

Stichting WASTE

www.waste.nl The Hague, Netherlands

## **Director's letter** A note from WASTE's Executive Director, Han de Groot



After decades of global economic growth there are still so many people that lack access to basic facilities such as a functioning toilet. This, despite the best efforts of numerous governments and a long history of international development cooperation. At WASTE, and in our partner-network, we believe that there is immense potential in locally developed alternatives and in our programs, we always make sure that all relevant local stakeholders find a suitable role in the solutions we develop together.

So, 2021 was a year in which we built on existing partnerships, but also developed new ones.

Building on our extensive experience, and with the guidance of the latest WASTE strategy developed in 2020, we were able to start the implementation phase of some of the core pillars of this strategy: bring sanitation and faecal sludge management to scale, work on innovative financing solutions and continue to be a facilitator for inclusive solid waste solutions.

Making use of our new legal set-up alongside new colleagues and supervisory board members, we successfully worked on a stronger organizational foundation for our work. Although the COVID-19 pandemic did put the brakes on some of the work, and especially international exchange, we are proud to have reached most of what we set out to do. This could only happen through the tireless efforts of many: our partners, their partners, our colleagues and all those that work with us, knowing that their work really matters a lot, to many.

## In memoriam, Arnold van de Klundert

Remembering one of WASTE's co-founders

On 2 June 2021 at the age of 72, one of the founders of WASTE, Arnold van de Klundert, passed away. We remember Arnold here as pivotal to the spirit of WASTE that still brings us together today. Together with 3 enthusiastic persons, Jaap Rijnsburger, Theo Thijssen and Krijn Oosterhof they set up WASTE in 1983 with the aim to vision to improve the livelihoods of low-income communities by sustainable development interventions. Arnold was a strong believer in inclusivity and equity. This has always been visible in the work that WASTE does but also in the governance set up of the organisation. For the longest time the staff members had a big say in the strategy and management of the foundation. Within projects and programmes local partners played an important role in the planning and implementation of their projects. This principle has created strong bonds between WASTE and live long partners around the world. Even after Arnold had to stop working, he continued to be involved in the ongoings of WASTE, as member of the Supervisory Board. He loved to think alongside on the developments around our work. WASTE hopes to continue to work in the spirit of Arnold's ideas and vision, an inclusive and equitable world in which all people can enjoy healthy lives and a clean environment.





In 2021, we mobilised more than €25.6 million in local sanitation investments, delivering on



2 major, multi-million euro programmes, 5 smaller projects and various consultancies, Active in 9 countries, Contributing to a healthier environment and improved livelihoods for more than 1.2 million people.

WASTE is providing solutions to urban challenges in three key areas

Sanitation & faecal sludge management



187,000 toilets constructed, reaching nearly 1 million people with safely managed sanitation



13,000 tonnes of faecal sludge safely treated, with almost 1,000 tonnes upcycled into organic fertiliser, benefitting local agriculture

1.8 million working days generated in sanitation construction

## Solid waste management, incl. plastics



2,000 tonnes of plastic managed saved from polluting the environment



40,000 households in Rajasthan state reached with improved municipal waste services a 150% increase from the year prior



8,600 young entrepreneurs supported in Mali with business support

## Innovative financing



#### €25.6 million mobilised for local sanitation investments



€5.2 million in grant funding

secured to reach the 'missing middle' of WASH & waste businesses in India, Kenya & Uganda



#### €50 million dedicated to sanitation loan portfolios through our work developing the jo

our work developing the joint ACTIAM Sanitation & Water mpact Fund

## Introduction

## About

WASTE is an international development organisation focused on sanitation and waste management. WASTE was founded in 1983 and is headquartered in The Hague, The Netherlands. WASTE designs and implements innovative programmes and systems-change approaches to ensure impact that is lasting and locally relevant. We strengthen collaboration between expert partners and capacitate key local stakeholders such as local communities, governments, financial institutions, and entrepreneurs. The following presents a glimpse into the activities and progress of the organisation during 2021.

Despite the continued challenges faced due to the ongoing COVID-19 pandemic, WASTE, along with its partners and programmes, succeeded in much of what we set out to do.

## Some major programmatic achievements

- 91% of sanitation targets achieved, resulting in 186,500 toilets constructed, reaching nearly 1 million people with safely managed sanitation across all 6 country programmes under our FINISH Mondial programme.
- More than 100,000 tonnes of solid waste safely treated and re-used, complemented by more than 13,000 tonnes of faecal sludge safely treated and re-used, building on our push for an integrated approach to solid waste and faecal sludge management.

• Successful preparatory phase completed yielding a new partnership with Yunus Social Business signed and our Take-a-Stake project ready to launch investments in SGBs in the WASH and waste sectors in the new year.

## On top of major organisational

#### progress

- Strengthening and expanding our team we welcomed a new Executive Director, new staff and project team members, and 3 new members joined our Supervisory Board.
- Investing in our organisation updating old policies to match our more current vision and mission as well as staff needs.
- We started the year in a new legal setup, where our main entity, the WASTE Foundation got new by-laws and remains closely connected to the WASTE Cooperative (COOP), a group of independent waste and sanitation experts.

All coming together to contribute towards progressing our key aim of scaling inclusive sanitation and solid waste management initiatives.

## **Stand-out stories from 2021**



## Sometimes you need a bit of money to make money: Journey of Kamoko Sidibé, waste entrepreneur in Mali

Kamoko Sidibé is not a start-up. He has had this enterprise since 2006, but never managed to realise a regular income high enough to support him and his family. Kamoko Sidibé was one of the first to get accepted into the EJOM programme and follow the 10-day training. With this, he received start-up funding (the so-called KIT) of approximately €450. He purchased a tricycle, which helped him collect more metals from farther away. Later on, he submitted a business plan to EJOM to further develop his enterprise by adding a shed and a good scale to his workplace.



## Investing in youth: profiling the next generation of development professionals

Core to our spirit and ambition, WASTE is constantly balancing the fine line between innovating while meanwhile not 'reinventing the wheel' when it comes to our work and creating lasting impact in development. WASTE builds partnerships and strengthens existing models for successful scaling. Meanwhile, we welcome dynamic thinkers and support innovative research topics in collaboration with various European and international universities and research institutions. We sat down with six of these young WASTE professionals to find out more about their experience and future visions for the international development sector.



## Plastic pollution is a key driver for sustainable solid waste management systems

WASTE has a long history of supporting small businesses in low- and middle- income countries, also in plastic recycling. We know the business models in plastic waste management that are financially sustainable because without making profit, these businesses just don't exist. Our publication 'Heroes in Plastic Waste Recycling' showcases detailed analyses of successful business models in different African contexts.

We still have a long way to go before we achieve 'circularity' in the plastics industry, yet bold innovations that challenge existing designs, materials and business models are needed.

## Our focus:

## Expertise & impact

## **Our expertise**

WASTE specialises in the fields of (a) sanitation and faecal sludge management, (b) solid waste and recycling including plastics recycling, and (c) innovative financing. Most of our programmes apply varying degrees of incorporating these three areas of focus, as they work together to achieve successful interventions in harmony. Each one of WASTE's programmes can be understood as emphasising one area, with the others playing a supporting but key role in its success.

> Sanitation & faecal sludge management Developing local markets, addressing the entire sanitation value chain.



management, incl. plastics recycling Employing integrated solutions for sustainable

**Solid waste** 

Innovative financing

Attracting commercial finance to address challenges in urban development.

## Combining impact to achieve the Sustainable Development Goals



Our work contributes to the United Nations' (UN) Sustainable Development Goals (SDGs), aligning with global efforts to achieve a better and more sustainable future for all. Our guiding framework is SDG 11 (sustainable cities and communities), supported especially by SDGs 6 (clean water and sanitation), 8 (decent work and economic growth),

5 (gender equality), and 13 (climate action). We have focused on developing interventions which have cross-sectoral impact, linking to multiple SDGs, to achieve greater impact and ensure sustainability by strengthening whole 'systems' or markets, together.

# Sanitation & faecal sludge management



Today, 2.5 billion people globally still lack access to safely managed sanitation.

Meanwhile, 80% of faecal sludge/wastewater ends up in the environment untreated, resulting in avoidable illness, killing over 2,000 children every day more than AIDS, malaria, and measles combined.

WASTE employs a market-based approach to address supply and demand sides of local market challenges to tackle the global sanitation crisis. We develop integrated solutions to human and organic waste management, particularly for reuse and treatment. Through this integrated approach, our work incorporates principles of circularity at its core. We are increasingly stimulating local circular economies for cross-sectoral impact. Through sanitation, we link impact with sectors such as agriculture and renewable energy.

How do we achieve this?

By addressing the entire value chain of sanitation, we are not only ensuring that people and communities have quality toilets and handwashing infrastructure, but that the waste being collected is safely contained before being extracted, transported, treated, and upcycled into valuable, nutrient-dense products. Through this detailed approach, we (a) ensure human waste is removed from contact with people and the environment, (b) unlock decent employment opportunities for sanitation entrepreneurs, and (c) upcycle waste into a product which creates value, such as co-compost (organic fertiliser), to restore depleted soils for climate impact and to benefit farmers.

Our FINISH Mondial and WASH SDG programmes are leading the way in WASTE's portfolio focus area of sanitation and faecal sludge management.

## Notable annual achievements in sanitation & faecal sludge management

- 187,000 safely managed sanitation facilities (toilets) constructed, contributing to 933,000 people leading healthier lives
- More than 13,000 tonnes of faecal sludge safely treated, with almost 1,000 tonnes being safely reused to benefit farmers
- Nearly 10,000 children impacted through school WASH
- 1.8 million working days generated in construction alone

#### Research & publications 2021

- Exploring Public-Private Partnership (PPP) business models in faecal sludge management/composting businesses in Nilgiris, India (Matthew Tenyon Dweh, MSc student, IHE Delft, 2021).
- Study on public perception on the reuse of co-compost from faecal sludge in Bhubaneswar, Odisha, India. (Mohammed Ali Ibrahim, MSc student, IHE Delft, 2021).



Our FINISH Mondial programme is linking sanitation and agriculture for circular impact in Uganda. Click to watch the full video (2021).

## Reducing the costs of sanitation



Toilet in a box

The 'Toilet in a box' is a pre-fabricated, modular toilet product, designed to standardise quality and reduce the time (and therefore, costs) of toilet construction. This innovation was developed and piloted in Ethiopia in 2021.



Vertiver grass toilet

The vertiver grass toilet is a nature-based solution toilet design that was piloted in Kenya in 2021. This design was the winning submission to the first annual SanTech Hackathon.



#### SanTech Hackathon

The SanTech Hackathon is an annual virtual event created and implemented by WASTE technical experts working under our FINISH Mondial programme Technical Working Group. The Hackathon is a grassroots initiative to source and reward small yet effective improvements to toilets to reduce costs and make sanitation more widely accessible



Constructed wetlands

Constructed wetlands are a staple in WASTE's repertoire of accessible, nature-based solutions for waste management. Constructed wetlands are an inexpensive option to treat faecal sludge. The faecal sludge becomes a valuable input for then upcycling and creating products (like co-compost, briquettes) to benefit local circular economies.



## Special feature: Technical innovations

One of the main reasons for lack of sanitation coverage is unaffordability (especially for peri-urban and rural populations in low- and middle-income countries). Lack of innovation on reducing the cost of sanitation is an issue WASTE has been working on for decades.

Why? WASTE strives to make sanitation facilities available and therefore, affordable to millions of people. Our FINISH Mondial programme's Technical Working Group, led by WASTE technical experts, is prioritising innovation and (incrementally) lowering the cost of existing sanitation technologies by reducing the construction time and materials. These innovations contribute to our aims of being able to reach scale, making safely managed sanitation for an increasingly wider pool of people possible.

WASTE worked with our programme partners to design, pilot, and implement, a new methodology of sanitation system construction that is being called "toilet in the box". In this concept, concrete slabs and blocks for toilet construction are prefabricated off-site and assembled in-situ. This methodology helped especially our FINISH Mondial Ethiopia country programme reduce construction time by more than 50% and the cost of the toilets by 25%. The Technical Working Group will scale-up this product to Kenya, Uganda and Tanzania country programmes in 2022.

The Technical Working Group also hosts an engineering (technical) hackathon (the SanTech Hackathon) annually, where innovators are challenged to come up with novel design and/or demonstrate a novel choice of materials used and/or a new process that will help to reduce the cost of sanitation systems. In 2021, we piloted winner of the 1st SanTech Hackathon, in Homa Bay, Kenya. The winning innovation was a vertiver grass toilet technology—a low-cost, nature-based solution. We will integrate this technology as one of our sanitation products options in future projects. Unlocking unlikely opportunities for women entrepreneurs in sanitation and waste management



Over 60% of toilets in rural areas have been found to be poorly constructed, do not meet the standards for basic sanitation services and cannot be emptied, hindering safe disposal, according to Uganda's Kabarole District (Western Uganda, Rwenzori region) Water/sanitation/hygiene (WASH) Master Plan 2013-18. Furthermore, 4% of the population has no access to any sanitation facility and 81% of Kabarole's population have traditional pit latrines. The FINISH Mondial (FM) Uganda programme, implemented by Caritas Fort Portal–HEWASA and Amref Health Africa, have taken this gap in sanitation and service delivery to transform local communities by improving sanitation standards.

Our programmes are not only promoting safely managed sanitation facilities and strengthening the entire sanitation value chain but unlocking unlikely opportunities for women in sanitation and waste management, especially in construction. The approach results in peopling being aware of the need for a safe and durable toilet, they want to buy one, can afford it, and local people can build them. Financial Inclusion Improves Sanitation & Health (FINISH) Mondial is one of WASTE's programmes working on these issues in 6 countries throughout East Africa and South Asia contributing to healthier and socio-economically empowered communities, led by WASTE, in partnership with Amref Flying Doctors and Aqua for All.

## Nearly 4 decades of private sector development in sanitation and waste management

WASTE has been working on private sector development in sanitation and waste management for nearly 4 decades. This has resulted in a close partnership with the FM Uganda's supply side partner, Caritas Fort Portal-HEWASA, for almost a decade. Caritas provides the onward technical training and business support to local WASH and waste management entrepreneurs. Business support can range from things like basic bookkeeping to facilitating access to finance through WASH loan portfolio development with local microfinance institutions (MFIs). The approach is tailored to each local context and needs in each project, geographic and country area needs. Tweheyo Naume photographed at a construction site where she was constructing an improved toilet under the FINISH Mondial programme in Bunyangabu District, Uganda.

"[In the past,] people in our communities were suffering from several diseases, like cholera and typhoid, but because of the improved sanitation situation, people no longer suffer from those diseases and their earnings have increased due to less spending on healthcare."

Female masons can play a significant role in realising the dream of safely managed sanitation for households demanding it, with 45% of toilets constructed by female masons under the FM Uganda programme. A few key players have been leading as master artisans in the area. This has been as result of the strengthened supply chain which has created a 'win-win' situation.

Appealing to both a young and female audience, the programme partners have demonstrated that there are opportunities in construction for women, breaking down common taboos about what the work of a mason requires. The programme is training local young women to gain skills in construction and form small groups to construct quality sanitation infrastructure (namely, toilets), boosting their own economic strength as well as realising improved sanitary facilities for their communities.



An ambassador for female inclusion in construction work

Tweheyo Naume, the 23-year old mason featured here, is an ambassador for this approach. She told us, "I want to thank FINISH for involving us. They have trained us and now we have acquired skills in constructing different sanitation technologies. They have created job opportunities for us and now we are able to look after ourselves and help our families as well."

She elaborated on the impact of her work, "[In the past,] people in our communities were suffering from several diseases, like cholera and typhoid, but because of the improved sanitation situation, people no longer suffer from those diseases and their earnings have increased due to less spending on healthcare."

Naume has constructed over 80 toilets so far in Western Uganda, contributing to the FINISH Mondial Uganda programme's great achievement of constructing more than 18,000 toilets in 2021. Her dream is to become known in the region for her quality work and start up a female-only construction company as a way of empowering them and sticking together in a largely male-dominate field. She has started up additional side businesses from the funds she earns as a mason, such as a poultry project she runs together with her mother. Furthermore, Naume has trained over 40 more female masons through her work. They have acquired skills, a reputation for quality work and are now in high demand. This increases their household income and their standards of living.

The involvement of female masons in the programme is unique in this area, where construction has mainly been considered disproportionately men's work. However, WASTE's approach to entrepreneurial and business development is universal, identifying underserved parts of local systems to bridge gaps in sanitation and waste services. The FINISH Mondial Uganda team is leading the way to make the case for female inclusion in skilled construction work. The FINISH programme is also working on other gender inclusion issues, such as appealing to men to see opportunities in work that has been traditionally seen as women-dominated work, such as is the case with Community Health Workers (CHWs). CHWs are often seen in the programmes to be majority female, conducting the awareness raising and demand creation for safe sanitation, but it doesn't have to be that way.

Gender empowerment must focus on opening opportunities for both men and women. Our approach to strengthening the entire value chain of sanitation means increasing opportunities for local ownership of the process and sustainability of initiatives, regardless of gender.

# Solid waste management including plastics



Nearly 85% of global waste does not get recycled.

In India alone, mismanaged plastic waste is an important part of overall municipal waste management problems in cities.

Due to rapid urbanisation and economic development, the amounts of urban solid waste continue to increase, and the plastic waste fraction is growing even faster. Today, this can amount to more than 10% of total waste. Due to lack of adequate waste management systems, plastic waste is mostly dumped in the environment, littered, or burnt, yielding drastic environmental and health consequences. This waste often ends up in waterways, eventually polluting waterbodies and oceans.

With a focus on business development, resource recovery and stimulating the circular economy to extend the lifecycle of waste (keeping it longer in the product/use cycle 'loop'), WASTE's experience builds on a track record of projects in Asia and Africa where we work with a broad network of local partners. WASTE is championing sustainable business models for plastic recycling as well as integrated solutions to solid waste management (SWM). The potential to revolutionise waste management is great. New business models and ways of integrating services opens opportunities for cities as well as the local workforce. The potential in combining solid waste and faecal sludge management (FSM) into integrative businesses that support circular economies provides ways for businesses to employ more people locally. Circular economy programme interventions prioritise sustainability—not only facilitating local market development through infrastructure and business models being set up, but that they are maintained and continue to be used long after WASTE and its partners step away.

Integrated waste management can bring in especially young people interested in tech, innovations, and the environment, who can take charge and become job creators while making the world more sustainable and resilient to climate change.

Our FINILOOP and EJOM programmes are leading the way in WASTE's portfolio focus area of solid waste management, including plastics recycling.

## Notable annual achievements in solid waste management, including plastics

- 2,000 metric tonnes of plastic managed, saved from polluting the environment (ending up in dumpsites or burned)
- 150 jobs created in the collection and sorting of solid waste and plastics
- 2 innovative enterprises established in plastic recycling
- 40,000 households reached in Rajasthan state (India) with solid waste management services, yielding 220,000 people with improved municipal waste services (scaled up from 16,000 households the year prior)
- Business support provided for at least 8,600
- young entrepreneurs in Mali, of which 30% are women and 15% are returning migrants

#### **Research & publications 2021**

- Consultation on plastic waste management in Dungarpur, Udaipur and Amritsar
- Catalogue of plastic recycling machines for starting businesses (2020) |Catalogue de machines de recyclage de plastique pour les entreprises en démarrage (2021) English | Français
- Une brève présentation sur les précautions COVID 19 pour les travailleurs des déchets solides (2021) Français
- Hand Operated Injection Moulding Machine for Manufacturing Recycled Plastic Products (2021)
- Opportunity for small scale plastic recyclers, test of machine and moulds | Presse à injecter manuelle pour la fabrication de produits en plastique recyclé (2021).
  Opportunité pour les recycleurs de plastique à petite échelle, test de la machine et des moules English | Français



## Plastic recycling heroes: Lessons from Kenya

Six years ago, Kevin Mureithi visited the WASTE office in The Hague with his idea to make roofing tiles out of plastic waste. Now, Kevin is the proud owner of a production location where 15,000 roofing tiles are produced per month and 20 young people have a job. Kevin and his team have a mission to fulfil.

"We are a mission driven company with two agendas: First, to supplying home builders with premium building products that make their houses stylish and unique. Secondly, and close to our hearts, we are consciously working to reduce environmental pollution caused by plastic and glass waste by recycling these into distinct building materials that are aesthetically appealing, longer lasting and affordable".



Plastic recycling heroes can be found all over the world. What does this mean? Entrepreneurs and innovators are finding local solutions to the planet's plastic problem and we at WASTE, are enthusiastic to support them as part of our focus on solid waste management and clean cities. We encounter these plastic heroes like Kevin all the time in our projects such as EJOM in Mali or FINILOOP in India. Their companies are just some of thousands throughout Africa and Asia making an impact and making strides toward developing sustainable business models for plastic recycling on varying scales. These enterprises are often informal businesses without proper licenses, small-scale, and making a small profit with cheap yet robust machinery and importantly creating jobs for many people in their communities.

This global plastic recycling sector is ready for a remake! By supporting this sector, facilitating knowledge exchange, innovations and access to finance, WASTE believe it has a huge potential to grow and crucially, recycle significantly more plastic waste. We sat down with 3 of these plastic waste hero entrepreneurs to find out more about their experience and ambitions for the sector. Kevin is a passionate environmental entrepreneur who leans more towards the circular economy sector and is an experienced recycling expert. He is the Founder of Eco Blocks & Tiles (ecoblocksandtiles.co.ke), a company that has pioneered the manufacture of ecofriendly building materials such as roofing tiles made from recycled plastics and sand in Kenya. They do this all with the aim of reducing the impacts of waste pollution in the environment while supplying home builders with unique premium construction materials. He holds a master's degree in environmental science and technology from IHE Delft (Netherlands). Prior to setting up this company, he founded and worked for a community-based organization in Nakuru County known as Trace Kenya Group.

Kevin Murethi, Eco Blocks & Tiles Kenya

What are the core elements that make your business unique?

We are a company set up to solve the looming plastic pollution in Africa while creating a product that offers premium value propositions to local building/housing consumers. Our first product is the eco tile which is a composite roofing material made from recycled plastic and sand. We decided to make this product because there is a growing local market that is characterized by a lot of expensive imports such as stone-coated roofing tiles and shingles from Europe and Asia. Compared to traditional options, our product currently offers cost savings of up to 40% because they are light replacing the need to use expensive reinforced timber and also making installation much quicker. They are also hard to break and hence clients to do not pay for unnecessary breakages during transportation and roofing. Through our company, we fill a market need and also achieve environmental sustainability because we are recycling waste plastic that would otherwise end up in the environment to cause pollution.

What is a major challenge you have had to overcome to make your business successful?

We really underestimated consumer awareness. We thought all one needed was a great product and everything would fly off the shelf. In addition, branding our product as a green product did not reap a lot of fruits as we had thought it would. There is still a low acceptance level of green products in developing countries as opposed to the western world. What has helped us has been word of mouth and testimonials from our existing clients. While this takes a longer time to close new clients, it is the best strategy. Slowly but surely we are on succeeding in crafting our own niche market. How did COVID-19 affect your life and business?

While COVID 19 resulted to many businesses closing up shop and downsizing, it was not the case for us. We made more sales during this time. This is because a lot of working professionals now had a lot of time on their hands to complete their pending projects such as building their homes. They previously could not do this due to their busy working schedules and spared investing on projects only during their annual leave days. We also took this time to learn a lot of digital marketing now that many people were mostly online on their devices due to restriction in movements. This has paid off significantly. Personally COVID-19 has brought a feeling of uncertainty and fear. I am not sure we will ever go back to normal soon. In the meantime, we all need to follow the safety protocols.

Looking forward, how do you think your business will change over time?

We are currently seeing government and even the private sector getting concerned about pollution and climate change and we believe that in the next few coming years, they will embrace products with an environmental impact. Perhaps even endorse exclusive use of such products in their projects. When this happens, we will definitely outperform many current building products in the market.

What would be your 'call to action' for the world (or sector) regarding plastic waste recycling and/or supporting entrepreneurs in the sector?

Globally, we currently produce about 250 million metric tons of plastic waste every year. We have barely scratched the surface in solving this huge environmental problem. More people need to jump in and craft more ideas of how we can reduce this. More programmes, funding and technical support is needed to have this executed successfully.

## **Innovative financing**



Capital investments must be tripled to at least US\$ 114 billion annually to meet SDG targets 6.1 (drinking water) & 6.2 (sanitation and hygiene) alone, not including operating and maintenance costs.

Targets 6.1 and 6.2 build on the Millennium Development Goals (MDGs) targets on drinking water and sanitation and respond directly to the human right to safe drinking water and sanitation.[1] Yet, most countries still report insufficient financing to meet WASH targets. Commercial finance mobilised by blended finance is limited (1.36%) and the greatest challenge is in lowand middle-income countries. To close this funding gap, private capital must be mobilised.

WASTE has been unlocking non-grant-based financing for development for more than two decades. We catalyse private investments, local government funding, investment in sanitation and waste by households and local enterprises for maximum leverage.

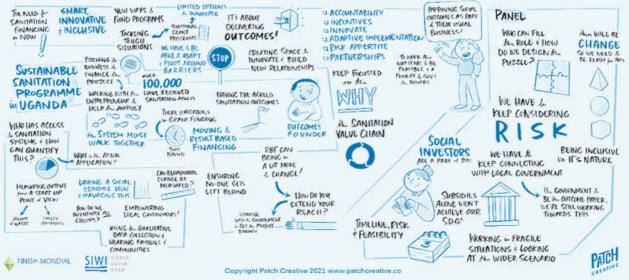
What does this mean in practice?

We employ a multi-pronged approach to innovative financing—that means utilising blended finance models for funding development projects on the organisational or 'big picture' level, while incorporating elements of financial inclusion on project levels to ensure sanitation and waste services are affordable for the people in the communities we work with. Tackling the financing gap from these two aspects ensures we are doing our part to reduce our facilitation costs at home, while ensuring improved infrastructure and services are accessible to an increasingly wider pool of people who need it. Our Take-a-Stake and FINISH Mondial programmes are leading the way in WASTE's portfolio focus area of innovative financing.

#### Notable annual achievements in innovative financing

- €25.6 million total mobilised for sanitation investments in 2021 alone, by households investing in sanitation improvements and designing programmes that bring in local [commercial] financing. This, with the majority being leveraged through our work with local microfinance institutions (MFIs), who lent €23.8 million through the sanitation loan portfolios we developed together.
- Preparatory work with institutional impact investors as part of our development of the Sanitation & Water Impact Fund (SWIF). The SWIF will be dedicated to sanitation loan portfolios in WASTE's countries of operations. The first €50 million of this fund is expected to be rolled out in late 2022.
- Establishment of a consortium, roll out of pilot activities in Kenya, Uganda and India and additional €500,000 in co-investments from new partner, Yunus Social Business (YSB), to the existing SEK 54 Million grant secured toward our Take-a-Stake initiative to set up an investment fund that will strengthen the middle segment of small and medium enterprises (SMEs)—those small and growing businesses (SGBs) that serve basic needs, in particular water, sanitation, hygiene, waste (re-use) and linked sectors like agriculture and renewable energy. During the Pilot, the TAS initiative will provide access to €2.5 million funding to SMEs in India, Kenya, and Uganda, with an average loan size of €250,000.

## BOTTOM-UP RESULT-BASED FINANCING: THE REAL COSTS of SANITATION, FROM BUSINESS to CONSTRUCTION



Above, a graphical representation of the session presented at SIWI World Water Week 2021 conference, created and driven by our WASTE teams. This one on innovative financing. WASTE teams shared experiences and ambitions in many international forums.

## Impact financing for sanitation



Access to improved sanitation is intricately connected to health and well-being of a nation and India struggled to provide this until very recently. Being the 2nd most populous country of the world, India has a huge share of the SDG 6 target to ensure equitable and sustainable access of water and sanitation for all. With impetus from Swachh Bharat Mission (SBM), one of the largest flagship sanitation programs by Govt. of India, sanitation in India witnessed a huge progress in sanitation coverage since 2014.

Prior to the launch of SBM, the sanitation coverage in India was merely 38% which subsequently rose to 100% by 2019. With more than 100 million toilets reported to have been constructed across, all cities and villages declared themselves Open Defecation Free (ODF). The success of SBM is attributed to focus on behaviour change, attractive incentive scheme, strong political will and mission mode of delivery. However, while the numbers are questionable as per many reports from the ground level, the rapid transformation faces a daunting task of sustaining the change and ensuring that no one is left behind.

Various challenges and gaps have been reported including the following:

- Incomplete structures, dysfunctional toilets
- Technically faulty designs, unsafe toilets
- Households left out of the baseline-families without toilets, migrants, displaced communities
- Household wanting upgradation and renovation of toilets (aspirational need)

Although there is no clear assessment on the size and volume of gaps, a few studies clearly indicate a huge need. Taking this in cognizance, Department of Drinking Water and Sanitation (now Jal Shakti) has laid out guidelines for ODF++ and ODF-S reinforcing the need to ensure that toilets are available and used by all, solid and liquid waste management, operations and maintenance, and retrofitting of toilets with community participation.

#### What's next?

Creating new and maintaining old sanitation infrastructure will need investments and financial assistance for poor families. This becomes more critical as the Government is shifting investments to water in the next phase of SBM. Creating safe sanitation infrastructure also presents a huge opportunity in the sanitation market space.

Hence, there is a need to focus on interventions in the sanitation market that include buyers and sellers, supporting institutions like financial organisations and others associated within the supply chain.



It requires multiple stakeholders, government, private sector (supply side), non-government organizations and financial sector to work together. sanitation financing presents a huge opportunity for all these players in many ways.

## Leveraging Impact Finance for Sanitation - Sanitation Impact Bond

Impact bonds or social impact investments are a relatively new type of investment instruments which are results-based or outcome-based financing. The scale achieved under our FINISH programme in India allows for unique opportunities to develop new technical, financial, and social tools and methods to strengthen the programme and get closer to true financial inclusion for all.

ACTIAM, together with international and local financial institution partners and programme founder WASTE, have developed the proof of concept for an innovative financial tool, the Sanitation Impact Bond (SIB) which acted as the pilot for the now Sanitation & Water Impact Fund (SWIF), which is providing liquidity to partner financial institutions. The SIB was piloted for 3 years in India (Feb. 2019 to March 2022) with multiple stakeholders for integrating financial inclusion with demand generation and enhanced capacities at the local level to meet local sanitation needs.

In this proof of concept, ACTIAM provided a loan of US\$ 3 million to partnering Indian microfinance institution, CASHPOR Micro Credit. WASTE facilitated this proof of concept project and footed an outcome-based incentive. Local technical assistance partner and non-profit, FINISH Society, acted as the facilitating agency. The complete loan amount was dedicated to a sanitation loan portfolio to enable households to borrow money for the construction of toilets, building on our FINISH programme which is working toward healthier and socio-economically empowered communities through sanitation improvements. CASHPOR provided loans for 35,000 household sanitation systems under this pilot.



Surekha took a loan from CASHPOR to build a toilet. Despite having a Kachha (natural materials) home, the only bricked (pucca) building in this family is a toilet.

"I could not have built a toilet without the loan from CASHPOR as my family earlier thought 'it can wait." Surekha told the FINISH team. Her mother-in-law initially continued to go for open defecation but with encouragement from Surekha, she now uses the toilet. She is one amongst many such CASHPOR clients who were able to build a toilet with sanitation loan from CASHPOR under the Sanitation Impact Bond scheme.

## **Stories of change**

Sunita Devi lives in Khamariya village in Mirzapur, Uttar Pradesh. Born into a poor family, she was married at a very young age and soon had four children- two boys and two girls. Her husband worked as a daily wage labourer and did not have regular income. There was no toilet at her new home and she used to go out in the open for answering nature's call.

Sunita recalled that her new family did not consider a toilet as a necessary investment and thereby, were poor on cleanliness and hygiene behavioural practices. Often, someone in the family was falling sick. She started supporting her family by earning small income through stitching work. Things were improving but not having a toilet still bothered her especially when she thought of her two growing daughters. With expenses increasing on health and raising her children, she explained to the FINISH team that she felt helpless, continuing that the CASHPOR livelihood loan was a ray of hope. When she became aware of her ability to access the sanitation loan from CASHPOR and decided to build a toilet. Now everyone in her family uses the improved toilet, practices handwashing with soap and more importantly, her daughters are happy and healthy.



## The organisation

## **Organisational highlights**

2021 was another year of successes despite challenges for WASTE, our partners and our programmes.

#### Governance

In the first quarter of 2021, the growing organisation was able to welcome several new colleagues at WASTE. Han de Groot was appointed as Executive Director. Rolien Sasse took over the Chairmanship of the Supervisory Board from Adriaan Ferf, who has served the organization for so many years. We owe him, and Klaas Molenaar, great thanks for the many years they served the organisation. Nico Terra, Erlijn Sie, and Ljiljana Rodic were welcomed to the board as new members (see also page 23).

#### **Structure & finance**

During 2021, we gave a lot of attention to amending our legal structure and improving upon our internal policies and procedures. New articles of association were agreed and registered while improved policies on, a.o., procurement, partnerships, and code of conduct, were adopted. Some of this was guided by an internal audit that was conducted early in the year . The audit will be held again in Q2 of 2022, to keep us on track for our internal development agenda. No breach of our Code of Conduct was reported over the year. As we developed a more solid financial backing for our main programs, our turnover grew, and we were able to close the financial year with a healthy balance.

#### Investing in our team

COVID-19 kept us mainly working from home during the year with only very few trips abroad to mitigate the impacts of travel to areas deemed at special risk due to potential infection. Of course, we were looking forward to meeting our overseas partners and colleagues more frequently in 2021. However, as we could not, our ability to successfully work together from afar and digitally, a specialty embedded in our unique way of working since well before the pandemic, was exceedingly necessary to institutionalise. We've thus spent the year investing in the right tools and platforms

WASTE's office at Bink 36 also received some attention and investment, undergoing a small renovation and was made ready for more intensive and welcoming use for the years to come.

Last but not least, and also as a result of our new Articles of Association, we completed the preparations for a Works Council to take up its tasks in the new year.

# The organisation

## Programmes

Detailed annual reports are available for each of our major projects/programmes in separate documents.

## **Financial report**

Our detailed financial report can be found here.

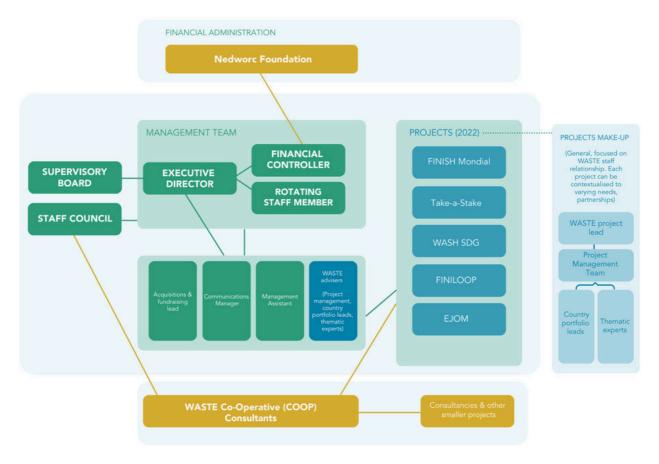
## Our footprint

Together with local and European partners, WASTE develops and manages multi-annual programmes in nine (9) low- and middle-income countries in Asia and Africa with a central staff of 18 diverse professionals. In 2021, we worked with 8 number of core partners and 16 number of implementing partners, supported by 3 major donors, The Netherlands Ministry of Foreign Affairs (Director General of International Development, Inclusive Green Growth Department, DGIS-IGG), EU Trust Fund and the Swedish International Development Agency (Sida).



# The organisation

## Set up



## **Team developments**

In 2021, as part of a series of administrative achievements, WASTE entered into direct contracts with staff members. This was a positive step to show that WASTE is making progress in its ambition to concretise its place as a reliable and solid organisation, which is equipped for further growth in existing and new programmes.

Furthermore, we welcomed a few new team members, starting with our new Executive Director, Han de Groot. Han comes to WASTE after returning to the Netherlands after a 2-year residence in New York, USA, in his former position as CEO of Rainforest Alliance. He brings a broad range of experience to WASTE, having spent a decade in the public sector at the European Commission (Maritime Affairs and Fisheries) and the Netherlands Ministry of Agriculture, Nature and Food, where he set up an inter-departmental programme on Biodiversity.

## Governance

## **Management team**

WASTE's Management Team oversees the organisational activities, as well as all projects. The Management Team is comprised of the Director, the CFO, and a rotating staff member.





Han de Groot

Roger de Vries Rotating staff member



The Supervisory Board supervises the policy and strategy of the management and the general course of affairs at WASTE Foundation. In addition, the Supervisory Board acts as an advisory body to the management. The Supervisory Board is composed of the following persons:



Rolien Sasse Supervisory Board

Ms. Rolien Sasse is an international consultant, mediator and strategic advisor to the Water, Peace and Security partnership. Member of the Board of Water for Life Foundation. In the past she held roles such as, Global Head of Humanitarian Campaigning (interim) at Oxfam, Executive Director of Simavi, Board member of Netherlands Water Partnership and member of the Steering Group of Sanitation and Water for All.



Adriaan Mels Supervisory Board

Mr. Adriaan Mels is currently the Regional Director Asia at Vitens Evides International, Program Manager WaterWorX, and WASH expert. In the past, he held roles such as, Team Lead of Urban Environmental Management Group at Wageningen University, Lecturer IHE Delft, International Consultant LeAF, PhD Environmental Technology



Dr. Liljana Rodić-Wiersma Supervisory Board (joined 2021)

Dr. Liljana Rodić-Wiersma has over 25 years of experience in research, higher education and capacity building in urban environmental management and sustainable development, on five continents. For both publications and teaching, she has received various international prizes and worked under UN in departments such as i.e. Environment (UNEP) and UN-HABITAT. She has been an expert evaluator of research and innovation proposals to the European Commission, DANIDA, and Swiss National Science Foundation



Nico Terra Supervisory Board (joined 2021)

Mr. Nico Terra has over 35 years of experience managing professional service organisations in their development. Over the last decade, he focused specifically on NGOs in WASH, with expertise in strategy development and (change) management. He comes to WASTE as previously the CEO of IRC International Water and Sanitation Centre and Director of the Dutch WASH Alliance/WASH Alliance International (WAI).



Erlijn Sie Supervisory Board (joined 2021)

Ms. Erlijn Sie comes to WASTE with 15 years of experience working with multi- nationals and an equivalent number of years leading and growing social ventures. She is the co-founder of Micro-credits for Mothers and Credits for Communities and was Managing Director of the Banking with the Poor Network and HandsOn Microfinance. Currently, she works at Ashoka – the world's largest international network of social entrepreneurs.

## Looking forward

## Overcoming challenges and launching new initiatives



## The COVID-19 pandemic

Notably, the pandemic continued to challenge the world in 2021, including our partners and our work. Our teams in the Netherlands and beyond slowly started meeting again, as opportunities arose. However, our work remained largely in a remote state, as prompted by global travel restrictions seen in March 2020. Our partners operating on the ground, in project countries, faced continued struggle but were nonetheless able to pull of remarkable feats. Together, we achieved most of what we set out to do. Rising COVID-19 cases, inequitable vaccine rollouts, health passports, testing requirements, travel restrictions, health insurance issues, and curfews, are a few hurdles which our teams navigated throughout the second year of the pandemic (to name a few). WASTE and its extended teams faced varying degrees of delays from uncontrollable issues such as team and family members falling ill, government shutdowns, redirection of overseas development assistance (ODA) funding as well as corporate social responsibility (CSR) contributions and other fundraising. However, our teams and partnerships persisted, often turning adversity into opportunity.



## Taking off

2021 has been a great preparation year for WASTE's programmes. In 2022, much of this preparational work will provide a solid foundation for creating the sustainable and inclusive impact we are striving for.

What are we looking forward to?

- Solid waste management especially plastics recycling, will take greater focus in our work. Why? There is huge demand for scalable solutions to the world's growing solid waste and plastics challenges. Our FINILOOP programme will take off to support Indian cities in addressing their municipal waste management systems and strengthen local plastic value chains.
- Take-a-Stake will be ready to roll out first investments in small and growing businesses (SGBs) in India, Kenya, and Uganda, to support the 'missing middle' of WASH and waste entrepreneurs who are the underserved lifeline of sustainable local markets.
- Our FINISH Mondial programme will continue to scale up. All six (6) country programmes plan to continue scaling up their approach to new districts/regions with cost effectiveness in mind—constantly working to achieve healthier and socioeconomically empowered communities for an increasing number of people.



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