

# RESEARCH AND DEVELOPMENT FUND PROJECT SPOTLIGHT

## aQysta

Enhancing Solar Drying with Night-time Capabilities

### Project Summary

This project will conduct a feasibility study on innovative solar drying technology. It extends drying time to night-time, increasing efficiency and improving the quality of dried products.

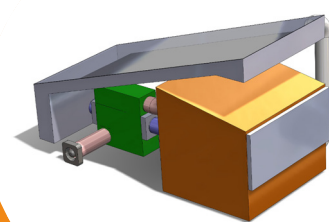
### Project Description

Existing solar dryers are inefficient and rely heavily on direct solar radiation. It limits drying times and makes them less competitive for large-scale drying than electric dryers. This project aims to develop efficient solar dryers that can operate 24/7. The feasibility study will:

- Extend drying duration to night-time
- Reduce the total drying time of crops
- Improve the quality of dried crops
- Create a cost-effective, environmentally friendly solar drying solution for rural off-grid communities.

The project uses a combination of sensible, latent, and thermo-chemical heat storage principles along with a desiccant. This innovative approach harnesses solar energy to dry food products at night.

Solar drying helps reduce food waste by providing an alternative to traditional sun drying methods. Farmers can export dried fruits to meet the increasing demand in developed countries. This boosts the competitive edge of exports from landlocked nations, such as Nepal and Malawi.



### R&D Partner

aQysta

### Organisation Founded

July 2023

### Technology

Solar Dryers

### Project Location

India, Malawi, Nepal and  
the Netherlands

