

RICHES OF THE SOIL

The Wealth in Local Knowledge Systems

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Five of the crops that Adi Kumbruka planted last year failed. The progressive Adi had, however, planted 75 crops in his two-acre field in village Kunduguda in the Niyamgiri hills of Odisha. This meant that he got a harvest for 70 crops!

While such farming may be considered as 'poor' in terms of cash generation, it is an important example of ecological agriculture, as was practised before the interventions of modern hybrid seeds, mechanization, monocultures and chemicals.

The 'prosperous' farming methods of the green revolution usually push for putting all the eggs in one basket. Failure of even one crop can become a matter of life and death when this happens. Is not then the prevalent logic of 'richness' and 'poverty' grossly perverted?

While the impressive figure of 75 crop types on Adi's farm may be more of an exception than the rule, even within the practitioners of traditional multi-cropping, it is usual to find 30-35 crop species, a mixture of diverse millets and pulses, oilseeds, maize and seasonal vegetables, in most



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such farms, grown traditionally with a logic of combinations that is inherent rather than explicitly taught.

Such multi-cropped systems are a heritage that can no longer be ignored. Their richness in terms of diversity, nourishment, resilience and sustainability offers important lessons for all who depend upon food and farming.

An important aspect of the richness of local agricultural systems lies in their seed sufficiency. The currently advocated model of agriculture makes the farmer dependent

on external agencies for seeds since most hybrid seeds hold little viability in the next year, leading to a trap of dependency and debt.

Seed-saving and seed-sufficiency, however, have been an old and still prevalent system in India. Loknaath Nauri of the Korandiguda village is wise and says: "He who does not have seed is not worthy of being called a farmer".

The culture of saving seeds is not restricted to any one small region but permeates throughout the country. Vijay Jardhari of Beej Bachao Andolan narrates a local story from the Garhwal region of



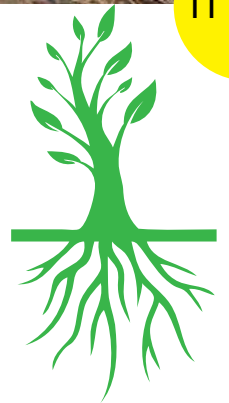
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**‘Kya hai jungle ke upkaar, mitti, paani aur bayaan.
Mitti, paani aur bayaan, zindra rehne ke aadhar’.
(The gifts of forest, soil, water and wind, are the basis of life)**



Uttarakhand. A deadly drought once affected the region. Visitors to the land found dead bodies all over and no sign of food. Then they spotted a dried bottle gourd with seeds stored inside, tied to the roof of a house. Farmers had chosen to die rather than eat the seeds that would be needed for feeding the fields next year.

Local agricultural systems are no less input-intensive than the ‘green-revolution’ approach. It is the nature of inputs that widely differs though. In the technological approach of modern agriculture, the inputs would be fuel for tractors, electricity for borewells, chemicals for spraying the soil and plant. Local agricultural systems have their own set of inputs.

Richness of nutrients and microbes in soil, availability of water during the right seasons and close attention to the needs of the plant, often requiring hard manual labour, are inputs that often go into this system. These inputs are more directly connected to their surrounding ecosystem and

unlike the ones used in modern agriculture, these can further enrich the system rather than cause degradation or pollution.

Because of the symbiotic relationship of such agriculture with forests of it cannot be practised in isolation or at the level of mere individual, while the forest degrades to nothingness. It needs the forest to remain healthy. That is why such people come together and raise their voice against forest destruction.

One of the slogans that has rung through the Garhwal mountains of Uttarakhand during various protests for protecting the forests is:

*‘Kya hai jungle ke upkaar, mitti, paani aur bayaan.
Mitti, paani aur bayaan, zindra rehne ke aadhar’.*

(The gifts of forest, soil, water and wind, are the basis of life).

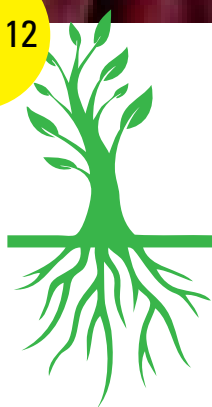
This is reiterated by Gond adivasi Ijamsai Katenge, associated with Amhi Amchya Arogyasathi of Gadchiroli in Maharashtra. “We have very little savings in a bank. The jungle is our bank”.

The dependence on forests is also mirrored in



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the lives and daily diets of many such communities. Their meals are often supplemented by tubers, green leaves, berries, mushrooms, honey and small catch from the forests. This dependence on uncultivated foods also adds a richness to diets, which has saved many lives during times of calamities and crop failures.

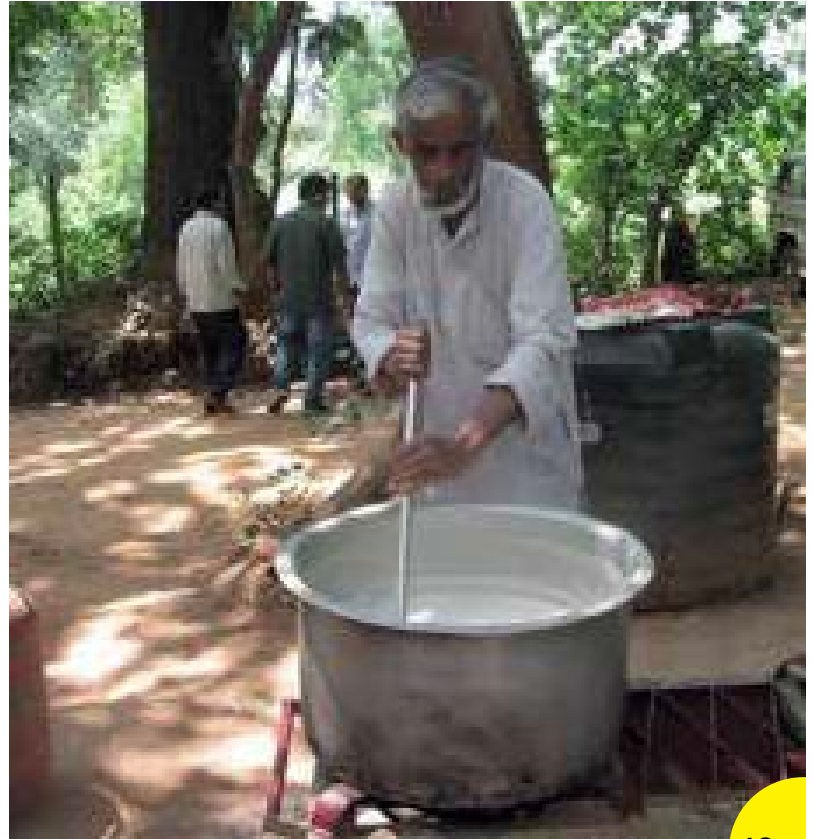
They provide a source of sustenance to the adherents to this school of agriculture by giving them something to fall back upon. Yet, this is a richness that is looked down upon in this upside-down world and is thus fast being lost. This needs to be changed. Adi talks about how, in a year, his family gets sufficient crops from the fields for 10 months and depends on the forests for the other two months.

In some areas, the practices, for long sustained, have lost out and got eroded under the pressures of urbanization and markets. In other areas they continue to be sustained. How do these practices sustain themselves? How have they carried on for centuries? How have they evolved?

There are no direct answers to these questions. There is a story that Vijay ji narrated of how, during the drought, one farmer kept ploughing his fields. When asked why, he answered that it was so that he does not forget how to work his land. Is there a very important moral to this story that one is missing out?

The logic of many of these practices is a mixture of intuition, tradition and experience. It often comes with a way of relating to the environment in a more direct manner, viewing soil as a living entity. These are internalized and taken from one generation to another in forms of rituals, stories, songs and day-to-day life.

Today, it is clear that in persisting with the economic growth-focused model of development and agriculture, the environment is getting severely depleted, health and nutrition are badly affected and the agricultural system is becoming a debt-trap. Yet, while 'environmental sustainability' and 'climate change' have become buzz words, instead of all efforts being focused on saving what remains



of such local knowledge systems, these systems are constantly threatened.

While local agricultural systems are contextual in their approach, policies framed by governments expect a regular pattern of farming. Loknath describes how in his upland field, where plants are sown according to slope height, line sowing is being pushed by the government, defying the plain logic of common sense.

The policies can also unwittingly cause malnutrition as in the case of shift to cash crops like soyabean. With such a shift to cash crops, there is often a parallel regressive power shift with the control over seeds shifting from women to men since now the seed is bought from the market. Adding to the issue of malnutrition, forests are taken away for timber plantations, creating monocultures that no longer can provide the nourishing base that they have grown up with.

Ruha Hikoka of Niyamgiri hills rues: “Sarkar (government) will not be able to give the diversity we eat from our farms and forests. They are snatching our food away, cutting our jungles and telling us to plant hybrid crops and eat urea-fed rice. Our health is getting affected by it”.

Then there is the issue of taking away of forest

and grazing commons as well as agricultural land for purposes of mining, industry or infrastructure. At the same time, there are strategic attempts to break down the traditional informal dispute-resolution systems and, instead, create structures that are easier to control from a central level.

There is, besides, the inevitable and inescapable truth of the connectivity of the planet. Local agricultural systems are resilient in the face of natural calamities but how much of man-driven destruction can they tolerate? What about the increased unpredictability in seasons, coupled with the decimation of flora and fauna, the degradation of soils and the severe depletion and pollution of water sources?

These are crimes that the local traditional farmers may also have to pay for, even though they had played no part in creating this situation. Yet, if there is any hope or possibility of fostering resilience, it cannot come without understanding, appreciating and practising once more such contextual forms of agriculture and life. ●

This article is based on thoughts and information shared by the persons referred to in this article during the Vikalp Sangam on Food organized in Muniguda, Odisha (September 17-20, 2016)