POWER FOR ALL RESEARCH SUMMARY:

Unlocking Climate Finance for Decentralized Energy Access



By the Numbers:

19.6 billion USD/year

IEA ESTIMATE OF INVESTMENT NEEDED IN DRE

0.2%

CLIMATE FINANCE FOR DRE AS % OF TOTAL NEEDED

5.6%
INTL CLIMATE FINANCE
FOR LOW INCOME
COUNTRIES

Join the conversation:

powerforall.org twitter.com/power4all2025 facebook.com/pwr4all Decentralized Renewable Energy (DRE) is one specific subsector which, despite growing importance, has been much overlooked by climate finance. In its 2016 report, **Unlocking Climate Finance for Decentralized Energy Access**, the International Institute for Environment and Development (IIED) examines the flow of international climate finance and how much support targets decentralized energy access for the poor.

Huge investment in the decentralized energy sector is needed to achieve Sustainable Development Goal (SDG) 7:

- » The International Energy Agency (IEA) estimates USD 48 billion of investment in DRE is needed annually to reach universal energy access.¹
- » Of that, a combined total of USD 23 billion of annual investment in decentralized energy resources is needed: USD 12.2 billion for mini-grids, USD 7.4 billion for off-grid electrification, and USD 3.5 billion for clean cooking.²

Decentralized energy is underinvested—receiving only a sliver of total climate finance:

- » IIED estimates a total of USD 14.1 billion was channeled towards international public climate finance between 2003 and 2015.³
- » Of this total amount, USD 5.6 billion (40%) was earmarked for clean energy projects. Only USD 475 million (3%) was allocated to decentralized energy projects specifically, from 2006 to 2015.4
- » This is one-fifth of one-percent of investment needed, according to IEA's estimate (USD 23 billion).⁵

Most current investment goes to large utility-scale projects and highand middle-income nations.

- » Over half (USD 2.8 billion)⁶ of the current investment flow goes to supporting large utility-scale projects. Renewable energy sub-sectors such as geothermal, wind and solar energy are dominated by utility-scale projects.
- » Almost 95% of all clean energy funding (USD 5.3 billion) supports projects in high- and middle-income nations. Only USD 300 million (5.6%) is spent on low-income countries.⁷

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Share the following messages to strengthen support for DRE and increasing energy access:

- » Improve international climate finance fund design: increase efforts tailored to the specific requirements of DRE and low-income nations.
- » Strengthen national policy focus on decentralized energy access: strengthen/fund institutions that support decentralized energy in low-income countries.
- » Fill knowledge gaps and share lessons: support collaborative research and communication between stakeholders to identify common finance needs, gaps, and sources.

Sources & Notes:

- 1. Neha Rai, et al. Unlocking Climate Finance for Decentralized Energy Access, International Institute for Environment and Development: 2016 (http://pubs.iied.org/pdfs/16621IIED.pdf) p. 16.
- . Rai, et al. p. 16.
- 3. Rai, et al. p. 20.
- 4. Rai, et al. p. 23.
- 5. Rai, et al. p. 23.
- 6. Rai, et al. p. 24.
- 7. Rai, et al. p. 24.