

# Thai-German Cooperation on Energy, Mobility and Climate

**By Reinhold Elges**

Country Director Thailand

(Malaysia, Maldives, Myanmar, Nepal, Singapore, Sri Lanka)

Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ)



# Who we are



“WE WORK TO SHAPE A FUTURE WORTH LIVING AROUND THE WORLD”

## GIZ ...

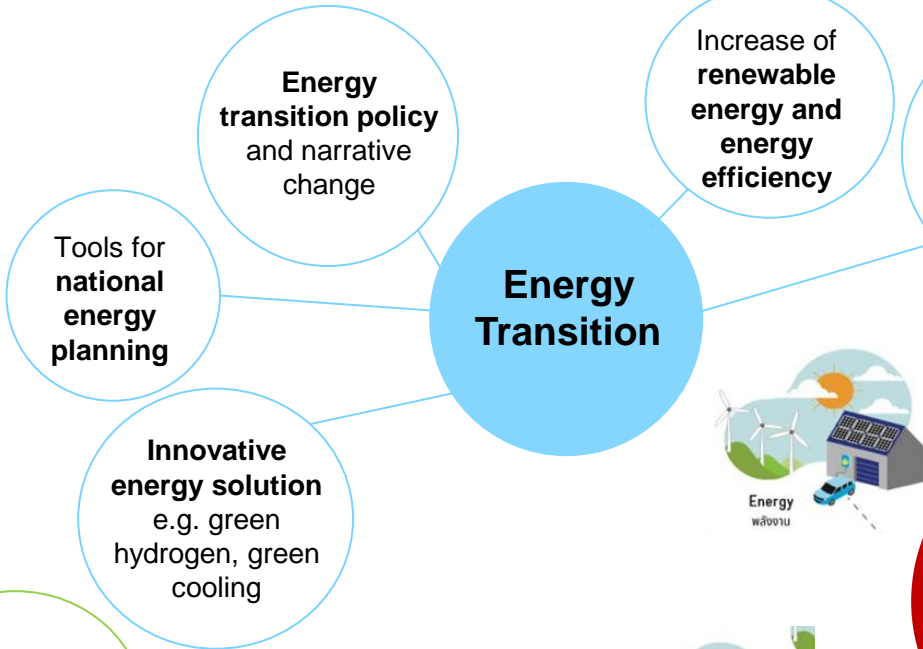
- is a service provider in the field of **international cooperation for sustainable development**
- is owned by the **Federal Republic of Germany**
- operates more than 120 countries and employs about 25,000 staff worldwide (around 180 staff in Thailand)
- works across a **wide range of sectors**
- manages **change**, provides **know-how**, and develops **solutions** to help make development sustainable worldwide

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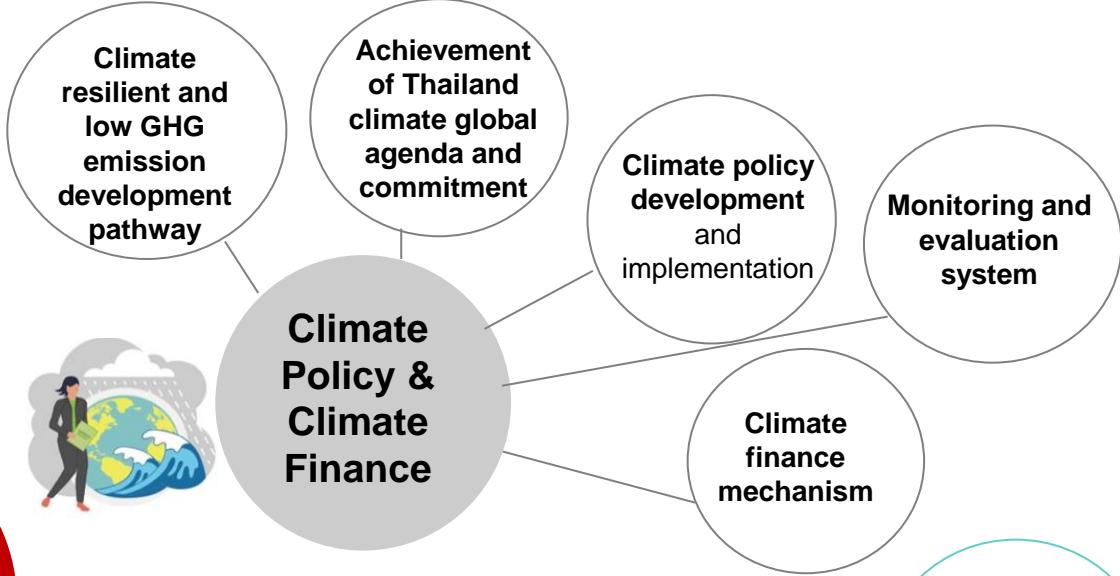
# GIZ in Thailand

Our Portfolio (excerpt)

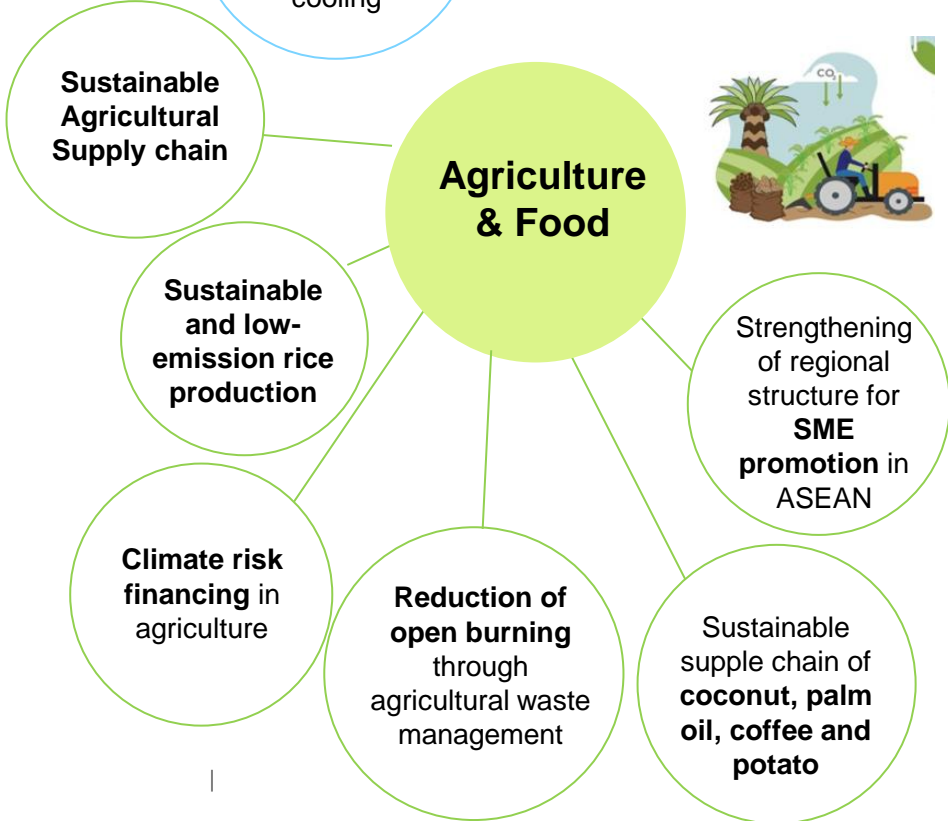
## Energy Transition



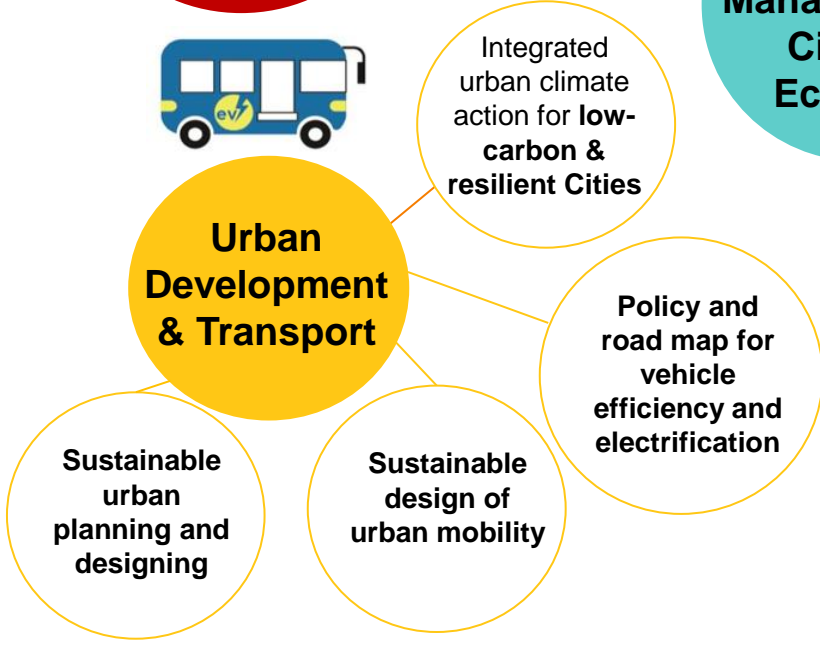
## Climate Policy & Climate Finance



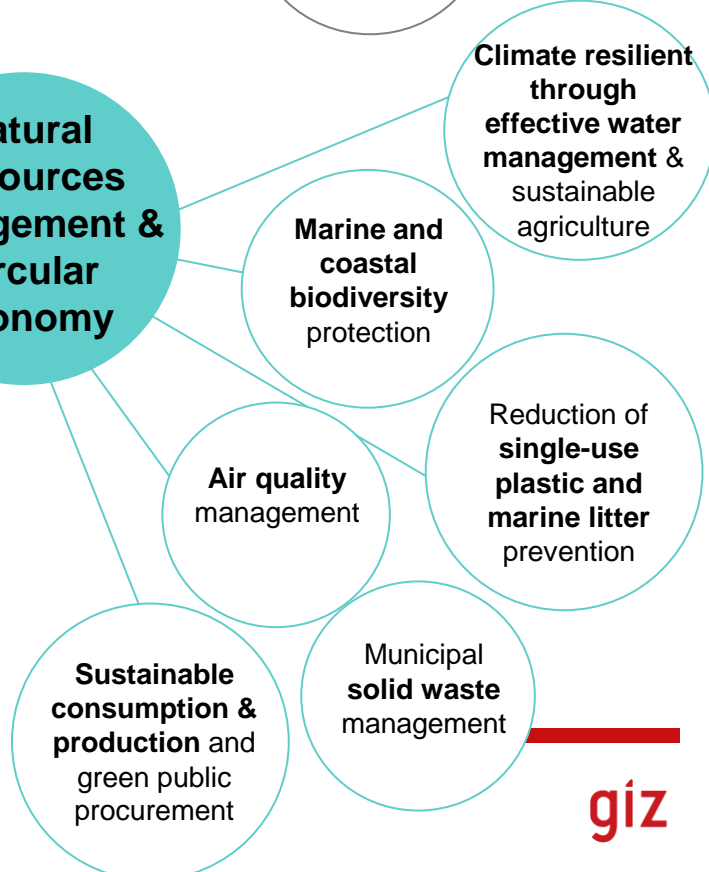
## Agriculture & Food



## Urban Development & Transport



## Natural Resources Management & Circular Economy





# Thai-German Cooperation for Sustainable Energy Transition



Thailand's ambition

Reach Net Zero Green House Gas Emission by 2065

Reach Carbon neutrality by 2050

enhance NDC to reduce GHG by 30% in 2030

+reduce up to 40% with international support



Energy

Thai-German Cooperation is supporting Thailand to put ambition to action:



Inclusion

- Renewables
- Flexibility
- Grid Structure
- Market Design



Just Transition



Adaptation & Resilience



Climate Finance



Net Zero Pathways



Transparency



Urban Issues





**Reach Net Zero Green House Gas Emission by 2065**

**Reach Carbon neutrality by 2050**

**enhance NDC to reduce GHG up to 40% in 2030**

**Our contribution to Energy Transition goals**

**Improved national framework conditions for the NDC implementation**

**Enhance energy policy, planning & implementation towards energy transition**

**Narrative change toward evidence-based energy transition**

**Innovative solution for cross-sectoral energy transition: power, transport and industry**

**Sector coupling model to tackle cross-sector issues hampering energy transition**

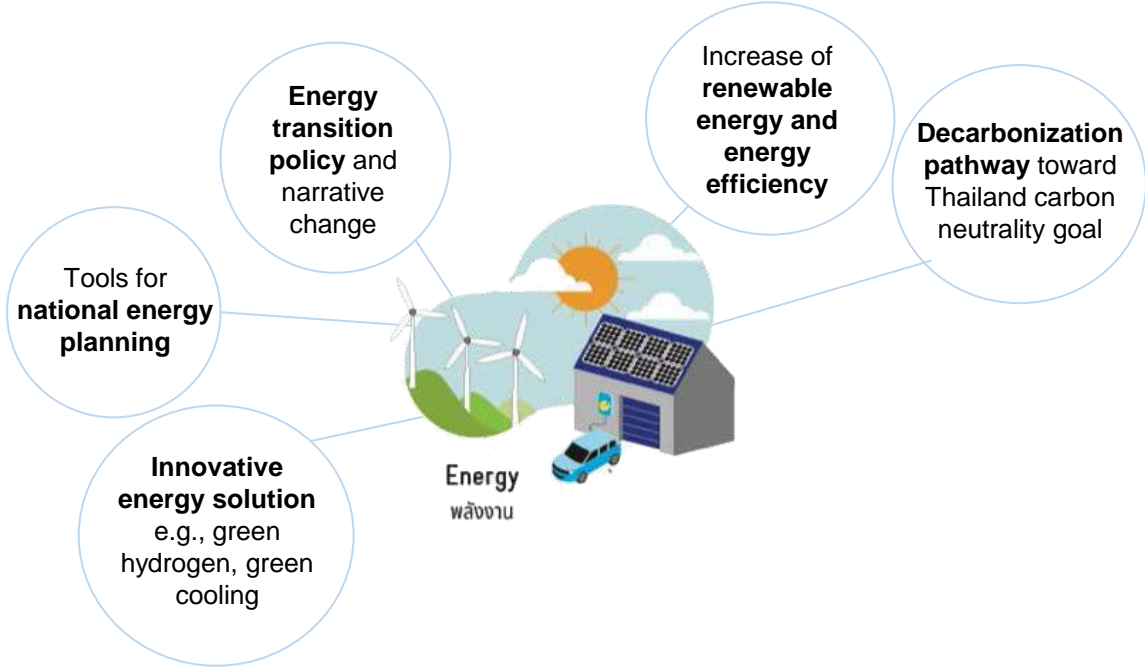
**Decarbonization roadmap and policy recommendation for industry sub-sector**

**Thai-German government and business cooperation on energy transition**

**Improved energy planning with knowledge sharing & digital platform for provincial offices**

**Transformation roadmap toward the use of natural refrigerants for green cooling**

**Market development for green hydrogen**



**Climate finance funding for local projects implementation**

**Increase access to energy in rural & remote community**

**Implementation of just transition pathway away from coal toward low-carbon system**





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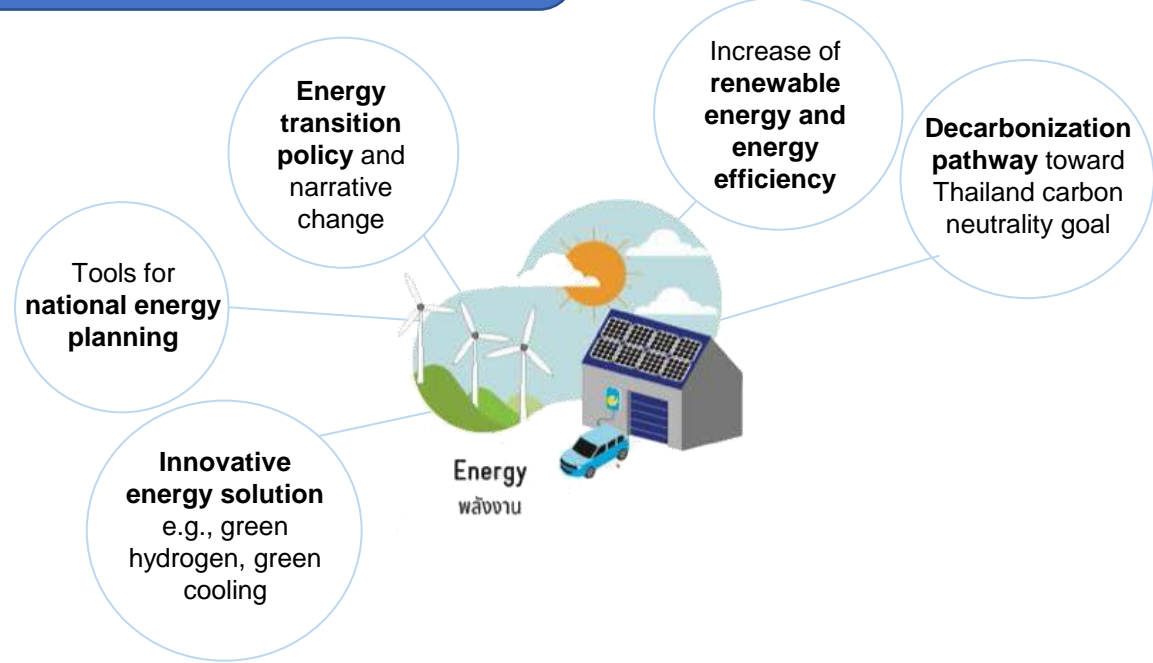
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# Thai-German Cooperation on Energy, Mobility and Climate (TGC EMC)



**Implementation period:** 2023-2027

**Objective:** Key actors in Thailand are becoming empowered in the planning and implementation of transformative activities in the energy, transport and industry sectors in line with the Government's 2050 carbon neutrality objective.



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ERC FORUM

2023



# Thai-German Cooperation on Energy, Mobility, and Climate (TGC-EMC)

## IKI's Bilateral Programme

Implementation: 01/2023 – 12/2027

### Key Political Partners:

ONEP | EPPO | DEDE | MoAC | OTP | BMA

### Consortium Partners:

GIZ | KMUTT | SGTech | RE100 | EVAT |  
Agora EW | Agora VW | Fraunhofer

Volume: 26 Mio. EUR

### TECHNICAL

Technologies and operational know how associated with integration of high share of VRE and electrification of transport

### POLICY & REGULATORY

Policy, regulatory and market framework supporting private investments and acceleration of RE, DSM integration and transport electrification

### CAPACITY

Stakeholders' awareness and capacities in addressing sector coupling challenges in an integrated/ coordinated manner

### FINANCING

Climate finance vehicles and capacities remains limited

## Impact(s)

The decarbonisation pathway for the power system is in line with the Thai carbon neutrality objective and supports a renewable energy-based electrification of end-use sectors.

## Outcome

Key actors in Thailand are empowered to plan and implement transformative activities in the energy, transport, and industry sectors in line with the Government's 2050 carbon neutrality objective..

## Components

- **Renewable Energy:** Facilitate the "energy transition", supporting the transition of energy system to become more flexible and enable integration of complex demands across sectors, as well as reaching ambitious GHG mitigation target
- **Transport:** Improve framework conditions for transport fleet electrification, including policies, regulations, incentive schemes, technological know-how, and awareness
- **Industry:** Enhance energy efficiency contributions to strategies for energy security through demand side management and mitigation by defining and promoting EE measures in key industries through enhanced technical and policy framework
- **Biomass:** Support the energy from agricultural residues value chains in line with Thailand's goal to increase its share of renewable energy and its Bio-Circular-Green Economy (BCG) concept, as well as improve air quality and small-scale farmers' income
- **ThaiCI:** Establish a new climate financing scheme to implement NDC, NAP together with strengthening of capacities for climate project development and financing to raise additional domestic and international resources towards climate actions







# Supporting Thailand's goal of Renewable and Sustainable Energy Transition

## Energy Policy

- Conduct gap analysis to increase vRE share to national grid
- Bring in international best practices to overcome energy transition barrier

## Grid management analysis

- Provide technical support to maximize RE uptake while minimizing risks to grid performance

## Sector integration

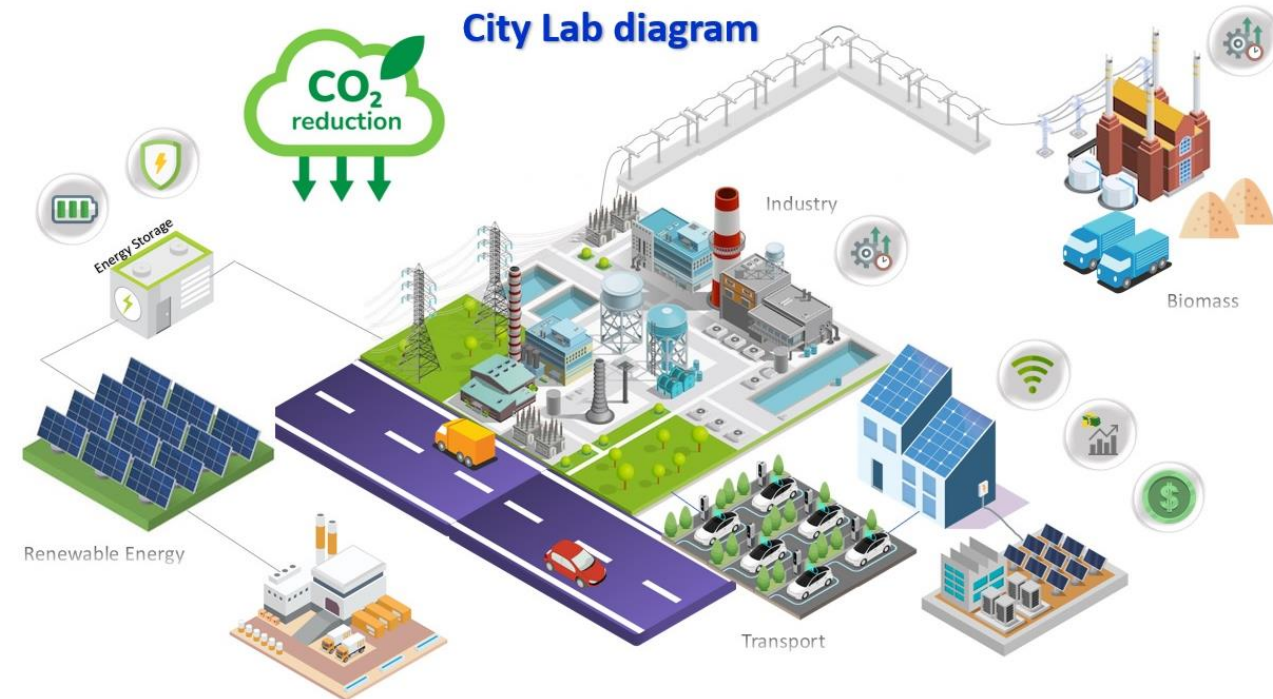
- Support national dialogue between stakeholders across sectors to accelerate Thailand energy transition.
  - ✓ inter-agency public sector dialogues,
  - ✓ public & private sector cooperation
  - ✓ international support (Thai-German and other bi- and multilateral partners)

## Pilot solutions for energy transition (City Lab)

- Testing innovative technologies and new energy market mechanisms in limited areas
- Simulate cross-sectoral technology which potentially drive energy transition in Thailand, Renewable energy, Energy efficiency & Industry, Transport, Biomass and Climate finance

# Way forward

- We are committed to support Thailand to accelerate energy transition and GHG mitigation to achieve the commitments
  - The energy sector is at the heart of the transition
  - Cross-sector collaboration can help to eliminate (overcome) barriers
- We will help Thailand to put ambition into action
  - transformative change is possible, it requires experimentation, rapid innovation and pilots to implement sector coupling and integration
  - ERC collaboration will be crucial
- We are looking forward to our cooperation





# THANK YOU

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