New solar thermal energy empowers small entrepreneurs and fights climate change in Kenya

Renewable energy company Solar Fire Concentration, with the support of World Vision and Wärtsilä, is currently testing a new solar technology in the Western part of Kenya.

The results of the GoSol.org project pilot are successful and one bakery and one women's group producing peanut butter have been using these solar devices since summer 2016.

The company is now expanding with the support of its new founding sponsor, Wärtsilä, a global provider of complete life-cycle marine & energy solutions and services.

- Climate change and its devastating effects on agriculture and food production can be seen in Kenya today. Our low cost technology can be a part of the solution to prevent climate change, says **Eva Wissenz**, CEO of GoSol.org.

The company has initiated and supported the building of two solar concentrators in Kisumu. The units were made by local artisans using available materials in the region.

10 months later, the technology is well adopted and the impact is real. A peanut butter workshop Yier Ngima in Karemo has been producing organic peanut butter with the concentrators. They report that they have been able to reduce their charcoal costs by 100% during sunny season. Also the negative side effects of charcoal use have been removed; the peanut butter tastes better and the workers are no longer exposed to toxic fumes.

The second pilot unit, Koptigei bakery in Tinderet, has also been able to reduce operating costs and can now provide more schools with baked goods and is saving thousands of shillings per month on electricity. In addition the business is no longer affected by the unpredictable electricity blackouts.

The technology uses locally available materials, such as steel and mirrors. The idea of the pattern is to concentrate sunlight into one focus point and create enormous heat (up to 300°C). The mirror ray can be scaled and adapted to perform almost any task powered by heat. The solar concentrators can be used for example to bake bread, roast groundnut, boil water, fry food, or dehydrate vegetables, fruit or fish. At the industrial level the technology can also power steam engines to grind grain, pump water or turn machinery.

- The technology is simple and efficient and the maintenance is uncomplicated. It's the beginning of a big change in renewable energy for SME's, says Wissenz.

GoSol.org is part of World Vision Finland's Weconomy innovation program, which brings together companies and communities in areas where World Vision works. In Kenya the partner is World Vision Kenya.

- The aim of Weconomy program is that both companies and communities learn from each other. They co-create products or services that benefit the people and at the same time enable sustainable new businesses for the companies, says **Maija Seppälä**, Programme Advisor for World Vision Finland.

Weconomy - World Vision Kenya video:

https://www.youtube.com/watch?v=W78tjt8vNJs

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