



Main function of our installation is the conversion of solar energy into electricity. Based on its function, we have placed solar panels on the entire outer surface of the petals of our module—thus selecting an appropriate and advantageous location for the technology. Additionally, a single module not only captures sunlight and energy but also collects rainwater for its purification and further use by the residents of the village of Marou. In the center of the module, there is an opening for water collection. The petals, forming a small funnel, facilitate the accumulation of water in the desired place. After collection, the rainwater undergoes several stages of filtration and purification before being delivered directly to the village residents for consumption and agriculture.

We have utilized a multi-stage rainwater purification system:

Preliminary purification

- Use of nets to remove leaves, debris, and large particles immediately upon rainwater collection.

Mechanical filtration

- Application of filters with varying degrees of porosity.

UV disinfection

- Use of ultraviolet lamps to eliminate microbial organisms.

Additional purification

- Application of reverse osmosis to obtain potable water of the highest quality.

We have chosen these particular technologies to best meet the population's needs for inexpensive electricity. The energy generated by the solar panels is sufficient for the comfortable existence of the entire village, supporting daily life and agriculture.

Our object also boasts additional pleasant features, such as a tourist zone and a recreational area. Anyone can spend time within our installation, relax, and organize their leisure activities. For this purpose, modular benches are arranged within the shaded areas under canopies, along with a well-equipped pavilion for meetings, gatherings, masterclasses, and other events.

Average power of the solar panel is 250–300 w/m². Specific power: 0.275 kw/m² (275 w/m²).

To generate 75 kw, 273 m² of solar panels are required.

A 15,000 m² site allows this system to be easily accommodated, taking into account additional infrastructure.

