



Renewable Energy and Energy Efficiency Capability for the Hindu Kush Himalaya (REEECH)

The Hindu Kush Himalaya (HKH) is energy poor in spite of its vast potential for hydropower and other renewable energy sources. Nearly 370 million people, a large percentage of whom live in mountain areas, do not have access to electricity, and about 1.8 billion people (60% of total HKH population) rely on traditional polluting biomass fuels for energy (Table 1).

Improving access to renewable energy and energy efficient solutions, therefore, is key to building climate-resilient mountain livelihoods in the HKH.

The International Centre for Integrated Mountain Development (ICIMOD) and the United Nations Industrial Development Organization (UNIDO), with financial support of the Austrian Development Agency (ADA), are partnering to establish the Renewable Energy and Energy Efficiency Capability for the HKH (REEECH) as a regional centre of excellence on Sustainable Energy for All (SE4ALL) to address energy poverty in the region.

A comprehensive needs assessment and feasibility study was undertaken among stakeholders involved in renewable energy and energy efficiency in ICIMOD's eight regional member countries (RMCs) in the HKH – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan – to assess current energy challenges, opportunity gaps and value



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Table 1: **Energy access in HKH countries during 2000–2014**

Country	Access to electricity (% of population)			Access to clean cooking fuel (% of population)			Population without electricity (million)	Population without clean fuels (million)
	2000	2010	2014	2000	2010	2014	2014	2014
Afghanistan	38	43	90	23	19	17	3.3	27.2
Bangladesh	32	55	62	11	10	10	60.6	143.5
Bhutan	69	82	100	38	60	68	0.0	0.2
China	98	100	100	46	54	57	0.0	586.6
India	60	76	79	24	32	34	271.7	853.9
Myanmar	47	49	52	4	8	9	24.9	47.3
Nepal	27	67	85	7	21	26	4.2	21.0
Pakistan	75	91	98	24	39	45	3.7	102.1
All HKH countries							368.4	1781.7

Source: IEA and World Bank 2017.

addition potential of REEECH. The study identified a number of arenas where positive efforts could be made to harness the full potential of energy sources in the region such as:

- Policy and regulatory arena
- Technology development
- Data sharing, capacity building, and finance mechanisms
- Private sector engagement
- Scaling up existing effective projects
- Regional mechanism for coordinating mountain-specific energy-related activities

As a regional intergovernmental knowledge organization with its unique mountain focus and partnership-driven transdisciplinary approach,

ICIMOD is well positioned to provide the much-needed institutional mechanism to foster South-South and South-North cooperation and regional capacities with the technical support of UNIDO for improved access to decentralised sustainable energy solutions for mountain populations of the HKH.

REEECH was inspired by the successful model of the Global Network of Regional Sustainable Energy Centres (GN-SEC), a strong advocacy group for SE4ALL initiative – in particular Sustainable Development Goal SDG 7 (affordable and clean energy), SDG 9 (industry, innovation, and infrastructure), and SDG 13 (climate action) – coordinated by UNIDO in partnership with various sub-regional organizations in developing countries.



Harvesting solar energy in Upper Mustang

Goal of REEECH

Contribute to improved access to appropriate, modern, affordable and reliable energy services to meet the energy security needs of mountain populations in the HKH region, as well as enhanced safeguarding of essential mountain ecosystem services.

Key Outcome

Well established regional initiative in the HKH region for effectively delivering relevant, innovative, gender responsive and socially inclusive mountain-specific sustainable energy solutions in the context of climate change mitigation and adaptation.

REEECH contributes to 10 SDGs related to energy, poverty, gender, economic growth and employment, health, water, industrialization, climate change and partnership covering 20 targets.

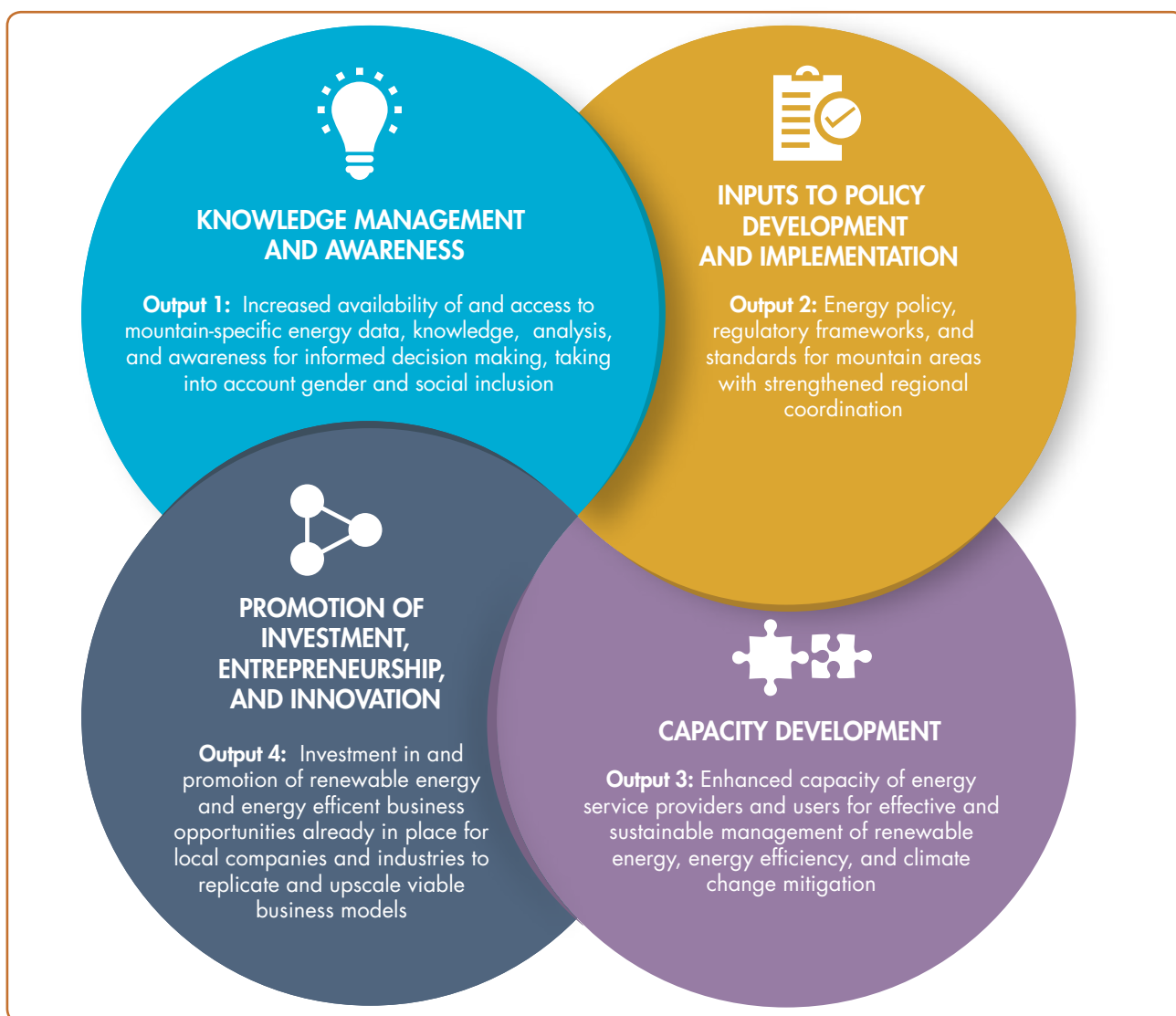
Thematic Areas and Outputs

REEECH will deliver four outputs under four thematic areas during its first operational phase covering the period 2018–2022 (Figure 1).

REEECH will function as a regional thematic hub (RTH) under the umbrella of the GN-SEC coordinated by UNIDO to contribute to the three interlinked objectives of the SE4All initiative of the United Nations – universal access to energy, doubling the rate of improvement of energy efficiency, and doubling the share of renewable energy in the global energy mix – by 2030.

Housed in ICIMOD’s regional programme on “Adaptation and Resilience Building”, REEECH will develop and execute its activities through a network of national focal institutions (NFIs) to be established in the RMCs. It will also serve as a technical service provider to the RMCs.

Figure 1: REEECH deliverables





Cooking with parabolic solar heater in Manang

It will strengthen and complement existing national/ regional efforts to meet the specific energy service needs of communities residing mostly in off-grid mountainous areas of the HKH by creating economies of scale and a competitive sustainable energy market and business sector through regional methodologies and tools. It will liaise closely with UNIDO and other partners to place mountain energy issues prominently on the global sustainable development and climate agenda.

ICIMOD is seeking additional funding from development partners to accelerate universal access to energy in the HKH region.



Irrigation using solar powered pumps in Saptari



Cooking meal using biomass energy

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ICIMOD gratefully acknowledges the support of its core donors: the Governments of Afghanistan, Australia, Austria, Bangladesh, Bhutan, China, India, Myanmar, Nepal, Norway, Pakistan, Sweden, and Switzerland.

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