# Thai-German Climate Programme - Waste component



## Integrated Waste and Wastewater Management for GHG Reduction

#### Context

Thailand is experiencing a steady increase in waste and wastewater generation due to a growing population, strong economic growth, urbanisation and the subsequent changes in the populations' consumption patterns. In 2016, roughly 27 Million tons of municipal solid waste was generated annually; of which twelve Million tons, or 45 per cent was improperly disposed of in open dumps or by openly burning it. Moreover, the actual generation rate of domestic wastewater also exceeds the current capacity of wastewater treatment facilities in Thailand.

At the subnational level, the local governments responsible for the management of municipal solid waste and wastewater often lack institutional capacities and financial resources to manage their waste and wastewater facilities properly.

Improperly managed municipal solid waste and domestic wastewater is a major cause of environmental degradation and health problems throughout the country. Moreover, with a rate of four to five per cent of the total Greenhouse Gas (GHG) emissions in Thailand, municipal solid waste and wastewater contributes to climate change. Therefore, in 2014 the Thai Government declared "Integrated Waste Management" to be a national priority agenda, and regards the reduction of GHG emissions from the waste sector to be one of its priority fields of action for the transformation to a low carbon economy.

In the framework of the Thai-German Climate Program, the project supports Thailand in achieving the country's Nationally Determined Contributions (NDC) targets in the field of municipal solid waste and domestic wastewater sector.

### **Objective**

The national framework conditions for integrated and climate-friendly municipal solid waste and wastewater management have been improved and support the implementation and achievement of the NDC targets.

### **Approach**

As an integrated part of the Thai-German Climate Program, the project supports the implementation of the NDCs in the municipal waste and wastewater sector. The project therefore follows a programmatic approach focusing on the key outputs as stated below:

- Climate protection mechanisms are integrated into the national waste and wastewater management policies and plans
- 2. Climate-friendly municipal solid waste and municipal wastewater management systems are developed, in at least 4 target regions
- The existing national waste and wastewater management information system contributes to Monitoring, Reporting, Verification (MRV) in the sector
- 4. Public and private financing models are developed to support climate-friendly municipal solid waste and municipal wastewater management
- Integrated municipal solid waste and municipal wastewater management initiatives are exchanged on national and international platforms

The project will work with policy makers and planners on national level to review existing policies, strategies and master plans, adjusting them to climate relevant requirements.

On the subnational level, the project will work with selected local authorities to develop and design climate friendly municipal waste and wastewater schemes with a GHG mitigation potential and economically feasible. At the same time decision makers and practitioners will be trained in the planning and implementation of such schemes.

To allow for an accurate and transparent accounting of GHG mitigation measures, the existing national data management system for waste and wastewater will be adjusted and aligned with the national MRV system. New financial models shall be developed under the

advisory of finance experts, to promote the upscaling of integrated and climate friendly municipal solid waste and wastewater systems in the country. Knowledge and experience gained throughout the implementation of the project will be documented and exchanged through adequate channels including national and international seminars and conferences, online and other media.

GIZ services will mainly be delivered by hired international and local consulting companies preferably working in tandem teams to foster knowledge transfer, innovation and local adaptation.

The Pollution Control Department is acting as the main political partner of the project, responsible for developing the policy and regulatory framework of the sector. For the implementation on local level, the project cooperates closely with the Department of Local Administration which is mandated to promote and support local Governments towards local development, public administration and public financing.

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