



The quest of growing food around our homes

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My introduction to the global food fiasco happened during my stay in Sweden (I was doing a Ph.D. there) where for the first time in my life I was cooking. Trying to find the source of my food shocked me as I came to know the environmental and humanitarian cost of a globalized food system. My avocado came from Chile where the water-hungry trees dried local aquifers and deprived locals of water access (KCET 2019). My pineapple which was produced in Costa Rica polluted local water bodies as they were sprayed with heavy pesticides (The Guardian 2012). The potato chips that I ate were fried with palm oil which quite possibly came from Indonesia where rainforests are being for palm tree plantation (LIVEKINDLY 2020). With these new findings, my self-image of a “nature-loving” guy was shattered and something needed to be done!

These led me to change my personal lifestyle starting from reducing my consumption of junk food to growing some of my own food, foraging, buying food from local farmers, and so on. While those changes were rewarding, I knew something more needed to be done that goes beyond my personal life.

Delving deeper into the topic I came to know how the nutritional quality of food has detreated over the last decades as optimization of food production became one of the main aims of growing food (Evich 2017). I grew up in a village in southern West Bengal before moving out for higher studies. In recent years I have also witnessed a sharp decline in food diversity in my village. As kids, we ate a lot of wild berries, cherries, and other fruits which are rarely seen these days. Through people like Joseph Simcox (Cather 2016), Dr Debal Deb (George 2022), I came to know how quickly we are losing food diversity. It is estimated we have already lost almost 80% of cultivated vegetable varieties that once existed. Our current farming practices also affect local biodiversity by putting a lot of chemicals. Anyone who lived in a village can observe this by simply looking at the sharp decline of insect populations that gather under a light bulb on a warm/humid evening. Loss of nutrition in food (and its diversity) and loss of biodiversity were the two issues I was interested in working on. By this point finding a job or working for academia took a backseat. Working on the current food crisis at a local level seemed to be more relevant. So, I finished my Ph.D. and volunteered for a couple of months in a few German farms before I returned to India.

To get clarity on what can be my role to be part of the solution to these problems in 2021 I joined Kanthari, an international leadership training program on social change. At the end of 2021, I came out of Kanthari with *bon* to transform landscapes in and around human habitats into forest gardens. A forest garden (alternatively called a food forest as well) is a human-designed and managed landscape that looks like a forest and primarily produces fruits, vegetables, and herbs. *bon* is a public charitable trust which is in my native village, and this is also our current working area. The use of a small initial in the name of *bon* is to indicate a flat hierarchy system within the organization as we grow. The objectives of our endeavor are two folded: enhance local food and nutrition security; create many microclimates and habitats for local biodiversity. Currently, we are working with five families in the village to create five model forest gardens.

The first year of *bon*, 2022 has been full of challenges, new experiences, learning, and a lot of unlearning. Let me walk you through this journey.

Challenges

In the first year, our focus was completely on vegetable production. At this stage, we can refer to these gardens as kitchen gardens. One of the first challenges we had to face after settling back in my village at the beginning of 2022 was dealing with reverse cultural shock. While some people were happy with my choice of moving back many did not see the logic behind it when migration from village to City is at its peak. Moreover, it has been difficult for my family to accept my decision to a radical carrier shift.

Beyond these, the first challenge came to find the right group of people to work with. We had to run behind the beneficiaries to work with them. After a few months of attempts, we changed our approach and started working only with families who have an inner drive to grow their own food. That's how we got the five families that we are working with over the last six months. We will touch upon the background of the families in the achievement section.

To create a local food system seed sovereignty is important. That is why we put a lot of emphasis on indigenous local seeds over hybrid seeds (which cannot be saved for next year). However, indigenous seeds are rarely found in our region. When we get seeds from other regions they don't do well in our climate in the first years. Along with this, we don't use any chemical fertilizer and the amount of compost we have is not enough for what annual vegetable needs to be productive. This is severely affecting our gardens' productivity. One needs to invest time to manage their garden. As most of our families are farmers they become very busy with their farms during the time of rice cultivation or harvest. So, time management is a big issue during these times of the year. Also in some cases, livestock like chickens destroy some gardens by eating our food and scratching surfaces. One of the biggest challenges is we have not found any person in our locality who grows food in a way that is helpful for the planet. So we need to work a lot to build local knowledge sources to grow food organically.

In the last year, I wanted to create 3-4 family gardens that can produce at least 20-30% of the vegetable needs of these families. So that these gardens can act as model gardens making more villagers interested in the process. In my mind, I could replicate the models that I have seen during my stay in Europe and learned from watching videos on different platforms on the ways of growing food in small spaces. This put high expectations on me. Over the course of time, I am realizing our ground realities are drastically different because our climates and availability of good indigenous seeds with sufficient information (e.g., when to grow, an ideal condition for growing, etc.) are largely missing unlike what I saw in different platforms. For instance, pumpkins are usually long vine-type plants. It needs a large place to grow. However, if someone is interested to grow pumpkins in their small space then they need to look for varieties that will be suitable for this. In many countries, such information is easily available (along with seeds), but it is very difficult to find such information in our country.

Last but not least raising funds is also a challenge for an organization in the starting-up phase where with very limited human resources we need to juggle many things. At such a stage, we don't have a lot of impacts to show to the world to attract funding. This even got more difficult as start-up NGOs cannot apply for corporate social responsibility (CSR fund) or foreign funding.

Solution

We cannot solve all the challenges at the same time we need to put priority on the problems. At this stage, our priority is to help grow food. So we are going to try some hybrid seeds as well. We understand if the families cannot see the value of the gardens, then the interest will not be there. One parameter to measure the value of their garden is the number of vegetables these gardens produce. So, we will be using some hybrid seeds in our gardens. However, we are not going to make any compromise with any sort of chemicals or poisons in our food.



Cultivation of mustard to facilitate the presence of pollinators in the garden (Image: Biman Roy)

Currently, we are preparing a lot of jeevamrut (a form of liquid fertilizer) to feed the plants and increase soil fertility. We are also preparing organic pest-replant like dasaparni (fermentation of ten different types of leaves). To secure immediate funding I am applying for different fellowship programs which helps an organization with capacity building along with some seed grant (Like Unlimited India, Nudge, etc.).

In long run, we want to have our own locally adaptable seeds by bringing indigenous seeds from other parts and letting them adapt and evolve in our local growing conditions. Creating

local seed banks to preserve and distribute these seeds are also part of our plan. Vegetables are often heavy feeders and drain the soil nutrition quite fast. We are going to experiment to find plants that can be planted along with vegetables to restore soil fertility. A lot of time will be devoted to designing our gardens so that the management of these gardens takes very less time once the gardens are established. It is increasingly becoming clear that long-term fundraising depends on building strong relationships with current and potential donors. That is why fundraising is sometimes referred to as friend-raising. So, my plan is to focus on friend-raising.

Achievements

Even though there are challenges and disappointment on the way there are many reasons to feel happy. Even though our goal is to grow food our effort has touched a few lives at many levels and here are some stories of that.

Suwendhu Das: Suwendhu is a 27-year young man hailed from our village. Since January 2022 he is working with us. Currently, he is employed as the project assistant in our first project Ankur. From childhood, he was passionate about gardening and farming. He lost his mother at an early age and his father was indifferent to his family. So, as the oldest son of the family from his teenage years, Suwendhu did different jobs to earn a living for his family. As earning money became a priority, Suwendhu could not focus on gardening which has been his passion. Working with bon along with a stable salary gives him the opportunity to devote time to gardening. It is also giving him exposure to the regenerative agriculture community in India



Multiple cropping practices at the forest garden. (Clockwise from upper left corner A) leafy greens with Bokchoy, B) Asparagus, Tomato, Mustard and Marigold combination, C) red leafy vegetable and D) Harvesting at the maturity (Image: Biman Roy)

which is making him more determined and dedicated to his passion. This project has helped him to focus on his long-standing dream.

Ankan Barik: Ankan is studying in the fifth standard in the village high school. He got interested in growing food from his grandmother. He is a very inquisitive child with a lot of enthusiasm for growing plants. He wanted to work with us and wanted to create a garden in his backyard. He prepared his own vegetable bed with the help of his father and grandparents. We supplied him with seeds and plants. According to his grandparents, Ankan takes responsibility to take of the garden. Every day after coming from school he waters his vegetable beds before going to play. We are over overjoyed when we hear such little changes in a child's behavior that we are working with.

Bapi Sing: Bapi is a 23-year-old local tribal man who lives in a corner of our village with his wife and two children. They have a land holding of less than an acre in the total land hold. Besides doing rice farming he works as a daily wager. We hired him to prepare our raised beds in our nutrition gardens. While making these beds he became efficient in the process and wanted to be part of our project. Now he is working with us and creating a nutrition garden in his home. Besides helping him to grow some vegetables we believe we have helped him to instill self-respect of being tribal. There is a long history of oppression of tribal people. As a result, often they are not proud of their language, food habits, etc. We see the reflection of that how they behave or talk. Through our small interactions and appreciation, we help them see the richness of their culture, especially when it comes to natural living.

Sujit Das: Sujit is studying in 9th standard. During one of our conversations, we could see he has an interest in plants and trees. He joined Ankur later and is creating a model garden. Doing gardening for the first time not only provides him with knowledge on how to grow his own food but also put theoretical learning in school into practice in his own garden. Sujit comes from a financially not-so-well-off family. In exchange for helping us in his free time, we provide him with a small scholarship that is allowing him to provide his tuition fees.

Jharna Das: Jharna is in her early 40's. She also joined later in the project. She used to grow some tubers like ginger, turmeric, and yam in grow bag. With our help, she created a small nutrition garden and managed to grow a variety of greens. With us, Jharna is learning techniques on how to convert organic resources like dried leaves into compost. She is also understanding the importance of seed saving.

Aswini Roy: Aswini is a 70-year-old retired librarian in the village who always have been passionate about growing food. Working with us is helping him to understand the science behind working nature and how to put it into practice. This is also helping him to plan better.

Long-term goals

Eventually my goal is to transform the landscape near human habitats in my village and beyond by creating forest gardens. To do this we need to work on two fronts: i) gardening ii) community.

In the gardening font, we are developing a basic framework for how to create these forest gardens that fit our context. To prepare the first draft of the framework we are taking learning from our current gardens as the base. As we move further, we aim to focus more on research and documentation. The topics will include but will not be limited to developing local landraces through open pollination among different varieties of the same species of plants, finding plants that will not necessarily produce food but help the ecosystem to function better, how soil carbon and local insect population increase because of our intervention, etc.

In the aspect of community, when we go to a new community first, we will identify the pioneers, i.e., a group of families who would be keen to create a forest garden. First, we will understand the needs and cultural context of these families. And then work with them to create forest gardens. Once the gardens start establishing, we will find a leader out of these families who can influence and train others in the community to create more of these gardens.

At a later stage, we will be working on developing entrepreneurial skills in communities so that they can process and sell the food in the market to earn some extra income.

Conclusion

Social change is about mindset shifts. In bon we want to use forest gardening as a tool to bring a mindset that people start to understand the role their food choices determine the well-being of their health and the environment that we live in. We hope this in turn helps them to reconnect with nature.

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