

ACCELERATING MYANMAR'S INVISIBLE PEOPLE POWER



A multi-stakeholder Approach

Electricity provision is inherently decentralized since the starting point of providing electricity is a wire reaching the consumer. In fact, the central grid in most developed countries was formed by the joining of many decentralized mini-grids. However, various factors such as economies of scale, government subsidies, and the lobby for large scale energy infrastructure, has led to a biased assumption in the developed world that centralized grids are synonymous to electrification. This bias now influences how development aid is being used to electrify developing countries, even when a vibrant off-grid sector is apparent as in the case of Myanmar.

Bias towards centralized electricity provision

In 2014, Myanmar established two plans to raise the electrification rate from roughly 30 to 100 percent by 2030. The first, the National Electrification Plan (NEP) is supported by World Bank IDA and the second, the National Electricity Master Plan (NEMP) is supported by JICA. Both plans focus on the extension of the centralized grid. Yet, places where the central grid exists are marked by power cuts and unaffordable connection fees for rural customers. In addition, the power sources used with the central grid are limited to coal, large hydro, and gas, which are prone to displacing populations and negatively impacting climate change.

The NEP does have a provision for off-grid solutions as well. The focus on solar home lighting solutions (SHLS), however, provide only *Tier 1*¹ access to electrification that cannot power irrigation, agri-processing, and other such

poverty-alleviating end uses. Furthermore, the NEP off-grid component includes a subsidy program for community-based, renewable energy mini-grids that involve private sector. But thus far the program has faced challenges to establishing financially viable mini-grids with enough end use.

Myanmar's Proven Solution: People-Powered Decentralized Renewable Energy

A closer look at how electrification has progressed in Myanmar prior to international aid strikingly shows a proven solution for affordable, reliable, equitable, and climate resilient electrification. Over the last 30 years, nearly 6000 small-scale off-grid, decentralized renewable energy (DRE) systems (below 1MW) have been developed in Myanmar, achieving scales that far surpass even the most extensively funded DRE programs in South- and Southeast Asia. This without foreign technology transfer,

¹ As per the World Bank ESMAP Multi-Tier Framework for Measuring Energy Access (2015), Tier 1 refers to and annual consumption below 4 kW-hours and daily consumption of 12 watt-hours.

international funding, or scaled government policy. At the core of this phenomenon is local ingenuity in the form of local social entrepreneurs who have

- engineering skills to locally manufacture cost-effective technology;
- entrepreneur skills to identify productive end uses of electricity;
- commitment to forging local partnerships for financially viable projects with rural communities.

A missed opportunity

Despite the myriad of off-grid solutions, the local private sector remains invisible and sidelined to the various international organizations seeking to advance and invest in Myanmar's rural electrification. One of the reasons is that international development partners work solely with the national government at the start of their programs, e.g. the baseline studies of the World Bank did not include the work of the local private sector. This is a missed opportunity since the proven off-grid solutions, such as the biomass gasifier and micro/mini-hydropower, can play a viable role in scaling up the progress towards electrification of the country, herewith supporting the government's objective.

Integration of local private sector into the electrification plans (both NEP and NEMP) is key. Amidst a variety of possibilities is permitting local entrepreneurs to obtain concessionary bank financing to accelerate their existing project pipelines and to replicate financially viable projects in the most economic marginalized regions; adopting policies for feeding off-grid generated electricity into the regional and national grids; and build capacity for technology

upgrade to advance *made-in-Myanmar* (DRE) technology, instead of replacing it with foreign technology that is not affordable and difficult to maintain by local actors.

Need for a Co-created, Multi-Stakeholder Approach

Over the last 5 years the Renewable Energy Association of Myanmar (REAM) and its regional and local partners have identified the many indigenous DRE practitioners and their accomplishments and successfully facilitated two-way dialogue between the government of Myanmar and the local entrepreneurs. In addition to that, there are many active development partners, CSOs and local banks interested to scale DRE mini-grids. These elements provide a solid foundation that could push forward the growth of DRE to address the country's pressing need for sustainable and equitable rural electrification.

Hivos and REAM see that an inclusively-aligned change process, cultivated between the government of Myanmar, the DRE practitioners, relevant development partners and CSOs, could significantly accelerate rural electrification using DRE.

To build momentum towards such a process, Hivos, REAM, together with Hydropower for Community Empowerment in Myanmar (HyCEM), will work together to start a multi-stakeholder approach and dialogues where interests of all players are taken into account and aligned for collaborative solutions to the most pressing challenges of inclusive energy access development in Myanmar.

Contact

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