



FACT SHEET

Bitung



Quick Facts

Country:	Indonesia
Population:	222,908 Inh.
Adm. Area:	304.0 km ²



Executive Member of City Alliance
since 2018

Contact

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Project Start/End Year
2014-2028

Introduction

The city of Bitung is located in the province of North Sulawesi in Indonesia surrounded by the regency of North Minahasa (N), the Maluku Sea (S), the regency of Minahasa (W) and Maluku (NE). The region is characterized by natural protection areas like protected forests, nature reserves, national tourism parks and forest (around 43 per cent). Therefore, nature tourism is one of the economic pillars in this region. The topography unfolds from mountainous areas in the west and northwest to a flat coastal area in the east where the urban agglomeration is situated. Bitung has rapid economic and demographic growth related to its port and solid industry. Many northern Indonesian trade routes and touristic cruise lines are routing together in the city. This growth also leads to unavoidable environmental pollution from industrial waste as well as domestic waste and wastewater accumulation.

Since 2016, various activities to address sanitation problems have been carried out in combination with public awareness and education programs (e.g. "5 Clean"). Furthermore, Bitung is participating in national and international events regarding environmental sanitation. Implementation of the concept of Integrated Sanitation that is applied in this city contributes to achievement of a cluster of Sustainable Development Goals and Targets of the 2030 Agenda for Sustainable Development, such as SDG 1- No Poverty; SDG 6 - Clean Water and Sanitation; SDG 7 - Affordable and Clean Energy; SDG 9 - Industry, Innovation and Infrastructure; SDG 11 - Sustainable Cities and Communities; and SDG 17 - Partnerships for the Goals.

Challenges Related to Water and Sanitation

The government initiated several countermeasures to target sanitation problems but still faces obstacles to their success. A waste recovery facility has been built in several locations but there are still many people who don't understand and don't want to know about the waste recovery and its benefits so that many of these locations are abandoned or not operating. There are many decentralized wastewater management (DEWATS) systems that have been successfully built but operation and management isn't optimized by the community yet due to a lack of capacity building about the ways and benefits of operating DEWATS.

Training assistance is needed for communities, operators and management teams for STP, DEWATS, waste recovery facilities. Additionally, specialized training for industrial DEWATS management in factories, markets, schools and hospitals.



System Solution

Integrated Sanitation Management



Coastal and touristic areas in Bitung applied the following eight modules:

- Decentralized Wastewater Management (DEWATS)¹
- Septic Tank Assessment
- Fecal Sludge Management
- Solid Waste Management
- Regulations and Policy
- Operation and Maintenance
- Capacity Building
- In-House-Management

Key Project Interventions

- Implementation of Material Recovery Facility (MRF, TPS 3R)
- Construction of DEWATS, public toilets plus community sanitation center in subdistricts
- Development of Fecal Sludge Treatment Plant (STP) in urban area
- Dissemination of Septic Tank Amnesty (free desludging service)
- Assessment and procurement of septic tanks and desludging trucks
- Development and dissemination of environmental policies

Financing Mechanism (see Case Study: Financing Integrated Sanitation, 2019)

All water and sanitation related funding is provided through a regional budget (APBD) where the Department of Environment (wastewater, solid waste, fecal sludge) and the Department of Public Works and Housing (drinking water) are responsible for budgeting and planning.

Project Images



Insufficient community toilets and septic tanks



Periodical flooding events



Informal dumpsite

Contacts

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Mallory Bellairs, UN ESCAP (Layout)

Jakrapong Tawala, UNITAR (Administrative map)

¹ UN ESCAP, UN-Habitat and Asian Institute of Technology, 2015. Policy Guidance Manual on Wastewater Management with a Special Emphasis on Decentralized Wastewater Treatment Systems.