

Strategic Exploration of Economic Mitigation Potentials through Renewables (ExploRE)

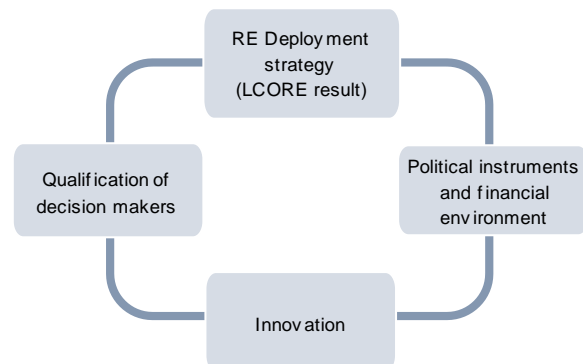
Project name	Strategic Exploration of Economic Mitigation Potentials through Renewables (ExploRE)
Commissioned by	German Federal Ministry for Economic Affairs and Climate Action (BMWK)
Financier	International Climate Initiative (IKI)
Project region	Indonesia
Lead executing agency	Directorate General of New, Renewable Energy, and Energy Conservation (DG NREEC), Ministry of Energy and Mineral Resources
Duration	01 November 2018 – 30 June 2025



options are targeted to help create a more coherent environment among key players to better contribute to Indonesia's climate goals.

Our Approach

The ExploRE Project is implemented based on the fundamentals of the renewable energy deployment strategy of the Promotion of Least-cost Renewables in Indonesia (LCORE-INDO) Project, which is the predecessor project of ExploRE. Hence, by utilizing the lessons learnt from LCORE-INDO and implementing ExploRE's novel measures i.e., innovative pilot projects, capacity building, stakeholder engagement, action plan, and operational tools for policy making the project starts at four different output levels as shown in the image below.



The challenge

Following the Paris Agreement in 2015, Indonesia has committed to achieve a specific target for emission reduction. As stated in the Nationally Determined Contributions (NDC), the country aims to reduce greenhouse gas emissions (GHG) by 29% by its own effort and 41% with support from developed countries by 2030. One of the sectors in Indonesia that affect the country's climate policies is energy sector, which contributes 314 million tonnes of CO2. Since many different organisations are currently working on energy, climate, and finance sectors; coherence and inter-ministerial cooperation need to be strengthened to effectively achieve the national emission reduction target while providing reliable and least-cost electricity supply.

Objective

ExploRE aims to provide strategy options to be piloted for increasing the use of renewable energy in the sector of energy, climate, development, and fiscal. The strategy

Supported by:



Implemented by:



In cooperation with:



MINISTRY OF ENERGY AND MINERAL RESOURCES
DIRECTORATE GENERAL OF NEW, RENEWABLE ENERGY,
AND ENERGY CONSERVATION

on the basis of a decision
by the German Bundestag

Cooperation opportunities and synergy options for each actor i.e. government stakeholders, financial institutions and private sector are identified and addressed together at each level. Activities in the various outputs combine RE options, their emission reduction potential, and the country's climate goals. These activities provide all target groups with equivalent experience and necessary data to make planning and strategic approaches to achieve Indonesia's climate goals. Also, pilot projects and support for the development of supporting measures (including financing schemes) are handled across the topics and are therefore reflected in all outputs.

On-going Activities

ExploRE continues to support the advancement of renewable energy implementation in various sectors through the aforementioned strategic approaches which are translated into the following activities.

1. RE Deployment Strategy

ExploRE is supporting its main counterpart, the Directorate General of New Renewable Energy and Energy Conservation (DGNREEC), as well as other related stakeholders on least-cost RE strategy development, roadmap, and RE deployment. Some key activities to achieve the goals include the study on implementation of strategy for optimum utilisation of agroindustrial waste bioenergy, development of agro-industrial bioenergy potential database, and study on the Indonesian coal sector: status, subsidies and financing support.

2. Political Instrument and Financing Environment

In the policy and financing sector, ExploRE supports mechanisms and improved financing instruments which offer new options and opportunities for RE deployment.

Within this framework ExploRE has conducted the study on government fiscal support for the financing of RE projects as well as the study on innovative financing for RE project. ExploRE also organises capacity building activities on Indonesia PPP (KPBU) scheme and supports the development of concept for credit guarantee fund for supporting RE projects.

3. Institution Building

Aims to support the key decisions makers to assess RE projects technically and economically, ExploRE conducts various activities under the umbrella of Institution Building, one of which is the Bioshare Series, a series of knowledge exchange and discussion platform to strengthen bioenergy contributions in achieving energy transition. ExploRE also facilitates capacity building activities for stakeholders through training on economic feasibility of RE project. Moreover, ExploRE supports the development of Biogas Safety Guidelines as well as provides RE-related social media contents to be distributed via the DGNREEC PR platforms.

4. Innovation

ExploRE supports initiation and development of RE innovation through promotion and demonstration of the feasibility of new technological and economical options along with the qualification of CO₂ reduction potentials. Various key activities which have been conducted or still on-going include pilot project on PV-hybrid system for rural and industrial estate electrification, pilot project on biomethane for LPG substitution, integrated agro-waste management, solar ice maker, biogas mobile application for performance monitoring and safety checklist, and studies as well as pilot assessments for green hydrogen projects.

Published by:
Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Registered offices:
Bonn and Eschborn, Germany

Directorate General for New, Renewable Energy, and Energy
Conservation (DGNREEC), Ministry of Energy and Mineral
Resources, 5th Floor
Jl. Pegangsaan Timur No. 1A, Menteng, Jakarta 10320
T: +62 21 391 9971

Programme/project description:
Strategic Exploration of Economic Mitigation Potentials through
Renewables (ExploRE)

Contact person
Catoer Wibowo
Commission Manager
catoer.wibowo@giz.de

Photo credits/sources:
©GIZ-ExploRE 2021

URL links:
<https://www.giz.de/en/worldwide/86449.html>

Responsibility for the content of external websites linked in this publication always lies with their respective publishers. GIZ expressly dissociates itself from such content.

On behalf of
German Federal Ministry for Economic Affairs and Climate Action
(BMWK)

'This project is part of the International Climate Initiative (IKI). The Federal Ministry for Economic Affairs and Climate Action (BMWK) supports this initiative on the basis of a decision adopted by the German Bundestag.'

Jakarta, November 2023