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Rome Chapter

Food Loss and Waste Reduction through innovation and networking strategies in Costa Rica

Escuela de Agronegocios/ Tecnológico de Costa Rica

Member of the Latin American and Caribbean Food Loss and Waste Reduction Network

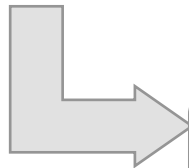
Coordinator of the Costa Rican Food Loss and Waste Reduction Network



Costa Rica's link to SAVE FOOD

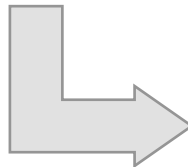
Global

- Tecnológico de Costa Rica attended the 2013 SAVE FOOD Partnership Event
- Agribusiness School subscribed to the 10YFP Sustainable Food Systems, jointly with the Ministries of Agriculture and Environment



Regional

- Case Presentation at the LAC Experts Event during the FLW Consultation, becoming part of the LAC Network



National

- Conformation of Costa Rican FLW Network-voluntary (no investment needed at this point, just the will to engage)

Food Losses and Food Security and Nutrition (FSN)

- Costa Rica, as part of the LAC Region, managed to fulfill the Millennium goals in terms of FSN
- Currently, there is a very positive environment towards FLW reduction, as one of the strategic guidelines for the CELAC Plan for Food Security, Nutrition and the Eradication of Hunger 2025, approved by the III CELAC Summit in San José - Costa Rica

Food Losses and Food Security and Nutrition

- The FLW Network has become a key provider in the first steps towards the creation of an Inter-institutional Articulation proposal for a FSN Bill
- Joint efforts from Network's parties are key to approach the vision of relevant stakeholders on the food supply chain (around 20 members)

OUR GOAL:

Address their needs and aspirations in terms of food loss/reduction and achievement of FSN, within an entrepreneurial scope and a social-environmental responsibility framework:



Therefore, our actions:

- Capacity building, academic approach, awareness and empowerment activities
- Knowledge enhancement and engagement: the school engages with trade chambers, PITTA groups, Ministry initiatives, local governments proposals, etc.
- Research and Extension projects with both public funding (TEC-FEES-FITTACORI) and private support (FUNDATEC), which turn into technology transference and adoption

TARGET AREAS



FARMERS



TRADERS
(sometimes)



AGRO-PROCESSORS



DISTRIBUTORS
(WHOLESALE
AND/OR RETAIL)



CONSUMERS
(INTERMEDIATE
AND/OR FINAL)



CASE 1: RAMBUTAN

Background:

Fruit size and color defects generated discards (around 20% of yields) or very low prices

Intervention:

Use of Technology (cold chain) improved shelf life for local market

Agro-industrial products were developed for the less appealing fruits

Outcomes:

Rambutan yogurt and ice-cream base is processed and sold together with dairy products. The once discarded is now used in a different and nutritious way, and also providing extra income to farmers



CASE 2: TOMATO

Background:

46% less yield in open field *vrs* green house production. Preliminary studies register about 6% losses in selection and 2% in distribution

Intervention:

Agricultural authorities are working on seed breeding for improved disease tolerance.

TEC, PRIICA and INTA are promoting value adding, new agro-industrial products and technology transference

Outcomes

Discarded tomato due to size or esthetics can be used in some agro-industrial products

Assessing this may save around 0,5% of harvest, which today is thrown away

CASE 3: NATIVE TERRITORIES



Background

Certain situations and tendencies in these places seem to affect sustainability and their possibilities to sell surplus production in local markets

Intervention:

TEC's proposals promote insertion of basic technology, agricultural practices that include biological pest control methods and biodynamic farming, as well as cocoa processing training, in full respect with the local cosmovision

Outcomes:

Excessive grain breaking has decreased significantly

Other selected varieties of plants have been brought to the territory, improving FSN without affecting ancient diets

Sales of organic cocoa are about to begin

CASE 4: VEGETABLES, SOUTHERN REGION



Background:

Costa Rica's Southern Region shows one of the lowest development scores within the Country

Interventions

FAO CR began promoting vegetable farming through "*casas sombra*" (shadow houses).

A group of students from TEC engaged into supply studies (quality and quantity). Preliminary results supported new research that combines market exploration and production planning

Outcomes:

4 target groups of farmers are expected to sign a contract with local elementary schools in February 2016.

This will increase the farmers income, less vegetable will be lost due to incorrect planning and regional FSN will improve as schools will include local grown vegetables in the kids meals

CASE 5: COOPERATIVE SCOPE



Background:

“Guayabita del Perú” (*Psidium cattleianum*) is a tropical, highly perishable and delicate fruit whose yields were lost

Intervention:

TEC engaged with the community through agro-processing development and extension. Marmalades and other agroindustrial products were developed and a cooperative was established together with agribusiness and marketing capacity building

Outcome:

Cooperative established and waiting for already approved kickoff funding

Agro-industrial facilities under design

AWARENESS ACTIONS

- DISCO SOUP:
 - never done before in Costa Rica. A powerful tool to raise awareness
 - Dozens people attended the activity at TEC Campus 11 days ago, received data on food waste and ideas to avoid it





Picture by Silvio Palladino



Picture by Silvio Palladino



AWARENESS ACTIONS

- MEASUREMENT AND REDUCTION STRATEGIES:
 - A rent-a-car company took some of the Network's suggestions, innovated by calling in a Nutritioner into their team and reduced 2/3 of food waste in their trash cans
 - Food waste at TEC's main cafeteria represents 5% of the total amount of produced meals a day. Understanding the problem through numerical facts is helping the authorities to take action: awareness, technology improvement, better taste

SOME FINDINGS

- Innovation (low cost and easy to apply techniques together with organizational, marketing and supply mechanisms) can support FLW reduction, promote FSN and enhance resilience at the same time
- Food supply chain approaches and agribusiness scopes allow more integrated concepts to promote farmers sustainability as well as food supply for the country's population
- Multidisciplinary actions and multi-stake holder interactions are needed to properly address the FLW issue.

Costa Rican FLW Reduction Network

“RED COSTARRICENSE DE EXPERTOS PARA LA DISMINUCIÓN DE PÉRDIDAS Y DESPERDICIO DE ALIMENTOS”



4th from right to left is our Deputy Minister of Agriculture and Livestock during one of our meetings



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