

Kamala Urban Farm (KUF)

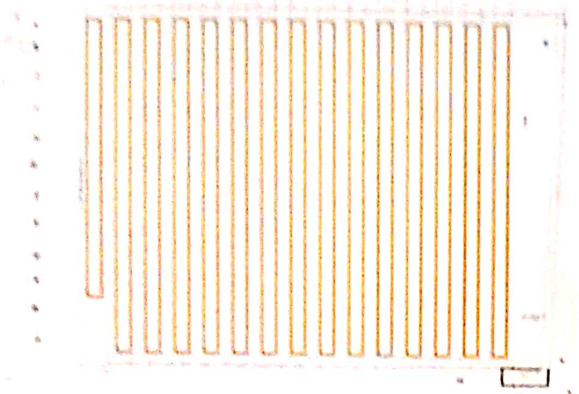


Nesting spotted in KUF

A Bio-diverse framework

Kamala Urban Farm is an attempt, in creating a framework of Flora and Fauna's coexistence, resulting in a Bio-diverse environment capable of driving the socio-economic development for people of the region. It works on a Cradle to Cradle C2C approach, where the death of a Process is seen as the beginning of a new Process leading to a Sustainable Biodiversity. This model is achieved by bringing together an Urban Barren Land located in Siruseri, Chennai and Reverse Osmosis Reject Water from a neighbouring Packaged Drinking Water Plant. RO Reject Water from the plant which used to flow to sewers is now diverted to this Land to form a Wetland. It is designed and engineered as an Open Channel Hydraulic system balanced through a Water Retention Pond. This Water is made to pass through and retained in alternating Trenches and Bunds created by Red Soil. The soil is rich in Iron Oxides acts as the right interface to trigger PhytoRemediation of Water achieved by layering and planting diverse Herbs, Shrubs, Trees along with aquatic species in a certain spatial order. The Wetland acts like a sponge environment facilitating Ground Water recharge in the neighbourhood, an ideal interface for Farming and also provides a habitat for birds to enter, settle and nest in the Green Environment. The attempt is to provide for the framework and allow nature to restore, replenish and create a biodiversity.

The Wet Sponge

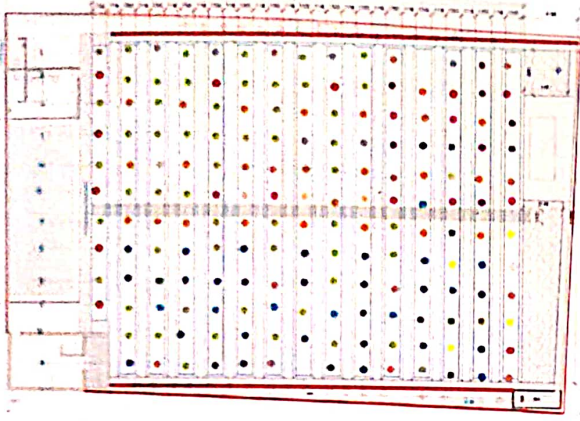


The Land contour is profiled into linear grids of alternating trenches and bunds. The reject water from the Drinking Water Packaging Plant is screened and allowed to pass on to these trenches. The Water starts spreading, percolating, recharging the ground below and finally achieves a threshold of retaining water. The Land parcel now starts behaving like a Wet Sponge holding Water and creating a Microclimatic region within the site.



The Diverse Multi-cropping

The Bunds are introduced with diverse Multi-cropping including Plants ,trees and shrubs.



Flora - All type of Fruits predominantly Bananas, Mangoes,Guavas,Herbs like Basil , Bamboo, are currently planted, etc.

Fauna -Plan to introduce Aquatic Fishes,Butterflies,Honey Bees is being considered. The Results so far are very promising, the Flora in the Farm at the present stage is now only dependent on this Wetland system Water and doesn't depend on any other source of Water like Bore well Water for its sustenance and Life.



The Locals

People from the Village are employed on daily basis for the various activities that are being carried out in the Farm. They have been constantly involved right from the inception, to Trenching, to plantation, mulching, daily operations and total care of the Farm.



By Converting this Waste land system, the number of Job and employment possibilities the Urban Farm has generated is a first step to Creating a Sustainable Biodiversity through a Local Socio Economic Model. It has drawn attention from other Neighbouring Residential communities on possibility of participating in such Urban Farming Activities. Currently the Farm is Distributing Samples from the produce to the neighbourhood on a trial basis. The produce of the Urban Farm is focused towards only Organic Produce thereby aiding towards the Health and Well being of the people who are consuming the produce from the Farm. It is also attracting Local Women to participate, who are being employed on Daily Basis on Farm Activity.

Mulching to Manure

The farm is also constantly fed with a sequential supply of Mulch turned into Organic manure which are prepared from the weeds, leaves, saw dust from the farm and neighbourhood. The same is fermented along with a mixture of Cow Dung, Curd and Jaggery and allowed to ferment. After 4 Weeks of fermentation, the mixture is filtered out as semisolid manure and the liquid is used up as a Pest repellent spray. This filtrate is rich in organic matter improves the Soil quality and replenishes it on a regular basis.



The Farm Produce

Currently with all the developments so far, the Banana Plants in the Farm have started yielding on a very regular cyclic basis. This is the first one to give very quick results in the farm interface. The predominant variety includes Nattu Palam (a native breed from down south of Tamil Nadu). Also other breeds like Rasthali have started yielding and are reaped every biweekly basis. The farm produced bananas have also shown a considerable fruit size. The attempt now is on developing a supply chain model on how these produces are currently made available to People across the city. The focus is also oriented towards acquainting people on the importance of such a Biodiversity Farm model in the Urban Realm by giving them very qualitatively and organically produced fruit and harvest. The aim is also to crystallise this prototype of KUF, and arrive at a self sufficient model with other plants, trees and herbs through this Wetland system of Farming and Horticulture.

The Current Yield of Bananas



Creating Value Added Products

The produced Bananas have also been used to develop certain value added food products by Cutting ,Slicing, Sun drying and grinding producing Banana Powder. The same also gives scope for utilising Banana for a longer period of time. We have successfully used these to develop Recipes made out of Banana and Banana Powder. The attempts strongly point out the potential of developing Value added products from the Farm Harvest. This also gives scope and direction to develop interesting recipes from the various other Farm produce. The direction these can reinforce is a Farm to Table cycle, where the

