

Emissions reduction in cities through improved waste management (DKTI)

Project name	Emissions reduction in cities through improved waste management (DKTI)
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Project region	Indonesia: Bogor Regency, Bukittinggi, Cirebon, Denpasar, Jambi, Malang
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A key challenge for the provision of orderly waste management systems in Indonesia lies within the municipalities that are responsible for their implementation. Firstly, the municipalities need improved know-how and data about waste quantities, types, flows and treatment potentials to adequately inform their policymaking. Secondly, technical capacities in using existing technologies already developed on the national and sub-national level need to be strengthened. This is especially relevant for linking climate and waste targets for championing national and international emissions reduction strategies. Thirdly, the waste financing systems in place require additional funding and innovation as local waste processing facilities often struggle to cover their operating costs. As a result of all these challenges, less than half of the waste is currently managed properly in many Indonesian communities, with the rest often being deposited or incinerated in the urban and natural environment. These practices lead to an effective recycling rate that is estimated at around 5% throughout Indonesia. While the recycling industry is developing around the cities of Jakarta and Surabaya, it has not yet been widely integrated into the country's public waste management infrastructure.

The challenge

Indonesia's economy has grown at a rapid pace in recent years, and with over half of the country's 270 million inhabitants living in urban areas, so have its urban infrastructure needs. The burgeoning cities and municipalities of the 4th most populous country in the world generate an estimated 105,000 tons of solid waste each day, putting the archipelago's waste sector under particular strain. The sector and its stakeholders face enormous challenges in coping with the implementation of sustainable waste management policies and its climate impacts. A central concern are the associated greenhouse gas (GHG) emissions from unmanaged waste which account for roughly 6% of Indonesia's total emissions, ranking just 3rd after land use and energy as well as 6th in the world when considering its share of the total. These emissions mainly stem from open incineration – which is still widely practiced – as well as the dumping of untreated organic waste on disorderly landfills producing vast amounts of highly potent GHGs like methane. If addressed through sustainable solid waste management practices, however, it is estimated that globally, GHG emissions could be reduced by 10 to 15%, underlining the sector's significance in mitigating climate change. With that potential in mind, Indonesia has made this an explicit priority within its national development strategies.

The relevant actors involved in planning and operating Indonesia's waste management require suitable approaches and technical capacities for utilising tools to identify and implement measures that work in practice. Sector-specific know-how about waste value chains and recycling potentials needs to be strengthened throughout Indonesian municipalities. When assessing the need to improve the financial resources of local authorities tasked with waste management, the most viable strategies could include, but are not limited to, waste fees, increased municipal

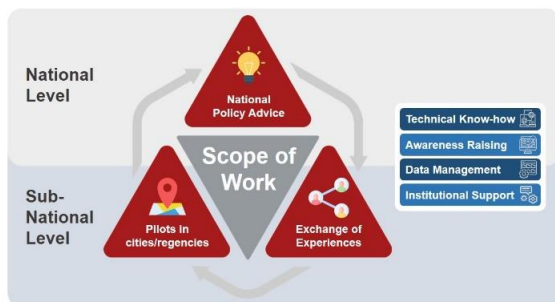




budget allocations towards waste management and models replicated from other countries adapted to local circumstances that include extended producer responsibility (EPR).

The Indonesian government has recognised all these challenges by integrating sustainable waste management into both its National Medium-Term Development Plan (RPJMN) 2020-2024 as well as its Low Carbon Development Initiative (LCDI). Moreover, the government has issued a national waste management strategy (JAKSTRANAS) which has ambitious waste reduction and treatment targets of 30 and 70% by 2025 respectively (base year 2017). In line with this trend, in 2020 the government announced a marine plastic waste reduction target of 70% by 2025 (base year 2020).

Our approach



As part of the German Climate and Technology Initiative (DKTI), the project recognises Indonesia's efforts and aligns itself with the country's policy objectives. By partnering up with the Indonesian Ministry of National Development Planning (BAPPENAS) – which is significantly involved in drafting up these policies – the project supports the development of suitable waste management measures by improving the required conditions on the national and sub-national levels. It particularly focuses on addressing the above-mentioned challenges on these levels by strengthening the capacities of various community stakeholders, private

and civil society actors as well as centrally, local government officials in the areas of technical know-how, data management and financing. Through this participatory approach, the project seeks to incorporate a wide range of interests and utilise existing expertise to implement its measures effectively and to ultimately benefit its target group: Indonesia's urban residents. Within the German development cooperation, the project is furthermore closely coordinated with and linked to a solid waste infrastructure investment project of the German development bank KfW. This interlinkage aims to facilitate the exchange of experiences, tested approaches and enable synergies between technical and financial cooperation within and between the pilot cities.

The benefits

Through the successful development of planning instruments and technical capacities in the partner cities and the partner regency, the project intends to improve the conditions for the initiation of measures towards climate-friendly integrated waste management. Especially the knowledge of municipal, regional and national actors about linking waste and climate targets shall be significantly enhanced. In that regard, key actors within the partner structures, the local communities and civil society will be able to use their newly gained competences to develop climate-friendly solutions to municipal waste management. Importantly, the project cities and regency will furthermore benefit from the mutually developed financing models. These will enable the long-term adoption of feasible financing mechanisms for waste management services by combining planning instruments, the allocation of local budgets and waste fee systems (incl. EPR) to cover operating costs. In sum, these measures will provide the foundation for effective waste management policies that increase the liveability of the urban areas and its residents by improving public services, reducing emissions and mitigating climate impacts.

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