**Consortium Members**

- Kwasi Etu-Bonde (Agribusiness & Rural Development Consultant), Sustenance Agro Ventures (Ghana)
- Daniel Asare-Kyei (Project originator & partner), Eucharia Farms Ltd (Ghana)
- Valentijn Venus (IT Researcher), Uujuzi Laboratories (NL)
- Patrick Kumah (Postharvest Technologist/Researcher), Kwame Nkrumah University of Science and Technology (Ghana)

**Main Innovation Aim/Objective**

**Aim:** Catalyze small-scale processing of fruits which otherwise would have gone waste  
**Objective:** Increasing smallholder farmers income and nutrition.

**Expected Impact (including target group)**

1: The application of the developed technologies regarding drying design and automation should lead to an increased capacity among practitioners and farmers on these technological innovations.

2: The increased amount of dried mangos on the market should result in an improved food security in the Kintampo area. In addition, children malnutrition should be reduced due to mango donations in the first phase and reduced prices for dried mangos in the second phase of the project.

3: Furthermore, the raised value of mangos and lower production costs due to automation should generate more income for 1000 direct beneficiaries and, indirectly, improve the livelihoods of 5000 dependents.

4: The project results should also be applicable in other areas of Ghana.

**Specific Objectives**

**Objective 1:** Increased knowledge on suitable sites for solar dryer development and installation

**Objective 2:** Increased knowledge and adoption of efficient solar oven technology for mango drying/processing

**Objective 3:** Enhanced mango drying & processing technology development and dissemination

**Objective 4:** Increased local and export market demand for solar dried and/or other processed mangos

**Impact Activities and Results**

We have developed a hybrid solar-LPG dryers using solar water heaters and LPG (as a back up arrangement) to heat water to give a continuous drying, even during night or non sunny days.

The air inside the chamber gets heated up to 70°C and the blower gives sufficient air velocity for drying.

The temperature and humidity inside the drying chamber is to be controlled by sensors and controllers now being developed.

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