

<b>ACADEMIC INSTITUTION</b>	British Columbia Institute of Technology	<b>PROJECT NAME</b>	RA Solutions
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**NEED AND AUDIENCE**

- *What need does this project address? (This is the place to explain why you decided to run this project)*
- *What audience(s) did you target and why?*

Ra Solutions combats food waste while generating a secondary revenue stream for farmers. Our project is helping these farmers to increase their annual income through maximizing the produce from harvest. We have engineered a solar dehydrator which can be used to reduce crop waste by dehydrating produce that would otherwise go to waste, enabling farmers to sell it within their local markets creating a secondary revenue stream. This reduces the amount of methane gas emitted through crop waste and improves food security.

**ACTION TAKEN**

- *What activities did you undertake? (What did you do?)*
- *What partners did you work with?*

We have set up a strategic partnership with the North Okanagan Valley Gleaners Society (an NGO focused on turning excess produce in Canada into dehydrated soup mix for humanitarian uses), who have assisted us in our primary research in Guatemala, Ethiopia, Uganda, and Canada. Additionally, we have sold our first 10 dehydrators to the Gleaners, who will be distributing them to rural communities in South and Central America, with the first units shipping to the Dominican Republic and Jamaica in March. We are sourcing a more affordable manufacturer and a distributor closer to South America to improve lead times and scalability.

**IMPACT**

- *Please outline the overall impact your project had on participants*
- *Include any metrics not in the table below*

Ra Solutions has completed the R&D phase and we've shipped 10 dehydrators to Guatemala. Due to delays from Covid and supply chain issues the dehydrators have not yet arrived. By distributing 10 dehydrators, we are anticipating a reduction in waste of 2,400 kg equating to a return of \$1,200 additional income from selling the dehydrated produce in the farmers' local markets. We estimate that these 10 dehydrators will offset 2,400kg of crop waste. Based on our tests done in Guatemala, with harvest seasons in March to May and September to November, if farmers were to capitalize on 30% of this or 60 days, they could expect to make \$60 per year, per dehydrator - an approximate 12% increase in their annual income.

<b>STANDARD METRICS</b>			
<small>(These metrics are related only to the project presented and represent work done since March 1, 2021)</small>			
Individuals educated on climate action	40+	Businesses educated on climate action	8
Litres of water conserved	0	Metric tonnes of waste diverted	0.24
GHG emissions diverted	150 m3	Dollar value of waste diverted in CAD \$	\$60

<b>PROJECT START DATE</b>	2018	<b>IS THIS PROJECT WHOLLY-OWNED AND OPERATED BY THE TEAM?</b>	Yes
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