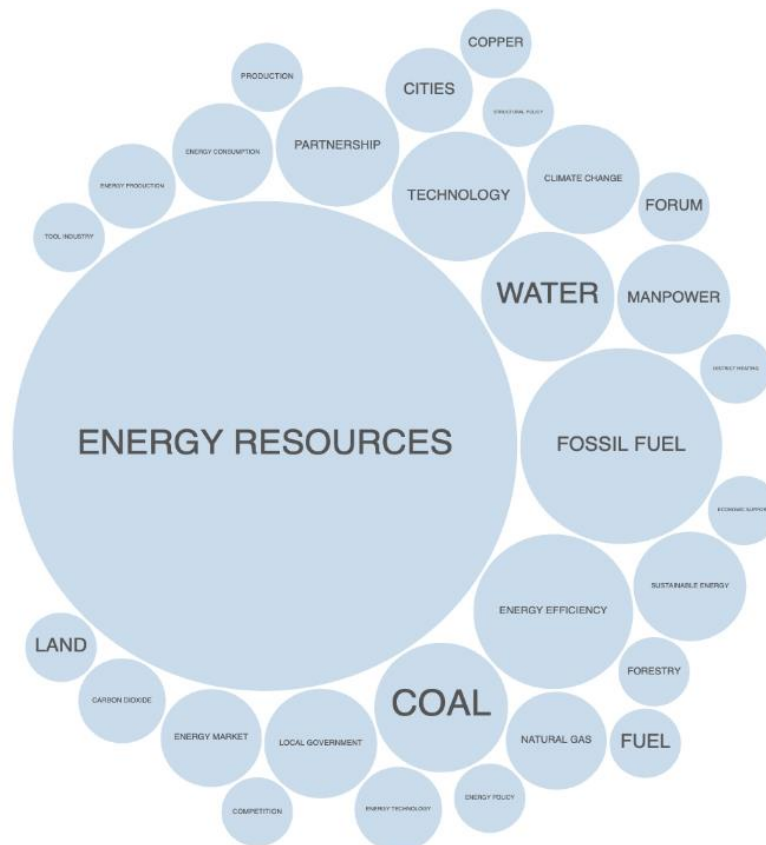


Figure 2 - Word Cloud for Inputs on Energy Transition

Inadequate and obsolete infrastructure was another issue pointed out by stakeholders, flagging that, so far, many infrastructures have been designed according to the needs of utilities and not so much considering the criteria of sustainability and energy justice. Powerful infrastructures that support energy decentralization and full efficiency will be key to face future climate and accessibility challenges, and to incorporate all communities to the energy market. Some stakeholders claimed that energy efficiency is the cheapest way to bend the greenhouse gas curve and to reduce the electricity bill of all citizens.



Humanitarian Engineering and Energy for Displacement, Coventry University (Education & Academic Entity) / United Kingdom

[HEED](#) brought an example of implementing bottom-up, rather than top-down, design innovations. The HEED project installed 13 community co-designed solar systems across 4 displaced settlements. Within the first two years, there was no tampering or component theft, which is often cited as a major problem for humanitarian energy interventions. Communities reported a sense of ownership and responsibility for caring for the systems, which was attributed to the co-design process. Moreover, they used simple information technology to make decisions on how to best use the energy systems, improving system resilience and utilization.

A great challenge that most stakeholders expressed in relation to achieving energy transition targets consisted in providing a **transition that caters equally to all societies**, across gender, income and technological access, and doesn't violate human and indigenous peoples' rights in projects of energy transition. Stakeholders expressed their concerns regarding the impact of a slow energy transition on communities: on one hand, the use of unsustainable energy sources causes a massive impact on climate, putting in danger most vulnerable communities; on the other hand, it prevents these same communities from accessing new economic opportunities.

Stakeholders also reflected on the lack of democratic control in energy transition processes. A top-down approach, that does not take into account the communities or populations in affected areas, is one of the biggest obstacles in implementing a comprehensive energy transition.

➤ **Concrete measures to address the main gaps and challenges related to SDG 7 energy transition targets.**

In expressing their recommendations for achieving energy transition targets, stakeholders highlighted three crucial areas of intervention. **First**, the majority of participants proposed that **concrete policy incentives** must be put in place for renewable energy projects and energy efficiency initiatives (e.g. buildings and industrial facilities). To this end, governments should operate as both an enablers - through different policies that pushes the energy transition - and as a 'risk taker' and adopter of innovative technology. Stakeholders recommended setting up "Just Transition" plans at national level, carried out by governments, employers, workers and other relevant stakeholders, in order to plan and manage the end of fossil fuel exploration and production in line with the objectives of the Paris Agreement, and to guarantee access to affordable clean energy to all segments of society. **Second**, governments should determine the fair cost of energy, which should include all costs of the energy life cycle, including generation, transportation, distribution, use and associated effects and emissions. Implementation of energy policies, regulations, and certifications in terms of energy efficiency from all energy production stakeholders and every industry must also be implemented to advance energy transition. **Finally**, stakeholders discussed the benefits of creating better incentives for personal household transitions, including subsidies to households that utilize renewable energy and operate off grid.

Additionally, stakeholders called for more investments in **the development of less carbon-intensive fuels from biomass resources and for** the modernization of the existing energy systems. Some recommended the establishment of transparent control missions and laws to decrease incentives for financial institutions to finance fossil fuels projects.

Stakeholders also called upon a **rights-based approach** for policies targeting energy transition, including by ensuring that projects do not harm and actually improve livelihoods of communities and peoples, including indigenous peoples. Stakeholders urged for cross sectoral policies especially on energy, urban development, transport and forestry, developed with the participation of all relevant stakeholders at all levels.



Enabling SDGs through inclusive and just energy transition

A total of 20 submissions were received for the survey related to “Energy Access”. All inputs can be accessed here: <http://bit.ly/InclusiveEnergyEConsultation>

➤ **Main challenges to maximizing the positive impacts of inclusive and just energy transition on the achievement of the other SDGs.**

Some of the main challenges identified include: persistent disadvantages of the most vulnerable populations, lack of multi-stakeholder partnerships, and the still limited research and development in the renewable energy sector.

In analyzing the outcomes of the online consultation, stakeholders reinforced that **gender and income inequalities** are still fundamental determinants limiting the achievement of just and inclusive energy transition. Respondents registered their concerns that “the private sector focusses on those able to pay, rather than those most in need, leaving communities and households behind”. In addition, long term sustainability of energy systems is jeopardized due to insufficient investments in developing community training programs on renewable technologies, restraining a general awareness on SDG 7 and on a better understanding of available technology solutions, employment of these tools in everyday life, and the creation of new employment opportunities (SDGs 4 and 8).

Moreover, stakeholders emphasized an urgent need to create a gender-responsive energy sector that enables women and men to equally benefit from energy services and supports their socioeconomic potential. Stakeholders reported that unsafe cooking practices endanger many women and girls daily – for this reason more emphasis should be given to the **gender empowerment as a cross-cutting issue**. The humanitarian crises of an ever-growing displaced population aggravate the already vulnerable condition of women and girls residing in refugee camps. Additionally, improving lighting and cook stoves could not be considered as a ‘women’s problem’ and refugee women and girls should be engaged as active actors of change, including for the design of the most appropriate technologies to address their energy needs and aspirations.

Stakeholders demanded for more **multi-stakeholder partnerships** that ensure that the private sector work “in tandem with communities, workers, unions and policymakers to ensure no one is left behind”. It has been stated by different stakeholders that the needs of communities are not adequately taken into consideration at national, local and project levels. Additionally, stakeholders called upon an increased decentralization and organization of energy-based consultations to local authorities and stakeholders.

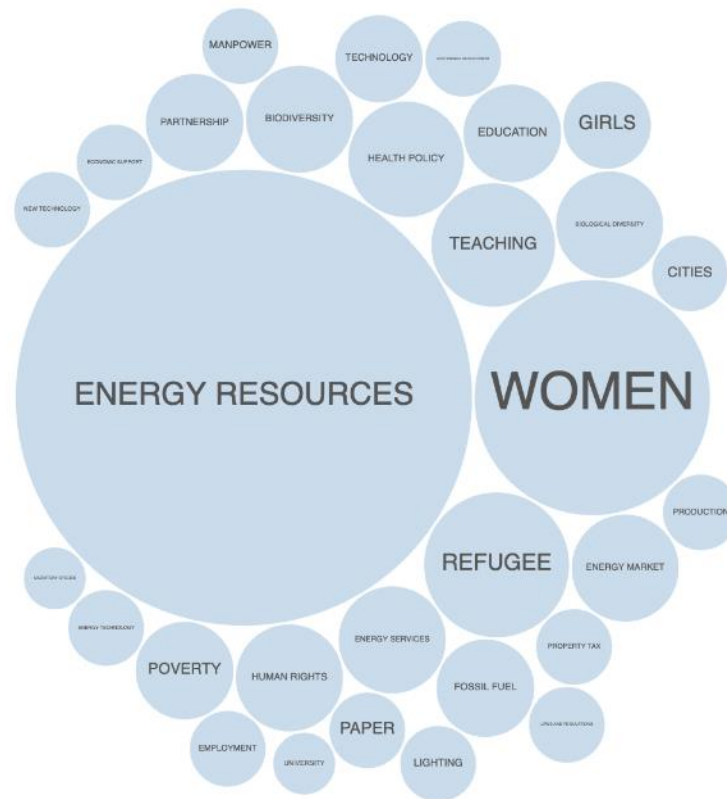


Figure 3 - Word Cloud for Inputs on Enable SDGs through Inclusive and Just Energy Transition



ENERGIA (Civil Society Organization), India:

Since 2014, [ENERGIA](#) has been implementing its Women's Economic Empowerment (WEE) program, which aims to empower women economically through supporting their energy enterprises in last mile communities. ENERGIA collaborates with the Centre for Rural Technology- Nepal (CRTN), Energy for Impact, Practical Action Eastern Africa and Solar Sister and has supported over 5000 women entrepreneurs working in renewable energy businesses and in the productive use of energy. These entrepreneurs have created over 6,000 jobs for other women and young people. They have sold renewable energy products (such as fuel-efficient cookstoves, solar lanterns, solar home systems and biomass briquettes) to 3 million people who previously did not have adequate and affordable energy services.

There is currently **limited knowledge exchange** between key stakeholder groups and key technical areas with a lack of collaboration, support, and a broader vision, where SDG 7 is interrelated with other SDGs such as education, health, production and others, limiting the scope and real impacts.

Stakeholders also reminded the connection between **climate and human rights** and the need for rapid, large-scale development and deployment of sustainable energy to avoid harm to biodiversity and facilitate the provision of nature-based solutions to climate change (SDGs 14 and 15).

Stakeholders emphasized the “need for metrics and assessments that can assess how the world’s most influential companies are contributing to a just transition that leaves no one behind”. **Reliable data** could also support in determining the positive and negative impacts of strategic policies in connection with the 2030 Agenda. Furthermore, it was noted that many developing countries have limited institutional and financial capacities to effectively mobilize resources and put in place sustainable legislative plans for energy transition. The need for better coordination between multiple actors and additional financial resources as well as strengthened institutional capacities were identified as critical for a just transition away from fossil fuels. Finally, stakeholders demonstrated concerns that costs related to energy transition efforts should not be transferred from the private to the public sector.

- **Concrete measures towards maximizing the positive impacts of inclusive and just energy transitions on the achievement of other SDGs.**

Contributors to the e-consultation expressed the need of a more **active coordination between the private and public sectors** for investments in energy. Stakeholders recommended that governments enacted laws and passed legislation that improve the use and development of renewable energy, provide appropriate investment in climate change and promulgate local legislations that attract local investors.



The Self-Employed Women’s Association (Civil Society Organization) / India:

[SEWA](#) initiated the Hariyali (Green Energy) Campaign to introduce solar pumps to farmers shifting from diesel pumps. SEWA organizes them and offers financial and technical training and facilitates with credit linkages at lower interest rates and repayment terms as per their work cycle to adopt renewable energy solutions. Till date, 1300 solar pumps have been installed which have the capacity of reducing carbon emissions by 35,385 tons annually. The solar pumps help save 10.5-14 US \$ per day, improving Agariyas income significantly. SEWA also supports Agariyas with market linkages, helping them bargain for a better price directly with large buyers and salt factories, bypassing the middlemen and traders, through strengthened collectives.

Stakeholders suggested to include energy access interventions as part of COVID-19 response strategies towards a green, equitable and resilient future. “Renewable energy can help revitalize the economy by generating green jobs, ensuring energy security, improving clean air and strengthening resilience”. However, a renewable energy-led green recovery must also be nature friendly and ensure appropriate safeguards are in place. Multiple remarks were made related to the importance of a **coordinated action between sectors** to streamline and fast-track common legislation, standards, guidance, and tools.

In relation to corporate responsibility, **knowledge sharing and R&D**, stakeholders called on governments to activate effective participation and means of acquiring and exchanging experiences with relevant countries in the field of new energy.

Many stakeholders considered that high-emitting businesses should take proactive and concrete steps to ensure programs and practices encompassing a **just transition** across their entire supply chains. Some stakeholders called for an end to policies that promote or maintain carbon lock-in. Fiscal policy reform should also ensure the maintenance of public income and resources and guarantee the provision of key services in affected areas, especially attentive to the most vulnerable.



Innovation, technology, and data

A total of 11 submissions were received for the survey related to “Energy Access”. All inputs can be accessed here: <http://bit.ly/InnovateEnergyEConsultation>

- **Main challenges regarding the development and application of data, technology, innovation, research and capacity building in support of SDG 7 and carbon neutrality**

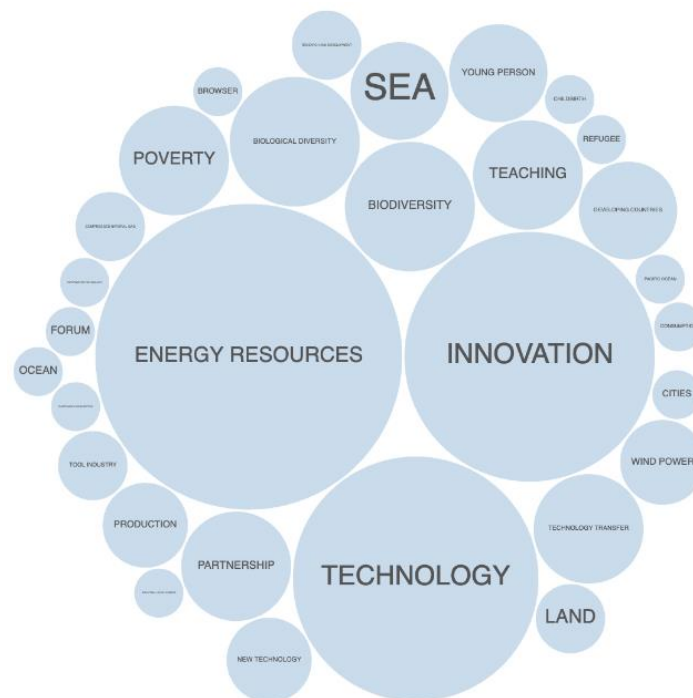


Figure 4 - Word Cloud for Inputs on Innovation, Technology, and Data

Poor technology transfer between developed and developing countries was identified as a key issue that hinders a comprehensive employment of modern technologies across nations. This is primarily caused by a conventional market model that does not allow space for collaboration and dialogue between countries that supply and those that receive the final product. Stakeholders pointed out that this miscoordination directly contributes to undermining the learning processes needed to adapt and create market shares for low carbon technologies. Consequently, there were concerns over the suitability of end-product technologies to local contexts, suggesting constraints from a lack of technological know-how and capacity in manufacturing products and machinery. Stakeholders called for a greater focus to ensure global

representation, alignment and coordination to achieve the full energy transition and other SDG 7 related targets.

High-cost of new technologies was identified as an important obstacle, highlighting the need for affordable, cost-effective, and resource-efficient technology solutions to decarbonize the energy supply system in a competitive and sustainable manner.

Contributors cited **lack of data** as a considerable obstacle for policy makers, particularly in countries with extensive geographical areas and a widespread rural population. Remote settings often lack the robust communication infrastructure and reporting procedures which has led to poor quality, faulty readings, undocumented maintenance and modifications, as well as power outages. Inputs highlighted the importance of accessible baseline data to determine planning and the potential impacts of energy transitions.

Weak partnerships between research institutions, think tanks, entrepreneurs and the public sector were considered significant barriers in the development of data and technology to achieve SDG 7 and carbon neutrality. Stakeholders that provided these inputs, underlined the importance of public-private partnership (PPPs) to engage researchers and the public sector while also developing innovative solutions.

Contributions identified **poor investments and low research and development** as another significant challenge, with low financial flows and government spending creating a limited availability of modern and reliable tools for affordable and clean energy. Research must expand beyond its focus on specific technologies to explore the role of small-scale, decentralized and off-grid renewable energy solutions.

Further, inputs recommended more refined professional and academic training and incorporating civil society and other stakeholders in the development process by supporting the innovative projects of young people and approaching access to energy with careful consideration of marginalized groups, like displaced persons.



ICLEI Africa (Non-Governmental Organization), South Africa:

[ICLEI Africa](#), through the Covenant of Mayors in Sub-Saharan Africa, developed a proxy data tool that allows one to in a few minutes generate a GHG Inventory for a city/town. Tools such as these could be used to fast-track planning in African cities and overcome the barriers that currently exist with regards to lack of data, capacity and resources.

- **Concrete measures for the development and application of data, technology, innovation, research and capacity building in support of SDG 7 and carbon neutrality.**

Contributors highlighted five key measures that governments and stakeholders could take to support the development and application of data through technology, innovation, research and capacity building in support of SDG7 and carbon neutrality, including the mobilization of multi-stakeholder partnerships, multilateral financing for innovative projects, a greater emphasis on data collection and research, implementation of trainings and applying strategic policies.

Multi-stakeholder partnerships were identified as key components in building dynamic and sustainable models of technology collaboration between donors and recipients, particularly for recipients in need of cleaner, efficient and sustainable technologies. Co-innovation can offer access to advanced technology and manufacturing within the recipient country while helping the source country to access a fast-growing market. Several inputs highlighted the potential for national and local governments to create a space for partnerships with various institutions and sectors and establish new technology transfer models.

Higher investment for multilateral innovative projects was highlighted as an important measure to develop and apply data in support of SDG 7 and carbon neutrality. By arranging funds at the institutional level, investors could finance innovative experiments and prototype projects for young people as well as make advancements in the design, planning and implementation of appropriate technology for measurement, reporting and verification (MRV).

Contributions to the e-consultation recommended **efforts to collect more data** by developing scientific systems to link research with economic development, improving monitoring systems to support communities where robust data monitoring, handling and analysis approaches are needed, and leaning into multidisciplinary innovation to bring together experts in all energy transitions. Efforts from local governments could include tapping into city networks, whereas higher-level agents could head the setup of support and monitoring environments. The inclusion of local community and minority groups, including indigenous peoples, in projects to expand data collection and research, was identified as an important component in developing clear strategies regarding local and indigenous lands and territories.



Centro para la Autonomía y Desarrollo de los Pueblos Indígenas (Indigenous Peoples), Nicaragua:

Indigenous Peoples globally have been working collectively to build capacity in research, data collection and the definition of indicators to support the measurement and monitoring of processes and actions in their territories. There are a number of methodologies that have had good experiences, such as the [Indigenous Navigator](#) program that exists in Africa, Latin America, Asia and the Pacific. Likewise, there are experiences of community monitoring that also support the definition of policy actions such as CBMIS.

Contributors identified the **need for training and skills development** to make future interventions more effective, so that energy “gatekeepers” could improve community-level engagement with new energy technologies, particularly among marginalized groups. This measure was highlighted as a capacity-building effort, where energy interventions could be implemented to also benefit energy accessibility. Furthermore, efforts to popularize knowledge of energies, particularly amongst younger people, would benefit creative and training efforts.

Strategic planning, specifically in the application of tools like Strategic Environmental Assessments (SEAs) and Environmental Impact Assessment (EIAs) as well as an approach that considered the varied impacts across the entire development lifecycle was also highlighted. Additionally, the consultation registered a call for the integration of intercultural approaches in capacity building programs.



Finance and investment

A total of 11 submissions were received for the survey related to “Energy Access”. All inputs can be accessed here: <http://bit.ly/FinanceEnergy>

- **Main challenges to the mobilization and leverage of public and private finance and investment to achieve SDG 7 and carbon neutrality.**

Stakeholders highlighted inadequate policies, discrepancy between climate goals and state policies and high investment risks as the main challenges for the mobilization and leverage of public and private finance and investment to achieve SDG 7 and carbon neutrality.

Climate energy targets and regulatory frameworks must be aligned with these goals. Stakeholders pointed out that carbon pricing schemes are not robust enough in some jurisdictions, and that a huge amount of fossil fuels subsidies remain in place at global level. Attracting private financing depends on regulatory frameworks in areas such as infrastructure, planning, fiscal incentives and market and administrative issues. Respondents to the online consultation expressed that fiscal constraints, liquidity challenges and political priorities were not aligned with climate goals in some contexts and that these could jeopardize a green recovery from COVID-19. Stakeholders also considered that there were significant delays in access to finance, despite the allocation of considerable amounts of funds by governments and private companies to tackling climate change.

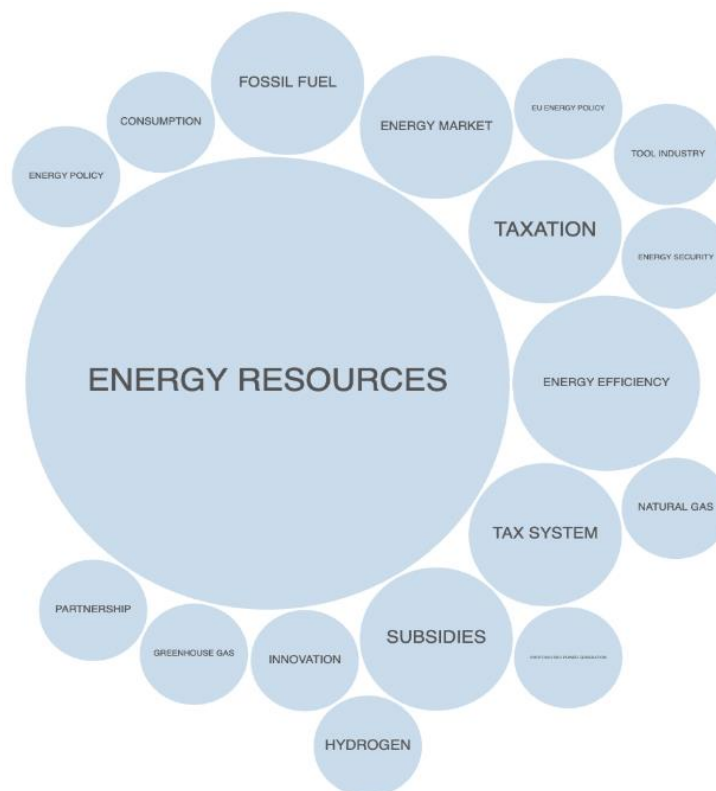


Figure 5 - Word Cloud for Inputs on Finance and Investment

Regarding the challenge of the **higher upfront capital intensity often required for low carbon investments**, this could represent a challenge in some contexts where higher risks are perceived by investors, including regulatory uncertainties, and negative risk reward dynamic. For this reason, it is important to develop effective tools to de-risk investments to attract finance, including by setting up clear guidance for project performance monitoring. Similarly, the consultation indicated that financial assistance programs for clean energy projects are often too complex especially considering the limited capacity at subnational level to develop, apply for, manage, monitor, evaluate and report on clean energy projects.

Another referred challenge is the widespread **investment in inefficient projects for sustainable energy transition and other energy targets**. Stakeholders pointed out that public investments are often focused on large-scale projects, such as centralized grid expansion, whereas some of the most cost-effective interventions to enable energy access are often off-grid or mini grid solutions. A lack of capacity and knowledge of how to leverage public and private finance at all levels of government is one of the bureaucratic challenges that impede a fast and targeted capital flow to energy projects. The inability for many local governments to receive investments directly, without the need of approval and/or directly transferred through national government was identified as a challenge for local development.



Ente Vasco de la Energia (Local Government), Spain:

[EKIOLA](#) is an initiative implemented by the Basque Country which is based on the empowerment of citizens in the generation and management of renewable energy for consumption. This is done through the new figures of active consumer and energy community. The creation of energy communities in a cooperative format, which act and play a role within the electric system, and which are followed by their local and nearest public administrations, will allow for the development of different projects for photovoltaic power generation facilities.

<https://www.youtube.com/watch?v=XLuP52W7HEQ>

- **Concrete measures to mobilize and leverage public and private finance and investment to achieve SDG 7 and carbon neutrality.**

Inputs highlighted the need for a green recovery from the COVID-19 pandemic with the mobilization of funding mechanisms for a green, equitable and resilient future. Renewable energy can help revitalize the economy by generating green jobs, ensuring energy security, improving clean air and strengthening resilience. Financing is needed at a more strategic level to support the integration of data, tools and guidance.

On this same line, many inputs were provided on creating **stable and robust regulatory framework** aligned with climate neutrality to tackle the investment challenge ahead. Public and private collaboration and enabling policy environments for energy infrastructure investments will be crucial for a fully decarbonized energy sector by 2050. Moreover, involving financial actors and institutions will give value

to energy efficiency. Investments should be directed towards energy saving, technology transfer and low carbon energy supply, in particular cost-competitive, inclusive, sustainable and nature-friendly renewable energy sources.

At the policy level, several stakeholders indicated their support to the “polluter pays’ principle. Additionally, there is a need for finance mechanisms and action that take into account a human rights-based approach and establish robust **social and environmental safeguards**. To this end, stakeholders called for increased financing for data and monitoring indicators, including investment in datasets and data management systems, strengthening capacities and harmonizing monitoring and indicators. Resources and funding also need to be more inclusive and accessible to civil society, which ultimately collects and manages much of the data needed for government and industry decision-making (e.g. biodiversity baseline data).



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