Small and Medium Enterprises | SME
Following the regulations of the Vietnamese government, also Small and Medium Sized enterprises (SME's) have to care about the treatment of wastewater. During the long years of experience BORDA Vietnam implemented plants in noodle processing factories, pig farms, slaughter houses and a bear rescue center. Because of the condition of the wastewater, is especially here the combination of biogas reactors and a DEWATS plant suitable.

Community Based Sanitation | CBS
The CBS approach is an alternative option that fills the significant “gap” between inappropriate on-site sanitation (e.g., absorption pits) and the shortcomings of conventional centralized sewerage collection and treatment systems. In cooperation with partner organizations BORDA implemented DEWATS plants for communities around Hanoi, which were of benefit for around 380 households.

School Based Sanitation | SBS
Even though the sanitation situation in Vietnam has improved during the last years, there is still a huge amount of school, which are in need of suitable facilities as well as wastewater treatment systems. BORDA Vietnam implemented a DEWATS plant for a school in Ho An city. In addition the nearly 500 students are also benefiting from the Health and Hygiene Education, which is offered and conducted by BORDA Vietnam.

Hospital Projects
Because of the high amount of wastewater, which is created in a hospital, and the special protection patients need, hospitals have a high potential for decentralized wastewater treatment solution. In cooperation with different hospitals BORDA Vietnam implemented DEWATS plants with a treatment capacity up to 300m³ per day.

BORDA VIETNAM
DEWATS | DECENTRALIZED WASTEWATER TREATMENT SOLUTIONS

Leading Provider of DEWATS in Vietnam

BORDA Germany
Head Office
Phone: +49 (0)421409520
Email: office@borda.de
www.borda-net.org

BORDA South East Asia
Programme Office Indonesia
Phone: +62 (0)274886273
Email: yogya@borda-sea.org
www.borda-sea.org

BORDA Vietnam
Hanoi Office
Phone: +84 4 37629580/81
Email: hanoi@borda-sea.org
www.borda-sea.org

BREMMEN OVERSEAS RESEARCH AND DEVELOPMENT ASSOCIATION

Vietnam Academy for Water Resources
Phone: +84 4 35634071
Fax: +84 4 35632827
Email: dewats.vawr@gmail.com
www.vawr.org.vn
DEWATS | DECENTRALIZED WASTEWATER TREATMENT SOLUTIONS

Bremen Overseas Research and Development Association

Background in Vietnam

In the time from 1990 until 2012 Vietnam was able to reduce open defecation to 2% of its population and increase the number of people having access to improved sanitation facilities up to 75%.

Even though these are impressive numbers there is still a huge amount of people having access just to unimproved sanitation systems. This also means that the wastewater of this people might not be treated, thus it might just be discharged to the environment and so it causes pollution. This leads to people suffering from waterborne diseases like diarrhea.

BORDA Vietnam

BORDA Vietnam is integrated into the global BORDA network and is a member of the South-East Asia regional development project “Sustainable Management of Natural Resources in South-East Asia” with regional office in Yogyakarta, Indonesia.

Since 2001 started BORDA in Vietnam and is working here through the dissemination of demand orientated Basic Needs Services. Cooperating with the Vietnam Institute for Water and Resources (VAWR) and its Institute for Hydropower and Renewable Energy, Borda implemented until 2019 over 200 Hydraulic Rams (HyDram) in more than 20 Provinces. HyDram is a technology to support people in rural areas with water, by pumping it from a lower level to a higher one, without using electricity.

In 2006 BORDA introduced their Decentralized Wastewater Treatment Solutions (DEWATS) to Vietnam. Until now several project implementations have been accomplished e.g. for hospitals, noodle processing enterprises, slaughter houses, communities and schools.

BORDA Vietnam and VAWR is leading in DEWATS application for organic wastewater treatment in Vietnam. BORDA Vietnam and VAWR provide the BNS service packages (including DEWATS technical consultation, design, supervision, operation and maintenance and monitoring and evaluation). Thus, BORDA Vietnam is not funding for the construction costs of projects.

Since 1994, BORDA has developed reliable, low-cost and low maintenance wastewater treatment solutions which can treat organic wastewater to a level that conforms to international environmental standards.

DEWATS can be individually adapted to different effluent and pollution levels, topographical conditions, and the preferences and capabilities of clients. A power supply is not required if there is enough slope for gravitational flow through the system.

So far several DEWATS plant have been successfully implemented and a wide range of people benefitted from it. In cooperation with the VAWR BORDA Vietnam supervised the construction of DEWATS plants for communities, hospitals, schools and noodle processing villages. But DEWATS can not only be applied to these areas, it is also suitable for Small and Medium Enterprises, Prisons or the tourist sector.

The four main DEWATS modules have been standardized for efficient implementation and operation of the technology. An additional benefit are the optional biogas module and polishing pond. Depending on the wastewater composition the produced biogas can be used as an affordable and ecofriendly energy source.

Under BORDA’s supervision more than 2,000 DEWATS have been built around the world to date. Further, thousands of employees from the private sector, governments and NGO’s have been trained to facilitate the dissemination, implementation and maintenance of DEWATS.