

CONCEPT NOTE

POST HARVEST TREATMENT OF HORTICULTURAL PRODUCTS

WHERE: KENYA / EAST AFRICA

PARTNERING CSO: KENYA RED CROSS

It is estimated that up to 40% of the production is wasted due to poor post-harvest handling and storage. In Kenya the total market value of the horticultural sector is estimated at USD 940 million (2015), which means that produce worth approx. USD 600 million is lost.

Business case

Due to poor infrastructure - in particular lack of reliable power supply, many projects in rural areas in Kenya have no possibilities of proper post harvest handling and storage facilities including cooling. Thus, even if the farm is located only a few hours away from the market, the quality of the produce has deteriorated before it reaches the consumers.

Fresh produce like cabbage and lettuce has high water content, and without proper post harvest handling the content will decrease quickly, which makes the produce look droopy and reduces the shelf life considerably. As the problem starts immediately after harvest, it is important that the produce can be cooled down and kept in a shady place already in the fields before being transported to a central processing unit. However, there has not yet been developed a simple and cost effective solution for this purpose.

There is also a need for smaller processing units, where the produce can be washed, packed, cooled down and stored before being distributed. It will not only secure a better quality, but also make the farmers more flexible in terms of day-to-day marketing and enable them to reach out for the export markets.

Kenyan Red Cross is currently supporting 13 projects with approx. 6,700 farmers cultivating more than 2,000 ha of land under irrigation.

Expected output

The following outputs are expected:

1. A simple, low-cost and insulated shelter equipped with a basic solar powered cooling system which will make it possible to prevent further heating of the produce and reduce evaporation to a minimum while awaiting transport to a processing unit. The shelters will not only improve the quality of the produce but also the planning of intake at the processing unit and thus reduce power consumption.
2. A simple, low cost and solar powered processing unit for washing, sorting, packaging and cooling of the produce.

Kenya Red Cross' role

KRC identifies and maps out potential projects in terms of production, location, market, organisation and funding. Furthermore, KRC will facilitate training of farmers in cultivation techniques, market information system and basic business models.