



**A Sustainable Residential Community “to live in harmony with Nature”**

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## **IMPORTANCE of ECO System**

**Whether you live in a remote rural village or in a modern urban society,  
Your dependence on Ecosystem is the same.**

**As a society, we depend on healthy ecosystems to do many things;**

- **to purify the air so we can breathe properly \***
- **sequester carbon for climate regulation \***
- **cycle nutrients so we have access to clean drinking water without costly infrastructure \***
- **and pollinate our crops so we don't go hungry \***

**As the world's population continues to grow, so too does our dependence on  
healthy ecosystems to provide the necessities essential to our survival.**

**Don't we all want to leave the planet in a good condition for our successors?  
Ecosystem Services valuation and assessment is one way  
to help make this happen.**

**By clearly understanding their value, we can make the best and most  
informed decisions about how to manage our landscape to ensure this value  
isn't lost.**

**KANCHI ECO Village is happy to bring all the above into Reality and make it  
POSSIBLE**

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## 1. Introduction

How to build and nurture a real sustainable community in order to restore the declining Eco System in place? This is the question always strike my mind. Human activity on the Earth has become ecologically unsustainable and we are overexploiting our planet: all this has been proven by the studies conducted by the Global Footprint Network, which argues that today humanity uses the equivalent of 1.75 planets Earth to sustain our life (to use materials, build infrastructures and dismiss waste). In other words, **WE ARE SIMPLY ABSORBING MORE SOURCES THAN THOSE THE EARTH CAN ANNUALLY REGENERATE.**

The super-Ecological Footprint leads to short, medium and long-term effects, which, soon or later, will hit every corner of the world: extreme weather events, environmental and social disasters, increasing waste, soil quality impoverishment, pollution, chronic diseases, and so on and so forth. So, what can we do to reduce the Humans' Ecological Footprint? Many proposals have been made on different fields, but let me say that agriculture plays a key (perhaps the most important) role in that perspective. In fact, the current dominant agricultural model shows big inefficiencies in the use of resources in all its phases (from sowing to consumption); moving from an intensive, industrial and globalized model (with huge costs of transport) to an organic small-scale farming with direct-to-consumer sales is an essential and not-more-deferrable step to make the global agricultural system environmentally sustainable.

I was thinking on these lines for years and finally I would like to create or in other words to develop a real 'zero-miles agriculture,' through the establishment of some Eco Villages/communities which surround the urban centers. According to me, these eco villages are designed in order to improve three dimensions of life: the ecological, economic and social dimensions.

- **Imagine, you waking up in an efficient house, not-far from the urban center, surrounded by greenery, living in a community of people who share their professional experiences and culture;**
- **Imagine, you eating healthy, seasonal and cheap food.**

The Eco village remains connected to the 'system,' to the 'entire society,' and tries to change it. The Eco village promotes (and supports) a zero-Ecological Footprint lifestyle, and helps the neighboring communities to do so. Moreover, it is a way to develop new technologies for new smart and eco-sustainable communities; new models that can be 'exported' throughout the world. The eco village does protect the environment and brings long-term economic development: this is why I consider it a pro-Long-Term Economy-initiative.

At KANCHI Eco Village, let us ensure

- **REDUCE** our consumption of natural resources as much as possible
- **RESTORE** the eco system in its place by keeping our environment in such a way that all living and nonliving organisms connects with each other
- **REPEAT** the above two rules again and again at KANCHI Eco Village, in order to return the resources to Mother Nature of what we consume during our life in this earth.

Come..... Let's all live in harmony with nature... if not permanent at least in the week end with

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# KANCHI Eco Village

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your kids to show them “The REAL Life”

## 2. KANCHI Eco Village

An Eco-village is a peripheral, agricultural urban community that is ‘sustainable:’ ecologically, socially and economically. These are three aspects of life that are extremely interconnected. It makes no sense to talk about ecological sustainability when there are no economic and social sustainability. Communities cannot survive in the long run if one of these three dimensions is ignored. Now what we wonder is? Is there any Eco villages’ structures exist elsewhere? The answer is No! We can find some model eco villages which take care more of the economic aspect and others which focus more on the social or/and the ecological aspects; however, it is very difficult to find communities which take into account all these three dimensions of life. Our ultimate goal is to create a set of eco villages adjacent to urban centers, which will absorb part of the population, lower the cost of living, supply local food and minimize the Ecological Footprint.

At KANCHI Eco Village we would like to transform the current industrial and globalized agricultural model into a ‘zero-miles agriculture’ one, which will

**1) Accommodate a part of the urban population:**

KANCHI Eco village has attractive housing structures for people; they will offer a healthier and higher-quality lifestyle compared to the common urban lifestyle;

**2) Lower the cost of life:**

The cost of living in KANCHI Eco village will be much lower to compare with Urban Living. Houses will cost less, the energy bill will be lower, and the food will be cheaper;

**3) Supply local and seasonal food:**

The inhabitants of the KANCHI Eco village will be able to buy or dine, at a lower price as we grow/source our food within the facility.

**4) Minimize the Ecological Footprint:**

All the housing structures and activities at KANCHI Eco village are designed to have a very low environmental footprint by using Eco Friendly Building Materials as well to use Solar Energy and Bio Gas to meet our energy requirement.

KANCHI Eco Village will be a ‘peripheral community’ of the nearby urban centers. Reaching the urban center will be very easy. We at KANCHI Eco Village will host from 500 to 600 people living in extremely efficient and cheap/economic houses, and eating local and seasonal products; these people will have access to all the basic services (medical support, pilgrimage trips, care for the elderly, healthy food and so on) provided according the best quality standard and the most innovative way. Get the highest ecological, social and economic sustainability, while remaining constantly connected to the adjacent urban center

KANCHI Eco Village is located at Uliyanallur Village, Nemili Union, Arakkonam Taluk,Vellore Dt., which is very close proximity of Kanchipuram and Just a 2 hours drive from Chennai towards Kanchipuram in NH4 (Chennai-Bangalore Express Highway). We would like to make this farm as a Modern Agricultural Village. This project is in the middle of its development (almost 50% of work is completed). KANCHI Eco Village is spread in an extent of

# KANCHI Eco Village

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16+ acres of land space. In order to meet the environmental “Sustainability” criteria, we are planning to accommodate only 500-600 inhabitants.

KANCHI Eco Village has its own Organic Farm, which will meet the food requirement of the inhabitants. KANCHI Eco Village’s farm will be a ‘modern farm,’ with a diversified production and collateral services ( Skill Training Centre, Farmhouse, Community farm, Traditional Kitchen etc.,). KANCHI Eco Village will provide high-quality and innovative essential services. The houses within this Eco Village will be very economic, and efficient, and the entire structure will be energy self-sufficient.

The Eco Village concept has been developed by K JAISHANKAR, thanks to his great experience in the agricultural sector. Born in a family of farmers, JAISHANKAR had access to good levels of education, worked in IT in various countries and in various positions around the world. Travel around the world has deepened JAISHANKAR’s knowledge on the various agricultural models scattered worldwide; he has seen with his own eyes the effects of the ever-more intrusive process of industrialization on the traditional ways of doing agriculture. At the beginning of the 2000s, the industrialized agriculture got levels no longer sustainable in environmental, social and economic terms. And, as an environmentally conscious farmer, he couldn’t stand that. He looked for an agricultural model respectful of the environment and the ability of nature to sustain our life; a model that would minimize the Ecological Footprint, without disconnecting itself from the larger system. JAISHANKAR understood perfectly that acting only on the ecological side was not sufficient; what we need is a structure that is ecologically, economically and socially sustainable. It was then that he came up with the idea of developing an Eco Village, a sort of agricultural community where the quality of life improves in all its dimensions: economy, community, happiness, health etc.,

## 2.1 Houses

In order to maintain an ‘eco-sustainable structure,’ We, at KANCHI Eco Village have calculated that we should accommodate not more than 500-600 people in an area of 16-1/2 acres (ie 7,18,740 sft) and one person for every 1197 sft. KANCHI Eco Village in particular, will include only, giving a roof to about 500-600 inhabitants.

These houses would be built using local material and the brick wall would be built using the Mortar mixing with Lime, finely sieved red soil, Kadukkai, Jaggery and Egg, which will make the building stronger. Alternatively, the houses could be built using pre-cast walls and eco friendly roof tiles, which will save a lot of steel, cement, sand and rock.

We also have an option of preparing the sun dried bricks as well as Compressed and Stabilized Mud Blocks. Both the bricks doesn’t require “Kiln” to burn the bricks. As a whole, we would be using a very less or NO sand and Cement, and most importantly, we will use locally available material, while building the house at KANCHI Eco Village.

<b>Points to Ponder:</b> We try to avoid, Sand, Cement and Steel in the construction as less as possible, and avoid timber completely for KILN based brick making as we use sun dried bricks or Compressed and Stabilized Mud Blocks (CSMB).
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**Picture 1: The House at Kanchi Eco Village built using CSMB**



**Picture 2: Making of Compressed and Stabilized Mud Blocks (CSMB)**



**Picture 3: Compressed and Stabilized Mud Blocks - A close-up view**

## 2.2 Accommodations

### 2.1.1 Rental Houses for Senior Citizens

Fully furnished 1BHK cottages would be available for Senior Citizens for very nominal monthly rents. Each Cottage would be beautifully landscaped and will appear aesthetically good.

### 2.1.2 Cottages for Working Men/Women/Students

An ideal accommodation along with aesthetically crafted landscape around the cottage would be available for a nominal monthly rent for Working Community/Students. Availability of High Bandwidth of Wi-Fi Connectivity is the added advantage for the residents at KANCHI Eco Village

## 2.3 The Food

We have an Organic Farm inside the community, spread round 6.5 acres. Most of the produces for our daily needs would be available from this in-house organic farm. Rest of the produces for our food would be sourced from other organic farmers.

The Residents at KANCHI Eco Village has two choices to get their food. Either they procure the organic produces available within the community and cook themselves or they can enroll themselves in our community kitchen. Those who opt for buying organic produces would get almost half the prices of what they buy at Chennai, thus help them to save their food bill almost 50%, which is economically sustainable. Those who enroll into our community kitchen would be provided, morning and evening refreshments, breakfast, lunch, and dinner, which are prepared using 100% organic produces by well experienced Chef/cooks within the community. We serve ONLY Vegetarian Food and STRICTLY “No” alcohol allowed inside the community. The residents also get 100% fresh milk from our Gaushala, which has only native breed of cows.

## 2.4 The Environment

At KANCHI Eco Village, we give utmost importance and respect to all natural elements which are pillars of our Mother Nature.

**SOIL:** We ensure that no chemical is getting into our Soil, whether it's an Organic Farm or a mere landscape space around the cottages. We would cover the soil as much as possible with our trees, shrubs or ground covers to harvest 100% sunlight effectively.

**WATER:** Every drop of rain water at KANCHI Eco Village would be harvested and saved effectively to reuse. We have a major rain harvesting facilities to capture and store the rain water. This will also help us to recharge the ground water level at our bore wells.

**SUN LIGHT:** We harvest 100% sunlight for our Solar Systems that we use for the common lights as well to use at every cottage for lights and fans.

**AIR:** We have planted almost around 750+ trees in the campus already and we still keep planting more and more trees to ensure 100% fresh air to our residents.



## 2.5 The Ecology

The Eco System and The Environment are closely interrelated to each other. Strictly speaking, a Healthy Eco System is the subset of a Healthy Environment. If there is no proper environment, an efficient eco system will not be possible.

Under the broad umbrella of Earth, Sun, Rain, Sky, and Air an excellent eco system is built by the nature to support the human life. We should note that, Animals, Birds, Insects, Worms and Even Microbes lives in this earth along with the human beings. Every species in this earth has got its Habitat provided by the mother earth. We human being has no right to destroy the habitats of other species for our livelihood. Every species has got a value in the eco system and plays a vital role to provide a healthy environment as well food to the human beings through this eco system. For example, we plant trees to attract birds, make their nests. Birds play major roles in planting more trees also helps to get rid of pest attack for farmers. Similarly, Honey bee helps us to get abundant food by way of pollination. Earthworms help us to enrich the soil health as well helps to harvest rain water efficiently. Like this every animal, bird, insect, worms and microbes helps us to live in this earth happily.

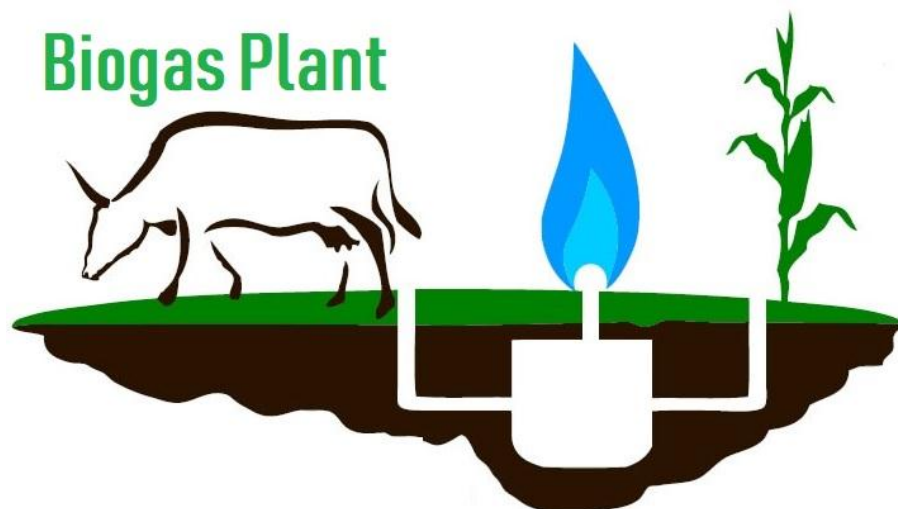
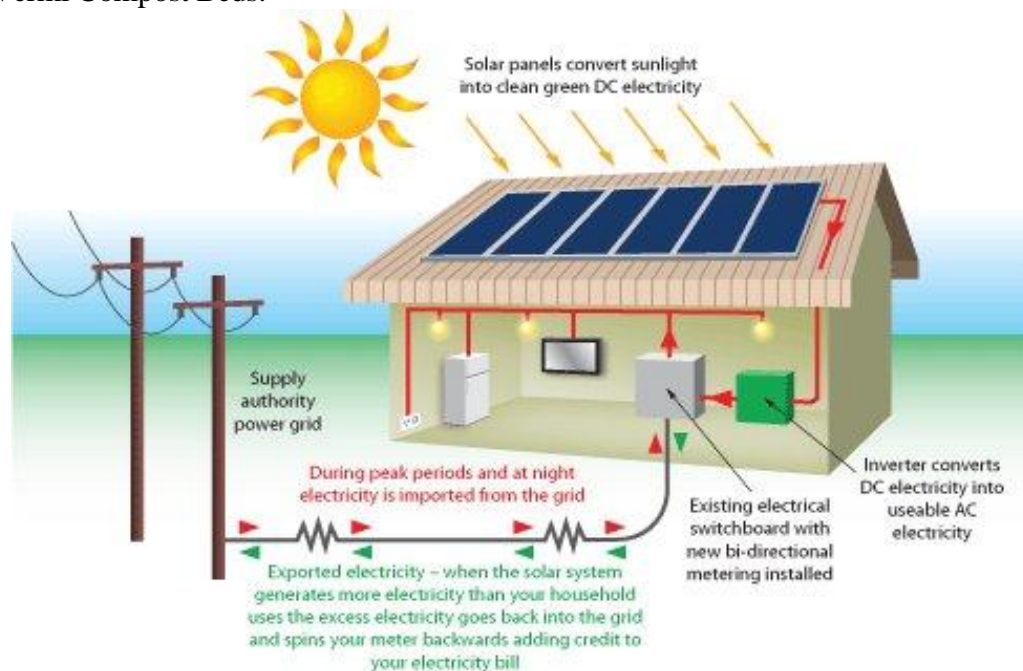
What we do at KANCHI Eco Village, is to make this community to build an efficient eco system for various organisms and help to connect living and non-living things and the rest will take care by the nature.

The Cow dung from cows would be fed to Earth worms. The residue of the earth worm is used as manure to our crops and Trees. Our soil gets enriched by this natural manure and helps lot of microbes to live. Our soil gets regenerated and becomes healthy soil for plants. Plants grow well and produce healthy foods. In the same way, bird's stays in the tree eats the pests in the crops as well trees and enrich the soil under the tree by its excretion. By the way, birds are the main source of Afforestation. The tree grows well, because of the healthy soil under each tree. The residue of the crop is again fed to the cow to make this cycle complete.

We can keep explaining more on this subject endlessly as long as the ecosystem is concerned. Our aim is to make KANCHI Eco Village as a Healthy Living Residential Community without destroying the Eco System and Mother Nature and RETURN as much as we consume to THE MOTHER NATURE. As we always believe in THE LAW of NATURE is THE LAW of RETURN.

## 2.6 The Energy

At KANCHI Eco Village we aim to minimize the demand for energy and maximize the use of renewable energy. 'Energy' is a key factor as of to reduce the Environmental Footprint and lower the cost of living. KANCHI Eco Village act on both the supply side (how energy is produced) and the demand side (how much energy is needed) of energy. On the demand side, the need of energy will be drastically reduced: the houses will have Natural and Cross Ventilation facility. On the supply side, the use of renewable energy will be predominant. The model of energy production is both centralized as well as scattered. In KANCHI Eco Village the photovoltaic panels would be installed on the roof of every house, and the biogas produced locally at each house will meet all the energy requirements of the community. Each house at KANCHI Eco Village will have Gober Gas Plant, supported by our own Goshala and the residue would be collected periodically and will be fed into our Vermi Compost Beds.

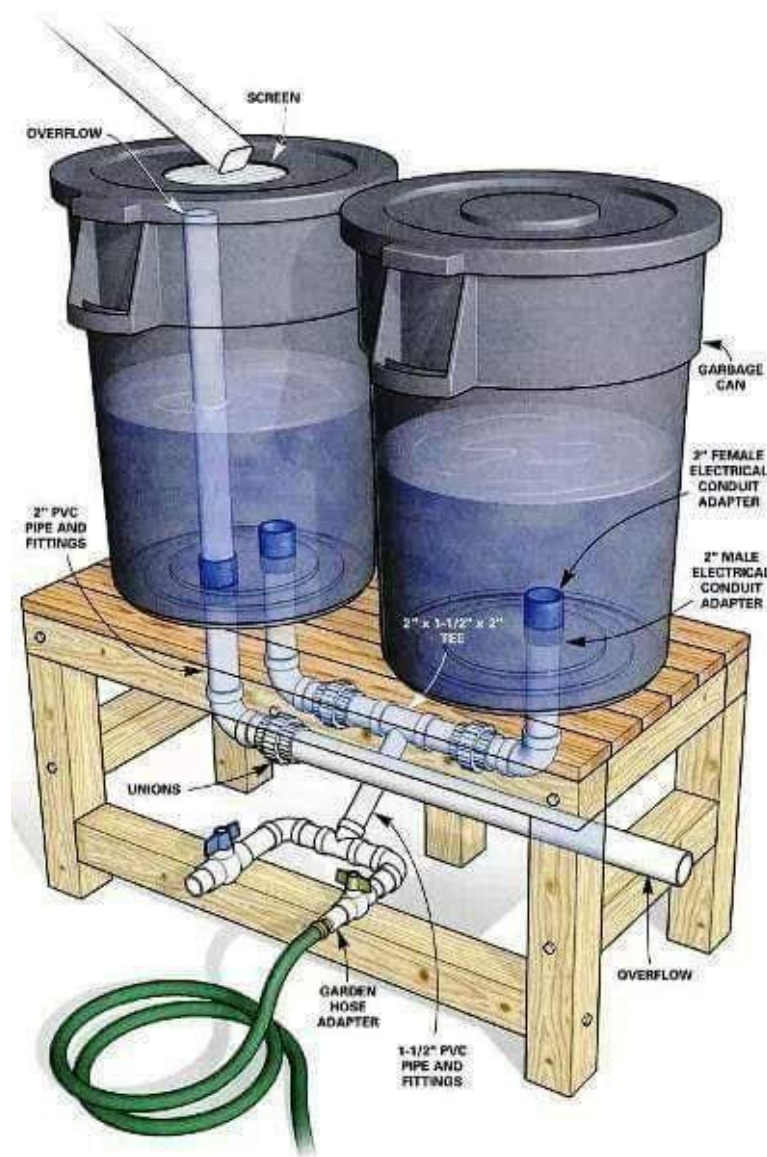


## 2.7 The Water

Reducing the waste of water. That is the basic principle in water management at KANCHI ECO Village. At KANCHI Eco Village, we have an efficient Rain Water Harvesting System as well Water Recharging Mechanism at our Bore well Points.

Our existing roof tops function as a water harvesting facility during the rain and is collected in a huge sump of 80000 liters of capacity. We have few Bore wells and work in progress to create a facility to recharge the rain water into the bore well points during the heavy rain. Moreover, the entire facility is used as a water harvesting platform during the heavy rain as we have earth worms in every square feet of our land, which does the percolation job effectively.

All our roads and pathways also help us to collect rain water into the soil back as we have not used Cement or Blacktop Road inside the campus. The roads and pathways are made using the rock slabs collected from the nearby villages



## 2.8 The Facilities

1. Fully Furnished Cottages for Rent/Buy for elderly people
2. 100% Organic Food would be served to all residents that are prepared in our Kitchen within the community
3. Food and Accommodation available for working Men/Women
4. Wi-Fi Connectivity for the residents who can Work from Home
5. Farmers market for residents
6. Traditional Kitchen & Restaurant for the residents
7. Educational/demonstrative farms for Students/Farmers
8. Multipurpose Skill Training Centre
9. Traditional Food Processing using ancient stone based tools and accessories
10. Weekly Pilgrimage Trips to the nearby temples (KANCHIPURAM, VELLORE and THIRUVANNAMALAI) for the residents
11. 24/7 Medical Care Assistance with an Ambulance at the community
12. A Temple within the community
13. Water bodies and Walking Corridor for the elderly people
14. Yoga and Meditation Hall
15. Avenue Trees throughout the Community and landscape alongside of the pathway as well around each cottage.
16. Solar Power for the common lights as well to the residents at each cottage.
17. Bio Gas for the community kitchen as well to the interested residents for their cooking needs.
18. Park and Relaxation benches around the pathway within the community

## 2.9 Waste Management

We provide dust bins across the facility for waste segregation. The green waste goes to our compost pits to convert as manure and other waste goes to the local vendors for recycling. We strictly restrict plastics within the community as much as possible. The Kitchen water as well the bathroom water is being collected in our septic tanks. All our septic tanks are bio septic tanks and the green water from these tanks would be used for landscaping as well for the flush tanks within the community.

The kitchen waste mainly from our community kitchen will go as feed to the cows at our Goshala and the cow dung from our goshala would be fed to our earth worms. All agricultural wastes which would not be consumed by animals would go to our compost pits and the enriched compost would be used at our Agricultural land as natural fertilizer. Thus all our waste within the community is used effectively.



## 2.10 The Current Status



Picture 4: Compound Wall at KANCHI Eco Village, which is built using Compressed and Stabilized Blocks



Picture 4: Avenue Trees at KANCHI Eco Village (Planted around 750+ trees already and More trees in Progress)





Picture 6; Pathway using the unfinished rock slabs for water percolation during rainy season



Picture 7: Gabion Wall built using Random Rubbles without any Cement Mortar (100% green wall)



# KANCHI Eco Village



### 3. The Food and Agricultural Model

KANCHI Eco Village is designed to have our own farm. Such a farm will be able to meet almost the total food requirement of the inhabitants throughout the year. In case we have production surpluses such surpluses will be sold in the local markets. The ultimate goal is to create a real 'zero-miles' agricultural system.

In this way two goals will be reached:

- 1) The transport of goods will be minimized: this is a precondition for a really ecologically and economically sustainable agriculture. In fact, the transport of fresh produces involves very high economic and environmental costs;
- 2) Compared to the most common eco-villages, KANCHI Eco Village will be "open structures" which will also provide food for people living in the neighboring Villages and towns.

At KANCHI Eco Village there is already a farm that by now produces a limited range of produces. With the implementation of this project the agricultural production will be increased and diversified in order to meet the food requirement.



#### 4. The 'On Demand-Agriculture'

The 'zero-miles' agriculture is surely much more sustainable than the current, conventional, industrialized agricultural model. But, according to KANCHI Eco Village, we should go even further. We should create an 'on demand-agriculture.'

Today food production in the advanced countries 'exceeds' by far food requirements and the 'waste' of food is enormous. The 'on demand-agriculture' is an evolution of the zero-miles agriculture. Its goal is to reduce the gap between what is produced and what is consumed. Today

food production in the advanced countries exceeds by far the needs of the population and the 'waste' of food has reached very high levels. On demand-agriculture means that the production of food is planned according to the effective demand of food. It is much more efficient (we produce less and spend less to produce) and has a lower environmental impact. It contributes effectively to the reduction of waste and hunger in the world.

### **5. The ENVIRONMENT 'Low Ecological Footprint'**

Humans absorb resources and produce waste. By doing this, Humans make a sort of pressure on the planet. The Ecological Footprint is the metric that allows us to calculate such human pressure on the planet. When the Global Footprint Network says that humanity uses the equivalent of 1.75 Earths to sustain us, it means that we are absorbing more resources than those the Earth can annually regenerate (The Ecological Footprint is higher than Earth's bio-capacity). That means that we are over-exploiting Earth's bio-capacity. We are emptying Earth of its resources. We are leaving less resource to the next generations.

To be precise, the Ecological Footprint measures how much land is needed to sustain the level of consumptions of an individual or a group of individuals. Humans use land to cultivate, build houses and infrastructure, extract raw materials and dispose of waste. By adding up the land needed to meet all these types of activities, we can measure the Ecological Footprint per capita of a well-defined population. The ecological Footprint can be measured at a global level (according to the latest elaborations by the Global Footprint Network, it is 2.8 hectares per inhabitant, which must be compared with an Earth's bio-capacity of 1.5 hectares per capita), as well as at a national and a local level.

KANCHI Eco Village is a modern eco-friendly community. It minimizes the Ecological Footprint in all the human impactful activities: from the agricultural production (where industrial inputs and transport are both strongly reduced), to houses (which are modular and efficient); from the production of energy (mainly made by using renewable sources) to waste (which is minimized). All this is carefully tended, in order to create a sort of 'circular economy,' that is, the economic model where the use of resources and the production of waste is minimized.

### **6. The Common Areas and the Farmhouse**

KANCHI Eco Village has some common areas such as kitchens, laundry rooms, event space etc...) That can be hired by the residents for nominal charges. The farmhouse is a key element of the KANCHI Eco Village.

- 1) The classic one: giving accommodation to senior citizens as well working men/women;
- 2) The specific one: giving low cost accommodation to the relatives and friends of the people who live in the Eco Village.

### **7. Living in KANCHI Eco Village**

Specific job opportunities in the Eco Village will emerge: There will be job opportunities, especially in the agricultural sector. Moreover, skilled workers will be hired to carry out educational activities on agricultural sustainability, territorial characteristics and food traditions. People will be allowed to continue their own profession: people who will live in the Eco village will be able to either continue to work in the urban center without any problems



## 8. The community

Today in the urban center ‘the culture of individualism’ is taking over on ‘the culture of community.’ In KANCHI Eco Village the sense of community emerges in different ways:

- 1) Sharing of and participation in organized events: in the Eco village people can share their events with other inhabitants. At the same time there will be periodic organized events related to nature and culture.
- 2) Sharing talents and skills to increase our own capabilities: now we live in a world made by ‘hyper-specialized people,’ where even the simplest problem requires the intervention of a third person. The time-bank and learning by doing will give people the opportunity to increase and diversify their skills in order to become more independent.
- 3) Recovery of the most vulnerable: today the poor, the unemployed, the elderly and sick people are expelled by the system. In KANCHI Eco village everyone can share their talents, skills and ideas.

## 9. Conclusion

A group of 4-5 friends can join together and buy the property, which would be registered on all 4-5 buyers and a composite Patta would be provided.

The occupants can build a house and make as their week-end home or can move permanently. In case if they don’t stay for any particular week, they can even rent it out. Ideal for Elders and Senior Citizens, who would like to spend their life with Nature, Fresh Air, Clean Water with 100% naturally grown organic food.

**BE PROUD to Stay in KANCHI Eco Village and Help your next generation to get a Healthy Environment and an Efficient ECO SYSTEM**