GOAL PROFILE OF

SDG 7 : CLEAN AND AFFORDABLE ENERGY

Prepared by:

Visible Impact

NAYA
Nepal APFSD Youth Alliance

Background:

The Sustainable Development Goals (SDGs) are global development targets adopted by all UN member states, including Nepal, in 2015. The Asia Pacific Forum on Sustainable Development (APFSD) and the High-Level Political Forum (HLPF), respectively, have regional and global institutions in place to monitor and review Agenda 2030. Every year, CSOs, institutions, and people gather at these forums to share their experiences, best practices, progress, gaps, and obstacles in achieving the SDGs. These forums are quite effective in SDG advocacy for diverse groups and constituencies.

To implement follow-up actions around APFSD in Nepal, the Nepal APFSD Youth Alliance (NAYA) was formed after the completion of the 8th APFSD Youth Forum. The alliance is made up of eleven youth-led and youth-serving organizations in the working group, and more than 200 individuals who represent a diverse geography, themes, disability, gender identity, and other factors. NAYA envisions young people at the forefront of Agenda 2030 for Sustainable Development at the national, regional, and international levels.

Visible Impact serves as a secretariat for NAYA. Visible Impact serves as the secretariat for NAYA. Visible Impact is a young women-led organization in Nepal that is creating a visible impact on the lives of adolescent girls, women, and youth by unleashing their social and economic leadership through participatory innovative interventions.

Every year, NAYA conducts a youth consultation prior to APFSD main event, to collect recommendations of Nepalese youths on different clusters of SDGs being reviewed that year.
This year, NAYA first prepared goal profiles of all five SDGs being reviewed in 2026 (SDG 6: CLean water and sanitation, SDG 7: Affordable and clean energy, SDG 9: Industry, infrastructure and innovation, SDG 11: Sustainable cities and communities and SDG 17: Partnerships for Goals). The working group members of NAYA and other partner organizations contributed to its preparation through intensive desk reviews of all relevant articles and documents found online. After the preparation of the goal profile, NAYA conducted ‘Nepal Youth Forum 2025’ on 31st of October to draw first-hand information on issues and recommendations of Nepalese youths on these five SDGs being discussed in 2026. The forum was conducted online and about 60 youths from diverse backgrounds contributed to the findings.

Combining the information from both, desk reviews and youth consultation, NAYA is producing this comprehensive goal profiles of all five SDGs. While goal profiles of SDG 6,7,9 and 11 consist of information from both, desk reviews and youth consultation, the goal profile of SDG 11 is solely documented through a desk review. Since SDG 17: Partnerships for Goals can be a cross-cutting theme to all other SDGs, a separate thematic session was not designed for it, at the youth consultation

SDG 7 : Clean and Affordable Energy

Ensure access to affordable, reliable, sustainable and modern energy for all

Introduction:

Sustainable Development Goal (SDG 7) focuses on achieving universal access to modern, affordable, reliable, and sustainable energy by 2030. It mostly focuses on increasing the share of renewable energy and improving energy efficiency, promoting clean cooking solutions and expanding access to modern energy services and beyond. In Nepal's case, the focus includes leveraging its rich hydropower potential, pursuing decentralized renewables (like solar and micro-hydro), and enhancing energy efficiency and access to clean cooking, all while reducing dependency on imported fossil fuels.

Situation Analysis:

Nepal is extremely rich in renewable energy resources, especially in hydroelectric power, solar power and wind energy resources. The combined potential of these renewable sources, if utilized, could exceed the country's energy demands. However, with weak policy implementation, these clean sources remain unused and hence only 6% of Nepal's total energy consumption comes from modern renewables (1).

Due to this pattern of sources of energy, huge health and environmental risks are being posed. Big cities like Kathmandu keep facing alarming levels of air pollution repeatedly, which not only becomes a threat to public health but also degrades Nepal's natural resources and ecosystem (2). People in Nepal, especially the rural and low-income populations are still having severe health consequences linked to traditional cooking and poor ventilation (3).
Nepal has implemented the Roadmap to SDG 2030 where it recognizes the need for further efforts like stronger energy efficiency measures and mainstreaming electric vehicles as public transport while also acknowledging the progress like increased electricity access (4).

Achievements:

Nepal has progressed significantly in many dimensions of SDG 7. The proportion of population having access to electricity has reached 95%, surpassing the target of 85.7% for the year 2022. Similarly, per capita energy consumption has also surpassed the given target of 19.7 gigajoules, and has reached the consumption of 21.92 gigajoules per capita in 2022. In addition, there has been a shift towards cleaner sources of energy for cooking purposes, shown by the decreased percentage of households using solid fuels as the primary source of energy (5). Also, Nepal has been performing well with regards to the financial flows, especially the international support, being made towards adopting clean and renewable energy. Similarly, the capacity to generate renewable energy has also improved over the years (6).

Load-shedding has largely ended since 2018 under strong leadership. Solar projects are emerging, e.g., the 10 MW Mithila Solar PV Station (commissioned 2021) (7), and significant renewable pipeline via companies like Golyan Group (totaling ~700 MW planned) (8). Other

infrastructure improvements underway include new substations in Kathmandu adding capacity (~500 MW), and a modern data center enhancing grid management and smart metering (9). Sustainable alternatives like electric vehicles are increasingly consumers in Nepali markets (10).

Gaps:

Despite significant progress, challenges remain in some areas of SDG 7. The renewable energy consumption out of total energy consumption is still very low at 7.6% while the target was set at 29.7%. In addition, although the installed capacity of hydropower has increased compared to past years, it is below the target. Nepal has the current installed capacity of 2767 MW in 2022 while the target was set for 5417 MW. Similarly, per capita electricity consumption has increased to 380 KWh in 2022 but still lags the target of 542 KWh (5).

Despite having 95% electric access, only 0.5% of households currently use electric cooking with over 50% of households still relying on solid fuels (11). This dominance of traditional cooking has contributed to serious health complications like cardiovascular and respiratory issues, even causing premature deaths. Women and children who spend more hours near such stoves and low-income households who lack access to clean energy technologies are the most affected ones (3).

Challenges/Gaps Identified from Nepal Youth Forum:

Although transition to clean energy sources has begun, the dependency on single alternative sources can be an issue in the long run. Over-dependency on hydroelectricity only and not focusing on diversifying the alternative source of energy such as ethanol, biofuel and hydrogen powered energy sources was identified as a hindering factor for a smooth transition. In addition, people lack the knowledge and confidence to operate devices using clean energy technologies like electric vehicles and induction stoves. Especially in rural areas, people, more specifically women, are not given enough education and resources to use cleaner sources of cooking, and hence traditional cooking methods like firewood and LPG continue which are not good for health or the environment. In addition, the electricity supply is still unreliable, since many places experience frequent power cut-offs, although the routine loadshedding has ended. Youths have also identified weak and inequitable implementation of national plans and policies leading to unequal burden of unclean energy use in daily lives to the most vulnerable. Also, women and youth voices are rarely included in the planning of clean energy development, even at the local levels.

Key stakeholders involved:

Three tiers of government work in close coordination to roll out clean energy plans up to municipal levels. The Ministry of Energy, Water resources and Irrigation (MoEWRI) is the major governmental entity that is responsible for planning and monitoring policies regarding components of Goal7. In addition, The Alternative Energy Promotion Center (AEPC) is a government institution under the Ministry of Energy, Water Resources and Irrigation (MoEWRI) that works with a mission to promote energy efficiency and renewable energy through energy accessibility, knowledge and adaptability (12). Similarly, Nepal Electricity Authority (NEA), under MoEWRI, is responsible for generation, transmission and distribution of electricity ensuring the supply of reliable and affordable power (8). Also, the National Planning Commission (NPC) ensures that components of SDG 7 are incorporated in national planning and budgeting.

The provincial levels of government implement energy policies and plans that align with national goals. They also coordinate with AEPC and NEA to promote renewables and build capacity on energy efficiency and clean cooking.

The local level, in turn, includes clean energy access in local budgets and implement renewable projects like solar, wind and biogas at household and community levels.

International Development Partners like Asian Development Bank, United National Development Fund (UNDP), World Bank, GIZ and UK Aid provides technical and financial support to projects promoting clean and affordable energy like Renewable Energy for Rural Livelihood (RERL) and Promotion of Solar Technologies for Economic Development (POSTED).

Similarly, Civil Society Organizations working in the field of clean energy support through advocacy, capacity building, community mobilization, policy engagement and research.

Current Policies Guiding SDG 7:

National Energy Policy 2019/20 guides for the overall energy planning, including renewable energy use, energy efficiency and modern energy access. Similarly, there is Renewable Energy Subsidy Policy 2016 in place, which provides subsidies and financial incentives to promote renewable energy uptake. This policy supports SDG 7 by promoting clean cooking, working in increasing electricity access and overall improving the total renewable energy share.

National Renewable Energy Framework provides a coordinated plan for renewable energy development by decentralizing renewable energy to rural/remote areas, linking renewable energy to livelihood development and emphasizing on reliable financing mechanism and inclusivity. There is National Energy Efficiency Strategy which mainly works in promoting energy efficient technologies, appliances and launching energy conservation programs. Nepal also has National Climate Change Policy which guides SDG 7 progress by encourage low-carbon energy transition and promoting renewable energy to reduce greenhouse gas emissions.

In addition to this policies, national policies like 16th periodic (five-year) plan focuses on providing 100% electricity access, expanding renewable energy capacity including hydro, solar and wind energy. Other programs like Renewable Energy for Rural Livelihoods (RERL),

Nepal Renewable Energy Program (NERP) and Promotion of Solar Technologies for Economic Development (POSTED) help in adapting SDG 7 targets at community and households' levels.

Recommendations:

To address the gaps identified and accelerate the progress of SDG 7 in Nepal, some specific actions need to be prioritized. Firstly, specific actions to accelerate the cooking transition should be taken. Subsidizing electric cooking technologies and designing cookstoves with end-users, especially women, to match cultural and practical needs can be done to make clean cooking affordable, accessible and acceptable. Similarly, successful pilots like Eco-Zone models and clean cooking explorer tools should be scaled up.

Another priority action can be expanding the renewable energy mix beyond hydropower. Fast-tracking solar and wind projects by providing support to projects like Mithila PV and solar mega-projects by Golyan can be done. Similarly, investing in grid infrastructure to handle distributed and variable generation is recommended.

Promoting transport electrification can also support the promotion of overall clean energy usage. For that, actions like expanding electric vehicle (EV) friendly policies such as charging infrastructures should be invested in. The public can be encouraged to use EVs by linking its adoption to its economic, environmental and energy security benefits.

In addition, actions to boost energy efficiency like enforcing energy efficient appliance standards and supporting energy audits and management in industries are recommended.

Finally, strengthening data systems and aggregating the disaggregated indicators should be prioritized for better monitoring. The capacity building at provincial and local levels should be prioritized for decentralized energy planning. Also, ensuring that the interventions are reaching the vulnerable population equitably is of prime importance.

Recommendations from Nepal Youth Forum

Awareness is the key. The public should be educated on the idea and ways of using renewable energy in their daily lives to facilitate the transition to cleaner energy sources. Promoting affordable electric stoves, and incentivization of renewable energy on a policy level should be prioritized. Women should be involved especially in solutions relating to clean cooking including cleaner cooking design process, capacity building sessions and women-led micro enterprises, especially at local levels. Youth participation should be demanded for energy planning at all levels, and green funds/grants for youth start-ups in the clean energy sector should be done. Youth-friendly EV policies including affordable e-bikes and charging stations should be advocated for. Similarly, 'switch off' and energy saving campaigns and awareness campaigns on the health and environmental impacts of non-clean sources of energy in schools and colleges should be actively implemented.

The partnership between municipalities, NGOs and the private sector in planning and implementing clean energy initiatives is highly recommended.

(This goal profile is prepared through the compilation of information from collective intensive desk reviews by youths from member organizations of NAYA and beyond, and consultation with youths who were the participants at Nepal Youth Forum. The desk reviews were done by Ms. Sabin Pun (BBC), Ms. Sindhu Sharma (NYCA), Mr. Sagar Koirala (All in Foundation), Ms. Swastika Parajuli (Rotaract Club of Kathmandu – Midtown) and Mr. Jaldeep Sapkota (BYAN) for SDG 6, 7, 9, 11 and 17 respectively. The information was compiled by Visible Impact to prepare a final goal profile.)

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