## Rukaramu - Refugees return

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Rukaramu, Burundi. The village borders directly on the international airport of the capital Bujumbura. During the genocide in neighbouring Rwanda, many Rundis also left their country for fear of persecution, as there are Hutu and Tutsi in Burundi as well. Most of them have fled to nearby Tanzania.

After the unrest they had to return to their country. The government has built houses and huts for the returnees, each with a small piece of garden. The population works as day labourers in the neighbouring rice field. In the beginning, a large development aid organisation built a deep well with a solar system. Since the solar system is broken and nobody is responsible for the repair, there is no clean water in Rukaramu anymore and people die of easily preventable diseases like diarrhoea.

During a walk through the village we found out that there is the Moringa tree (lat. Moringa oleifera). Many locals knew that the leaves of the tree are very healthy. Nobody knew, however, that the seeds of the moringa tree can be used for water purification. In a large-scale action we have grown 800 seedlings of Moringa oleifera and Moringa stenopetala with the local population, distributed them to the families in the village and planted them.

Now everyone, regardless of technology, has the opportunity to treat water for their families: You take the ripe pods of the Moringa tree and open them. In them are the seeds, which are still surrounded by brown wings. If you remove them, the white seed appears. This is then crushed into powder with a mortar. The seed powder is put into water that is as clear as possible and shaken to dissolve it. This solution is filtered through a clean piece of cloth or gauze over the bucket with the dirty water so that the insoluble substances are retained. The morale solution is now in the dirty water. Now it is stirred and left to stand for an hour. The moringal solution has an antibiotic effect and kills about 99% of the bacteria.

In addition, electrically positively charged components of the Moringa seeds bind negatively charged dirt particles in the water and precipitate them; these flakes are heavier than water and sink to the bottom. As soon as the solids have settled, the clear water can be

carefully skimmed off and drunk. The number of seeds required depends on the degree of contamination of the water. It takes 5-20 seeds per 10 l bucket of water.

The political situation in Burundi is not easy. But this ray of hope of having clean water gives hope and keeps some people from taking the risk of fleeing to Europe.

**Questions for discussion:**

- How do people get clean water?
- What technologies do you need to do this?
- What is the advantage of such adapted methods?
- How can traditional knowledge be passed on?