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In cooperation with:
GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY

Implementation of Energy Plans

Indo-German Energy Programme

Context

India is the most populous country and one of the fastest-growing economies. At the same time, it ranks as the world's third-largest emitter of greenhouse gases. While the country's annual per capita electricity consumption is still below the global average, its energy (supply) sector is one of the largest contributors to greenhouse gas emissions. The Government of India is taking various measures to ensure the rapid decarbonisation of the economy by promoting the use of renewable energy, as well as a range of bioenergy and energy efficiency technologies and practices.

The German Federal Ministry for Economic Cooperation and Development (BMZ) is supporting the Ministry of New and Renewable Energy, Government of India, by providing technical assistance in implementing state energy plans. State energy plans include mathematical models and predictions on energy supply and demand of a federal state. Forecasting different scenarios of energy demand in sectors like transport, agriculture or industry, facilitates the targeted planning of additional energy supply through renewable energy (RE) sources.

Picture 1: "Floating Solar" – Innovative solar panels installed on a lake at Omkareshwar Floating Solar Power Park, Madhya Pradesh, India

The project builds on the results of the Indo-German cooperation project 'Access to Energy in Rural Areas II' (2019-24), which assisted six Indian states, namely West Bengal, Assam, Odisha, Goa, Uttarakhand and Punjab, in developing their respective state energy plans. GIZ India further supports these states in advancing initiatives based on recommendations given in state energy plans.

The Indo-German cooperation project 'Implementation of Energy Plans (IEP)' aims to promote India's development towards decarbonisation by creating enabling market conditions for effective adoption of RE technologies, solutions and RE-based services at both distribution and grid level. The project also aims to support the efforts of central and state governments in developing and/or implementing necessary energy policies, standards, programmes and/or schemes to boost sectoral integration of RE, Energy Efficiency (EE) and other clean technologies to complement sectoral growth.

Project name	Implementation of Energy Plans (IEP)
Commissioned by	German Federal Ministry for Economic Cooperation and Development (BMZ)
Project regions	Assam, Goa, Odisha, Punjab, Uttarakhand, West Bengal
Lead executing agency	Ministry for New and Renewable Energy (MNRE), Government of India
Duration	2024-2028

Objective

Following MNRE's and the state partner's demands and requests, GIZ will provide support to selected states in implementing the suggestions made in the state energy plans through identifying priority activities and targets on RE capacity and technology addition. This includes developing the capacities of state officials on RE and decarbonisation as well as facilitating the exchange between energy supply departments and departments with high energy demand. Through this the state departments can jointly develop sustainable energy solutions for target groups such as micro, small and medium enterprises, farmers, women entrepreneurs, schools as well as mother and child centres.

The programme focuses on the following outcomes:

i. The competent authorities at state level have translated their energy plans into concrete strategies for targeted RE implementation.

ii. The domestic offer of target group specific RE training courses is expanded for Indian government officials.

iii. Government institutions responsible for RE support have received recommendations for improving strategies, provisions and programmes from processes in which interest groups have participated.

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iv. Policymakers and government officials are familiar with innovative approaches to gender-responsive RE support.

To ensure sustainable adoption and mainstreaming of the multi-sectoral energy planning process, the project will also provide the necessary technical assistance to build partner capacities, especially in the design of efficient and effective decarbonisation strategies as well as improved gender-responsiveness in RE policy.

Approach

The project seeks to adopt a holistic, technology-agnostic approach by assisting the selected states in implementing recommendations outlined in the state energy plans, scaling up proven business and investment models for a variety of energy sources. IEP will follow the framework of the Green and Sustainable Development Partnership between India and Germany and will focus on the following approaches:

- **Sectoral Decarbonisation:** The project will focus on the decarbonisation of key sectors, such as power, industry, cooking, transport, tourism or agriculture, and fisheries, based on the developmental and political priority of the respective partner states.
- **Synchronising National and Sub-national Priorities:** The technical assistance to the states focuses on synchronising with national commitment/programme/schemes, developing and boosting market eco-system development, leveraging resources (fund, knowledge and skill sets), designing/implementing customised programmes for partners states and gender/sector integrated process and practices.
- **Boosting Livelihood:** The project will also focus on exploring and promoting the use of (decentralised) renewable energy for livelihood creation at scale, by enhancing productivity, product quality and household incomes.
- **Process Efficiency:** To boost implementation effectiveness, the project will also support centre and state partners in developing/modifying necessary policy or regulatory frameworks.
- **Gender-responsive and Innovative Processes**: Considering the sectoral/sub-sectoral application potential of (decentralised) renewable energy technologies and associated business/service models, IEP will assist its partners in designing and implementing innovative and gender-responsive processes of stakeholder engagement, capacitation and knowledge dissemination.

Expected Outcome

Impact on Energy Transition: Energy is an essential basis for the development of a variety of societal areas and sectors. Thus, the expansion of RE acts as a catalyst for economic, ecological and socially sustainable development.

Ecological impacts: By implementing the energy plans across various sectors and value chains, the demand for fossil fuels and the associated emissions and environmental damage will be reduced.

Economic impacts: Compared to an expansion of short-term energy infrastructure, the implementation of energy plans will result in mobilising public funds for climate protection as well as steering private sector investments in a sustainable direction.

Social impacts: Regardless of gender, age, income, ethnicity or other diversity factors, the entire population of the selected states benefits from an ecologically, economically more sustainable and health-friendly energy system and economic growth based on it.

Picture 2: Three women are learning how to use a solar dryer to enhance the quality or longevity of their crops in Uttarakhand, India.

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