

Scaling-Up Renewable Energy Program (SREP) Investment Plan for Nepal

Nepal

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Background Information

Nepal, a country with a mountainous region and an abundance of rapidly flowing rivers, has tremendous potential to develop renewable energy. Nepal's landscape makes the region an ideal area of generating not only wind energy and hydro-power, but solar energy as well, with over 300 sunny days on average annually. Unfortunately, due to poor investment capacity and other structural obstacles in Nepal, harnessing the regions seemingly limitless potential of alternative energy is difficult without some economic reform.

In 2010-2011, Nepal imported \$97.04 billion USD worth of petroleum products totaling to 19.47% of their total imports and 6.4% of their total GDP. In the same fiscal year, it was reported that hydro-electricity, along with other renewable sources, contributed 2.3% and 0.7% respectively to the total energy consumption. A mere 3% of the country's energy consumption stemming from renewable sources shows that Nepal still heavily depends on fossil fuels despite the potential of generating 83,000 MW of renewable energy through hydro sources alone.

Quick facts

Zone	Several Nepal Districts
Time Frame	2010 to 2030
Theme	Renewable Energy Supply, Investment Plan
Leading agency	The Ministry of Finance and The Ministry of Environment - Nepal
Financing agency	Asian Development Bank, World Bank, and International Finance Corporation



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The immense gap between real consumption and the existing potential of green energy is a burden on unsustainable resources. The heavy dependence on fossil fuels causes many negative effects, such as health issues, the depletion of natural resources, and environmental impacts that cause climate changes.

Policy Details

Due to the huge gap between energy demand and potential renewable energy supply, the government of Nepal has drafted an investment plan entitled 'Scaling-Up Renewable Energy Program' (SREP). The objectives of SREP are described below:

- i. Leverage complementary credits, grants and private sector equity co-financing.
- ii. Introduce transformational impacts through scaling up energy access using renewable energy technologies (RETs), poverty reduction, gender and social inclusiveness, and climate change mitigation.
- iii. Ensure sustainable operations through technical assistance and capacity building.

In support of this plan, Nepal has been launching many incentives through programs and policies such as targeted subsidies and funding mechanisms, tax and duty concessions, and exemption mini/micro/pico hydro projects from royalties and licensing requirements. Also, several development partners are cooperating in program design, consultation and funding of alternative energy projects.

Through the successful materialization of SREP, the most important goal in terms of Green Growth is achieving environmental, social and gender co-benefits such as the reduction of GHG emissions, productive use of energy, more time left for the domestic household, better education for children, improved access to information, and empowerment of local communities.

The main focuses of SREP financing will be the development of small, mini and micro hydro power, solar PVs, and biogas projects. Other sources of financing for this project are government funds, private sector equity, commercial funding and donor contributions. The Ministry of Finance and Ministry of Environment are the focal institutions for SREP preparation and Alternative Energy Promotion Centre (AEPC) works. The Asian Development Bank (ADB), World Bank (WB) and International Finance Corporation (IFC) will also provide assistance and oversight for the Nepal SREP, in collaboration with the UN and other bilateral agencies.

The SREP supports the current Three Year Plan (2010-2013) which envisages the addition of 15 MW of mini/micro hydropower, 225,000 solar home systems, 90,000 domestic /50 community/75 institutional biogas plants, 1 MW of wind power, and 4,500 improved water mills. This investment plan aims to increase the share of renewables from less than 1% to 10% of the total energy supply, and to increase the access to electricity from alternative energy sources from 10% - 30% within the next 20 years.

Policy Challenges

For the implementation of SREP, some obstacles have arisen. These problems include low coverage of the national grids, very remote and sparsely distributed population, poor level of affordability from consumers, and poorly trained human resources. However, SREP is still considered a good strategic investment plan for alternative energy development in Nepal, despite being an extensively analytical plan.

Although alternative energy development programs were initiated in the early 1970's in Nepal, the country only contributes a low 0.7% to total energy consumption (with the exception of hydropower which contributes around 2%) today. Market based incentive instruments are very important for green energy development, but the misuse of subsidies and other incentives calls for precautions. This, in turn, draws more attention to financial sustainability during the planning process.





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Lastly, this plan would have addressed issues such as community based management of green energy, maintenance and replacement mechanism, and the industrial utilization of green energy in rural areas. Until the investment in green energy is no longer interlinked with human productivity and the development of small enterprises, the rate of return and sustainability remains a concern.

References

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