AGRICULTURAL SYSTEM OF INGA ALLEY CROPPING AWARDED AS ORGANIC FARMING INNOVATION

The agricultural system of Inga Alley Cropping created by the Inga Foundation has been awarded as Grand Prize winner by the Organic Farming Innovation Award (OFIA) in the framework of the IFOAM Organic World Congress held in New Delhi, India, in November 2017.

The Inga agricultural system consist in create alley cropping using nitrogen-fixing Inga trees. The *Inga Alley Cropping system* is able to maintain soil fertility and good harvests year after year, breaking the cycle of slash and burn and allowing families to gain long term food security on their land. This innovative agricultural system has been developed by Mike Hands of Inga Foundation after years of scientific research and experimental projects finding alternatives to the slash and burn farming.

The research has led to rediscover the great properties of the Inga plant that grows in many countries of tropical America. Inga is a huge genus of around 300 species widely distributed throughout lowland and mountain regions of the continent. Each country has its own set of species adapted to the local conditions and this plant is normally used for its fruit, to provide shade for cocoa, coffee and tea plantations, and for its timber.

The investigations proved that this plant has characteristics that make it particularly suitable for enriching the soils making permanent crops possible. All species of Inga for example produce root nodules containing nitrogen fixing bacteria. Crops grown in combination with Inga benefit from the release of nitrogen and also from a sustained release of nutrients from the slowly decomposing leaf mulch. Furthermore, Inga species have small nectar producing glands on the leaves. These attract a wide range of insects to the plant. The direct effect of these visiting insects is that they protect the Inga plant against herbivores and the indirect benefit is that the visiting insects may also parasitize pests living on crop species grown among the trees in the alleys.

In the Inga Foundation website a significant information on the characteristics of this versatile plant and the methodology adopted to implement the Inga Alley Cropping system is available for interested actors who wish to know more about it.

The information also highlights the great potential of using local species of Inga to adopt the Inga Alley Cropping systems in rural areas of Latin American countries, helping small farmers in implementing a sustainable and economically profitable agriculture. In particular, the Inga Alley Cropping system brings the following benefits:

- Ensures a reliable harvest year after year from the same plot of land with minimal labor required;
- Sequesters carbon;
- Recreates natural forest floor conditions;
- Ensures a biological weed control with no pesticides or herbicides by out-competing aggressive/invasive grasses that typically dominate farmers' plots;
- Protects water sources and pruned Inga trees provide fuel for cooking;
- Prevents erosion and loss of fertility while keeping farmers from abandoning soil-depleted plots to clear new rainforest.

The main experimental project of the Inga Foundation is being realized with over 200 families in the area surrounding Pico Bonito National Park, in Northern Honduras. The project implements a flexible Guama Model for Inga Alley Cropping, based on the needs of each family. In particular the project supports the families in the following activities:

- *Production of cash crops*. A range of cash crops can be organically produced using Inga alley cropping, including pineapple, black pepper spice, vanilla, yams, plantain, chili, cardamom, etc.
- *Low maintenance fruit trees*. Families are supported to plant up to 5 acres of fruit tree crops to diversify the farm, including highly valuable cash crops (cacao, rambutan, citrus, avocado, etc.).
- *Reforestation.* Families are supported to reforest as much of the remaining land as possible. This activity brings environmental benefits and harvesting timber from this reforested area provide them with another source of income.

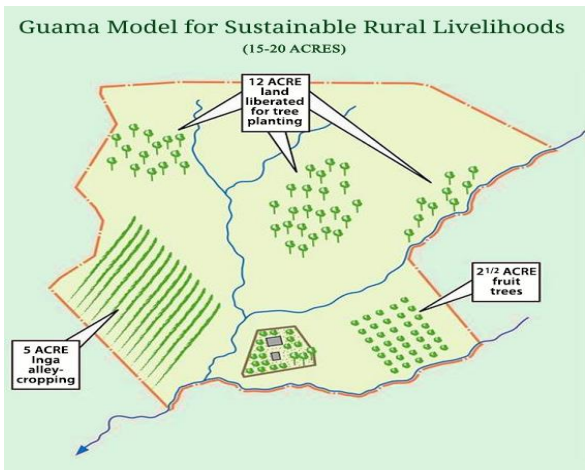
The Inga Foundation is already working with local research institutes in Congo-Brazaville and Madagascar to identify the appropriate native tree species that can serve the same purpose of the Inga tree in order to implement the Alley Cropping methodology.

In 2019, the Alley Cropping agricultural System has been presented by Mike Hands, the founder and director of the Inga Foundation at the 6th OFIA Summit *Nurturing a Culture of Improvement in Organic Agriculture* held in Amherst, Massachusetts, USA. The International Summit has been organized by IFOAM-Organics International, to debate on how innovations can spur and nurture the growth of organic agriculture.

To know more

Inga Foundation UK website

Inga Foundation UK in Facebook



Inga Foundation USA

Inga Foundation USA in Facebook

Research and publications

Step by Step guide to Inga Alley Cropping in rainforestssaver.org

Article in rainforestsaver.org

Article in permaculturenoosa.com.au

Video in Youtube

Inga Alley Cropping in Belize

OFIA IFOAM website

IFOAM Bio- OFIA Winners

6th OFIA Summit 2019

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