



# People. Innovating. Sanitation.

40 Years of BORDA – four decades of commitment to improving living conditions for socially disadvantaged groups, four decades of implementing environment-friendly solutions.

At the heart of our work stands the essential public services that are the prerequisites for creating and developing sustainable, liveable communities: water, wastewater, solid waste, basic sanitation and energy.

Together with our international network of more than 100 local partner organisations, we now operate in more than 25 countries worldwide. In low-income communities and crisis areas, we continue to meet ever-new challenges in infrastructure and urban development. Our approach: decentralised, sustainable technologies and operator models coupled with active support for local and regional authorities in integrating our solutions into urban and regional planning cycles.

Supported by



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# 40 years of fighting poverty, 40 years of improving living conditions

History often starts small. On 7.7.1977 a group of like-minded people—architects, engineers, management scientists, and social scientists—met to establish BORDA e.V. Their goal: to improve living conditions for people around the world by providing essential basic services through resource efficient, low energy use approaches and technologies. Their aspirations were high. But who at the time would have seriously thought that 40 years later, BORDA would be active worldwide with offices and projects in 25 countries?



In the area of basic needs services—waste, wastewater and urban sanitation—we are now an internationally sought-after partner for governments and urban administrations, for research facilities and foundations, and for civic organisations and companies, thanks to the expertise of our approximately 400 employees. Over the past five years in particular, this demand has led to rapid growth in our organisation, expanded our spheres of operation, and taken us into new fields of activity. These developments have sometimes left us breathless and running to keep up, sometimes astonished at our progress, always humbled by the challenge yet meeting it with maximum motivation.

Our commitment has not wavered, cannot waver. More than half the people on our planet still live in unhygienic conditions, often without a toilet, leaving them and especially their children vulnerable to the spread of dangerous and often deadly pathogens. It should simply not happen that most of the human race in a technologically developed world still has to live in such degrading conditions. The United Nations has declared that access to clean water and hygienic sanitation is a human right, and that a decisive breakthrough should be made by the year 2030. The global community formally pledged its agreement by adopting the Sustainable Development Goals (SDGs) in 2015. BORDA is also committed to realising these goals, as evidenced by the work we do every day. In 2017, the year of our 40th anniversary,

we chose to mark the occasion by making our commitment more visible in a variety of ways.

On 31 May 2017, we invited international experts and stakeholders to a well-attended panel discussion in the Bremen Federal State Representative's office in Berlin to engage with high-level questions of model-building and financing. What are the best models for implementing SDG 6 "Access to clean water and sanitation for all"? Which players need to be brought in and which new alliances need to be created? How can new financial instruments be found to mobilise urgently needed public development funds as well as private capital? I was able to discuss these questions with expert panelists Dr. Graham Alabaster, Chief of Sanitation and Waste Management at the United Nations Programme for Human Settlements (UN-HABITAT); Alexandra Knezovich, Programme Manager at the Toilet Board Coalition, a business-led coalition and platform that applies entrepreneurial solutions to basic sanitation; and Dr. Manuel Schiffler, Country Manager for Central America at KfW Entwicklungsbank and author of the book "Water, Politics and Money: A Reality Check on Privatization". The evening opened with speeches from the Bremen State Councillor for Federal and European Affairs and Development Cooperation, Ulrike Hiller, and the Parliamentary State Secretary to the Federal Minister for Economic Cooperation and Development, Thomas Silberhorn. A video of the panel's stimulating discussion is available on our YouTube channel [BORDA Global TV](#).



**A planning meeting in the early days, with Ludwig Sasse (facing page, far right) and Gunther Hilliges (this page, second from left)**

To enable us to participate even more actively in the expert dialogue in the water sector, we opened a new office at the end of 2017 in the Bremen Federal State Representative's building in Berlin. Ulrike Hiller, with the Bremen Senate's express consent, assumed patronage for our organisation and all of our 2017 anniversary activities. This is a great honour for us, and I would like to sincerely thank Ms. Hiller on behalf of our entire organisation.

On 13 September 2017, we brought the public into our 40th anniversary celebration with a unique event in the place where BORDA was born, the Übersee-Museum in Bremen. A mixture of informal reception, serious discussion and relaxed after-party, the centrepiece of the evening was our “Beyond Water” open-space forum where we explored the following questions with representatives from Bremen institutions and experts from cultural and environmental projects:

- ▶ Think global, forget local? How much global responsibility can a hard-up local authority assume?
- ▶ Linking knowledge: How do we design liveable cities in this era of globalisation and climate change?
- ▶ Call to action: What can we do together in Bremen?

The evening was rounded off with a concert concert by the Bremen musician, Flo Mega. Video from the event is available on our [YouTube channel](#).

The “Beyond Water” format proved to be quite successful, and we continue to use it for planning public projects in the water sector together with interested actors from Bremen civil society and representatives from local institutions.

Our anniversary year closed with a real highlight: the EU Commissioner for Humanitarian Aid and Crisis Response, Christos Stylianides, visited our headquarters in Bremen. It was a compelling exchange with a decidedly well-informed EU Commissioner, who strongly encouraged BORDA to expand our sanitation projects in crisis areas.

40 Years of BORDA—our anniversary campaign—gave us a good opportunity to strengthen our presence on the national and international stage. We started with the question of how to define our self-image and incorporate it into a persuasive slogan. Through a very lively process of consultation and reflection, we came up with our new claim:

## People. Innovating. Sanitation.

Inspired by this statement, we developed a new flyer in four languages (German, [English](#), French, Spanish). We also produced a six-minute [film](#) presenting BORDA's approach to innovating basic sanitation, safely managed for all. The film is available in French, German and Spanish.

**Dr. Wiebke Ahrndt, director of the Übersee Museum in Bremen, welcomes guests to our 40th anniversary celebration**





Our PR efforts have focused in particular on gaining publicity through online media. In February 2017 we launched the English-language version of our website [www.borda.de](http://www.borda.de), followed by a relaunch of our regional websites with a new, attractive design. A complete renovation of our main website [borda.de](http://borda.de) is coming in 2018.

We have also been active on social media on a near-daily basis. This effort paid off in 2017 with a community of 2,000 followers who receive regular updates on our activities.

### **BORDA in the Media**

In traditional media, anniversaries and commemorations are always a welcome opportunity for news coverage. In 2017 we benefitted from this in various ways. In Bremen all of the major local media outlets (Weser-Kurier, Radio Bremen and its TV magazine “buten & binnen”) reported on BORDA’s work. We also received national coverage: for World Water Day on 22 March, the German TV channel ZDF broadcast a well-watched, half-hour documentary titled “Life in Wastewater” as part of their “planet e.” series. Focusing on the Tanzanian city of Dar es Salaam, the documentary showed how BORDA and our local partners are working to improve sanitation through decentralised wastewater projects. As part of a World Bank programme, BORDA will contribute to the implementation of reuse-oriented faecal sludge management (FSM) for approximately 50 neighbourhoods in Dar es Salaam. The ZDF film is available in an

English-language version from Deutsche Welle on our [YouTube channel](#). Please find a full list of media coverage and an overview of all BORDA events in our [Media Review](#).

40 Years of BORDA also refers to development within our organisation, where the focus of our work has widened far beyond the implementation of demonstration projects. We have increasingly noted—and cannot emphasise enough—the need not only for innovative civil society engagement but also the close involvement of state actors from the local to the national level. Today our projects address the entire spectrum of municipal infrastructure facilities for securing livelihoods, focusing on the replication and upscaling of successful decentralised models in cooperation with local and regional authorities. It is all about how safely managed sanitation can be implemented for an entire town as quickly as possible. That means dealing with everything from environmental conditions to the development of standards and guidelines that impact regional planning and land use as well as operational structures. This is how the overarching aim of “sanitation for all” can be brought within reach.

That brings us to the question of the relevance of our work—a question we are regularly asked, and that we constantly ask ourselves. In 2017 we concluded an extensive global inventory of all the decentralised wastewater treatment systems that BORDA and its partners got off the ground using our jointly developed



**Panel discussion in Berlin with Sarah Kumpf (Radio Bremen), Dr. Graham Alabaster (UN-HABITAT) and Stefan Reuter**

DEWATS approach. It is a number we are proud of: 3,500 DEWATS systems that benefit one million people and their environments. Our brochure [“DEWATS Inventory”](#) has the details.

Beyond particular technologies, we have developed our own concepts and tools for planning decentralised sanitation systems for entire urban areas ([www.citysanitationplanning.org](http://www.citysanitationplanning.org)). In Asia, Africa and the Middle East, cities and local authorities are increasingly taking these tools in hand and putting them to work. At the BORDA-sponsored City Forum on Integrated Sanitation in Bangkok in October 2017—together with mayors, city managers, and more than 40 representatives of national and regional governments—we launched the “City Alliance: People.Sanitation.Cities.” representing cities in seven countries (six in Southeast Asia plus Jordan). This new alliance supports municipalities in implementing sustainable decentralised solutions for water, wastewater, and solid waste management, all within the framework of polycentric urban planning processes.

An essential first step in mitigating the crisis in sanitation is faecal sludge management (FSM). Along with pit emptying, FSM is a crucial building block in our wastewater systems. We have seen this play out especially clearly in India, where our Bangalore-based partner organisation CDD Society, together with local authorities, implemented in 2016 a circular-economy FSM system serving the town of Devanahalli’s

30,000 inhabitants. The system includes drainage of household septic tanks, treatment and processing of faecal waste, and recovery of resources for agricultural use.

**A Success Story**

Devanahalli has been a true success story. The Bill & Melinda Gates Foundation saw it that way, too, commissioning CDD Society and BORDA to implement similar FSM projects in 30 more Indian towns by 2019, benefitting a million people. Taking town-scale FSM even further in India, CDD Society has signed a memorandum of understanding with the Rajasthan Regional Government to implement FSM systems in 100 towns in the region.

In the field of sanitation, it is clear that we can make a real difference; we have tangible proof that our efforts improve people’s lives and contribute to better living conditions in more and more places. Consequently, BORDA sees itself as part of an international network striving towards the realisation of SDG 6 with a high degree of expertise and commitment. On this front, one of the most important gatherings in the sector was the FSM4 Conference in Chennai, India, where more than 1,000 experts from around the world exchanged ideas on how FSM can bring about advances in sanitation, particularly in Asia and Africa. During the multi-day conference, BORDA and CDD Society jointly presented our global projects at a large stand

International city dialogue  
on environment and  
urban development in  
Havanna, Cuba





and held numerous informational events. We also premiered our photo book [“Faecal Sludge Management – A Visual Insight”](#), which portrays FSM in an unusual and compelling way, using striking images to bring the viewer closer and create an emotional connection to an otherwise hard-to-access topic.

**Urban Development in Focus**

On the theme of urban water quality, we organised and conducted in June 2017 the first international city dialogue on environment and urban development in Cuba’s capital city, Havana, together with representatives from the Federal State of Bremen and its economic and research institutions. The key question was of particular significance for our Cuban partners: How can water quality in Havana Bay be improved so that the bay is once again an attractive focal point for the city?

At World Water Week in Stockholm—the networking event for the international water sector—thousands of experts gather every year at the end of August to discuss how the water sector can bring its practitioners together more effectively to achieve advances in the global provision of clean and safe sanitation. At the 2017 conference, BORDA co-hosted eight workshops and was represented by 20 members of our international team. We were particularly pleased that a photograph of our Indonesian engineer, Ikatri Wulandari, was chosen as a winner in the

associated Water Women photo contest. The photo was taken by the Bremen-based photographer and filmmaker, Alasdair Jardine, who also produced our latest film.

Capping off 2017, in November we participated in the International Water Association’s (IWA) Water and Development Congress & Exhibition as a strategic partner. We presented BORDA’s expertise in multiple workshops and at our stand, whose design was recognised as the second-best among approximately 100 exhibitors.

We would like to sincerely thank our Berlin design agency gegenfeuer, who over the past few years has developed for us a unique visual language with a high recognition value and an original thematic representation. This is important, because if we want “sanitation for all” to reach the current generation, we have to not only build wastewater treatment systems and engage in smart urban planning, but also win over hearts and minds. In 2017 we were able to move more people to form a personal connection with what “sanitation for all” really means.

Capacity building and knowledge transfer are at the centre of our international activity. In addition to the four major conferences mentioned above, we conducted in 2017 a dozen seminars and workshops and took part in numerous regional and international conferences, where we and our local partners disseminated our expertise on decentralised wastewater technologies in our five key regions. We also maintained



**Water Women Photo Contest at World Water Week in Stockholm:** This photo of our Indonesian co-worker Ikatri Wulandari was a winning entry

our active participation in professional networks such as the Sustainable Sanitation Alliance (SuSanA), the European Pact for Water, and the WASH Network which we co-founded.

40 Years of BORDA: from a small development policy working group to a professional expert organisation operating worldwide, we have developed into an entity that in its internal structures resembles a medium-sized company. This growth has come with sometimes rapid changes that all of us at BORDA—individually and collectively—need to cope with and understand. We have been asking ourselves a lot of questions lately: What does participation mean in our internal working procedures? Do we need to define new goals and responsibilities? In 2017 we dealt with these issues intensively, not without tension and conflict, but always from a place of solidarity and with a solution-oriented attitude that is very strongly rooted in our organisation's DNA. Even after 40 years, this self-assessment remains key to our ability to keep getting good things done.

**In our office on the Weser River, visitors are always welcome—feel free to stop by and find out more about BORDA**



My heartfelt thanks goes out to everyone who made our anniversary year so successful. A huge thank you is also due to our board and managing committee, whose deep commitment to our long-term objectives, constant support and prudent advice have been a rock for us through the years. And last but not least, I would like to thank all the individuals and companies whose generous donations have helped make our work possible.

BORDA presented itself in 2017 as both what we have become and what we would like to be: a well-established organisation that in the coming years will keep up its successful work and make a valuable contribution to improving communal infrastructure facilities for securing livelihoods around the world.

Yours,



Stefan Reuter,  
Executive Director BORDA e. V.





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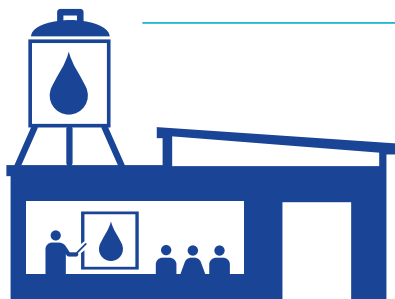
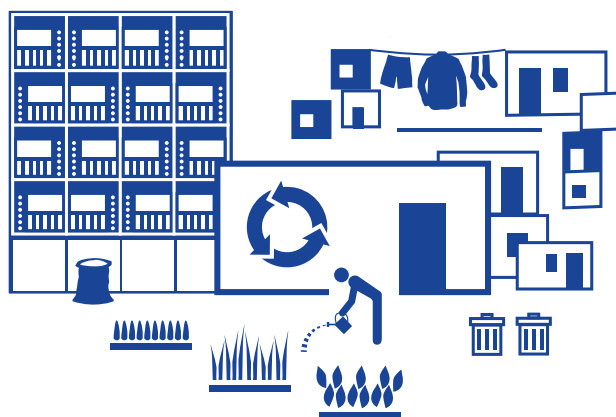


8 cities

in **Southeast Asia** and **Jordan** joined forces in October 2017 to form the BORDA-backed “People.Sanitation.Cities.” alliance, a new kind of partnership for the joint implementation of an integrated approach to urban water management and liveable cities.

360,000

people benefit from a waste management project implemented in 14 cities in the **Indian** state of Andhra Pradesh.



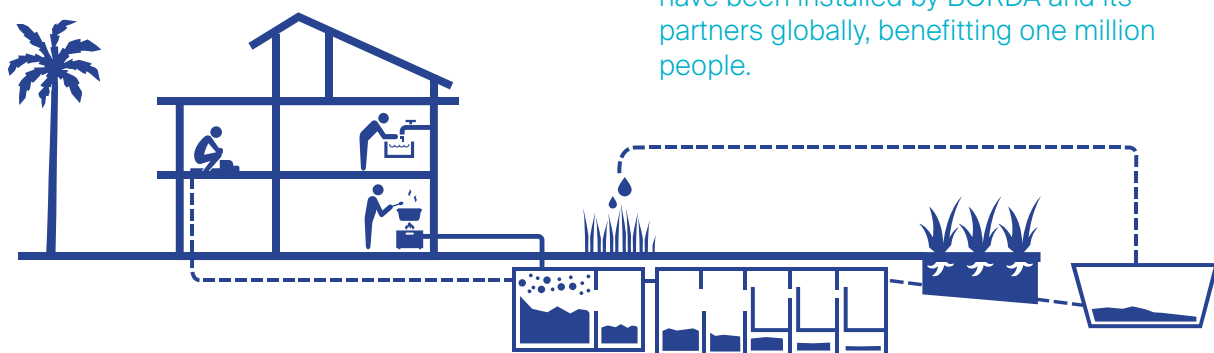
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representatives of local authorities were trained by BORDA in **Tanzania**.

3,500

DEWATS systems

have been installed by BORDA and its partners globally, benefitting one million people.

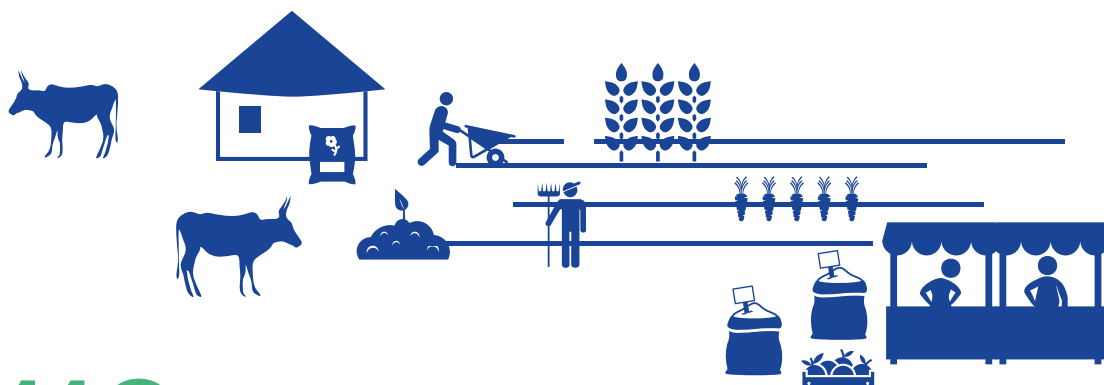


12,800  
people in Afghanistan



benefit from **12** new  
DEWATS facilities

installed at hospitals, mosques, housing developments, universities and public buildings. Together they have the capacity to treat 905 cubic meters of wastewater per day.



**110** tonnes of  
organic fertiliser  
were produced through the treatment  
of organic waste from the municipal  
slaughterhouse in **León, Nicaragua**,  
enriching the soil for

**7,000 kg**  
of vegetables  
harvested on local organic farms.

**70%**  
more followers on Facebook

**1,176**  
January



**1,997**  
December

Posts: 397/year  
Average: 33/month



Germany

## Commitment to global justice – a One World promoter



**Project duration:** 2017– 2019

**Budget:** 167,750 euro

**Donor:** German Federal Ministry  
for Economic Cooperation and  
Development,  
Free Hanseatic City of Bremen

**Partners:**

Bremer entwicklungspolitisches  
Netzwerk e.V. (BeN),  
Arbeitsgemeinschaft  
Eine-Welt-Landesnetzwerke (agl)

BORDA participates in the One World Promoter Programme, acting as specialist promoter for Environment, Climate and Water. Achieving sustainable development around the world requires a change of perspective in the Global North. In Germany, the One World Promoter Programme strengthens commitment nationwide to global justice and sustainable development. BORDA disseminates information on climate change, energy, resource consumption, and global water management. We also build networks between government authorities, business and civil society. In doing so, we raise awareness of One World themes and boost civil-society engagement with environment, climate and water issues.

## Health clinic in the refugee camp on Lesbos



**Project duration:** 2017

**Budget:** 6,000 euro

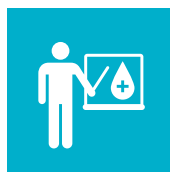
**Donor:** Free Hanseatic City of Bremen

**Partner:**

Lesvos Solidarity

On the Greek island of Lesbos, the NGO Lesbos Solidarity has since 2012 run a refugee camp with a health clinic that is used by both refugees and non-insured locals. The clinic is staffed by two full-time nurses and volunteer doctors. BORDA provides support for the clinic's work.

## Development policy – furthering education and public relations



**Project duration:** 2017

**Budget:** 35,500 euro

**Donor:** Free Hanseatic City of Bremen

**Partner:**

Plenipotentiary of the Free Hanseatic  
City of Bremen for Federal Affairs,  
Europe and Development Cooperation

In Germany, too, we are committed to achieving the UN's Sustainable Development Goals (SDGs) and to raising awareness and acceptance of our development policy contributions. At our events in Berlin and Bremen, we are discussing new approaches to achieving the SDGs with interested citizens and representatives from politics, business, and municipal administrations. In particular, we are looking at novel ways to generate financing and bring local business into the mix. With new alliances, we want to contribute to realising SDG 6 “Water and sanitation for all”.





# Las Américas



# Reducing poverty and protecting natural resources in Latin America



**Project duration:** 2015 – 2018

**Budget:** 2.4 million euro

**Donor:** BMZ

**Regional Partners:**

Grupo Estatal para el Trabajo de Saneamiento de la Bahía de la Habana (GTE), Cuba  
UBPC Viveros de Alamar, Cuba  
Cubasolar, Cuba  
Fondo para La Paz, Mexico  
City of Taxco Alarcón, Mexico  
Sistema Operador de los Servicios de Agua Potable y Alcantarillado del Municipio de Zacatlán (SOSAPAZ), Mexico  
Pueblo Sabio, Mexico  
Universidad Nacional de Ingeniería (UNII), Nicaragua  
City of León, Nicaragua  
Universidad Tecnológica La Salle, (ULSA), Nicaragua  
Red de Agua y Saneamiento de Nicaragua (RASNIC), Nicaragua  
Red Alumni Nicaragua-Alemania, Nicaragua

In Latin America, we work to improve living conditions for impoverished urban and rural populations in Mexico, Cuba and Nicaragua. By providing sanitation facilities and purifying wastewater from homes, schools and hospitals, we help increase people's standard of living while protecting natural resources in a locally sustainable way.

We also work with regional administrations and municipalities to develop integrated water management plans. At the core of this undertaking are strategic questions of urban and regional planning: Where does wastewater go? From which sources? Where do new sanitary facilities need to be built? Where can existing facilities be expanded? Then comes the question of how the treated wastewater can be reused, for example in parks or agriculture. In cooperation with universities, we also carry out continuing education and training programmes.

In Cuba we are involved in the planning for the rehabilitation of Havana Bay's catchment area, an effort that will rely on our decentralised solutions for sanitation and wastewater management.





# The nexus of food production and sanitation

**Project duration:** 2015 – 2017

**Budget:** 0.85 million euro

**Donor:** BMZ

**Regional Partners:**

Grupo Estatal para el Trabajo de Saneamiento de la Bahía de la Habana (GTE), Cuba  
UBPC Viveros de Alamar, Cuba  
Cubasolar, Cuba  
Fondo para La Paz, Mexico  
City of Taxco Alarcón, Mexico  
Sistema Operador de los Servicios de Agua Potable y Alcantarillado del Municipio de Zacatlán (SOSAPAZ), Mexico  
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Red de Agua y Saneamiento de Nicaragua (RASNIC), Nicaragua  
Red Alumni Nicaragua-Alemania, Nicaragua

In Latin America, we are part of the programme “One World – no Hunger” (SEWOH) funded by the German Federal Ministry for Economic Cooperation and Development (BMZ). The aim: reducing undernutrition and malnourishment in Cuba, Mexico and Nicaragua. For us at BORDA, this means developing and improving existing sanitation projects. For example, in the normal cycle of decentralised wastewater treatment systems, biogas facilities can supply energy and treated wastewater can be used for gardening and farming.

“One World – no Hunger” also aims to improve local living conditions in ways that protect natural resources and mitigate climate change. The focus here is on small-scale agricultural operations and impoverished populations living in peripheral areas and satellite towns. We are also building a network where institutions can exchange expertise. Public agencies and governmental organisations are either directly involved as partners in our projects, or they benefit indirectly from our activities.











**Africa**

# Shaping liveable and inclusive cities in Africa



**Project duration:** 2016 – 2018

**Budget:** 3.6 million euro

**Donor:** BMZ

**Partner:**

Technologies for Economic  
Developments (TED)

In Africa, BORDA is working with local public utilities, housing associations and other partners to find integrated solutions for basic sanitation. We continue to build sanitation and wastewater facilities and train skilled local workers in their operation and management. We also support the development of standards for the construction and operation of decentralised wastewater treatment facilities and help to create awareness of the need to adhere to wastewater laws and regulations.

In Tanzania we have developed a Quality Management System (QMS) for the implementation and operation of wastewater and faecal sludge treatment plants using the DEWATS approach. The QMS covers the full range of managerial and technical activities from project initiation to planning and design to implementation and operation to maintenance and evaluation. The documents, instruments and training courses we developed are being tested in Tanzania and will contribute to the spread of DEWATS there. The QMS will also be applied in other countries in the BORDA Africa region after being adapted to local conditions.

In Zambia we are registered as a local NGO. Research activities, technical studies and stakeholder interaction are part of our work there, as is our collaboration in the development of national standards for decentralised sanitation and the design of faecal sludge treatment facilities in Lusaka.

In Tanzania, Zambia and Lesotho our integrated waste management solutions are working for communities. In this way, we are contributing significantly to making Africa's fast-growing cities liveable and inclusive, and to improving the living conditions of low-income residents.





# Promoting food security in rural Mali

**Project duration:** 2016 – 2021

**Budget:** 1.5 million euro

**Donor:** BMZ

**Partners:**

Association pour le Développement  
en Zone Aride (ADAZ)

Harmonie pour le Développement  
au Sahel (HDS)

Reusir la Décentralisation (RLD)

PROTOS

In Mali, our aim is to improve food security and nutrition for impoverished residents. Our focus is on innovative approaches to irrigation in rice cultivation, horticulture and pasture farming. In cooperation with local organisations, we are helping to rebuild pumps that carry water from the Niger River to the fields. Many of these pumps were destroyed or stolen in the war. In the long term, our goal is to adapt agricultural production so that it can withstand the impacts of climate change.



# Employing Stirling engines in agriculture



**Project duration:** 2015 – 2017

**Budget:** 0.2 million euro

**Donor:** GIZ

**Partners:**

CPM, Centre Père Michel

FSF, Formations Sans Frontière

In Mali, we are conducting a field trial to evaluate the performance of Stirling engines in agricultural applications and identify their economic potential. We are also training a team of Stirling engine experts at our Malian partner organisation Centre Père Michel and developing a basic education programme.

# Managing decentralised wastewater treatment in South Africa



**Project duration:** 2017

**Budget:** 45,500 euro

**Donor:** Free Hanseatic City of Bremen

**Partners:**

eThekweni Water & Sanitation  
Department (EWS), Durban

South Africa University of  
KwaZulu-Natal (UKZN), Durban

Municipalities and utilities from  
Durban and other South African cities

Hering South Africa

Decentralised Environmental  
Solutions (DES)

In South Africa, BORDA is working primarily on improving basic sanitation in poor residential areas in Durban. We support our local partner EWS in the development of wastewater management plans, advise on the construction and operation of decentralised treatment plants, and develop customised operator models that more effectively reuse the treated wastewater. We also advise government agencies on administrative processes to permanently incorporate the operation of decentralised wastewater facilities into municipal authorities.



## “DEWATS for Dar” – decentralised wastewater treatment for informal settlements in Dar es Salaam

**Project duration:** 2016 – 2021

**Budget:** 400,000 GBP

**Donor:** UK-AID & HDIF

**Partner:**

Ifakara Health Institute

“DEWATS for Dar” is an innovative model that enables local businesses in Dar es Salaam to financially sustain municipal sanitation. Locally produced equipment for emptying latrines, simple means of transport, and decentralised faecal sludge treatment are the key components.

“DEWATS for Dar” improves living conditions for 54,000 to 90,000 people and reduces the risk of illness and death from waterborne pathogens, especially among women and children.







# Demonstrating decentralised wastewater treatment for areas without sewerage systems in Dar es Salaam



**Project duration:** 2016 – 2018

**Budget:** 123,500 US\$

**Donor:** UNEP

**Partners:**

eThekweni Water & Sanitation Department (EWS), Durban  
South Africa University of KwaZulu-Natal (UKZN), Durban  
Municipalities and utilities from Durban and other South African cities  
Hering South Africa  
Decentralised Environmental Solutions (DES)

Decentralised wastewater treatment as a suitable option in Tanzania for urban areas without connections to a sewerage system: that is the aim of this demonstration project carried out with UN-HABITAT. The necessary legal framework for the construction of decentralised wastewater treatment systems is to be established through the development of technical guidelines and recommendations for national standards. To support this development, the project team monitored and evaluated 24 selected decentralised wastewater systems in order to establish baseline data on their performance. Running parallel to this technical analysis, regular workshops were held with key stakeholders (city planners, housing associations, local authorities) to review existing regulations, ensure transfer of knowledge about the results of the technical analysis, and collect additional requirements.



# West and Central Asia



# Combating the causes of migration in Northern Iraq



**Project duration:** 2017– 2021

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**Budget:** 0.6 million euro

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**Donor:** The German Federal Ministry of Economic Cooperation and Development (BMZ)

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**Partners:**

EJCC (Erbil Joint Crises Coordination Center)  
EAWAG SANDEC  
ETH Zürich

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In the Kurdish regions of Northern Iraq, we have been working since 2014 to improve the living conditions of refugees and locals in host communities. As a follow-up to our implementation of sanitation facilities in refugee camps and neighbouring communities, we are concentrating in 2017 on sustainable greywater treatment and recycling in the camps. Low-contaminate wastewater, such as water from showering, is pre-treated and reused in local agriculture to water crops. This not only helps improve living conditions in the camps but also increases interaction and reduces conflicts between local people and refugees.



# Professional development and decentralised sanitation in West and Central Asia

**Project duration:** 2016 – 2019

**Budget:** 6.5 million euro

**Donor:** BMZ

**Partners:**

Ministry for Urban Development and Housing (MUDH), Afghanistan  
National Environmental Protection Agency (NEPA), Afghanistan  
Afghan Urban Water Supply and Sewerage Corporation (AUWSSC)  
MENA Region Initiative as a model of the NEXUS Approach to Renewable Energy Technologies (MINARET), Jordan  
Ministry of Water and Irrigation, Jordan  
Water Authority of Jordan  
GIZ

In the West and Central Asia region, we have widened BORDA's focus from our initial work in Afghanistan to include new projects in the Middle East. The conflicts in Iraq, Afghanistan and Syria and the resulting refugee flows have enormous consequences. The high number of refugees has heavily strained the already-scarce water resources in the conflict countries as well as the neighbouring host countries. BORDA's decentralised sanitation solutions help empower local communities in Jordan, Iraq and other countries in the region to protect water resources and provide sanitation for all.

In Afghanistan we continue to endeavour for better living conditions and the protection of natural resources. We train craftsmen, technicians and engineers for the wastewater sector, enabling them to master skills such as building septic tanks and manufacturing watertight concrete. Our education and consulting services are mainly targeted to poor residents in densely populated urban and peri-urban areas with insufficient or no access to sanitation facilities. We also want to focus on small businesses whose wastewater from production operations is released into the environment untreated.









# Guidelines for sanitation and faecal sludge management in humanitarian crises

**Project duration:** 2017 – 2019

**Budget:** 125,000 GBP

**Donor:** DFID funded by Elrha's Humanitarian Innovation Fund (HIF)

**Partners:**

WASTE

Solidarités International

Despite numerous innovations and technologies for dealing with humanitarian crises, faecal sludge management is still often absent at the onset of an emergency. BORDA WesCA, in collaboration with Solidarité International and WASTE, is developing and disseminating guidelines on the establishment of faecal sludge disposal sites in the first phase of a humanitarian crisis. Options for handling faecal sludge along with a range of appropriate crisis-tested solutions will be identified and made available to stakeholders, organisations, donors and other interested groups, as well as researchers and students working in the WASH field.





## WASH facilities for schools in Afghanistan



**Project duration:** 2017

**Budget:** 50.000 euro

**Donor:** UNICEF

**Partners:**

UNICEF

Ministry of Education (MoE)

Ministry for Rural Rehabilitation and  
Development (MRRD)

In Afghanistan, we are working with UNICEF to help improve WASH facilities for schools. Existing facilities often incur high costs, have deficient operation and management, and demonstrate a variety of shortcomings including a lack of lighting, ventilation, and facilities for hand washing and menstrual hygiene. For student whose lessons take place in private homes, WASH facilities may not be available or accessible.

As part of this project, WASH facilities for schools will be redesigned and renovated, with options identified for latrines and hand washing stations. Accessibility, sustainability, gender, environment and cost considerations are all taken into account in the design process.

To support the long-term success of this project, we are developing a handbook and instructional video on building prefabricated toilets for schools. A list of recommendations for rehabilitation of existing school toilets, including the reuse-oriented treatment of faecal sludge (FSM), is also in development.





**South Asia**



# Recommendations for wastewater treatment in South India and Nepal



**Project duration:** 2015 – 2017

**Budget:** 1.29 million US\$

**Donor:**

Bill and Melinda Gates Foundation

**Partner:**

Indian Institute of Technology  
Madras (IIT)

In South India, in collaboration with the Swiss Federal Institute of Aquatic Science and Technology (EAWAG), we are conducting the first systematic evaluation of 400 small-scale wastewater treatment plants in South Asia. The evaluation covers technical aspects of system performance and life cycle assessment as well as socio-economic and institutional effects. Our aim is to develop data-based strategic recommendations and improve the treatment facilities' system design. We are also developing recommendations for optimum operation and maintenance, thus enabling skilled personnel to make strategic decisions and discuss wastewater treatment systems on a professional level. In the long term, we are committed to raising awareness in South Asia of the need for services in the wastewater sector, especially for the treatment of faecal sludge.

# Impact Investment Fund in India



**Project duration:**

November 2017 – February 2018

**Budget:** 37,620 US\$

**Donor:** SIDA

**Partners:**

WASTE

Advisers on Urban Environment  
and Development

Vertices Partners

At BORDA we are also focusing on the development of new financial instruments to facilitate the achievement of the UN Sustainable Development Goals (SDGs). To that end, we are working on a joint project to set up an Impact Investment Fund in India. Commissioned by the Swedish International Development Cooperation Agency (SIDA), the project aims to determine development needs as well as risk factors and risk mitigation strategies. In the initial phase BORDA, in collaboration with our partners, is carrying out an investment analysis looking at how to help small businesses in India grow.



# The fight against poverty and the protection of resources in South Asia

**Project duration:** 2015 – 2017

**Budget:** 2.4 million euro

**Donor:** BMZ

**Partners:**

Consortium for DEWATS

Dissemination Society India (CDD Society), Bangalore

EXNORA International, Chennai

Rural Literacy and Health Programme (RLHP), Mysore

Indian Institute of Youth Welfare (IIYW), Nagpur

Environmental and Public Health Organisation (ENPHO), Kathmandu, Nepal

Alchemy, Bangalore; Design

Collaborative, Pondicherry

Centre for Integrated Development (CfID), Ahmedabad

In India and Nepal, BORDA is improving the living conditions of impoverished populations in urban, suburban and rural areas. By providing sanitation facilities and the safe reuse of treatment by-products, we contribute not only to the improvement of public health but also to the protection of local water resources. We are working systematically with municipal authorities and state governments, and we are training specialists from the public and private sector to plan, implement and operate decentralised wastewater treatment plants. Through these activities, we are strengthening the local wastewater sector and creating new jobs. In addition, we actively support the integration of decentralised solutions for sanitation and wastewater management into national, regional and local policies, laws and regulations.





# The nexus of food production and sanitation in India



**Project duration:** 2015 – 2017

**Budget:** 0.8 million euro

**Donor:** BMZ

**Partners:**

EcoPro (Auroville)

Biome Environmental Solutions

Beedi Workers Colony Council

Rural Literacy and Health Program (RLHP) Karnataka

UAS (University of Agricultural Science) Raichur

St. Johns Medical College Bangalore

With our contribution to the “One World – No Hunger” initiative of the German Federal Ministry for Economic Cooperation and Development (BMZ), we are tackling the problem of malnutrition with a two-pronged strategy: first by improving local sanitation services and thus improving public health, and second by using safely treated wastewater and faecal sludge compost on farms to irrigate and fertilise fields, thus closing the nutrient cycle and increasing food production.





# Reuse-oriented treatment of faecal sludge



**Project duration::** 2016–2019

**Budget:** 4 million US\$  
(CDD & BORDA)

**Donor:** BMGF

**Partners:**

Consortium for DEWATS  
Dissemination Society, CDD  
Indian Institute Human Settlement, IIHS  
National Institute of Urban Affairs  
Asian Development Banks  
Asian Institute of Technology, FINISH  
Society

By 2020, 70 % of urban toilets in India will not be connected to a sewerage system. Providing 300 million Indians with sustainable and safe faecal sludge management (FSM) will require an investment of over four billion US dollars. It will also require large numbers of local qualified specialists and skilled workers—a workforce that is currently in short supply. BORDA supports our Indian partner CDD in the implementation of FSM systems in several Indian cities. We provide technical support for the planning, construction and operation of treatment plants, and we enable local operators to manage and maintain these facilities. This project is carried out by CDD with funding from the Bill & Melinda Gates Foundation (BMGF).

Together with CDD, we developed a concept for the reuse-oriented treatment of faecal sludge for the city of Leh and initiated India's first public-private partnership project for FSM. Located in the province of Ladakh in northern India at an altitude of 3,500 meters, Leh is one of the highest cities in the world where people live year-round. The climate is harsh with low temperatures of -30 °C, low air pressure and little rainfall. The city of Leh is jointly implementing our FSM concept with the Blue Water Company (BWC), an Indian sanitation service provider. BWC has entered into a five-year contract with the city for the financing, construction and operation of a faecal sludge treatment plant. BWC invests in the construction of the plant, runs its operations, handles the emptying of septic tanks and the transport of sewage sludge, and trains the required specialists. To pay for these services, the city collects fees from all households. The Leh FSM system is a financially sustainable project with solid long-term prospects.





**Southeast Asia**



# Sustainable resource management in Southeast Asia



**Project duration:** 2017–2019

**Budget:** 5.4 million euro

**Donor:** BMZ

**Partners:**

Cambodia: ESC  
Indonesia: AKSANSI, BEST, LPTP  
Philippines: BNS Philippines  
Laos: MPWT, DHUP  
Myanmar: YCDC  
Thailand: AIT (Asian Institute of Technology)  
Vietnam: VAWR  
ADB, Atmosfair, BMGF, City Alliance 'People-Sanitation-Cities', CIUS (Cambodian Institute for Urban Studies), IDB, Johanniter, PIA (Pruefinstitut fuer Abwassertechnik Aachen GmbH), UNESCAP, UNICEF, UN-HABITAT, Worldbank

Developing liveable and inclusive cities and improving living conditions in poor urban areas – that is our commitment in Southeast Asia.

To establish and improve municipal basic needs services in structurally weak urban areas, BORDA supports municipalities in developing decentralised wastewater and waste management systems and integrating them into urban planning.

We are improving sanitation for poor populations by disseminating our decentralised solutions for handling waste and wastewater. We also actively support new and exemplary cooperation models, such as the People-Sanitation-Cities alliance, and strengthen transnational knowledge sharing.





# Food security and better livelihoods in Cambodia

**Project duration:** 2015 – 2017

**Budget:** 0.6 million euro

**Donor:** BMZ

**Partnes:**

Environmental Sanitation Cambodia; Institute of Technology Cambodia (ITC); Cambodian Center for Study and Development in Agriculture (CEDAC); Rural Economic & Agriculture Development Agency (READA); Save Cambodia's Wildlife (SCW); Peri Urban Agriculture Cooperative (PUAC); Khmer Farmer Garden (KFG); Srer Khmer; Farmer Livelihood Development (FLD); National Biodigester Programme ; Ministry of Rural Development (MRD); Ministry of Agriculture, Forestry and Fisheries (MoAFF); Ministry of Environment(MoE); Ministry of Industry Mines and Energy (MIME)

In Cambodia, we train residents in poor peri-urban settle-ments to more effectively utilise, process and profitably reuse organic waste and wastewater. We have also developed and implemented training programmes to improve agricultural productivity. In conjunction with the strengthening of local community structures, BORDA has demonstrated a model that positively changes many people's lives and reinforces long-term social cohesion. In this way, we are helping to improve food security in impoverished settlements and open up new sources of income for local people. This project is part of the special initiative “One World – No Hunger” sponsored by the German Federal Ministry for Economic Cooperation and Development (BMZ).







# Water management and polycentric urban development in Southeast Asian cities



**Project duration:** 2017 – 2018  
(initial phase)

**Budget:** 39,780 euro

**Donor:** BMBF

**Partners:**

- Asian Institute of Technology (AIT)
- City Alliance  
“People-Sanitation-Cities”
- Habitat Unit of Technical University  
Berlin
- TH Köln – University of Applied  
Sciences
- Vietnam Academy for Water  
Resources
- CIUS (Cambodian Institute for Urban  
Studies)
- Free Hanseatic City of Bremen

Together with the Southeast Asian city alliance “People-Sanitation-Cities” and academic institutions in the region, we are developing practical approaches to polycentric urban development in the fast-growing cities of Southeast Asia. The aim is to enable cities to implement integrated and cross-sectoral water management, thereby contributing to the implementation of the UN’s New Urban Agenda. The end result: more resilient cities with sustainably managed water resources and a greater ability to withstand the impacts of climate change.





Research

# Wastewater with high fat and oil content



**Project duration:** 2014 – 2017

**Donor:** BORDA

**Partner:**

University of KwaZulu-Natal  
UKZN

Wastewater with high fat, oil and grease (FOG) content has a significant impact on the operation and performance of our decentralised wastewater treatment systems (DEWATS). Nevertheless, the reliability of the DEWATS systems should be guaranteed. In this project, BORDA examined the impact of FOG accumulation on the DEWATS modules and evaluated suitable onsite methods for its removal.

# Storm drains for DEWATS systems



**Project duration:** 2015 – 2017

**Donor:** BORDA

A DEWATS system's primary susceptibility to failure is most likely to be in the heart of the system, the oxygen-independent baffle reactor (anaerobic baffled reactor – ABR). Our investigations have shown that many DEWATS systems, and therefore ABRs, struggle with rapid increases in hydraulic pressure during storms. We have seen that these systems produce considerably less faecal sludge during the rainy season than during the dry season, a clear indication that they are negatively impacted by hydraulic surges. To address this problem, we are researching two different storm drains for our DEWATS systems in Indonesia.

# Characteristics of faecal sludge



**Project duration:** 2016 – 2018

**Donor:** BORDA

**Partner:**

University of KwaZulu-Natal  
UKZN

There is little information available on the consistency of faecal sludge, especially on the composition of solids in septic tanks. Many factors such as pit design, climate, geographical location and water consumption influence the composition of the faecal sludge. This presents governments, organisations and companies with a great challenge in implementing concepts for the reuse-oriented treatment of faecal sludge. Our project aims to develop a methodology that helps to determine the properties of faecal sludge without extensive analysis.



## Planning parameters for decentralised wastewater treatment systems

**Project duration:** 2017–2019

**Donor:** BORDA

The main design parameters for communal wastewater treatment plants (WWTP) are the estimated per capita wastewater production, the peak flow factor, and the per capita organic load. These parameters are highly dependent on water availability, climate, culture and income. However, the existing literature on per-person wastewater and organic waste production is focused primarily on Western countries. Engineers in developing countries therefore use design parameters oriented towards Western countries, which can lead to oversized systems and wasted resources. To help generate better local estimates of wastewater characteristics, BORDA is developing a DEWATS design spreadsheet based on available international data and our own studies.



## Sanitation facilities in schools – efficiency and hydraulic load

**Project duration:** 2016–2017

**Donor:** BORDA

**Partner:**

Institute of Technology of Cambodia  
ITC Cambodia

In Cambodia, our school-based sanitation (SBS) programme is a success story. In order to improve these facilities and ensure that they continue to function well in the long term, we are continuously collecting real data on our own systems. We are examining the hydraulic load on two new DEWATS systems for schools: SBS 4.0 and SBS Lite.

SBS 4.0 consists of standardised modules that can be quickly adapted to local conditions. Water consumption can be monitored very easily with this model since appropriate meters are installed from the outset.

SBS Lite is a newer version of our smallest DEWATS system. This allows rural schools to treat even small amounts of wastewater.





# Innovative bio-based sanitation system



**Project duration:** 2016 – 2020

**Budget:** 595,000 euro

**Donor:**  
European Union; Horizon2020

**Partners:**  
Coordination NOBATEK (France)  
20 international companies and  
research and science institutions



The INNOQUA project is to develop a modular wastewater treatment solution and bring it to market. The innovative technology relies on the purifying capacity of earthworms and other biological organisms. INNOQUA provides decentralised bio-based water sanitation systems for rural communities as well as for agricultural operations and sustainable home builders in Europe and developing countries—making it possible to bring ecological, safe and affordable sanitation systems where they are most needed.

As part of the INNOQUA consortium—BORDA's first HORIZON2020 project—we are working with 19 partners, mainly universities and research institutes. Within the framework of this four-year project, BORDA will build two demonstration-sites in India and Tanzania and is also responsible for the communication of the entire project.

# Organisational Structure

## International

### General Assembly

**Members of Bremen Overseas Research and Development Association**

(Bremer Arbeitsgemeinschaft für Überseeforschung und Entwicklung e.V.)



### Board

**Joachim Klaembt**  
Chairman

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**Stefan Reuter**  
Executive Member

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### Directorate Central / HQ

**Stefan Reuter**  
Executive Director

**Andreas Schmidt**  
Director Innovation

**Sören Bettex**  
Director Strategic  
Development (Interim)

### Directorate Regional

**Pedro Kraemer**  
Director Las Américas

**Jutta Camargo**  
Director Africa

**Fatoumata Diaw**  
Director West Africa

**Alejandro Miller**  
Director West and  
Central Asia

**Stanzin Tsephel**  
Director South Asia

**Frank Fladerer**  
Director Southeast Asia



# Administration

- ▶ Financial Planning & Reporting
- ▶ Human Resources
- ▶ Security, Safety, Infrastructure



# Innovation

- ▶ Research & Development
- ▶ Monitoring & Evaluation
- ▶ Knowledge Management



# Implementation

## **Politics / Communications**

- ▶ Advocacy
- ▶ Global development agenda
- ▶ Resource mobilization
- ▶ Public relations

## **Consulting**

- ▶ Specific consultancy projects
- ▶ Commissioned works for commercial clients

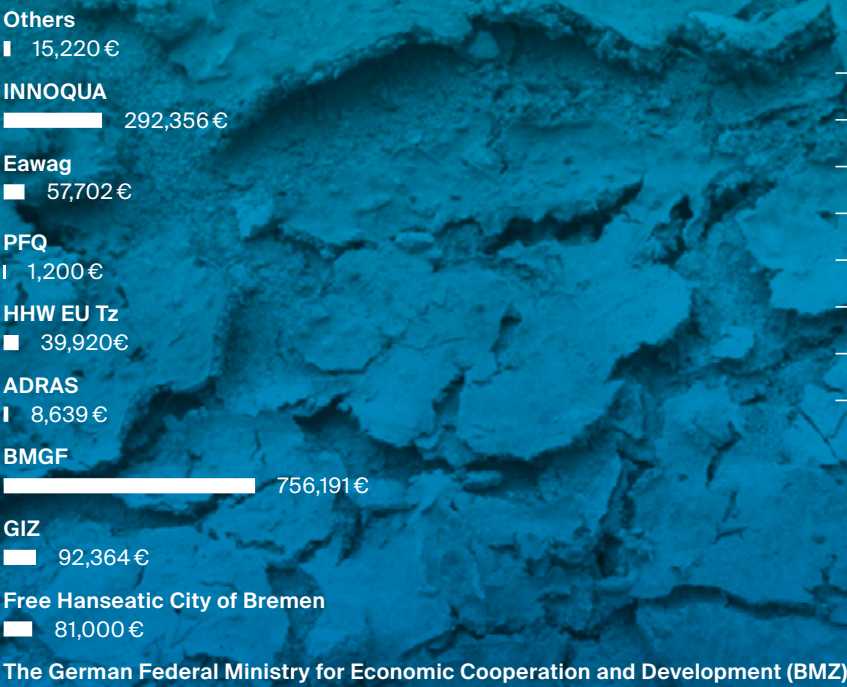
## **Development Assistance**

- ▶ Policy advice
- ▶ Awareness creation
- ▶ Capacity development
- ▶ Pilot plants



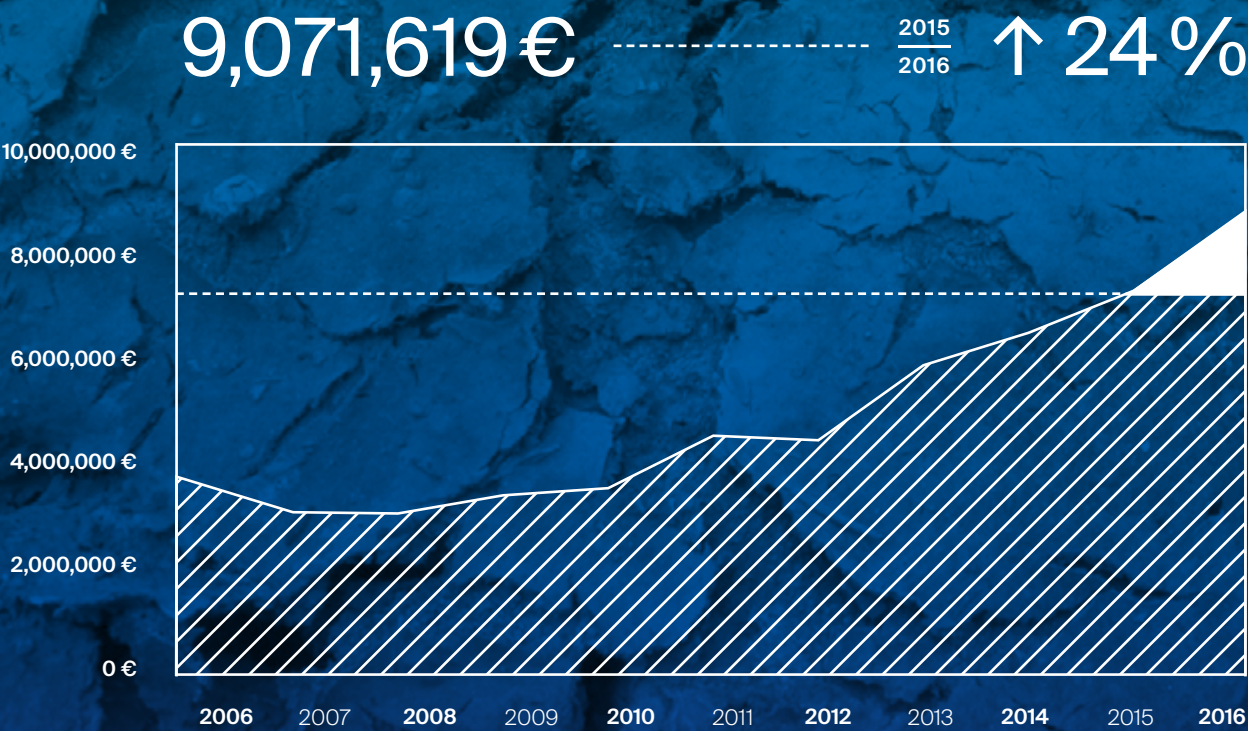
# Facts and Figures 2016

## Turnover by Donor



Total 2016	Region
130	Southeast Asia
92	South Asia
35	West and Central Asia
20	Africa
40	Las Américas
25	Bremen
342	Total

## Change in Turnover 2006 – 2016





## Regional staff

Project management	Public relations	Knowledge management	Technical	Social	Support staff	City and partner liaison officers
12	2	8	51	18	29	10
10	3	8	38	16	17	
4	2	6	9	1	13	
7	1	0	9	3		
13	3	3	19	2		
7	3	1	6		8	
53	14	26	132	40	67	10

7,727,027 €

## Turnover by Location



# Balance Sheet for 2016

## Assets

	EUR	Financial Year EUR	Previous Year EUR
<b>A Assets</b>			
I. Tangible assets			
1. Land, land rights and buildings including buildings on leasehold land	53,640.00		204,023.00
2. Other plant, office furnuture and business equipment	39,897.00		22,170.00
		93.537,00	226,2
II. Financial assets			
Shares in affiliated companies		10.00	10.0
<b>B Current assets</b>			
I. Receivables and other assets			
1. Prepayments made for outstanding projects	9,479,921.21		6,814,057.93
2. Receivables from affiliated companies	0.00		136,392.99
3. Other assets	87,253.81	9.567.175,02	98,829.23
II. Cash in hand, cash at Bundesbank and at banks, and cheques		1.939.528,79	958,008.42
<b>C Prepaid expenses</b>			
		3,567.40	925.39
		11,603,818.21	8,234,416.96

## Equitiy and Liabilities

<b>A. Equity</b>			
I. Profit carried forward		246,501.78	82,168.50
II. Net profit for the year		113,873.24	164,333.28
<b>B. Provisions</b>			
Other provisions		35,124.42	17,389.57
<b>C. Liabilities</b>			
1. Liabilities to banks	0,00		92,500.00
2. Payments received for ongoing projects	10,618,181.59		7,678,633.98
3. Trade payables	14,511.43		0.00
4. Liabilities for project services for the following year – not yet billable	527,943.18		166,480.72
5. Other liabilities	47,682.57		32,910.91
		11.208.318,77	
		11,603,818.21	8,234,416.96



# Income statement

	EUR	Financial Year EUR	Previous Year EUR
1. Project income		7,240,061.85	11,106,968.87
2. Other operating income		179,055.47	32,800.06
3. Expenditure on projects		6,152,900.99	10,083,503.91
<b>4. Gross Profit</b>		<b>1,266,216.31</b>	<b>1,056.265.02</b>
5. Personnel expenses			
a) Wages and salaries	745,810.40		614,124.47
b) Social security and expenses for old-age pensions and support	162,139.19		132,371.82
		907,949.59	746,496.29
6. Depreciation / amortization of intangible assets and tangible assets		26,030.54	18,375.75
7. Other operating expenses		205,735.25	123,013.30
8. Other interest and similar income		1,658.94	133.82
9. Interest and similar expenses		14,286.65	4,180.22
10. Result of ordinary business activity		113,873.24	164,333.28
<b>11. Net profit for the year</b>			<b>164,333.28</b>

## Auditors' report

To Bremer Arbeitsgemeinschaft für Überseeforschung und Entwicklung (Bremen Overseas Research and Development Association) BORDA e. V.

We have audited the annual financial statements, comprising the balance sheet and income statement, together with the bookkeeping system of Bremer Arbeitsgemeinschaft für Überseeforschung und Entwicklung (Bremen Overseas Research and Development Association) BORDA e. V., Bremen, for the business year from January 1 to December 31, 2016. The maintenance of the books and records and the preparation of the annual financial statements in accordance with German commercial law are the responsibility of the association's statutory representatives. Our responsibility is to express an opinion on the annual financial statements, together with the bookkeeping system, based on our audit.

We conducted our audit of the annual financial statements in accordance with Section 317 HGB [Handelsgesetzbuch – German Commercial Code] and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the annual financial statements in accordance with [German] principles of proper accounting are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment

of the Association and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the books and records as well as the annual financial statements are examined primarily on a test basis within the framework of the audit. The audit includes assessing the accounting principles used and significant estimates made by the authorized representatives, as well as evaluating the overall presentation of the annual financial statements. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion, based on the findings of our audit, the annual financial statements comply with the legal requirements and give a true and fair view of the net assets, financial position and results of operations of the Association in accordance with [German] principles of proper accounting.” The auditors’ report reproduced above may not be used for any purposes outside this report except with our prior consent.

In cases in which this auditors’ report is quoted or reference is made to out audit, the annual financial statements may only be published or disclosed in a form at variance to that for which this auditor’s report has been issued (including but not limited to translation into another language) if it is resubmitted to us for auditing. Reference is made to Section 328 HGB in this respect.

Bremen, October 24, 2017  
Kannengiesser & Partner, Partnerschaft mbB

# Project overview

## Projects administered by headquarters – in chronological order

- ▶ **Poverty alleviation and sustainable protection of natural resources in South Asia**
- ▶ **Poverty alleviation and sustainable protection of natural resources in Latin America**
- ▶ **Linking food production and sanitation in poor peri-urban settlements in Latin America**
- ▶ **Linking food production and sanitation in poor peri-urban settlements in India**
- ▶ **Promoting rural and peri-urban food security and improving livelihoods for disadvantaged populations**
- ▶ **Training for small businesses in implementing decentralised basic sanitation and wastewater treatment projects**
- ▶ **Improving basic sanitation and supporting liveable and inclusive cities in Africa**
- ▶ **Promoting sustainable food security in urban and rural areas in Mali**
- ▶ **Sustainable resource management in Southeast Asia**
- ▶ **Improving basic sanitation in refugee camps and neighbouring communities in Northern Iraq**





Donor	Region / Country	Duration	Budget
BMZ	▶ South Asia	2015 – 2017	2.4 Mill. €
BMZ	▶ Las Américas	2015 – 2018	2.4 Mill. €
BMZ	▶ Las Américas	2015 – 2017	0.8 Mill. €
BMZ	▶ India	2015 – 2017	0.8 Mill. €
BMZ	▶ Cambodia	2015 – 2017	0.6 Mill. €
BMZ	▶ West and Central Asia	2016 – 2018	6.5 Mill. €
BMZ	▶ Africa	2016 – 2018	3.6 Mill. €
BMZ	▶ Mali	2016 – 2021	1.5 Mill. €
BMZ	▶ Southeast Asia	2017 – 2019	5.4 Mill. €
BMZ	▶ Iraq	2017 – 2021	0.6 Mill. €



## Projects administered by headquarters – in chronological order

- ▶ Development policy education and public relations 2017
- ▶ DEWATS Durban 2017: Demonstration of decentralised sanitation in schools and poor residential areas of Durban and other South African cities
- ▶ Supporting refugees on the Greek island of Lesbos
- ▶ Child-friendly, gender-sensitive ecologically sustainable school sanitation systems in urban and peri-urban areas in Lesotho
- ▶ SEI - Stockholm Environment Institute - Subgrant “SuSanA Phase III”
- ▶ Adaptation program for sustainable energy technologies in Mali: Stirling engine field test and training for agricultural applications
- ▶ 4S: Small-Scale Sanitation Scaling Up in South Asia
- ▶ INNOQUA: Innovative bio-based onsite sanitation system for water and resource savings
- ▶ Establishing a specialised technical support and field research center for FSM and non-sewered sanitation
- ▶ CEWAS Middle East Programme 2016-2018 - Capacity and Business Development
- ▶ FSM Compendium 2016-2018: Programme for the operationalisation of the German humanitarian WASH sector strategy
- ▶ One World Promoter Programme - Specialist Promoter (Environment, Climate, Water)
- ▶ Securing Water for Food
- ▶ Unicef Rehab School Sanitation
- ▶ Polycentric approaches to the management of urban water resources in Southeast Asia
- ▶ Sanitation solutions for underserved communities in Jordan
- ▶ Oxfam: Modified septic tank for emergencies
- ▶ Planning grant for setting up an Impact Investment Fund in India



Donor	Region / Country	Duration	Budget
EZ Bremen	► Germany	2017	35,000 €
EZ Bremen	► South Africa	2017	45,500 €
EZ Bremen	► Greece	2017	6,000 €
TED – EU Water Facility	► Lesotho	2013 – 2017	25,000 €
SEI	► Germany	2017 – 2019	121,500 €
giz	► Mali	2015 – 2017	<b>0.2 Mill. €</b>
BMGF	► South Asia	2015 – 2017	<b>1.3 Mill. €</b>
EU Horizon 2020/ NOBATEK	► EU	2016 – 2020	<b>0.6 Mill. €</b>
CDD (BMGF)	► South Asia	2016 – 2019	<b>4.0 Mill. US\$</b>
CEWAS	► West and Central Asia	2016 – 2018	
GTO - Foreign Office	► Germany	2016 – 2018	24,900 €
BeN	► Germany	2017 – 2019	<b>0.2 Mill. €</b>
WASTE	► Afghanistan	2017	9,195 US\$
Unicef	► Global	2016 – 2017	50,000 €
BMBF	► Southeast Asia	2017	39,780 €
SDC	► Jordan	2017 – 2021	40,000 €
Oxfam	► Global	2017 – 2018	40,000 €
SIDA	► India	2017 – 2018	37,620 US\$





With a network of local partner organisations, we work in 25 countries around the world. The global water sector is facing a fundamental transformation—we see ourselves as one of the driving forces of this change.



<b>Text</b>	Cornelia Dirks Carol Haynes Sven Meyer Christoph Sodemann
<b>Photos</b>	All rights reserved by BORDA Page 14: © CEphoto, Uwe Aranas
<b>Printing</b>	Laserline, Berlin
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<b>Cover Photo</b>	BORDA Executive Director Stefan Reuter and Roshan Shrestha, Senior Programme Officer Urban Sanitation Markets of the Bill & Melinda Gates Foundation, inspecting the faecal sludge treatment plant in Leh, India, located at an altitude of 12.000 feet



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