

# ‘The benefits go beyond clean water’

**When Lieselotte Heederik and Guido van Hofwegen moved to Indonesia, they discovered how difficult it was to get clean drinking water. They started a shop selling water filters and now they produce them themselves in Indonesia and Kenya. ‘When someone buys a filter from us, it helps that person directly. That is so motivating.’**

TEXT TANJA SPEEK PHOTOGRAPHY ALGI FEBRI SUGITA

Lieselotte Heederik shares her story from the back seat of a moving minibus in Kenya. Her husband Guido van Hofwegen chips in from their home in Bandung in Java, Indonesia. In the background chanting can be heard: evening prayers in a mosque in Bandung. Beside the dining table stands a water filter. It’s one of their own, produced by their company Nazava. The filter consists of two light blue 16-litre containers, one on top of the other, connected by a hole and with a tap at the bottom. The hole holds the ceramic filter element, a long white oval component the size of a

hand. ‘The dirty water goes in at the top, and flows through the filter into the bottom container,’ explains Guido.

They got the idea for the water filters soon after moving to Indonesia. After studying Rural Development in Wageningen, Lieselotte got a job with the Dutch NGO Hivos in Aceh, Indonesia. The Aceh region had been hard hit by the tsunami in 2004, and she came there to help with the reconstruction. Guido, who had just graduated in Tropical Land Use, went along as her newlywed husband. ‘If we got married, Lieselotte got 300 euros extra pay to support me. So we tied the knot before we left.’ >





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PHOTO: NAVAZA

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Nazava sells water filters in Indonesië and Kenia.

### And you set about getting hold of a supply of clean drinking water?

Lieselotte: 'For ourselves yes; that wasn't part of my job. We had a well which we could get our drinking water from, but the water was brown. Boiling was not enough to make it drinkable. So we bought bottled water from a shop, but that proved to be unsafe too. There was a report in the newspaper about bacterial contamination nearly every week. That water is usually filtered and sold by small companies that often don't maintain their filter systems properly. And there is no quality control by the government.'

Guido: 'In Brazil I had seen how everyone has a water filter at home. You can just buy them in the supermarket there. So I ordered a few filters from Brazil. Our neighbours and colleagues proved to be interested too: there was a need. We used

our own money to buy enough filters in Brazil to open a small shop. At the time, I had a part-time job with Royal Haskoning, an international consultancy and engineering firm, and I started selling the filters on the side.'

### And you built that up into the current company?

'It was a bit of a quest to start with,' Lieselotte says. 'After three years in Indonesia, we decided to go back to the Netherlands for a while. I was pregnant with our daughter and wanted to give birth in the Netherlands.' Guido: 'It felt like a crossroads. Were we going to carry on with this? Would I want to do a PhD, maybe?' Lieselotte: 'We decided to enter an international pitch competition to find investors for products that benefit society. I can still see myself standing there, with my big belly. We were successful and we got investors supporting us. That's super cool, of course, and it was a turning point for us.' But the investors did want them to live in Indonesia and run the company from there, says Guido. 'And rightly so, of course. So we left for Bandung, Java, with our daughter, and we are still living there now. It's a more central location in Indonesia.'

They now produce the filters in Indonesia. The white outer part is ceramic, a porous

material with small holes that water can pass through, but dirt and most bacteria cannot. A layer of nanosilver on the inside kills any remaining bacteria. A carbon core filters pollutants out of the water. 'It was never our goal to become a tech company,' says Guido. 'Every few months we read about a new water filtration innovation that never ends up being marketed. We mostly focus on sales. We started producing the filters ourselves because we thought the existing suppliers were too expensive or not good enough. The World Health Organization (WHO) has approved our filters, which remove more than 99.9 per cent of bacteria and last for three years. The whole system costs about 30 euros, and replacement filters cost eight euros.'

The filters are intended for domestic use, Lieselotte explains. 'A lot of clean drinking water projects run by aid organizations focus on large water companies. When someone buys a filter from us, it helps that person directly. That is so motivating.' The couple don't encounter much competition. 'Other companies produce for NGOs or are from the outdoor industry. We started selling directly to our customers, which makes us a better fit with the market,' explains Guido. Thirteen years on, they have sold more than 200,000 water filters, and are running a company with 25 employees in Indonesia and 15 in Kenya.

**'We got investors supporting us – super cool'**

## Checking our cash flow to see how it's going makes it very tangible'

### **What did you learn in Wageningen that still benefits you today?**

Lieselotte: 'A degree course has academic goals, of course, and entrepreneurship hardly came into it at all. We had to learn that on the side. I learned the most from my time at the Wageningen branch of the students' union, thinking up and implementing campaigns.'

Guido: 'We were on the union board at the same time. After one month, we organized a demonstration in The Hague. With the slogan "Education is being stripped", we played football in our underwear in the courtyard of the Binnenhof (government buildings in The Hague, ed.) The police were there in no time. That made for a great photo in the papers: us in our underwear, the policemen in uniform. We got together two months after that campaign.'

During an internship in Bolivia, he learned to give priority to things that help people really effectively, says Guido. 'The project I was working for was trying to encourage Bolivian farmers to take better care of their land. What did it take to get them to do that? As it turned out, those farmers' first priority was a well. They were travelling four hours a day to fetch water. There was absolutely no time left for other matters. Our filters help save time too. Users don't have to boil the water or gather firewood for a fire. The benefits go beyond clean water.'

Lieselotte: 'I see the reality of things I learnt about gender during my degree programme. Women are often hit harder by poverty. And it is usually women who provide drinking water, so they're the ones who save time.'

Guido: 'Although we are big in our market for domestic water filters, there are 40 million households in Indonesia that could benefit from our filters. So there is still plenty to do.'

### **Why are you expanding to Kenya when there is still so much to do in Indonesia?**

Lieselotte: 'I took part in an international programme for entrepreneurs with a social mission, and there were a lot of Kenyan companies participating in it. Outside the city, everyone there lives off-grid. People have no access to electricity or gas, but they often have good facilities like solar-powered lamps and efficient cookstoves. So the sales channels for these products are already there. And the beauty of it for us is that all those people could do with a water filter as well. I could see that the Kenyan government and local officials are committed to helping a company like ours. So I thought, let's take the plunge.'

### **And now you are also supplying filters for emergency relief in Ukraine.**

Guido: 'Yes, shortly after Russia invaded this year, we got a request from UNICEF to supply 10,000 water filters. And there is a crowdfunding campaign for even more filters for Ukraine. It is run by Kees Huizinga and Emmeke Vierhout (also alumni) and supported by WUR. We have decided to organize the sourcing of the water containers and the setting up of the whole thing in Ukraine ourselves. That way we can offer work to Ukrainians who have fled the war within their own country.'

Lieselotte: 'It feels heartening that as alumni, we are supported in this by WUR.'

### **Are you living your dream?**

Lieselotte: 'Yes, absolutely. Every day, we work towards what we want to achieve. It also feels good that our sales figures tell us straightaway whether we are doing well. If there are no sales, we must be going about something the wrong way. I feel we are achieving more now, in practical terms, than we would by writing reports. Checking our cash flow to see how it's going makes it very tangible.' ■



#### **LIESELOTTE HEEDERIK**

**1997-2004** Rural Development Studies, WUR

**2006** Master's in Development Studies, Radboud University, Nijmegen

**2007-2010** Hivos in Aceh, Indonesia

**2009** Co-founder of Nazava water filters, director of Kenyan branch



#### **GUIDO VAN HOFWEGEN**

**1999-2006** Tropical Land Use, WUR

**2004** Co-founder of Resilience BV

**2008** Royal Haskoning, Indonesia

**2009** Co-founder of Nazava water filters, director of Indonesian branch