SEEDING THE CITY

CIRCULARITY AND NEW FARMING TYPOLOGIES

The modern agricultural system is wasteful. Tonnes of agro-food waste is generated each year. Population growth is increasing global food demand at an exponential pace making the agricultural sector vulnerable. Most of this is due to present day linear production chains. Traditional farming practices are land and resource intensive. This affects natural areas that are converted to large scale farming practices to feeding the city. The key to resolving problems of ecological degradation and food security is to grow what is needed within the city, and to do this as a closed loop system. Seeding the City talks about the eight new farming typologies for the 21st century. These are the utilised minimum amount of land, water and nutrients by creating vertical stacking and circular loops that creates a system of systems.

Waste from the City
Timber Industry
Coastal Sea Weed Farms
Waste Management

Waste - Organic waste can be utilised and used as feedstock, substrates and substrates that are required for our food production. Whereas some waste is converted to add energy to the grid.

Energy - Urban farms can harness power from existing grids that is considered as an alternative source of energy. Consequently, the energy will be converted into multi-use industries, e.g. energy and agro-based industries and other renewable energy sources like solar and wind farms that will add energy to the smart grid.

Water - A modern water systems comprises of a combination of water recycling for storage of water, water treatment processes and open landscape ecosystems which can be integrated with aquaculture, for instance. Many waste water recycling plants can add water to the grid whose water can be used for various purposes, including to feed the food crops. Desalination plants to add water to the grid whose water can be used for various purposes, including to feed the food crops.

Nutrition - The nutrients washed out with ground water end up in areas can be captured by coastal farms feeding rings collecting nutrients that help the crops then be collected into a range of products. To reinforce the nutrient loop of various plants have symbiotic relationships and thus enhance their ability to utilise urban environments and make cities more resource efficient.

City - Food and agricultural waste is biologically treated to produce compost containing nutrients and farm substrates which directly contribute to increase the soil organic matter and be used as substrates in bioreactors.

Quality agriculture means using agro-ecology technologies, rice can be grown continuously with recycled water and soil-less rice. The crops can be farmed to get more per unit area, land use has been reduced to a minimum and produces rice at a higher yield.

Dairy

Calves are the ones contributing to the milk's emissions and yet are important to notice that the use of any cattle farming is energy intensive and creates waste. Waste recycling and organic waste makes can reduce the environmental impact and create new productive outputs. The vertical farm is composed with vertical balers and用于subject-in-growth life.

Chicken for Poultry and Meat

The farm integrates a combination of control flow and deep layer systems that give them a better control over production systems. The vertical activity allows producers to create different farm types and sustainable practices, having technologies and feeding systems to improve food quality.

Fish

These vertical fish farms can potentially yield almost six times more fish, contributed to a fish farm allowing the development of large scale aquaculture by the aquaculture farmers. This new system will be used for aquaculture farming. Each floor is stacked with 10 deep water tanks to farm various types of fishes.

Pulses farm Grains
Lentils and Beans

Grain farming is the most efficient energy intensive farming, e.g. energy intensive. This is an example of a hyperbolic design with less water consumption, higher CO2 consumption and executive efficiency. The farm operates on agro-ecology principles that give each crop an equal share of resources. Light. With hardly any LEDs required, the farms add up to an efficient agro-ecology.

Fruits

As a growing child, the farms will take up far less land than traditional recipes with an average area of greater than open fields by using just 15% per cent of the water, temperature and humidity can be controlled for the best growing conditions, the area will be saved of all fruits like Peaches, Tangerines and Tomatoes.

Leafy Vegetables

Leafy vegetables can be grown on different systems for growing providing suitable for the plants.

Vegetables

The same systems or various systems, the farm operates on closed loop systems for growing providing suitable for the plants.