



MSTP | Municipal Sludge Treatment Plant

A challenge to sanitation

Improved sanitation still remains an important challenge for the Millennium Development Goals, which aim to greatly improve conditions for the world's impoverished people.

In many urban areas existing on-site sanitation facilities are neglected and poorly maintained without disposal services. The results are sanitation systems that fail to safely dispose of sanitation sludge because of inadequate or inefficient infrastructure and service. This endangers public health and pollutes the environment.

Gaps in centralized sanitation

Currently, 95% of discharged wastewater worldwide is insufficiently treated or completely untreated. The majority of residential areas in most developing countries rely on pit latrines and other on-site systems. All on-site facilities require regular removal of sludge and solids, however, this is often neglected causing dangerous overflow or improper disposal into water resources.

The results can be deadly including the rapid spread of cholera, worm infestations, hepatitis, and diarrhoeal diseases.

BORDA BNS Networks Mission

The mission of BORDA (Bremen Overseas Research and Development Association), and its Basic Needs Services (BNS) Partner Network, is to improve the livelihoods of disadvantaged groups within societies and to sustain the functioning of eco-systems through dissemination of demand-oriented BNS. BORDA and its network develop and disseminate innovative solutions to facilitate access to BNS.

DEWATS Municipal Sludge Treatment Plants

A Sludge Treatment Plant (STP) is designed employing innovative technology that can be built by local craftsmen and engineers using locally available resources. The municipal based STP is an affordable solution for the regular maintenance of all onsite treatment systems. This ensures the existence and sustainability of safe sanitation. It enables cities to set up a regulatory framework and a management plan for decentralized sanitation at their own pace.



**An innovative solution to cope with
the problem of septic sludge
disposal and treatment
within a decentralized
sanitation approach**

**MSTP |
DEWATS Service Package**

**Developed and disseminated by
BORDA & BORDA BNS Network**

DEWATS STP efficiently treats sludge from many decentralized sanitation facilities

Key MSTP features

DEWATS MSTP is an efficient and final treatment solution for sludge waste utilising sustainable and adaptable technology to implement the following key features:

- Low investment & operation costs.
- Technology designed according to the requirements of central municipality plant or small business entrepreneurs.
- The municipality-based sludge treatment plant can accommodate high loads of organic industrial waste as well as septic sludge from residential septic tanks, open pit latrines and other DEWATS CBS solutions.
- The construction of a central sludge treatment plant fills gaps in areas not served by centralized sanitation systems.
- Allows on-site waste to be disposed of properly and on-time without unnecessary environmental degradation and human health risks.
- An open-system and demand based approach within the fiscal reach of municipal governments.
- The proper implementation of a locally-adaptable, central sludge treatment facility includes the option for compost packaging and biogas generation.

Resulting benefits

These measures are coordinated by BORDA's regional offices and implemented with local BORDA BNS Partner Organizations. Benefits:

- An expandable solution to sanitation challenges by providing a final treatment facility to dispose of high loads of sludge.
- The reduction of transmittable diseases and unsanitary conditions through routine and proper maintenance of on-site sanitation facilities.
- The biological treatment of wastewater without technical energy inputs, by DEWATS applications, makes wastewater meet environmental standards and advances the living conditions of densely populated areas.

Additional benefits

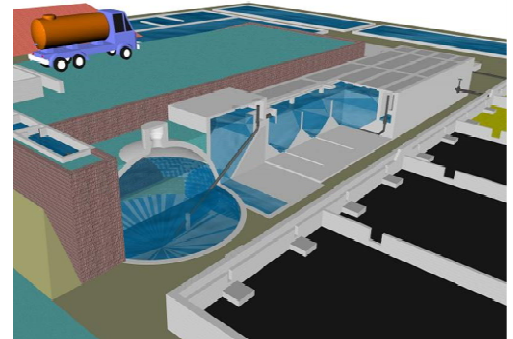
- The biogas generated during sludge treatment is captured and can be used for lighting, cooking or water heating.
- Compost is a naturally occurring and beneficial fertilizer produced through the treatment process and can be distributed directly to farms
- Non-sophisticated maintenance allows for continual operation and low operational costs

Serve the demand (SanMap)

Locating decentralized sanitation facilities and solid waste dumps has been made easier with the sanitation mapping software, DEWATS SanMap. This allows local governments to systematically collate and analyse available data on the local sanitation situation. The tool helps them develop plans for upgrading municipal STPs and sanitation infrastructure.

A proven solution

For over 10 years BORDA has led the way in innovative sanitation facilities. Today, BORDA and its BNS Partner Network have already achieved the sustainable operation of more than 900 DEWATS solutions. This demonstrates that a DEWATS Sludge Treatment Plant is a proven and affordable solution to combat sanitation grievances in small to medium cities.



Long-lasting design and non-sophisticated maintenance allows for continual operation of the MSTP

BNS Partner Network in SADC Region



University of Kwazulu Natal
(Pollution Research)
South Africa



Environmental Engineering
and Pollution Control
Organization Tanzania



Water and Sanitation
Association of Zambia,
Zambia



Technologies for
Economic Development
Lesotho

DEWATS Service Packages

- School Based Sanitation
- Community Based Sanitation
- Emergency Sanitation
- Sanitation for Hospitals & Hotels
- Wastewater Treatment for Agro-Industry
- Sanitation for Prisons
- Sanitation for Real Estate
- Sanitation Mapping
- Municipal Sludge Treatment Plant
- Health Impact Assessment & Hygiene Education
- Capacity Development
- Research & Development



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