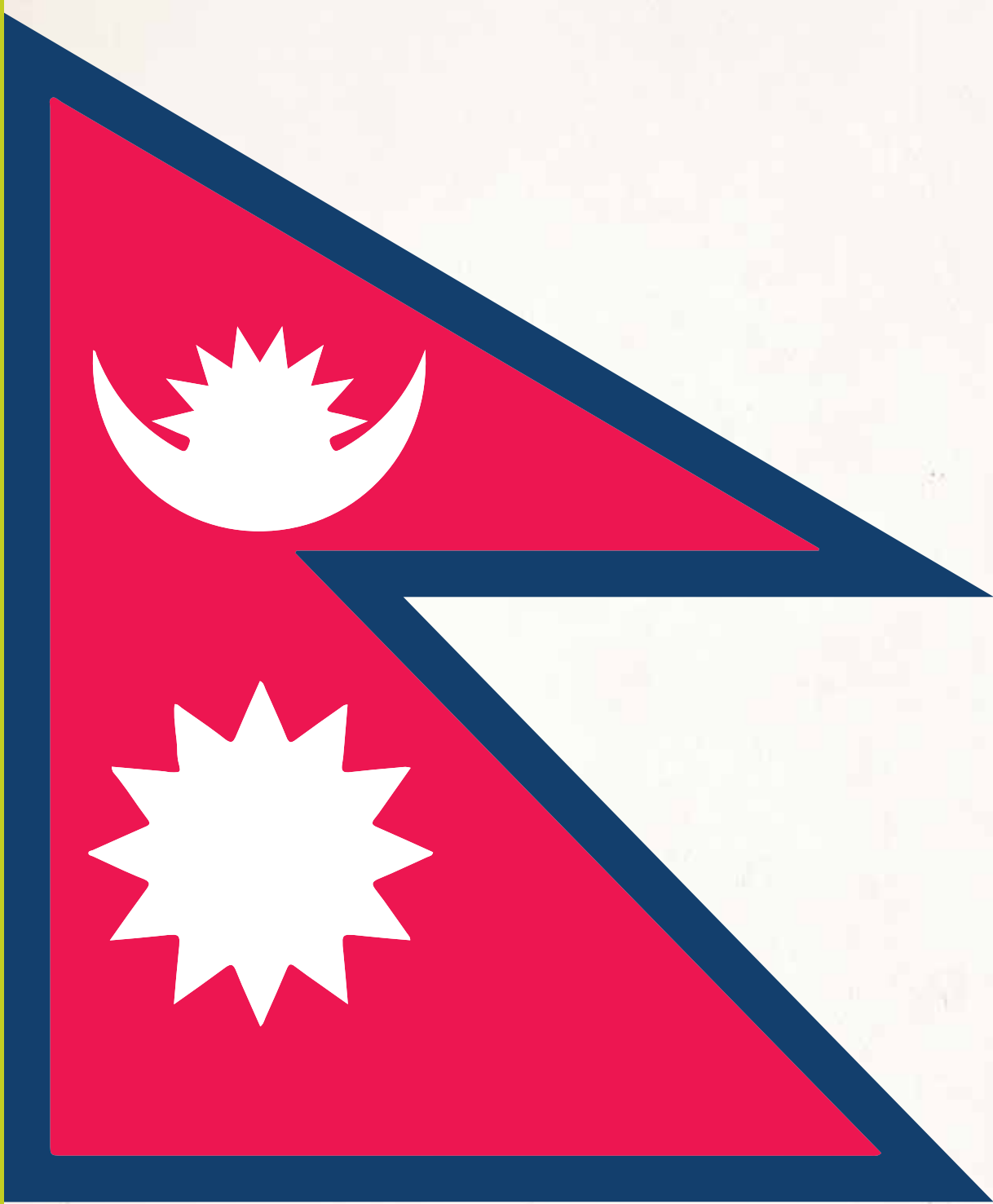




unica foundation

together we create the future





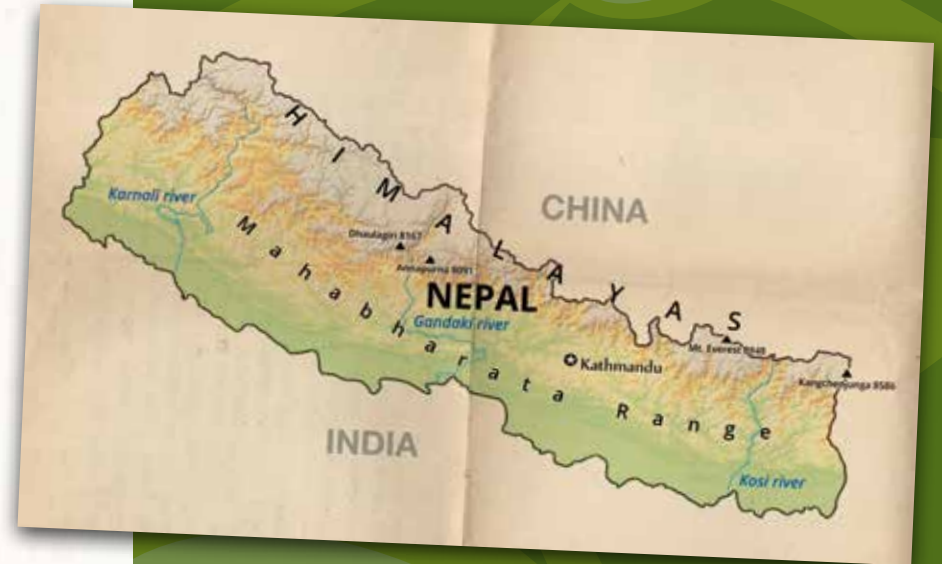
Together we create the future

Almost everyone wants to help improve the world. Unica has been designing and building sustainable installations for years, especially in the Netherlands. But millions of people in the world have no clean drinking water, no toilet, insufficient food and lack an education.

That's why Roy Voss and Daan van Vliet started the Unica Foundation in 2007, when both worked at Unica. The goal of the foundation is to help the most marginalised people in the world with sustainable solutions. Based on their previous experiences, they decided to start with activities in Nepal, a mountain state on the border of India and China (Tibet).

Since then, the Unica Foundation helps the poorest and most remotely living Nepalese with projects regarding clean drinking water, sanitary facilities, hygiene, biogas, improved cooking stoves, solar energy and education. The last ten years, we've carried out almost 60 projects, which improved the living conditions of over 40,000 people.

And we're nowhere near finished...



The beginning: Daan and Roy on expedition in Nepal



Good collaboration between the Nepalese Red Cross (Shukra Subedi, left) and the Unica Foundation (Ramesh Paudyal, right).



How does the Unica Foundation work?

For all projects, we collaborate with local Nepalese organisations, like the Red Cross, Shanti Griha, HEAD and ECCA. Our organisation in the Netherlands consists of 100% volunteers. They are involved with project management, technical support, advice and fundraising.

In Nepal, we have two well educated local employees, who prepare and supervise the ongoing projects. We have built a close network in Nepal in which our country management, our local contract parties and our Dutch organisation collaborate. All parties are in contact with each other almost daily. The residents of the village supply the locally available building materials, like sand and stone, themselves. They transport the materials bought elsewhere and take care of the digging and construction work.

The Unica Foundation is a good example of development cooperation in which modest means are used to realise appealing projects. Nothing is wasted: every euro is well spent!

Every project starts with an educational programme. In it, the often still illiterate villagers get language and maths lessons, as well as lessons about hygiene and basic skills to better provide in their own livelihood.



The support group from Unica does good work.





Drinking water



Clean sanitary facilities



Improved cooking stoves



Solar energy



Technical education



Biogas



Solar lamps for students



What kind of projects are we involved in?

The Unica Foundation mainly focuses on larger projects that help us improve the living conditions of an entire village. Think of drinking water projects with a tapping point per residence (as such, hundreds of tapping points per village), a toilet for every family and improved cooking stoves that are linked to a chimney instead of open cooking fires in the home. By now, we've also supplied hundreds of homes with biogas installations, so they can cook on gas produced from animal and human excrement and garden waste. Because of this, less firewood is needed.

Due to clean drinking water, proper toilets, improved cooking stoves and training regarding hygiene, the health of the residents increases dramatically. According to health authorities, infectious diseases decrease around 70% percent. By replacing open cooking fires in the home with improved cooking stoves with a chimney, there's a severe decrease in lung diseases and eye problems as well.

In the last ten years, Unica Foundation also carried out many smaller projects, like (solar) energy facilities for medical posts, small hospitals, a library, shelters, convents, facilities for the disabled and schools. In Southern Nepal, hundreds of children were given a rechargeable lamp, which can be charged at school using a solar panel.



Irrigation channels



Irrigation with solar pumps



Mushroom growing



*Teacher Manshu shows the materials
donated by Unica Foundation.*



Training

Before the Unica Foundation starts installing a water pipeline or supplying improved cooking stoves, the villages are always given an educational programme for about a year. The adult residents, who often couldn't go to school in their youth, still learn to read, write and do maths and are provided information about health and hygiene. A committee is also formed to manage the new facilities. The committee learns the importance of proper maintenance, organisation and maintaining a financial administration and we will train a manager for the system.

We'll also teach new skills to improve the income of the residents, like courses in keeping goats and chickens, keeping bees, growing coffee, cultivating vegetables or growing mushrooms. Progress is clearly shown. After a few years, many simple vegetable greenhouses and sometimes also shops and guest houses for tourists have sprung into being.

The Unica Foundation also enables the training of solar energy specialists at a technical school in Pokhara. We paid the teacher's education and sponsored the teaching material. By now, over 75 students have attained a certificate recognised by the Nepalese government.

*75 students
already have a
solar certificate*



*The first village
store in TangTing*



*Course on
breeding
goats*





Drinking water projects

Since its foundation, the Unica Foundation is already currently working on at least one large drinking water project. We know by now that clean drinking water in combination with the installation of toilets yields the largest improvement of living conditions and health.

For our first project for the village of TangTing (1,500 inhabitants) we chose a system where we collected water from a source on higher ground and brought it to 209 tapping points using three distribution reservoirs and plastic pipes. Every farm in the village has a large concrete washbasin with a pillar and tap to take water from, do laundry, wash themselves, etcetera. The residents greatly contributed to the work: they carried the pipes and concrete from the valley to the village, dug trenches for the pipes, collected stone and sand to make concrete and even did the masonry work for the reservoirs.

Recently, we realised similar projects in Tholodunga, Rabaidanda en Baraldanda. Since then, we've also applied improved cooking stoves with chimneys in all villages, with a great contribution from the villagers and the local government.



*The village of
TingTang*



*Residents help
installing the water
pipeline*



*Reservoir of the
water pipeline*



At the Solar MUS project, solar energy is used to facilitate in drinking water and irrigation.



Drinking water projects with pumps using solar energy

The previously mentioned drinking water projects all use water sources on higher ground, using gravity to make the drinking water reach the tapping points. These kinds of systems has been realised on almost all locations that allow it.

However, there are still a lot of villages that are high up in the hills and that use water from sources deep within the valleys. Traditionally, women and girls have to walk for hours a day to get water from the sources that are sometimes 300 to 500 metres downhill. This often causes absenteeism at school. Per walk, they can bring around 12 litres of water. This is just about enough to cook with, but too little for personal hygiene or to keep toilets clean.

By using pumps (often with intermediate stops) and high-pressure pipes, this problem can be solved. Water is pumped up to a higher distribution station and from there, it's transported to the tapping points through the reservoirs using gravity. It goes to say that the villagers themselves can't afford these types of systems. This is where the Unica Foundation, the Red Cross and suppliers come in. They fully apply these systems and work to constantly optimise them.

In practice, there's often no (reliable) energy supply to make the pumps work. Therefore, almost all projects are equipped with solar panels to supply the energy for the pumps. Because all the water is pumped in the more or less six hours that the sun provides sufficient energy, dozens of panels are needed per pump. The Unica Foundation is currently installing solar panels for projects in Kalika (2,500 inhabitants) and Hamsapur (1,000 inhabitants). Our first project in Arnakot (1,500 inhabitants) runs on a water turbine with a generator.

*Arnakot
pumping
station*



*Commissioning
of the pumping
station*



*The oldest
woman in the
village is the
first user*



Thanks to improved cooking stoves with a chimney, there are no smoke problems in the home anymore.



Improved cooking stoves

Traditionally, the Nepalese cook in their hut on an open fire using wood. The fire isn't just to cook but also serves as a source of heat. In the villages high up in the mountains, it can be quite cold during winter. The effect of these open fires is a thick layer of tar on the walls and ceilings as a result of the harmful smoke that lingers around the hut all day. Westerners can hardly bear to be inside. It's no wonder that this situation causes a lot of eye and lung issues, which affect the health of especially women and babies.

A solution for this is the use of cooking stoves with a chimney (Improved Cooking Stoves, ICS). The smoke is immediately expelled outside, which immensely improves the air quality in the huts. The cooking stoves also have a higher efficiency. At small heights, under 1,500 metres, masonry cooking stoves are used. These have a chimney made with local materials like clay and loam at a low cost.

At greater heights, metal cooking stoves (Metallic Improved Cooking stoves, MICS) are used, that are welded into local workplaces and assembled in the villages by the users. An educational process is a staple of these projects to teach the users basic skills to provide for themselves.



Everyone helps carrying



This is where the new cooking stoves will be



And this is where the wood will go



*Using concrete irrigation
channels, the water is brought to
places that desperately need it.*



Irrigation

Especially in the south of Nepal the changing climate causes less water to be available for irrigating farmland. Especially at the end of the remote valley, where the most marginalised ethnic groups like the Temangs and Chepangs live, this regularly leads to food shortages and famine. Conventionally dug irrigation channels to bring water from the higher ground to the farmland are not possible in this area with steep slopes. With concrete open channels or pipes with a large diameter, this problem can be solved. The poor farmers are not able to buy the necessary materials and raw materials like pipes and cement themselves. They do like helping in installing these irrigation systems.

With the new irrigation systems, they can now usually harvest three times per year. This doesn't just solve the scarcity of food, but also allows the communities to create a better existence for themselves by selling vegetables and rice. Educational programmes teach the farmers better growing methods and how they can also cultivate other crops.

These projects, like in Dihitar and Gundi, are carried out by the Unica Foundation in collaboration with the Nepalese organisation Shanti Griha. The latest project was partially financed by the Dutch Wilde Ganzen Foundation. Elsewhere in Southern Nepal, in the Lumbini environment, we applied pumps that pump groundwater for irrigation. Solar panels provide the necessary pump energy. Together with the English organisation Renewable World, we've started a large new project (Solar MUS III) in Surkhet, where we combined drinking water facilities and irrigation. We helped 3,000 people with this.

*Now three
harvests
per year*



*Also irrigation
with solar
pumps
sometimes*



Project MUS Surkhet: water pipeline plus irrigation





Together with HEAD Nepal, Nepal Geeft and Wilde Ganzen, we created a reliable electricity supply with solar panels for an institute for the blind in the remote town of Simikot.



Small scale aid project

Regularly, the Unica Foundation is requested to provide advice about sustainable installations in projects of other foundations in Nepal. It's usually just advice, but sometimes we also contribute financially, technically or organisationally to carrying out these projects. It usually concerns small solar panel projects, often linked to batteries for energy storage. Nice examples of these are installations for an institute of the blind in Simikot, a library in Jumla, a small hospital in Necha, a nun convent in Helambu, a school in Dholaka and a shelter for girls and women in Kathmandu. All small-scale projects but with many happy faces as a result!

In the Terai in Southern Nepal, we provided hundreds of rechargeable lamps for schoolchildren. During the day, the lamps are charged with solar panels at school. In the evening the children can do their homework at home using the light of the lamp. A simple method that contributes to the learning achievements and lowered the absenteeism at school!



LED lamp with a battery and small solar panel



Charging the lamps at school



Solar installation for a small convent in Helambu



Solar energy for a small hospital in Necha



Grateful schoolchildren





Emergency aid

Due to the mountainous nature and location of Nepal, earthquakes, landslides and flooding are sadly common. In 2015, the country was hit with a heavy earthquake that claimed 9,000 lives and damages hundreds of thousands of homes.

Although the Unica Foundation is no emergency aid organisation, we were able to help 3,000 families with WakaWakas. These are solar lamps that don't just provide light, but can also charge phones. This allows communication to remain possible, even when the cabled networks are damaged, which is essential during emergencies.

Because we've managed to build a large network in Nepal and are well familiar with the official channels, we will also remain stand-by in the future to provide aid in case of disasters. Our main goal, however, remains the installation of sustainable technical facilities for the people who need them the most.



WakaWake solar lamp with phone charger.





Inspection of water reservoir.



Visiting Ramesh in the Unica Foundation office.



As a student, you get groceries locally.



Technical students of Windesheim arrive in Kathmandu.



Inspection of the solar panels of the pumping station in Kalika.



Student Melle does agricultural research.



Evaluation of projects

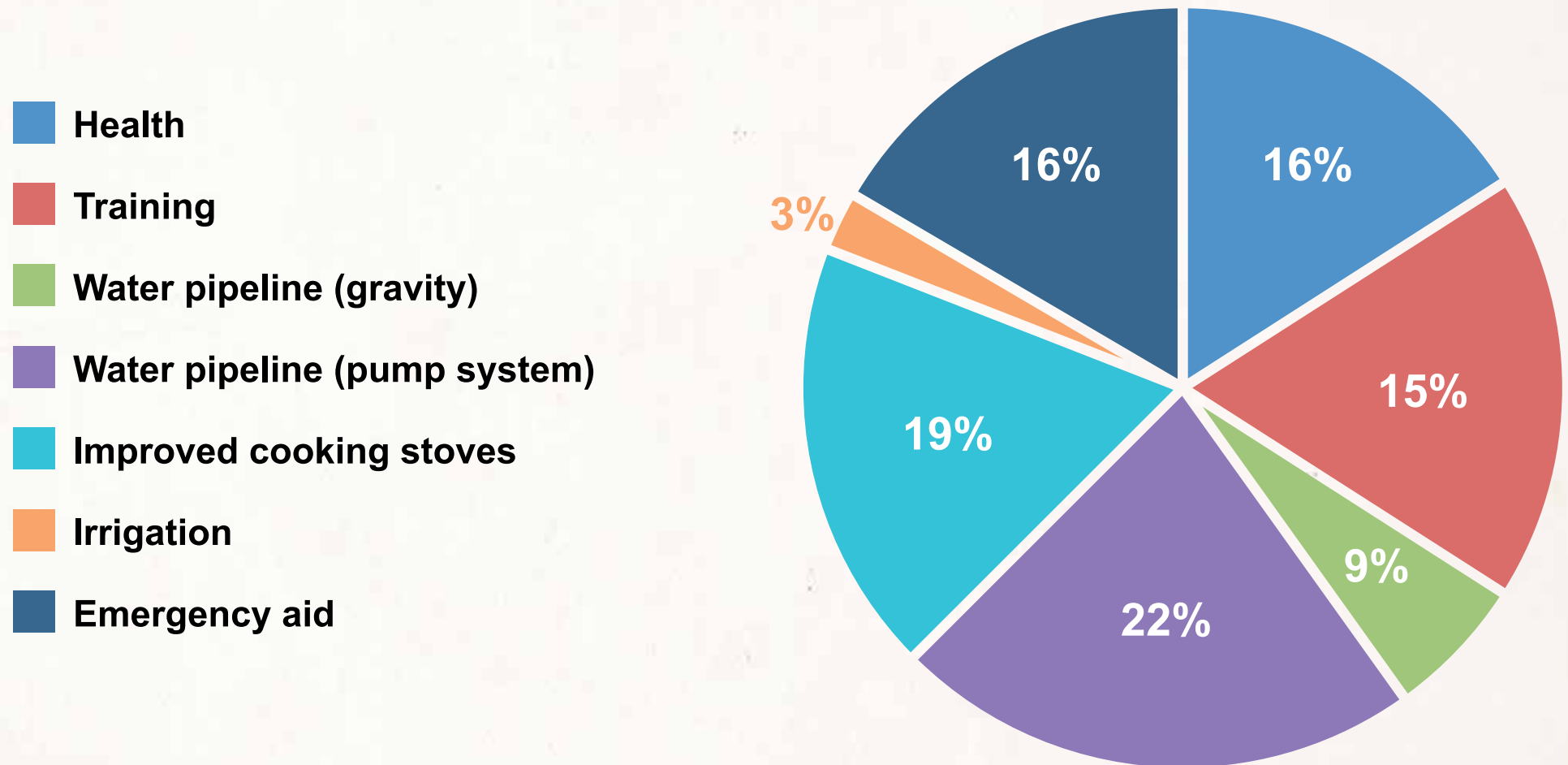
In the ten years of our existence, Unica Foundation carried out almost 60 projects. To ensure that the contributions to the Unica Foundation are spent in the best possible way, we're continuously working to critically evaluate the results of our projects. We ask ourselves whether the results mess up with the expectations or whether the applied techniques can be improved, or whether the designs can be designed and what the users think of it themselves.

Evaluation takes place by visiting the realised projects periodically, including in the years after completion. We sometimes do this with volunteers from the Unica organisation, but graduates and interns also regularly visit the projects. We work together with different universities and colleges, like Wageningen University & Research and Hogeschool Windesheim in Zwolle.

Not just the technical functioning of installations is important, but also the impact on the residents is assessed. We monitor a number of drinking water installations remotely using the internet. This way, we succeed at improving every project over the last. The evaluations also help to determine which kind of installations have the most impact at the lowest costs. For example, we install less biogas installations nowadays because they're relatively expensive. We mainly focus on drinking water projects on solar energy, irrigation, improved cooking stoves and education.



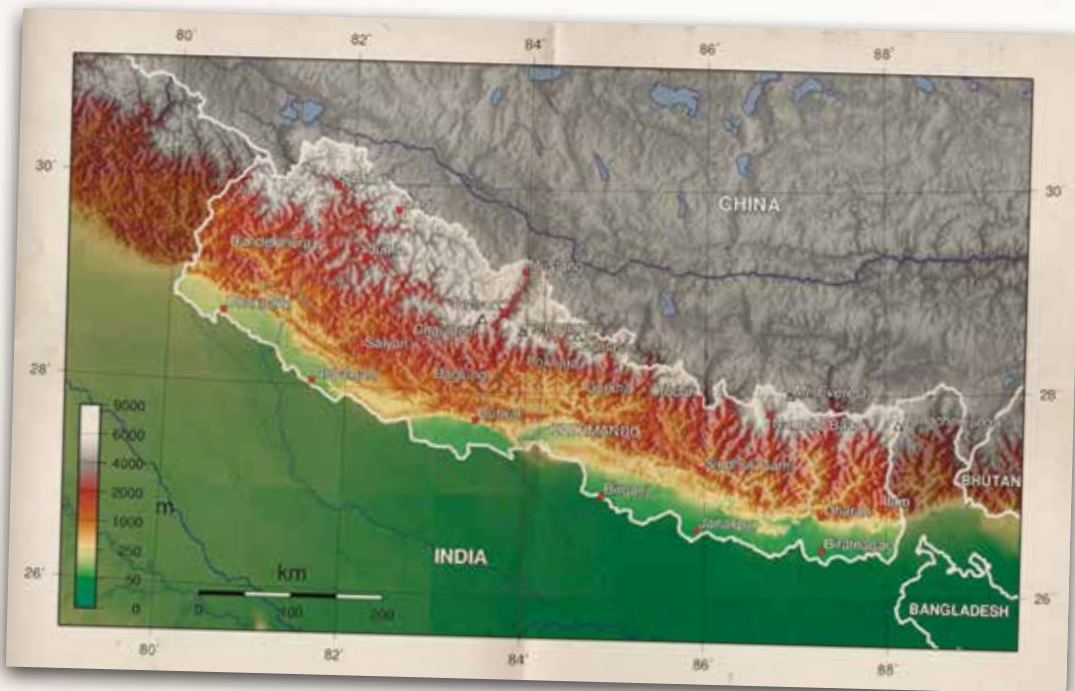
In 10 years, we've improved the living conditions of 40,330 people



Nepal

Nepal is a mountain state on the border of India and China. In terms of surface, it's around four times the size of the Netherlands. In the northern part of the land is the remote Himalayas mountain range with 14 mountain peaks over 7,000 metres, including Mount Everest, the world's highest mountain (8,848 metres). The south of Nepal is low and warm. The vast middle area, with the capital of Kathmandu, is very hilly. This area is home to most of the 29 million inhabitants of Nepal. The connections in the country are bad all-around, because there are few paved roads. Alternatives for the car or bus are walking or flying with small propeller planes.

The Unica Foundation has projects in nearly all regions of the country and always collaborates with local aid organisations.



Collaboration partners



Nepalese Red Cross Society



ECCA



Shanti Griha



Wilde Ganzen



Maya Foundation



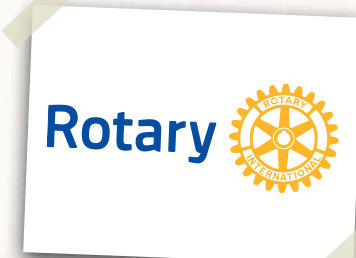
HEAD Nepal



Nepal Geeft



Asian Heritage



Rotary International



Renewable World



Do you want to help us?

Of course, donations are more than welcome. The Unica Foundation is preparing plenty of projects for which they have insufficient means available to start them. 100% of your contribution is spent on the project because the Unica Foundation is ran by volunteers. Every euro is therefore well-spent. What's more, the Unica Foundation is an approved ANBI (Public Benefit Charity), so private donations are deductible for income tax. You can make a one-time donation or periodic donation through our website or transfer money to our bank account.



Sponsor us with your company!

Companies can also support us with a one-time or periodic donation. The Unica Foundation also offers different sponsor packages, which allows companies to become a participant of the foundation with an annual contribution starting at € 1,000. Participants receive a participation certification, will have their name mentioned on our website or can use custom promotion options. Naturally, participants are informed of ongoing projects.

There are also options to support projects under your own company name. Starting at a few thousand euros, you can adopt a project that will be realised with your financial support. Adopting a project is a powerful way to give substance to corporate social responsibility principles of your organisation and convey it to your employees and clients.

More information about the sponsoring options can be found on our website www.unicafoundation.nl. You can also contact Edwin Koers (ekoers@unicafoundation.nl) or Daan van Vliet (dvvliet@unicafoundation.nl).



Ramesh Paudyal, our country manager in Nepal

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