

Exit Evaluation of EnDev Nepal - improved cookstoves (ICS)

Executive summary

Since 2014, Energising Development (EnDev) has promoted improved cookstoves (ICS) for fuelwood and charcoal in Nepal. In 2019, EnDev Nepal also started to promote electric cookstoves. EnDev Nepal's activities focused on supporting market development of Tier-2 and 3 ICS and induction stoves. The project is implemented by Practical Action (PA) in Central Nepal and by SNV in Western Nepal.

There has been a gradual shift towards electric cooking in the project. This study focuses on the activities carried out by both implementing organisations between 2014-2022.

Background

Historically, in Nepal, most people have used biomass for cooking. This is still the case for the rural population. Nepalese cooking habits in rural areas not only cover meal preparation, but also include preparing livestock feed and producing alcohol. Currently, the main cooking energy sources in urban areas are LPG and electricity.

The approaches in the EnDev Nepal ICS component included results-based financing support (RBF) for cookstove suppliers, raising awareness through demonstration activities, collaboration with local partner organisations, local governments and local retailers, building last-mile distribution through market agents, and partnering with local microfinance institutions (MFIs) and cooperatives for end-user financing and distribution.

Supply-side observations

EnDev has strengthened local value chains by supporting last-mile distribution, including local stakeholders, and raising awareness in Central and Western Nepal communities.

Not much data is available on EnDev Nepal's longer-term impact on the market. However, this study found evidence of a local producer that received support from EnDev continuing production and sales of Tier-3 stoves after the project ended. Thus, this producer is still benefitting from the last-mile distribution setup that EnDev introduced. The private market landscape for ICS includes many companies, most of whom are retailers. There is a wide range of imported and locally manufactured ICS models in Nepal. The private sector is generally hesitant to invest in electric cooking and ICS supply chains without a stable offtake. Without financial support similar to the RBF support from EnDev, ICS companies will continue to supply in areas where they have a secure position but are unlikely to expand further.

EnDev contracted Edburgh consultants and Danish Energy Management to conduct an independent exit evaluation of EnDev Nepal. The main evaluation questions were:

- 1) What influence did EnDev's intervention have on sector development?
- 2) To what extent are local institutions ready (and have the capacity) to take over and contribute to developing a sustainable energy market?
- 3) What are the lessons learnt?

Exit studies are carried out during or shortly after a project or component has been phased out. This mostly desk-based evaluation was carried out between July and November 2023. The evaluation is based on an analysis of 26 relevant reports and studies, and 17 interviews with important stakeholders. The report is based on absolute numbers of sales on country level. On global level, EnDev applies so called monitoring factors for attribution, additionally and sustainability and reports in adjusted numbers of people reached.

EnDev Nepal	
Evaluation period	2014 – 2022
Budget	
PA: 2014-2023	EUR 2,436,333
SNV: 2019-2023	EUR 431,221
Total	EUR 2,867,554

Project results:	
• Facilitated the sale of 64,695 cookstoves (up until the end of 2022).	
• Strengthened local value chains by supporting last-mile distribution, involving local stakeholders, and raising awareness in communities in Central and Western Nepal.	

Demand-side observations

EnDev Nepal has reduced firewood use by introducing energy-efficient stoves that households mainly use as their secondary cooking solution. Rural households that replace their primary solution, a traditional firewood stove, with a modern solution, prefer LPG because of its convenience.

EnDev Nepal has increased awareness of the importance of clean cooking and has helped strengthen local value chains. By promoting the use of more efficient stoves, PA and SNV's activities have contributed to a reduction in using firewood for cooking.

EnDev Nepal has challenged typical gender roles; this study observed signs of men's increased participation in cooking activities. Engagement with local MFIs for consumer finance led to more women end users with Tier-3 stoves.

The types of stoves EnDev Nepal promoted (Tier-2 and 3 ICS and induction stoves) are mainly used as the secondary cooking option in rural Nepal. There, traditional firewood stoves are still the main cooking solution. It will be difficult to significantly change this due to the free availability of firewood and local cooking habits. LPG is the preferred modern cooking solution when households replace traditional firewood stoves. LPG is convenient, easy to use and does not require electricity access. Electric cooking solutions are increasingly used in urban areas. However, induction stoves are also increasingly used in rural areas.

Enabling environment observations

EnDev Nepal has demonstrated how an RBF-based approach can be implemented with a high degree of involvement from local stakeholders without directly subsidising end users. The merits of this approach are relevant for building local value chains that can be sustained after a project ends.

Nepal has a long track record of promoting improved cookstoves, going back to the 50s. In recent years, the government has shifted its focus to electric cooking to reduce dependency on LPG and use projected surplus electricity.

EnDev Nepal's market-based approach to support clean cooking differs from the government's, as the government focuses on directly supporting end users. EnDev Nepal has had little impact on the capacity for ICS promotion at the national level. At the local government level, EnDev Nepal has increased awareness of ways to promote clean cooking.

Various programmes using RBF, including EnDev Nepal, have not been able to grow markets outside the main urban areas to a level where the private sector is willing to invest in building supply chains. Achieving this will likely require higher volume RBF or another financial instrument that runs for a significant time.

Conclusions

One of the most important strengths of EnDev Nepal's approach to clean cooking was its focus on building partnerships with local organisations and communities. By working closely with local stakeholders, EnDev Nepal was able to better understand the needs and preferences of households in different regions of the country and tailor its interventions accordingly. This approach helped to build trust and credibility with local communities and contributed to the success of EnDev Nepal's ICS component.



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