Annual report 2015

We proudly present the **2015 annual overview** in which we display a few highlights of our work. In 2015, we worked towards completion of two of our substantial programs; The Dutch WASH alliance and the S(P)EEDKITS program, in which we have booked successes in getting innovative technologies into the sector. In our other projects, we continued our established relationship with partners and jointly created impact on the ground. As an organization, we have strengthened our positioning by organizing a training on 'Business cases in Water and Sanitation projects', attracting an international audience. To be able to continue our innovative work, in 2015 we have invested our restricted reserves in the development of a range of new technologies and concepts.
Altogether a great achievement of our international team of experts and as a result we look back at a successful year.

Robert Vuik
Director Operations

Jan Nederstigt
General Director

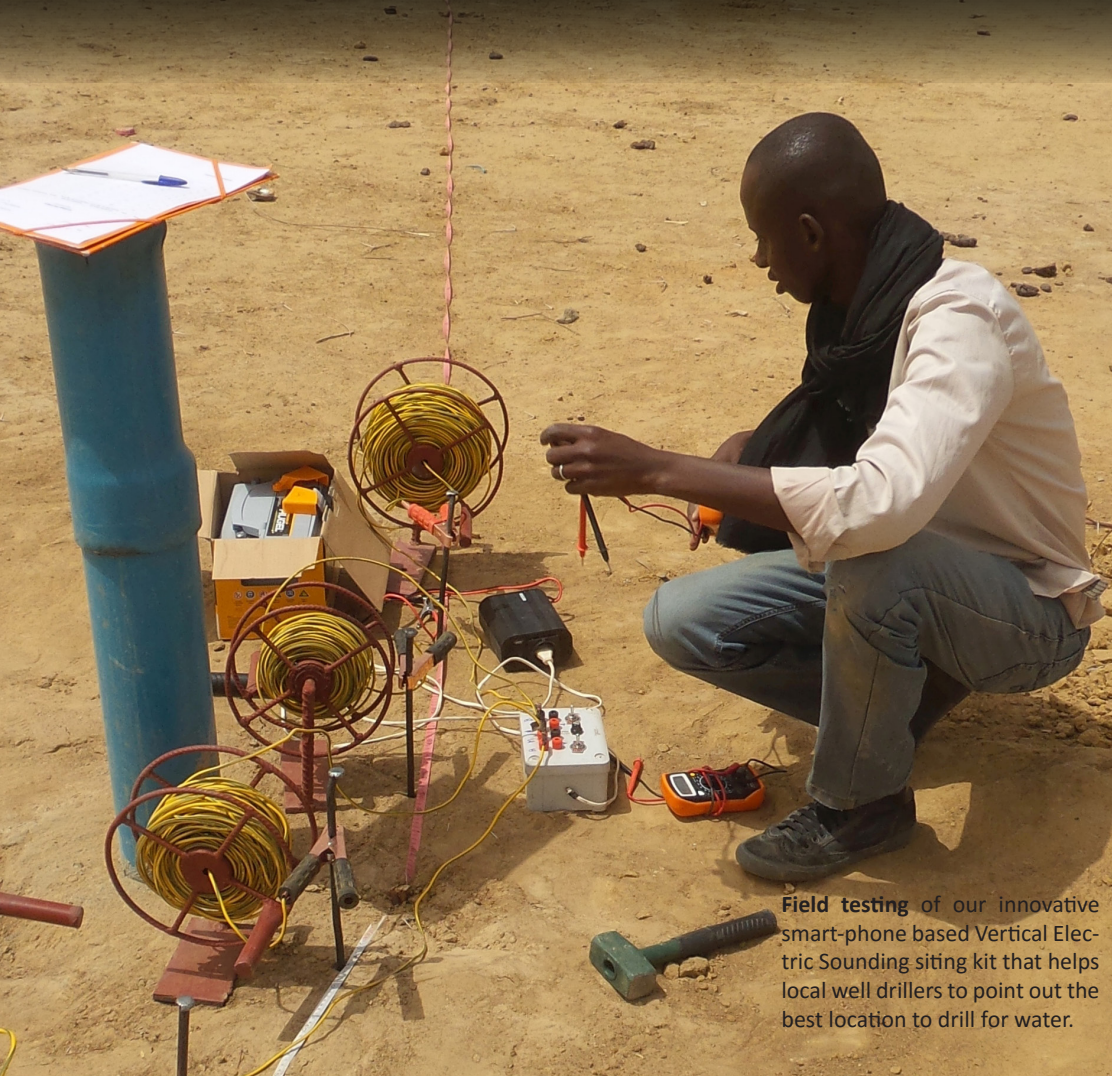
PRACTICA
FOUNDATION

At a glance

In developing countries the need for clean drinking water, food, sanitation facilities and energy will continue to grow the coming years, due to population growth, inadequate governance and failing of existing facilities. **Our vision** is that the private sector in these fragile economies will play an increasingly important role to cater for this need: Knowledge transfer on existing low cost technologies and development and dissemination of new technologies by partnering with the local private sector will contribute to support the global and inclusive access to water, sanitation and energy.

Our mission statement: *Seeding practical and affordable technologies for socio-economic change;*
By continued innovation and dissemination of technologies through adequate business models we trigger socio-economic change as well as sustainable services.

On operational level, PRACTICA acts as a non-profit consultancy organization: We partner with international and local organizations and support those organizations to implement technical innovations within their programs. We charge a consultancy fee for those services based on a cost-recovery basis. Financial reserves of the foundation are being used for applied research and product development to ensure continued innovation in the sector.



Field testing of our innovative smart-phone based Vertical Electric Sounding siting kit that helps local well drillers to point out the best location to drill for water.

Water

Tilicho WASH is the joint venture of Ma Durga Engineering, a metal workshop in Nepalgunj and Sahakarmi Samaj, a community based network organization in Kohalpur, both in Banke District, Nepal. Through our technical support, the two partners have joined forces for the production of Rope Pumps in the Nepalese Terai area. With these pumps being available on the market now, families have an affordable alternative for the traditional handpumps that are failing in areas where the water table has dropped below 7 meters. The rope pump is also an alternative for the bucket and rope that people are using to collect water from open wells; by installing the pump, the wells can be closed, minimizing the risk of contamination of the water.
Tilicho WASH was officially registered in 2015 as a for-profit company. Sahakarmi Samaj, as a non-profit organization, will be able to feed the profit back into the organization to support rural communities. Tilicho WASH is expecting production and sales of 200 pumps in 2016.

Our water projects focus on access, extraction and use of water, both for drinking and small-scale productive uses like irrigation. With innovative technologies, we support the local private sector in providing affordable water services. Typical innovations include manual well drilling to get access to the groundwater and local procurement or local production of low-cost family handpumps to get water closer to the homes.
Together with the government and regulatory bodies, we develop new norms and standards that favor these tailored and localized approaches.

Marketable product development

The aim of the EU funded S(p)eedkits project is to improve hardware for relief organizations. We decided to keep it practical: focus on down-to-earth product development that goes beyond theoretical concepts. Products suitable for viable market introduction. Product gaps were identified in close collaboration with project partners including MSF, Red Cross the Netherlands and the IFRC Shelter Research Unit. After designing, engineering, testing and redesigning, several products have been developed of which two products are nearing market introduction or are already on the market, for example the Emergency Rotary Jetting kit: an upgraded version of a rotary jetting kit adapted to meet the requirements of emergency settings. In Liberia and Ethiopia the kit was put to the test and proved so successful that OXFAM UK decided to make this kit a standard part of their hardware readily available for all relief organizations.

Energy

In rural areas in developing countries, grid power supply is often not available or unreliable. In those cases, people rely on other sources of energy for both domestic and productive use. The use of **renewable energy sources** is often feasible as a replacement of conventional energy sources like petrol, diesel, firewood or kerosene. This does not only reduce pressure on the environment, but also offers better financial perspectives for productive uses like small scale irrigation.
PRACTICA promotes technologies that are both technically and financially viable for the rural population. Where those technologies do not exist or can be improved, we initiate Research & Development trajectories.

Together with our partners, we have allocated resources to the development of an affordable solar pump for smallholder farmers, which has resulted in the production and marketing of the **Sunflower** pump. Our commercialization partner Futurepump has set up production in India and rolled out a full marketing and field trial around Kisumu, Kenya. This has sparked the next design iterations of the Sunflower and expansion of activities to Ethiopia, Uganda, Tanzania and Rwanda is now planned.

Photo by Futurepump

Sanitation

A quickly growing focal area for us is sanitation; Though important achievements have been made in latrine construction, conventional sanitation approaches fail to address some major challenges in terms of technology, economics and partnerships. Given the complexity of managing excreta in densely populated neighbourhoods, innovation is required at each step: We focus on the development and promotion of affordable latrines, soak pits and toilets that are more user-friendly and easier to manage, the establishment of efficient and sustainable services to remove and treat faecal sludge and where possible linking sanitation services providers to other sectors, such as agriculture or power generation.

Impact is a Malagasy social enterprise delivering latrines and pit emptying services in Tamatave. It has been created by Dolly Ratsimba, on of our young engineers involved in the Dutch Young Expert Program (YEP) Water. Currently, IMPACT employs about 10 people including 2 teams of 3 pits emptiers.
Impact is supported by Practica in developing its business, by improving both technical and marketing issues.
In 2015, Impact served 345 customers, with more than 500m^3 of faecal sludge evacuated and treated. The service is working about 170 days per year and uses diaphragm handpumps and basic tools for sludge removal. Sludge is stored in plastic drums or bigger tanks and transported with a tiller, trucks and tractor to disposal sites.

Madagascar

Since 2006 we have been working on the development and dissemination of a wide range of new solutions for irrigation, water and sanitation in Madagascar.
In the past 10 years we trained more than 50 Malagasy entrepreneurs in providing products and services like community wells, locally made handpumps, treadle pumps, ferro-cement septic tanks and clean toilet pit emptying services.
Madagascar is a very inspiring country, where such solutions have a key role to play to reach the SDG on food security, water and sanitation as well as economic development. In that sense, the involvement of our Malagasy staff in our R&D work is very valuable as it helps to optimize usability and affordability of developed solutions. We are very proud that our Malagasy staff directly contributed to the emergence of more than 60 professional drilling enterprises in 10 different countries in Asia and Africa. More and more, the Madagascar team will play a key role in developing new concepts, services and technologies.
Xavier Gras, Country Director Madagascar

The Tamatave Faecal Sludge Management and Treatment project aims to develop a sustainable FSM chain for the city of Tamatave (270.000 inhabitants). Since 2012, we have been working with the Municipality to set up a sustainable FSM system including the development of small emptying services and the construction of a 100m3/month capacity sludge composting plant. As only two vacuum trucks operated in Tamatave in the past, FSM was mainly the work of informal day laborers who emptied the pits manually and sludge was always buried in the yards of the households. This lead to high risk of contamination of the water from shallow wells that 60% of the population uses.
The project focuses on the establishment of a low-cost pit emptying business and building an extensive sludge treatment plant, ensuring easy maintenance and low operation costs. Both public and private partners have been involved and strengthened all along the project. By the end of 2016, more than 25.000 people will be served by the established enterprises. At the same time, innovative solutions as low-cost desludging businesses and constructed wetlands for sludge treatment are being developed and disseminated in Madagascar and other African countries.

What our partners say: WSUP Madagascar

"We hired PRACTICA to conduct the financial analysis of two different FSM services that WSUP was designing for the Municipality of Antananarivo and a suburban Commune. We have been particularly impressed by the technical and business skills of PRACTICA on the FSM sector. PRACTICA provided us some very valuable advice, ideas and tools to set the technical, financial and management parts for our new business models. From our experience we are able to say that PRACTICA is a key partner for developing optimal FSM services, particularly in Madagascar."

WSUP
Water & Sanitation for the Urban Poor

2015 BY THE NUMBERS

Some key figures:

28 projects

in a total of **19** countries

with more than **55** enterprises trained

By our team of

8 Experts in the Netherlands

7 Local and international experts in Madagascar

5 board members

2 international experts

2 volunteers

with our **partners** including:

International Water Management Institute

SPEEDKITS

iDE

unicef

Future pump

WASH ALLIANCE International

Accelerating WASH

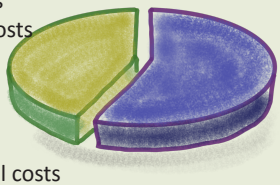
Finances

In the current project and partnerships, PRACTICA has the role of technical support partner. We are being paid for our services on a project and contract basis, which is the single source of income. Project incomes cover the costs of operation, including our overhead.

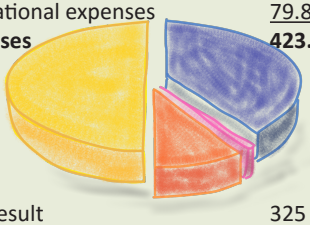
PRACTICA foundation is registered as a non-profit organization; where possible a modest margin is included in the individual projects to be able to either cross-subsidize other projects or to invest in strategic projects and concepts.

As a project organization, our incomes and expenditures are registered under the different projects with manpower being the main component of the costs.

	EUR
Revenues	974.374
Project costs	-550.108
424.266	



Personnel costs	336.726
Depreciation	7.386
Other operational expenses	79.829
Total expenses	**423.941**



Operating result	325
Finance result	1.153
Surplus for the year	**1.478**

The surplus for the year 2015 is added to the following reserves:

- Continuity reserve	19.175
- Restricted reserves	-13.592
- Other reserves	-4.105
	1.478

Our continuity reserve is increased annually to cover a total of up to 50% of the annual operational costs. The restricted reserves are used for cross-subsidizing projects, concept development and investments in workshop and office facilities in Madagascar and the Netherlands.

In 2015, restricted reserves have been reduced due to the completion of some of the internal projects.

Strategic focus

With the evolving water, sanitation and energy sectors, new challenges and opportunities arise related to the usability and application of innovations in developing markets and countries. Through our networks and our fieldwork, we pick up challenges and high-potential solutions. Where we notice that market parties are not showing initiative in linking new technological opportunities with market demands, we take our responsibility as technology incubator. Where possible, we use our revenues to make innovations market-ready and seek close cooperation with knowledge institutes and market parties. Our current focus is on the following three innovation areas:

Improved water supply for peri-urban and rural areas that are based on a for-profit model and cost recovery have the potential to scale without relying on donor funding.

To facilitate the transition to economically viable drinking water systems, we develop modular designs and economic models for small scale piped water systems (micro water grids) as well as (pre)payment systems and management models for community handpumps.

Together with our partners, we aim at rolling-out pilots for these innovations in 2016.

Solar powered irrigation pumps have enormous potential for smallholder farmers to substitute polluting engine powered pumpsets, reducing both cash inputs as well as CO2 emissions. At the same time, the solar powered irrigation pump technologies we have developed also enable smallholder farmers to shift from rain-fed or manually irrigated agriculture to mechanized irrigation at affordable costs. With the experience from the first product, we aim at expanding the product range together with our partners to enable more smallholder farmers to make the shift to solar powered irrigation.

Faecal sludge collection, management and safe disposal in urban areas can be implemented sustainably when involving regulatory bodies and make smart linkages with private sector initiatives.

We have developed technologies and training modules for private sector latrine emptying services and successfully piloted and refined these approaches in Madagascar. Focus now is on the next steps to develop our products even further and to export the approach to other countries and cities to establish sustainable faecal sludge management services.

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