



## Fieldwork Report of Ingenieux-Sud project

<b>Name</b>	Ms. Thary Vorn
<b>Partner fieldwork and Project place</b>	ECOLAND, LOUVAIN, Mlub Baitong and FAEC Andoung Pou and Promat Dey at Kampong Thom, Cambodia
<b>Date of Travel</b>	03-19 September 2019
<b>Contact Person</b>	<a href="mailto:vorn.thary@rua.edu.kh">vorn.thary@rua.edu.kh</a>
<b>Executive Summary</b>	<p>Louvain Cooperation, Mlub Baitang and ECOLAND Collaborate with University Catholic of Louvain on a project entitled "South Engineer" to host every year students from Belgium working closely with RUA students for their internship. This project we proposed a new subject to students to work on "Evaporative Conservation" of harvested vegetables. The Evaporative Cooling System (ECS) is low-cost techniques of post-harvest storage for vegetable. Evaporative cooling system is a well-known system to be an efficient and economical means for reducing the temperature and increasing the relative humidity in an enclosure and this effect has been extensively tried for increasing the shelf life of horticultural products in some tropical and subtropical countries. Thus, the evaporative cooler has a prospect for use for short-term preservation of vegetables and fruits soon after harvest. So, this, zero energy cooling chamber (ZECC) could be used effectively for short-duration storage of fruits and vegetables for a rural area in Cambodia. We were selected the beneficiary's farmers based on the criterial to provide ECS or ZECC.</p> <p>The fieldwork has successfully completed installation the Evaporative Cooling System (ECS) for the small household farmer. Moreover, we provided the training to the farmers about how the system work and how they need to practices to storage the vegetable.</p>
<b>Objectives</b>	<ol style="list-style-type: none"><li>1- Field visit to select the beneficiary farmers for the evaporative cooling system</li><li>2- The procedure of implementation the ECS of Belgium students and RUA students</li><li>3- The training to extend the system to farmers about how does ECS work and how the farmer needs to practice to storage their vegetable.</li></ol>
<b>Tools</b>	Notebook, construction materials, etc.

ACTIVITIES	RESULTS	LESSONS LEARNED	RECOMMENDATIONS / ACTIONS TO BE TAKEN	STATUS OF COMPLETENESS
<ul style="list-style-type: none"> <li>- Field visit to select beneficiary's farmer</li> <li>- The procedure of implementation of the ECS of four Belgium and 4 Cambodia students and RUA students</li> <li>- The training how does ECS work and how the farmer need to put in practice</li> </ul>	<ul style="list-style-type: none"> <li>- We introduced the objective of the project on the evaporative cooling system. We discussed activities of produce vegetable and the processing collect vegetable of each the farmer. As a beneficiary, the farmer has collaborated with many supports including technical training, marketing network and agricultural inputs.</li> <li>- The fieldwork has successfully completed the installation of the two Evaporative Cooling System (ECS) for small local households. The data logger was used to measure temperature and humidity outside and inside the system.</li> <li>- Moreover, we provided the training to the farmers about how the system work and how they need to use to ECS storage.</li> </ul>	<ul style="list-style-type: none"> <li>- What we have learnt is the contribution from the farmers on the social aspect of their experience and habit of the traditional way for vegetable keeping</li> <li>- The water supply uses well and this large water reservoir enables to produce more vegetables.</li> </ul>	<ul style="list-style-type: none"> <li>- The farmer in each village should storage their vegetable and need to collaborate.</li> <li>- The farmers should be increasing their vegetable production.</li> </ul>	<p>NA</p>

**Fieldwork activities**



Meeting with Mlub Baitong staff to select site visit



Field visit to select balnearies farmers



The ECS at Andoung Pou village



The ECS at Promat Dey village



The farmers beneficiary (Ming Mom)



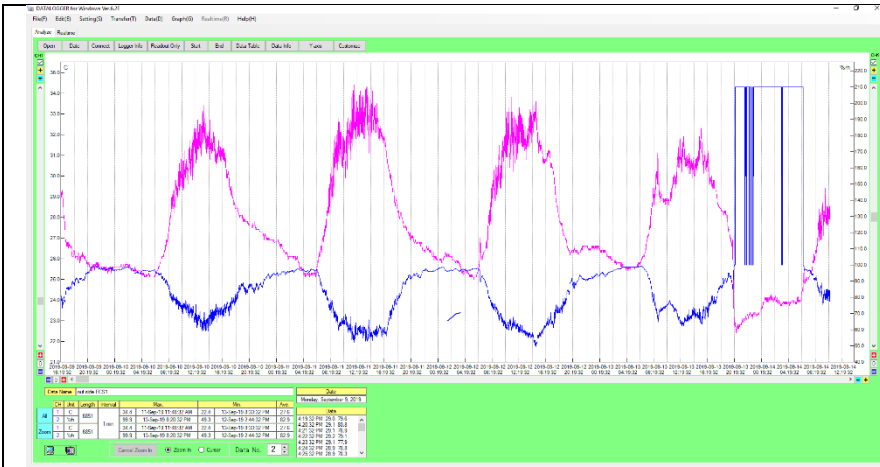
The farmers beneficiary (Ming Ry)



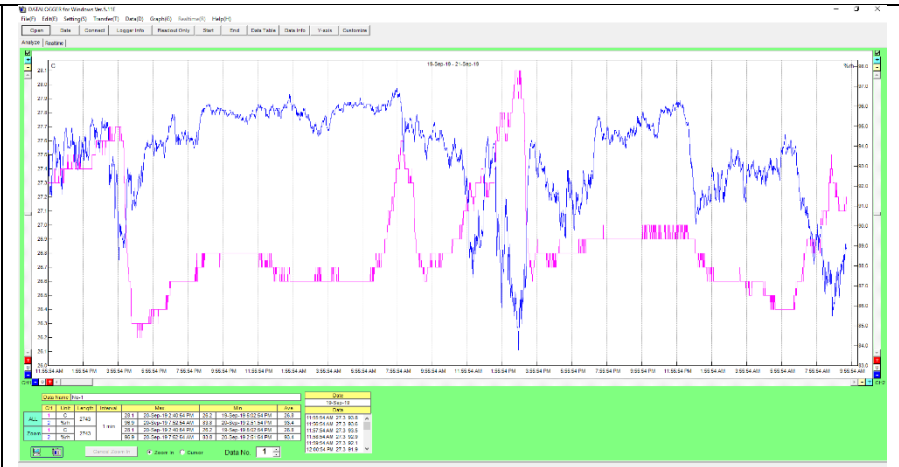
The training to the farmers



Types of vegetable storage in ECS



The data logger of Outside ECS



The data logger of Inside ECS