

Turning Lockdown Dreams into a Thriving Integrated Agriculture Enterprise

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In the quietude of the pandemic-induced lockdown, while many were contemplating the uncertainties of life, Anish, a 23-year-old MBA student with an unwavering passion for agriculture, embarked on a journey that would transform his vision into a successful enterprise. It all began with a simple yet profound idea: the Miyawaki forest, a testament to his commitment to sustainable living and a future where every resource is valued.

Background and context

In the confines of his home, Anish nurtured the seeds of the Miyawaki forest concept, a dream fueled by his love for agriculture. Locked down with limited options, he saw an opportunity to create something extraordinary, to make the land beneath his feet come alive with the greenery of a Miyawaki forest. With the support of his mother, Mrs. Renuka, and a group of dedicated friends, he set out to turn his vision into a reality. Anish recognized the power of collaboration and community support in turning his agricultural dreams into a reality. He reached out to COODU (Community Organization for Oppressed and Depressed Upliftment), an organization dedicated to bringing about positive change in local communities. Their partnership played a pivotal role in achieving the dream of a thriving Miyawaki forest. Anish's unique strength lies in his ability to make the most of available resources. From converting waste into treasure to optimizing every inch of available space, he embodies the principle of resourcefulness. His determination to leave no stone unturned in the quest for sustainability was instilled during his school days when he was inspired by the words of a wise individual: "Do not waste anything." This lesson fueled his drive to utilize even the smallest piece of waste to create something of value.

The journey

The transformation of CKG farm began when the Anish decided to embrace integrated agriculture. They introduced a diverse range of farming practices

that included animal husbandry, horticulture, Azolla production, and agro-tourism. The shift wasn't immediate, but it was driven by a deep commitment to sustainability. The family knew this was a long-term commitment, but they believed it was essential.

Miyawaki Forest



The goal at CKG Farm was to establish a thriving Miyawaki forest, covering an area of 450 square feet, with the purpose of creating a vibrant and pleasant microclimate. To set the stage for their ambitious undertaking, the team at CKG Farm commenced by carefully preparing the land. The initial step involved the removal of the topsoil layer, followed by excavating to a depth of 3 to 4 feet. This excavated soil was then enriched by blending it with organic manure, before being reintroduced to the land's surface. To facilitate the planting of trees, pits were thoughtfully created at suitable intervals. The soil was protected and moisture retained by applying mulch, and a drip irrigation system was thoughtfully implemented to ensure consistent watering. The CKG Farm's Miyawaki forest is now home to an impressive assortment of 130 trees. The carefully chosen species include Malaivembu, Pencil tree, Teak, Kumil, Guava, Fig, Amla, Castor, Passion fruit, and a variety of flowering plants, each playing its unique role in nurturing the microcosm.

Animal Husbandry



At their farm, the management of livestock involves the care and maintenance of five cattle, with a focus on preserving native breeds. The farm diligently collects cow dung, which is then utilized for the generation of biogas. This biogas, in turn, serves as a dependable source of fuel for cooking. It is noteworthy that, according to their observations, the biogas production demonstrates a consistent increase in output during the summer months compared to the winter season.

Horticulture



Within their horticultural endeavors, a total of 250 coconut trees stand tall, primarily cultivated for the purpose of extracting oil which is subsequently sold. In the heart of their coconut plantation, a specially designed pit has been constructed, serving a dual role. This pit is utilized for the decomposition of

coconut fawns and, concurrently, it efficiently collects and retains rainwater for an extended duration. Intercropping is a vital component of this horticultural landscape. Among the coconut trees, a diverse array of banana varieties is strategically cultivated. These banana plants are provided with a unique source of nourishment—kitchen wastewater. This water supply is facilitated through drip irrigation sourced from both a well and a borehole. Additionally, the horticultural bounty of this farm extends to fig trees. The delectable fig fruits harvested from these trees are retailed at an impressive rate of Rs 200 per kilogram. This showcases the farm's commitment to sustainable agricultural practices and resourceful management of its horticultural assets.

Azolla Production



In their farm, Azolla (mosquito fern, duckweed fern, fairy moss, or water fern) was actively cultivated. Azolla was nurtured within specially designed green bags and utilized as feed for the poultry on the farm. Azolla, being a remarkably productive plant, exhibits rapid growth, often doubling its biomass in as little as 1.9 days, contingent on environmental conditions. In Asian rice fields, the yield from Azolla cultivation can reach impressive levels, with reported figures as high as 8-10 tonnes of fresh matter per hectare. Notably, Azolla pinnata in India has been reported to yield as much as 37.8 tonnes of fresh weight per hectare or 2.78 tonnes of dry weight per hectare, underscoring its significance as a valuable and prolific agricultural resource.

Farm Pond

Within the farm's premises, a dedicated farm pond has been meticulously constructed to fulfill the essential role of rainwater retention. The land's

strategic layout facilitates the systematic accumulation of rainwater into the pond, with its primary purpose being to serve as a vital water resource for irrigation during the dry summer months.

Agro Tourism



Embracing the concept of agro tourism, the farm has ventured into organizing single-day tours. The itinerary includes a trek through the scenic Thogaimalai region, followed by a visit to Karaivanam, home to a carefully nurtured grove boasting 2000 native trees. Finally, the tour concludes with an enriching visit to the CKG Farm. This entire excursion is thoughtfully curated and facilitated by the CKG Farm, providing visitors with a well-rounded experience of nature, agriculture, and sustainable practices.

Future Endeavors

Their forthcoming goals encompass a multifaceted approach towards enhancing their agricultural practices. These aspirations include:

- **Scaling Azolla Production:** Their immediate ambition is to significantly expand the cultivation of Azolla, elevating it to a larger scale.
- **Optimizing Space Utilization:** They plan to maximize space efficiency by implementing innovative strategies, such as growing pepper vines on coconut trees.
- **Creating an Extensive Miyawaki Forest:** One of their key objectives is to establish an expansive

Miyawaki forest, enhancing biodiversity and sustainability.

- **Rainwater Harvesting on Roofs:** They aim to implement rainwater harvesting structures on their rooftops, harnessing precious rainwater for various agricultural needs.
- **Direct Farm-to-Consumer Marketing:** They aspire to establish a direct market for their farm products, allowing consumers to access fresh produce directly from the source.
- **Promoting Organic Food:** Their long-term vision involves spreading awareness and access to organic foods, promoting health and sustainability within their community and beyond.

Overcoming challenges

Switching from conventional farming to integrated agriculture required a significant shift in mindset, an investment in education, and substantial changes to their farming practices. Challenges were plentiful, especially during the initial phases of transitioning, but the Anish family's unwavering commitment and resilience saw them through.

Key players

The Anish family sought guidance and collaboration from experts in each of the integrated components: Miyawaki forest experts, animal husbandry specialists, horticulturists, Azolla production consultants, and agro-tourism professionals. These collaborative efforts were critical in guiding their transition.

Achieving success

Over the years, CKG Farm transformed into a true agricultural gem. The introduction of a Miyawaki forest improved biodiversity, and natural habitats were restored. Animal husbandry practices added to the farm's sustainability, providing both dairy and meat products. Horticulture expanded the farm's diversity, and Azolla production acted as a natural fertilizer source. Agro-tourism opportunities allowed the community to experience the farm's beauty and learn about integrated agriculture firsthand.

Impact and benefits

The transformation of CKG Farm brought about a host of positive outcomes. The farm's soil quality improved, water runoff and pollution reduced, and biodiversity flourished. The farm's productivity skyrocketed, not just in terms of food production but also from diversified income streams like agro-tourism and Azolla sales. The community embraced the farm as a place of learning, sustainability, and natural beauty.

Lessons learned

The Anish family's success story teaches us that integrated agriculture, when done right, can create a regenerative agricultural ecosystem. It's a reminder of the profound benefits of an integrated mindset in farming, where various elements of agriculture work in harmony to promote environmental health and community engagement.

Conclusion

CKG Farm is a living testament to the transformative power of integrated agriculture. The Anish family's journey from a conventional farm to an integrated agriculture paradise demonstrates the immense benefits of this approach. It's a story of sustainable success, environmental stewardship, and the power of an integrated mindset in farming.

By focusing on the journey of CKG Farm and its remarkable integration of Miyawaki forest, animal husbandry, horticulture, Azolla production, and agro-tourism, this article provides a compelling example of how a farm can create a harmonious and thriving ecosystem that benefits the land, the community, and the family.

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