

Solar Drier Site to Promote Food Security and Renewable Energy

Yerevan, we cover almost all the provinces of the Armenia and some in Georgia, ArmeniaArmenia
Ruzanna Martirosyan







Year Founded:

2003

Organization type:

nonprofit/ngo/citizen sector

Project Stage:

Growth

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Project Summary

Elevator Pitch

Concise Summary: Help us pitch this solution! Provide an explanation within 3-4 short sentences.

Ecogeneration NGO is providing nutritional healthy dried fruits to millions of poor through applying our unique mechanism for promoting wholesale of dried fruits from urban and rural micro producers, our new zero waste drying technology, and use of Solar Processing Demo Site by different households.

About Project

Problem: What problem is this project trying to address?

The problem is malnutrition. About one million people in Armenia are malnourished while food prices continue growing twice by 2020. Due to the absence of processing and preservation facilities/technologies available to local farmers 31% of the food is spoiled or loses the nutritional values. The big processing companies do not meet food safety & quality standards, they buy the agg. produce from the farmers with very low prices and pay very late.

Solution: What is the proposed solution? Please be specific!

Ecogeneration NGO applies an exclusive method to involve the poor in the production cycle. We have established a unique Solar Drier Demo Site that is given to 205 urban and rural households annually on a rotational basis with relevant tools; developed a zero waste high quality brand called "HAYCHIR" that retains the most nutritional values and meets the best international standards. We organize demonstration sessions during the growth season of each fruit and berry and control the whole production process. Half of dried produce is for self-consumption of the poor, and half for sale. The NGO helps them in marketing of the produce, distributes to hospitals, schools and exporters; helps farmers to construct similar driers and join our network. We helped the local women groups to establish organic gardens; collect wild fruits; berries, herbs and process them in our drier. We helped to establish school based gardens that later feeds the schoolchildren.

Impact: How does it Work

Example: Walk us through a specific example(s) of how this solution makes a difference; include its primary activities.

Our unique Solar Drier Demo Site and a zero waste processing technology processes all the elements of fresh fruits, berries, herbs (fruits, kernels, peels, seeds and gets dried fruits, herbs, oil, juice powder, seasoning, coal bricks, jam, compost, etc). It is provided to 205 households (1230 people) annually. Each of them dries about 300 kg of fresh produce-50-60 kg of dried fruits used for self-consumption. Total of 32 tones of dried fruits is sold in the market and 16 tones -to schools, hospitals (for treatment of chronic constipation), orphanages. About 108 villagers are collecting and/or growing medicinal and tea herbs. The design docs of the solar drier were asked and delivered to 6 countries. 23 local producers built similar driers. We have provided training to 207 people, organized internships for 26 students of Agrarian University; collaborated with the Ministry of Agriculture (Armforest) to draw a map and trails for collection of wild fruits and berries in forested areas, with the Ministry of Territorial Administration to allocate lands to local women groups for establishment of gardens for medicinal and tea herbs; with the Ministry of Environment to develop the list of dry resistant plans that will survive the climate change. Our monitoring data and feedback of our clients prove the usefulness of dried fruits and herbs for constipation, indigestion, anemia, fevers, skin diseases, etc. We have developed guidelines and instructions for usage of medicinal and tea herbs.

Impact: What is the impact of the work to date? Also describe the projected future impact for the coming years.

Social -205 poor process fruits,berries, herbs; get healthy, nutritional food for winter time for 613 children and revenues from sale. About 60 tones of fresh produce is not spoiled. Health-The dried apricots, prunes, medicinal and tea herbs processed in our solar drier meet the international food safety & quality standards. They are delivered to the hospitals and clinics for treatment of constipation and respiratory systems, diabetics. Environment- Within 5 years the drier reduces consumption of 35000 cubic meters of natural gas; 500 kg of sulphur; emissions of CO2 for 65 tones; SO2 for 1tone, saves 18200*2 USD for gas as gas prices increased for two times 10 days ago. The project promotes the use of solar appliances. Solar drier -The design and technology of the solar drier was asked and delivered to 6 countries: Djibouti, Panama, Nepal, Afghanistan, India, Georgia. 24 local producers have built similar driers, 420 got training, 1200 work with us.

Sustainability

Financial Sustainability Plan: What is this solution's plan to ensure financial sustainability?

The users of the solar demo site pay back 10% of their revenues for covering of the operational expenses of the solar drier. Trainings are provided to local farmers for free, but we are also organizing paid on-the-job training and extension services for university students and major processing companies that ensure the sustainability of the operation of the Demo site. 12% of total revenues gained by the Demo site is used for growth and innovation

Marketplace: Who else is addressing the problem outlined here? How does the proposed project differ from these approaches?

There are 4 major and few privately owned solar driers in Armenia. None is given to the farmers for processing their own fruits and berries; none has a zero waste processing technology; or provides dried fruits to schools, hospitals and orphanages, none cares of retaining the nutritional values to be used for treatment of certain diseases. Each year we involve 300 more farmers in the production cycle, who started establishment of new orchards; medicinal and tea herbs' gardens, processing of dried fruits and marketing. The revenues in our chain grow by 12% each year. Our produce will be exported globally in 3 years, first to Glendale, CA, USA for the Armenian Diaspora. Our next projects will be development of solar refrigerator, bio packaging and use of the solar drier as a hydroponic greenhouse.

Team

Founding Story

We started as an environmental NGO, ended as an agricultural one moving to health through proper nutrition. First we established youth environmental camps, school based botanical gardens, green campaigns. Through our observations we found the linkage of environment, poverty and malnutrition. We combined our objectives, invented ways to improve the environment through use of solar energy in the production process, invented new technologies that retains the most nutritional values, developed certain diets of dried fruits and medicinal herbs that cures certain diseases, invented new mechanisms that involves the poor in the production process, we are linking the poor producers to national, regional

market, striving to reach to the global market

About You

Organization:

ECOGENERATION NGO

About You

First Name

Ruzanna

Last Name

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Twitter URL

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About Your Organization

Organization Name

ECOGENERATION NGO

Organization Country

, YER

Country where this project is creating social impact

, YER, Yerevan, we cover almost all the provinces of the Armenia and some in Georgia

Has the organization received awards or honors? Please tell us about them

AEIF of US Department of State;
Tufenkian Foundation
Democracy Small Grants from US Embassy in Armenia (two grants)

Nutrients For All

Where do you ensure the availability of nutrients?

Healthy environments., Full nourishment foods, Human wellness and vitality.

If you had greater capacity, which additional sectors would you like your solution to target - either through expansion, partnership, or thought exchange?

Nutrient-rich farming.

How specifically would this added capacity help you improve the quality, efficiency, or sustainability of your existing product or service?

We will establish solar powered generator and use its energy for the refrigerator/storage during summer and for the drier in winter time to turn it into a hydroponic greenhouse. We want to develop new bio packaging for our dried produce and herbs with relevant usage instructions. Another asset will be promotion of instructions and programs on selection of the right organic dried fruits and dietary nutrition. Armenia is hosting 850 species of tannin, 30 species of dying, 271 species of ephemeral, and 850 species of medicinal plants. We will deal with production and distribution of these plants.

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