



# From Organic Waste to Recycling for Development (FORWARD)

## Background

Solid waste sector is a crucial contributor to carbon emissions and receive comparatively little support. The Indonesian Statistic Agency (BPS) showed that the use of open dumps, or waste that is burnt, buried, and disposed without control is contributing to around 13% of Indonesia's total Greenhouse Gas (GHG).

The Government of Switzerland supports Indonesia's commitment in reducing the Greenhouse Gas (GHG) emissions. Therefore, in addition to the EUR8.0 million of grant contribution to the ERIC project, the Government of Switzerland also put up another CHF1.275 million of grant for FORWARD (From Organic Waste to Recycling for Development) project.

FORWARD is a applied research on the supply and demand of organic waste as well as the construction of a pilot plant for organic waste treatment, and is conducted by the Department of Water and Sanitation in Developing Countries (SANDEC) of the Swiss Federal Institute of Aquatic Science and Technology (EAWAG).

## Objectives and Activities

The objective of the project is to gain a better spatial understanding of the waste system, stakeholders and enabling environment with detailed information on organic waste supply and demand for organic waste generated products for the targeted cities.

The main activities are:

- Strengthening informed decision making for suitable organic waste management and treatment technologies by analyzing waste system, supply and demand for organic waste-based products, social and environmental impacts, local management capacity, and feasibility of local technical solutions.
- Design, implementation and experimental operation of pilot-scale technology under site-specific conditions, whereby a focus will be set on generating products such as compost, biogas and protein from organic waste.
- Documentation and dissemination of the implemented tested technologies with accompanying multi-media guidelines for widespread use in Indonesia.

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Country/Region  
Indonesia

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Executing Agency  
EAWAG-  
SANDEC

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Government Partner  
Ministry of  
Public Works  
and Housing

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Project Duration  
2015-2017

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Total Budget  
CHF 1'275'000

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SECO Contribution  
CHF 1'275'000

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### **Governance Structure**

The Ministry of Public Works and Housing-Directorate General of Human Settlement (MPWH-DGHS) is the Project Executing Agency (PEA), which is responsible for the implementation of both ERIC (Emission Reduction In Cities) and FORWARD.

PEA then establishes a National Project Management Unit (NPMU), for daily management of both ERIC and FORWARD activities. Local Government (LG) establishes Local Project Management Unit (LPMU), which is the main counterpart of NPMU at the local level.

EAWAG carries out the FORWARD component and has close contact with the ERIC's consultants and the LPMUs. The overall projects implementation is guided by the existing Steering Committee on Water and Sanitation headed by the Deputy Minister for Infrastructure of the National Development Planning Agency (BAPPENAS).

### **Expected Results**

The expected results of the project are as follow:

- a. Better spatial understanding of the waste system, stakeholders and enabling environment with detailed information on organic waste supply and demand for organic waste generated products.
- b. Modeling of spatial supply and demand data for easy comparison between scenarios of location and scale with regard to economic, social and environmental criteria.
- c. A pilot organic waste treatment plant which make use of innovative approaches to gain experiences with alternate organic waste treatment technologies.



*Maggot/larvae at the FORWARD facility in Sidoarjo, East Java, Indonesia. (Photo: SECO)*