THE ARANYA MOVEMENT

A TRYST WITH THE SAVIOURS OF THE SOIL

This article describes the rural renewal movement led by Aranya Agricultural Alternatives, a nongovernmental organisation promoting ecological practices, organic farming, sustainable development and traditional healthcare in villages in India. Mahatma Gandhi’s vision of uplifting and making villages self-sufficient was one of the key motivating factors behind Aranya and thus with a little thought, knowledge and hard work Aranya’s founder Narsanna Koppula and his team kicked off a revolution for reclaiming the soil and associated traditions. They have integrated Permaculture principles into the existing system and the successful completion of projects reiterates the fact that cultivating food crops does help sustain people’s lives and they need not be completely dependent on cash crops for survival.

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Tuljamma neatly draped in a maroon sari sits beside the firewood stove at Aranya farms and rolls out ragi rotis for the guests. One sees her as an ordinary woman multitasking various chores in a household. With a perennial and enchanting smile that adorns her wrinkled face she steps out of the kitchen to the courtyard where the guests or rather students of the Permaculture design course are gathered. She unfurls her sari that is tucked in for convenience in the kitchen and greets the guests. She is here not to serve food but to spread awareness on native medicine and gynaecology. The confidence with which she
speaks is testimony to the experience she has gained over years in the fields of native medicine and female health and hygiene. What distinguishes Tuljamma from the rest is her determination to sustain and preserve conventional healing practices and promote traditional native medicine. A trained village gynaecologist Tuljamma attributes her knowledge and experience to the encouragement given to her and the other women in the village by Narsanna Koppula, the founder of Aranya Agricultural Alternatives. Another local resident, Chandramma is a pioneer in seed preservation. She is a successful farmer who has adopted farming practices advocated under the aegis of Narsanna and his organisation. Under her guidance, a village that was reeling under drought and famine is now prosperous with ample groundwater resources, growing a variety of crops. Most of the farmers in her village have emulated the techniques employed on her farm and found their way to sustainable means of living.

Like Tuljamma and Chandramma there are hundreds of women who have attained self-sufficiency and confidence to build, sustain and safeguard communities whose roots are entwined in agriculture and allied natural resources. These communities focus on preserving native farming practices and knowledge and women are at the forefront, leading by example. These communities stand shoulder to shoulder with advancements in society. They may not boast sophisticated technology or be on social media reaching out to the world but they lead happier, more contended lives than many developed communities. Tuljamma has spread her knowledge of native medicine and plants in more than sixty countries and Chandramma a treasure chest of information on seed preservation has done so across many more. In the process, these women have gained confidence and liberation. They understand the importance of the knowledge gained from previous generations and the need to pass it on for posterity.

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Aranya in Sanskrit means forest and is at the heart of the very philosophy on which Narsanna Koppula began his initiative of agroforestry—Aranya Agricultural Alternatives—in the early 1990s along with his wife Padmavathi Narsanna. He
believes that agriculture is meaningless without a natural habitat of trees and allied animal species. Trees are the ecological stilts for any sustainable agricultural practice. Canopies, barks and foliage must all coexist and harmoniously work towards producing food and shelter and satisfying other human needs. At the same time, agriculture is not exclusive of cultural and social aspects that form a part of social living. The villages that have embraced these practices and come to the forefront have been fortunate to have Narsanna and his permanent agricultural movement to mentor them towards sustainable living. Narsanna recollects an inspiring incident about a cobbler, now a prosperous farmer, who had almost given up on life’s battle years ago. During one of his visits to the city, Narsanna had come across a lean, famished, sweating figure bringing lustre and shape to leather footwear on the pavements of Hyderabad, earning a meagre ten to fifteen rupees a day. Narsanna asked him if he had ever dreamt of changing the way he lived and if he was willing to carry out agriculture as a means of livelihood. The man’s immediate response was no and he had many excuses to stay away from farming such as a lack of knowledge of agricultural practises, instances of farmers living in dismal conditions with little or no support from the government, natural calamities and the huge cost of undertaking agriculture in India. After a lot of convincing and assurance, the man overcame his hesitance and with assistance from Narsanna and his team went on to become a successful farmer. He is still there now with his family which has multiplied its lands into acres of fertile farmyards. Robed in a neat white dhoti the farmer comes running and waves to Narsanna as his jeep speeds past his land.

Self-sufficiency, self-sustenance and self-reliance are the offshoots of this philosophy. When Mahatma Gandhi advocated gram swaraj (village self-rule) in the pre-independence days, these three principles were emphasised eventually leading to the independent nation. His vision of uplifting and making villages self-sufficient was one of the key motivating factors behind Aranya Agricultural Alternatives. As per Narsanna, some questions often asked are whether the green revolution was necessary for a country like India? Was there a need to adopt modern large scale farming practises to sustain lives in the otherwise stable Indian agricultural system or was there a hidden agenda behind the movement? What was the ulterior motive that masqueraded in the form of sustainability through the green revolution? These issues have haunted many conventional farmers who could not afford farming on a large scale or compete with the might of government policies that favoured the green revolution. When a neighbouring farm adopted modern practises, conventional farmers had no option but to
emulate the example that seemed to be lucrative in the beginning. The quick results and prosperity made many farmers adopt farming practices that paid little heed to preserving soil sanity and disturbed the sanctity of the farm ecosystem. The green revolution did away with seed autonomy and farmers no longer cared about the preservation of seeds. They considered purchasing seeds more beneficial than the hard labour and risks involved in seed preservation, oblivious of the fact that they were drifting away from their roots, native seeds and the very foundation of Indian agriculture. Seed companies, both domestic and multinational, started dictating what farmers needed to grow and to what extent. This altered the eating habits of the people that had evolved over a period of time in conjunction with climatic conditions, the type of labour and lifestyles of villagers. Farmers thus came to be at the mercy of others for the most fundamental prerequisite of farming—the seed. Soon genetically modified crops invaded the agricultural system with a promise of higher yields, less labour and lower costs. With the support of the government through subsidies and other aids such as fertilisers and pesticides did not do justice to the already deteriorating conditions of farmers in India. The influx of foreign and genetically modified seeds worsened the situation. Farmers lost food sovereignty at the hands of a few influential people. Genetically modified crops with a promise of higher yields, less labour and lower costs and the support of the government through subsidies and other aids such as fertilisers and pesticides did not do justice to the already deteriorating conditions of farmers in India.

The influx of foreign and genetically modified seeds worsened the situation. Farmers lost food sovereignty at the hands of a few influential people. They could no longer determine what they wanted to sow in their fields. In Narsanna’s words, “food sovereignty does not come from producing vast amounts of crops or cash equivalents but from being able to decide what to grow and what to eat without fear of having to answer to an outsider. Food sovereignty comes not from the quantity but from the quality of food produced and consumed. The nutritional value attached to food cannot be substituted by any amount of profit gained from agriculture”.

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Through the loss of food sovereignty, India lost some of its native and high-yielding varieties of grains and pulses. Pure varieties were paired with so-called high-yielding hybrid varieties. However, the non-native species were less resistant to local climatic conditions and introduced new pests that were hard to control using conventional methods thereby leading to the introduction of pesticides and weedicides. This in turn led to less tolerant and less nutritive soil that pulled in fertilisers and harmful chemicals into the otherwise fertile land. The immediate benefits and yields served as motivational factors in the use of more artificial enhancers to reap greater profits from the soil unmindful of the long lasting negative impact. According to Narsanna, “The preservation of seeds is more a physiological aspect and less an agricultural practise. ... When we realise the need to be the masters of our own food, we make a conscious effort to preserve it. ... A single seed leads to hundreds of seeds that may be further multiplied into thousands. ... In one particular village, farmers multiplied the seeds of Sesbania Grandiflora, perennial pigeon pea and several other seeds from two to thousands”. The pure native strains are drought resistant and suitable for growing in regions with water scarcity. Every time Narsanna visits this village he is heralded as the saviour who helped the village prosper with just a handful of seeds handed over to them as a friendly gesture.

Mono-cropping has been another bane that has cast a shadow on the farming scenario. Mono-cropping was introduced on a large scale in the Indian agricultural system when commercial farming became popular with the influx of modern agricultural tools, methods and practises. Huge plains and large expanses of fertile land were tilled and exploited for one particular kind of crop. Commercialisation may have been inevitable or a necessity but by adopting practises like crop rotation and enhancing soil fertility using natural methods the damage could have been curbed to a large extent. Companion plantation has become impossible in the current scenario. All these changes have also impacted the climate of the region thereby affecting all that is linked to each other in one way or another. The delicate web of life has been distorted knowingly or unknowingly.

India has the highest record of farmer suicides despite agriculture being a key contributor to the gross domestic product of the country. Aranya Agricultural Alternatives realised that the gap between the surplus and the scarce needed to be identified—the chasm that needed to be plugged for justice to be given to the actual farmers. Villages needed to be made self-sufficient with their own produce. India’s development cannot be deemed a success when its farmers
are still struggling to come to the forefront. Can the country really boast of advancement in farming and agriculture and showcase the green revolution as a saviour that has transformed the Indian agricultural system? Only middlemen who exploit farmers have benefited from this kind of development. They dictate the price of agricultural produce and rule the market while both consumers and producers suffer in the process. Most benefits have been confined to a few companies and influential people who have no tradition of farming but have ventured into the space merely for profit and financial gain.

In retrospect, could things have been done differently? Narsanna acknowledges that change is inevitable but to what extent and at what cost is something that should be controlled by the people driving the change. Development should not be at the cost of natural resources. Without safeguarding the natural resources on which the livelihoods of numerous villages depend, development is just a mirage. While improving the gross domestic product, the country should not forget that protecting its natural resources and the interests of farmers is paramount. Infrastructure development and foreign currency are all acceptable but a balanced and careful approach to building them should be considered while planning for development. When Narsanna started working with indigenous communities a lot of damage had been already done to traditional agricultural practices and the soil in the name of the green revolution and the modernisation of the farming sector. The new methodologies and ideologies promised farmers better yields, larger profits and comfortable lifestyles. The farmers fell prey to these temptations unmindful of the consequences. The younger generation was open to transformation in the hope of achieving self-sufficiency and succumbed to the ulterior motives of multinational companies.

Some of the key areas that Aranya focussed on were tapping the potential of natural resources through large water harvesting structures to hold rainwater allowing it to percolate into the soil thereby increasing groundwater levels, constructing contours and planting on them to arrest soil erosion that takes
away the fertile top soil and planting shade trees and aquatic plants to prevent the evaporation of water from reservoirs. The mulching of trees that needed vast amounts of water was another hard task. These simple solutions were already at hand and practised by conventional farmers but their nuances had been never questioned or regarded as important. Nature has its own ways of retaliating if not cared for and this led to droughts, soil erosion and famine in villages that had earlier boasted bumper crops. Fortunately Narsanna intervened at the right time to reverse the damage to a great extent. The older generation was still receptive to returning to the earlier ways of farming. In Narsanna’s words, “It was never easy to convince the people to change their thinking from conventional to modern and back to conventional. ... It was like messing up a puddle and waiting for the water to be still and clear and messing it up again. It was easier to convince them that it was not healthy to pledge natural resources in the name of development”. Some of the disastrous results that had unfurled in the villages were eye openers to the farmers and they realised that the time to do something was now or never. The solution to the damage that was deemed irreversible was permanent agriculture or Permaculture. Its principles align with conventional agricultural practises and thus with a little thought, knowledge and hard work Aranya’s founder Narsanna and his team kicked off a revolution for reclaiming the soil and associated traditions.

The first step towards achieving this seemingly impossible goal was awareness of the fact that there was something wrong in the way things were being done and there was no time to lose. However people were not convinced until they saw results and it was a daunting task to gain their confidence. Anyone advocating anything new was considered a foreigner and regarded with a sceptical eye. Eventually, after much preaching and convincing some farmers agreed to try something different. The success stories of forthcoming farmers willing to do anything to restore their shattered lives were inspirational for the rest. On an experimental basis, a vast resource-less area of wasteland was adopted. Pieces of land were leased to landless labourers willing to farm them. Narsanna and his wife Padmavathi, an equally enthusiastic and socially committed individual, worked alongside the farmers to develop the land by constructing contours, swales and various other water harvesting structures. Once the land was suitable for farming with ample means of irrigation, various techniques like windbreaks, multi-cropping, nitrogen fixation, biomass creation, mulching and composting were adopted. The use of chemical fertilisers and pesticides was strongly opposed. People who had almost given up on farming invested their little remaining hope
on the practises advocated by Narsanna and his organisation, which convinced them that these practises were economically and socially viable. With a bit of hard labour and careful planning they could for the rest of their lives, live on nutritious food for themselves and their families.

Narsanna details an example from a tribal settlement. When he expanded his reach to remote villages where there was scope for agriculture, he devised a project to help a tribal settlement become self-sufficient through farming. Being an easygoing community that believed it could survive purely on forest resources, subsidies and financial aid from the government, the tribe had never seen the need for farming and was reluctant to become involved in the project. The relentless efforts of Aranya to persuade this community eventually paid off when a few tribal folk came forward and agreed to join hands with the team. They were trained on several Permaculture practises and also briefed on the philosophy of Permaculture and the impact it had on nature. Various methods of water harvesting and enhancing soil fertility were demonstrated. In the beginning only 45 per cent of the people took good care of the farms that had been planted with hundreds of fruit bearing tree saplings along with various perennial and annual crops. The remaining population left their land and wandered off during festivals or even otherwise and returned only after months of nomadic living, taking little care of their land. However, for the people who guarded their land and nurtured the plants, the results were phenomenal. During the first fruiting season, they cared for the tender fruits covering them with cloth, waiting for them to ripen. They then rejoiced at the feast before their eyes. This motivated the remaining populace which then approached Narsanna for saplings and assistance even though the project had been completed. These were willingly supplied to the remaining tribals who now lead self-sufficient lives and do not want to leave their lands. It took three years for the rest of the community to see something constructive and put their faith in farming. This was something they
had never seen or experienced before. Permaculture principles were integrated into the existing system, which was an easier way of making them see that they could integrate farming and nature to sustain their lives.

As per Narsanna, “It is imperative that we bring a paradigm shift here. ... The government supports farmers in many ways be it in the form of subsidies or support prices but getting to the grassroots level and understanding the real problems and then working towards fixing those problems is a bigger challenge and opportunity”. Aranya has set examples that reiterate the fact that women are the backbone of society who put aside all ulterior motives and work towards the holistic development of the community. One of the projects undertaken by Aranya was the development of more than twenty acres of wasteland in Sanghapur village in Telangana. The herculean task of maintaining the land was entrusted to the women of the village who were already running households. They were inspired by the encouragement and motivation provided by Narsanna and Padmavathi. Apart from farming they were also encouraged to form a cooperative society and find a local market for surplus farm produce. The different kinds of crops grown along with perennial fruit trees were sufficient for self-consumption as well as for selling in the local market thereby fetching money to send children to school and provide a balanced diet. Women gained confidence which in turn led to happier families with children being educated and an understanding of the importance of sustainable farming. The standard of living in this particular village rose, cooperative societies were formed and their initiative and enthusiasm encouraged banks to bring out various schemes to support their work. For example loans were offered to buy buffaloes and set up a dairy farm. The government also introduced various programmes to make the community self-sufficient. “It is heartening to see such fast-paced development with a little thought and hard work”, says Narsanna.

The successful completion of projects reiterates the fact that cultivating food crops does help sustain people’s lives and they need not be completely dependent on cash crops for survival. While the cultivation of cash crops is necessary, it is not the only solution for a sustainable lifestyle. Companion cropping has been encouraged in the various projects initiated by Aranya. The farmers have been educated on the importance of nitrogen fixers, live fencing and wind breakers that also serve as natural fertilisers in the form of nitrogen fixing plants and biomass generated from the plants grown on the same piece of land. Some of the other work done by Aranya includes watershed management projects in hundreds of remote villages that were engulfed by drought-like situations.
Rainwater harvesting structures and models have been a huge success. The distribution of wastelands to landless farmers and helping them revitalise the soil has been an innovative and thoughtful way of reversing the damage caused to nature. The utilisation of balwadi (preschool) land for agriculture and leasing of land to landless labourers are some of the projects implemented by Aranya in several villages in and around Telangana.

Narsanna and Padmavathi believe in leading by example and on their own farm in Zaheerabad near Hyderabad have put into practise all that have advocated and applied in the villages. Their farm is an excellent example of how Permaculture principles align with the traditional Indian agricultural system in the creation of an ecosystem that boasts sustainability and fair share. Nature has been efficiently harnessed allowing various species of plants and animals to coexist in complete harmony. Nature is allowed to mend and amend any irregularities on its own. The farm has all the ingredients of a Permaculture designed ecosystem where observation and interaction, harnessing of energy, obtaining a yield, usage of renewable resources, minimum production of waste, full recycling, designing from patterns in nature, finding useful and steady solutions, Earth care, fair share and people care have all been taken into consideration. Several areas have been converted and customised to generate a microclimate for plants that need special care. The segmentation of farm sectors depending on the convenience and needs of the family, the classification of these sectors based on actual need and the crops that need to be grown there are all examples of a perfect Permaculture farm—a farm that upholds the integrity of the traditional Indian agricultural system and practices and vows to protect native plant species. If this model is adapted and adopted by the thousands of villages struggling to sustain themselves through agriculture another green revolution may occur that would not put at stake the natural resources and indigenous agricultural system. In turn, this would eventually help attain gram swaraj or village self-sufficiency in its true sense. 

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