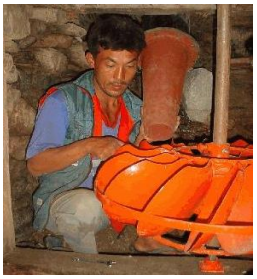
INFORSE-South ASIA
International Network for Sustainable Energy

Eco-village Development as Climate Solution

Policy Brief by INFORSE and CANSA, UNFCCC Bonn, May 2016

International cooperation is important for poverty-reduction through low-carbon development. In many developing countries such sustainable development will only happen when local solutions are included. Therefore, the wider dissemination of various local "eco-village development" solutions on sustainable energy, agriculture, etc should be included in climate action strategies and climate finance. Also the UNFCCC climate technology mechanism should contribute with exchange of knowledge, experience, and technologies, as well as with adaptation of solutions to the specific local conditions.



In South Asia, more than half of the 1.7 billion inhabitants live in rural areas and many of the poverty problems of the region are in their villages. Sustainable development of these villages has the potential to enhance the living conditions and to reduce rural-distress & poverty-induced migration to cities. To develop villages in sustainable ways, a number of issues need to be addressed and supported by adequate, local solutions. These issues include effects on and impacts of climate change on agriculture, water resources, access to energy, sanitation, safe drinking water, information, healthcare services, and others. When these solutions are reducing emissions and contribute to adaptation to climate change impacts together with reducing poverty, they are effectively leading to "Eco-Village Development" (EVD) that will enhance rural livelihood.

The key to successful application of these local solutions include:

- Recognition of their potential to improve people's lives through policy and financial support, capacity-building and knowledge dissemination with training, quality control and involvement of all stakeholders including local community based organisations (CBOs);
- Supportive policies for these local solutions including direction of subsidies to clean energy access instead of to fossil fuels; financing for up-front costs of renewable energy installations. They often have higher up-front costs than people's paying capacity, even when lifetime costs are lower;
- Support for participatory technological and technical development practices and for quality control;
- Multi-stakeholder policy coordination; local capacity-building for selection, implementation, operation, care and maintenance of solutions.

Focus on Eco-Village Solutions in Global Climate Cooperation

While national and sub-national development programmes must address above-listed policy needs to successfully promote sustainable development with local solutions, international cooperation is also important for large-scale success of local solutions that reduce poverty and are part of low-carbon development.

Climate finance can provide seed resources for EVD to enhance national support to local solutions. This should be a priority in the implementation of the Paris Agreement and in the modalities of the Green Climate Fund (GCF), while it should also benefit from existing

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international aid (ODA). In the short term, an 'EVD Leapfrog Fund' is proposed to be established from global mitigation finance. It shall assist development funding to make rural development low-carbon and climate resilient with local, adapted solutions.

The UNFCCC climate technology mechanism can contribute additionally through transfer and exchange of local solutions from both North and South and support to possible improvements, adaptation, and optimisation of technologies as per the specific national or local conditions.

Centralised and Decentralised Solutions, experiences

In South Asian countries in the past decades, there have been issues identified with centralised solutions development models, requiring an alternative approach to fast-track poverty alleviation with co-benefits for climate.

- Centralised Solutions: In many cases the centralised solutions are not efficiently supporting the local development. Often rural grid electrification does not provide stable electricity supply everywhere, limiting the possibility for commercial uses, healthcare or stable lighting for homes and streets. Moreover, the geographical terrain pose additional hurdle to develop grid electrification in parts of rural South Asia. Often cooking with LPG is not affordable and then villagers have to return (fully or partly) to unsustainable use of burning cow-dung cakes or wood in inefficient cooking stoves. The centralised electricity solutions, such as coal power or big hydro, also come with environmental problems and often with increased emissions.

- Decentralised Eco-village Solutions: A long range of proven decentralised solutions exist that have contributed to sustainable development of villages with efficient use of local resources and with very low emissions. These solutions can overcome the problems of unstable supply and affordability that often come with the centralised solutions. In specific cases, these local, sustainable solutions have shown their value for millions of people in South Asia, such as improved cook stoves, solar (PV) home systems, family biogas plants, improved water mill, micro-hydro for electricity and food processing technologies such as solar driers. The Eco-Village Development is a concept, that include this, and that works bottoms up. Here the focus is on the communities in the villages, especially women and youth, who gain access and skills to use simple solutions that are low carbon and low cost.

This paper is based on the findings within the Project "Evidence based advocacy for low-carbon, pro-poor sustainable "Eco-Village Development "(EVD) in South Asia".

Read more about the EVD concept and solutions and on the project, and the project partners at

www.inforse.org/asia/EVD.htm
www.dib.dk/sydasien/ and
www.cansouthasia.net

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State of Play on Eco-Village Development in South Asia *Annex to Policy Brief*

Lack of Policy Support to Eco-solutions: In spite of large-scale successes with local solutions the prevailing development strategies in the South Asian countries are still focussing on the centralised solutions.

Lack of Access to Finance: Rural areas generally lack facility of financing institutions. Financial inclusiveness is difficult for poor and remote rural areas. Reforms in financial access and governance will lead to enhanced access to sustainable solutions in many rural parts of South Asia.

Resources Depletion & Migration due to Climate Impacts: Most of the rural communities in South Asia belong to farming communities. For example, in India alone there are about 650,000 villages where more than half of India's population lives with varied socio-economic conditions. The rural communities are most vulnerable to the effects of climate change and resource depletion. They, therefore, are at high risk of losing their livelihood.

Key to Success of Eco-Local Development

The key to success with local solutions to enhance development include:

- **Resources** including finance, tax incentives, subsidies, and technical staff must be shifted from fossil solutions to energy access through local solutions.
- **Policy & communication support** to local solutions
- **Exchange of knowledge** and technologies must be promoted along with training, to women particularly who are the actually engaged at the ground level as users.
- **Quality** of products must be sufficiently high**.**
- **Civil society organisations** must be **involved** to bring in their experiences and disseminate solutions as well as capacity building to local entrepreneur and end users.

Supportive Policy Frameworks

Success with EVD solutions will require policy actions. Some of the actions needed are:

- **Subsidy and policy reform:** Subsidies to fossil-fuels and for grid extension are far higher than for local, sustainable solutions. A subsidy & policy regime reform is important.
- **Financing the up-front costs of installation, training and spare parts:** Even though some local solutions are cost-effective compared with centralised solutions, many poor people cannot afford the up-front costs. Financing mechanisms and, in some cases subsidies, typically are needed for large-scale success of local solutions.
- **Financial Support for South-South partnership to transfer appropriate technologies**
- **Financial support for technology development and quality control**: Technological development allows new local solutions that were not feasible for development earlier.
- **Cross-sector policy coordination:** There is a need for coherence amongst various laws and policies as well as for coordination amongst ministries and departments;
- **Engaging all parts of the civil society:** need for open & transparent policy frameworks encouraging civil society engagement for wider dissemination of solutions**.**
- **Mainstreaming gender: Incorporate g**ender issues and equity in all development**.**
- **International Cooperation needed:** To strengthen national action