

Improving the Nutritional Status of Tribal People

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Improving the Nutritional Status of Tribal People

Lessons from the work of 'Living Farms', Odisha

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1. Introduction

There are different approaches towards the human development of the tribal or the indigenous people. Broadly, one can see two extreme positions in this regard. The first is one of modernizing these communities to integrate them with the mainstream population. Such a modernization has been attempted by colonialists, governments, and by sections of people belonging to the mainstream society. The life conditions of these people who have gone through this 'forced' or 'inorganic' modernization, have prompted a set of concerned activists and scholars to take the second or the other extreme position – that of romanticizing or glorifying what they perceive as the traditional culture or social processes of the indigenous and the tribal population. The debates on the appropriate trajectories of social or human development of these people are fraught with these two polarized positions, which do not enable the achievement of an appropriate balance between the two.

This state of affairs influences the practice by non-governmental organizations working towards the welfare of the tribal population. It is in this context that we look at the work of one such organization, namely, Living Farms, located in the Muniguda block of the Rayagada district of Odisha, one

of the most backward districts of the state and the country in terms of the development indicators. Living Farms works to revive and strengthen the diversity of food (which is both cultivated and uncultivated) among tribal people and through this process, to enhance the nutritional status of this population. The organization is founded by Debyeet Sarangi, whose own trajectory as a social activist and organizer is insightful for other development practitioners. We record his personal experiences and transition as an activist and founder of an NGO in another document. The sincerity, the social connect and the commitment of nearly 250 employees of this organization is highly commendable. The focus of this report is their work on the nutritional status of the tribal population. This is based on a short-period fieldwork that was carried out in a set of tribal villages where the organization has its presence.

2. The Core activities of the organization

Living Farms has been carrying out interactions with, and the mobilization of, the tribal communities for different purposes. For the purpose of enhancing food sovereignty and nutritional development, the organization, in collaboration with the tribal population in each settlement, has identified the different kinds of food consumed by them. Some of these are cultivated by them but most of it is collected from the forests. The availability of some of these materials has declined over time, which has prompted the organization to encourage the communities to re-cultivate some of these crops (as nutritional gardens) by providing technical support and by mobilizing the women and youth in these settlements.

This process of strengthening food diversity is expected to enhance the nutritional status of these communities. The employees of the organization at the block and panchayath level interact closely with these communities to provide counselling and create awareness. The organisation facilitates meetings of these communities in which they articulate their

concerns about development, the education of their children and the various government programs. It also plans to start work on an appropriate education for the children from these communities.

3. Some observations on the tribal population in the area

In all the settlements that we visited, the organization has arranged a small exhibition of the multiple types of food materials available there. These include different types of indigenous rice, lentils, tubers, fruit (fresh and dried) and green leaves. Most of these were not familiar either to us, the urban residents or to the people who stay in other parts of Odisha. We could see the wild or indigenous varieties of dates and lychee and many such items. These indicate the richness in terms of food diversity that this population is exposed to. Most of these are uncultivated; collected from the forests. The food diversity, and the possibility of its decline, and the need for reinvigorating such diversity considering the changes occurring in the agricultural land and forests around these settlements are amply evident from our limited fieldwork.

Another notable feature is the role of women among in these communities, which confirms the general trend in India that gender norms among the tribal people are relatively more equitable than those in the mainstream population. In almost all villages, women were at the forefront in interacting with us – two unknown, external observers. One did not notice inhibitions in this regard that are generally seen in villages. It is not only because they are equally, if not more, knowledgeable about the diversity of food, but also because they are leading the collective efforts in enhancing it through nutritional gardens.



There are different aspects of community sharing and management which can be observed in these communities. It is noted in many situations, as when the meat of an animal killed is shared among all households within the village; other households sharing the responsibilities of a marriage or funeral; women report that others intervene if there is domestic violence in a household, and; there are many internal job-sharing mechanisms. They have cultivation in two kinds of land – one is private land, where a family may cultivate on their own but may take the help of others in case of need; whereas the cultivation in common land continues to be a community affair. Different aspects of the behaviour of individuals (like the choice of a partner and marriage) continue to be regulated by community institutions. The need to strengthen the desirable aspects of this community life is evident to us.

There are also other visible changes. When we compare the older and new generations who currently live in these communities, one can see a decline in the fertility rate. It may have come down from more than five living siblings per woman to around three, even though the current number could be a little higher than that in many other social groups in India. Most women have started using hospitals for child-delivery though the practice of delivery at home in villages that are far away from town and main markets is still

prevalent. A local woman, functioning as the village health worker (known as ASHA, Accredited Social Health Activist) ensures child-delivery in hospitals and the Anganwadi workers facilitate the post-delivery immunizations.

The government has provided a number of services in these villages. This population is brought under the public distribution system (PDS) and they buy rice from these shops which is heavily subsidized with five kilos per person, per month at a price of rupee one per kilo. The Employment Guarantee Scheme (EGS) provides them jobs even if their number of workdays may not go up to the mandated 100 days. New toilets have been (and are being) constructed for all the households in these villages under a government scheme. There are primary schools, and Integrated Child Development Services (ICDS) schemes, though there may be issues in the quality of these services. Hence, these tribal settlements are integrated well into the governmental provision of services.

It is clear that none of these tribal hamlets that we visited is a closed economy. They sell surplus from their cultivation and the collection from forests in the local markets or to traders who come to the villages regularly. They also buy a number of items from local markets or the traders. They need cash for this purpose since these are not barter exchanges. The wages from local agricultural work or the Employment Guarantee Scheme are important sources of cash income. Many male adults have also migrated to different states, with Kerala being an important destination, for work. Given the higher wage rates there (rupees 400-500 per day for an unskilled worker) compared to the local rates (around 150 per day), some people find it attractive to seek work in Kerala during the seasons when they do not have much agricultural work in their own villages. In summary, these tribal settlements are closely embedded in the local, regional and national markets for the exchange of goods and service, as also labour.

4. Food diversity as a means to enhance the nutritional status

Living Farms involvement in the strengthening of food diversity as a means to enhance the nutritional status of the tribal people is important on many accounts. In the absence of such an intervention, there could be a drastic decline in this diversity, which may affect the food consumption and nutritional intake of these people. There are changes in the use of the agricultural land, which may reduce the crop-diversity. There are temptations (and market pressures) to cultivate crops like cotton even in these relatively remote parts. Outsiders lease out land from these tribal households for the cultivation of industrial crops (such as Eucalyptus). The cultivation of these plants (like cotton or eucalyptus) may have a negative impact on the availability of water for other purposes. Though the cultivation of the commercial crops (or the practice of leasing out) may enhance the cash available in the hands of the tribal people, it may not be adequate for the tribal population to consume a variety of foods to meet their nutritional requirements.

For a number of reasons, the quality of forests declines and/or the access to forests by the tribal people may also become increasingly restricted due to the control and management by the forest authorities. These too may have a negative impact on the diversity and availability of food to these people. Hence, conscious efforts to retain and strengthen the food diversity are important.

This focus on food diversity also enables the strengthening of certain other attributes of the tribal communities. The identification of different varieties of food (some of which are on the verge of disappearance) may also enhance the awareness of the younger generation of the tribal people about their food traditions. The cultivation of nutritional gardens can strengthen the community processes prevailing in terms of agriculture and land management. It can also sustain the

sharing arrangements that prevail within the community. Moreover, as part of the community mobilization for these interventions, there are discussions on different aspects of life which have a bearing on nutrition, and these may enhance the awareness of people and also their willingness to take appropriate steps in this regard. We have seen such an awareness and collective effort among these people, especially, the women as an outcome of the effort by Living Farms.



Though the people in these tribal hamlets and the organization make efforts to identify and strengthen the food-diversity, there is a silence in terms of non-vegetarian food. There are clear indications that people in these settlements have been using a variety of animal meat and most of these are obtained from the forests. These include animals, reptiles and small, fauna-like insects. It seems like the animal protein available from the forests has declined. Though they have goats and chicken, the meat from these sources is limited. It is also

not as if they dislike meat, and as noted by Debyeet, they like to have animal protein as part of their food. Almost all discussions on food diversity that we had with the organization or the communities were mainly on a vegetarian diet. With regard to the consumption of milk, these people have some apprehensions. They consider that cow and goat milk is meant for their calves, not for humans.

There could be underlying social, cultural and 'political' reasons behind the silence on non-vegetarian food. Debyeet notes that there could be a certain shaming of the young tribal people in schools regarding their non-vegetarian food habits. Though these people have been using a variety of animal protein, these have not evolved organically to become part of their current diet. This is different from the situation in many other parts of the world, especially south-east Asian countries where the consumption of a wide variety of animal meat or protein (both from farms and the wild) is celebrated as part of their contemporary food culture. Hence, the food consumption of these societies could evolve organically without reducing the diversity much. What has led to the silence on non-vegetarian food diversity among the tribal people in India, needs a detailed analysis.

Commentators attribute the reduction in food diversity among the tribal population to the spread of modern agriculture. The validity of this argument needs to be assessed critically in these localities since their agriculture (which itself is only a part of the source of food) is yet to become 'modern' in the general sense of the word. The silence about non-vegetarian food diversity cannot be due to 'modernization'. One may speculate that the gradual spread of or the acceptance of Hinduism among the tribal population may have an important role in this regard. There seems to be shame or reluctance to express the eating habits related to non-vegetarian food, and this could be driven by the perceived need to conform to Hindu norms, though a confirmation of this hypothesis requires

detailed investigation. We could see other manifestations of this 'Hinduisation'. Women there have started following practices and rituals which have not traditionally been part of the tribal culture there.

In summary, there is a need to strengthen the diversity of not only vegetarian but also non-vegetarian food, and this requires conscious attempts to critically reflect on the processes which have led to the changes in the consumption and availability of food.

5. Addressing malnourishment requires interventions on multiple fronts

We observed a number of other aspects of the life of these people which may influence their nutritional status and these are discussed below.

5.1 Ill-functioning of ICDS scheme

Though the importance of the nutritional status of pregnant mothers and infants, and early childhood education, are recognized nationally, and the ICDS (and Anganwadi) scheme is in place in most villages of the country, its functioning in these villages is far from satisfactory. Many tribal villages do not have a full-fledged Anganwadi but only a sub-centre, which may be due to the small size of these hamlets with just 30-40 households. We visited a few such sub-centres and these were closed during their official working hours. The local person-in-charge was not in a position to explain the reasons for the closure. Hence, these centres may not be helping much in terms of even providing a supplementary diet to infants or young children. The main Anganwadi is located at a distance of two to four kilometres from many settlements and given the rough terrain and forests, people may not be taking their small children to these centres. There are no indications that these centres impart any kind of Early Childhood Education (ECE) seriously. This can have serious negative implications for the people in the long term, given the current knowledge

on the importance of ECE for the cognitive development of children. In essence, the ill-functioning of the ICDS could be an important constraint on the nutritional status of the people in these settlements.

5.2 Persistence of open defecation

Despite the construction of toilets, open defecation continues to be the main practice. This is true even in places where the toilets have been in existence for a few years, and are used for other purposes. There are apprehensions that these toilets are not appropriate in terms of size, location and also the water required to keep them clean. There could be a supply failure on the part of the government in this regard. However, it is theoretically possible to have toilets appropriate to the locational/cultural conditions, and hence the practice of open defecation is, as noted by Spears and Coffey (2017), due to cultural norms¹. Debyeet has noted that Living Farms as an organization does not have adequate knowledge of the defecation practices here. The situation may be very different in terms of availability of space as compared to other rural areas in northern India, and there may be a limitation of space over time too.

Regardless, the continuation of the practice of open defecation has, as noted in literature, negative implications for the nutritional intake, especially among children. Though the adults in these communities may walk a few hundred meters or to adjacent forests for defecation, mothers may dispose of the faeces of infants in the neighbourhood, a practice Living Farms is concerned about and addressing. This practice can lead to germ- and worm-infestation among children, which may reduce their nutritional absorption and consequently, lead to the stunting of physical growth, and the retardation of cognitive development. Hence, even if there is adequate consumption of food, open defecation can affect the nutritional status.

5.3 Inability to influence the quality of public services

We have also seen cases where the toilets are of very poor quality either because the contractors engaged for this work are interested only in their own profits or due to the inability of these people to intervene to address the problems. This seems to be the case with the Anganwadies too. People have expressed the inability to confront the local power structure (including the contractors) fearing physical attacks when they go out of their settlements to the local markets. Despite strong community ties among the tribal people, our impression is that their social and political mobilization may be needed for them to assert their rights more forcefully and vocally. This is notable since the successful agitation against the multi-national mining company – Vedanta – has taken place in this locality. Although, there were outsiders – activists and non-governmental organisations – who supported these agitations. Debajeet notes that the agitation against the mining project was also not very straightforward as the company could ‘buy’ a set of insiders. Though there could be some ability to resist the highhandedness of the local power structure (including government officials, local politicians, contractors and migrant farmers), tribal people do not seem to be adequately mobilized to improve the quality of public service delivery. That they may not get enough support from external activists in the case of activities like the functioning of an Anganwadi or the construction of toilets, may work against the efforts of tribal people themselves. Such a situation can also contribute to the malnourishment of these people, directly and indirectly.

5.4 Issues in schooling



We have seen an apparent lack of seriousness regarding schooling, though schools are functioning either within villages or at accessible distances. This could be due to the inability of the existing schools to make education inclusive, joyful and interesting for children from tribal households. The absence of schools in each hamlet and the language barrier could be factors aggravating the exclusion. Although the state government has implemented mother-tongue-based multilingual education, we did not find such facilities in many villages. There could be an inadequate motivation on the part of the children towards conventional schooling since they do not see the access to better opportunities through that route. Though some parents send their children to distant schools (and some to alternative schools run by well-intentioned NGOs), and there are girls who complete 12 years of schooling, we could see many cases of girls who have dropped out in grades V and

VI. School-going children were seen playing in the villages during school-time. Even if education is not leading to employment (that requires education), the non-completion of school education can be costly to these people in a number of ways. It may reflect in practices related to nutrition, health, reproduction, and also the educational achievements of the future generations.

5.5 Persistence of early marriages

Despite a slow increase in the average age of marriage, early marriages continue to take place and marriages at 15 and 16 years are common. Early marriages can lead to early pregnancies, leading to morbidity and mortality of mothers and infants. These also lead to a higher fertility rate. It must be noted that girls and boys in these hamlets have the freedom to choose their sexual and marital partners. This freedom combined with low educational achievements and inadequate opportunities for employment for the educated increases the chances of young boys and girls to have sexual/marital relationships at an early age. How they can be encouraged to delay this process without reducing their freedom to select partners (which is not practised in the mainstream society in India) is an important challenge.

5.6 Need for better cultivation practices

It appears that the agricultural practices followed in these tribal hamlets need changes to make these sustainable. Currently, they clear forests or plants over a wide stretch of land located on steep hill slopes for their cultivation. This can aggravate water and soil erosion. The cycle of shifting cultivation has shortened in these areas and may even be three to four years, which is not desirable for the productivity and sustainability of cultivation. There could be various reasons for these undesirable changes. Though these tribal families have access to (and the ownership of) flat land, it is not adequate for their sustenance. There may be a tendency to lease out such land to outsiders or migrants (those coming

from the neighbouring districts and states). This results in the tribal people expanding their cultivation to the hill slopes. The continuation of the practice of community-based cultivation would also lead to the clearing of large stretches of land. All these may have contributed to the unsustainable practices of cultivation here, which can affect food security and also the nutritional status of these people in future, if not at present.

5.7 Need for effective implementation of the Forest Rights Act

Though these tribal people continue to have access to forests, the implementation of Forests Rights Act (FRA) in this area has not empowered them or their lives as in a few other parts of India. The mineral resources available in this region may have discouraged the state government from the effective implementation of FRA.

5.8 Balance between preserving culture and embracing development

We have seen tribal and indigenous populations in different settlements – in Mizoram and Northern Gadchiroli in India, and also in Amazonia (Brazil) and Borneo (Indonesia) during the last one year as part of this Practice-Connect Initiative. The balance between the rootedness in tradition and adopting development to cope with the fast-changing world in all these locations seems to be at a more desirable level than in the parts of Odisha that we describe here. It is not as if the populations in those settlements have lost their culture and integrated with the mainstream society. In fact, the tribal populations there are in a much better position to articulate their rights and follow their traditional practices and rituals in a reflective manner but at the same time benefit from the schooling of children and the provision of relatively better-quality services by the government. They are also in a better position to negotiate with the government if there are problems in the provision of such public services. The Human Development Indicators are also at a higher level in all these

locations when compared with the situation in Odisha. The people in these former locations are not living in closed societies but they seem to be more capable of dealing with the outside world than those in the tribal settlements of Odisha that we describe in this report.

This vulnerability encountered by these tribal people has many implications. First, it can make their situation worse any time in the future and this can be due to any extraneous conditions including climate change (which may alter the nature of the local sustenance). It may be insightful to study how they have dealt with such extraneous conditions in the past. This vulnerability may encourage them to use natural resources including forests and land in an unsustainable manner and there are already indications of this trend. This vulnerability could be harmful from the perspective of food diversity (which Living Farms is attempting to conserve). A slight degeneration in their living conditions may encourage them to be wage labourers and depend more on cheap (but less diverse) food available through the public distribution system or in open markets and thereby neglect indigenous food.

6. Options before Living Farms

In our view, this organization can have two alternate priorities. Given the history of the organization and also the concern about food diversity, it can continue to strengthen its activities in this area. However, this route may not be adequate if the nutritional status of the tribal population in these settlements is the focus of the organization. We list out some suggestions under the two scenarios.

6.1 Suggestions if the focus is on the conservation of food diversity

- The people in these tribal settlements need to develop a sustained interest in the preservation of food diversity. Though self-consumption could be a source of

this interest, it may not be sufficient to sustain the diversity in the long run. Some of these are grown but not adequately. Though what are called 'green colleges', have developed milling facilities for certain grains, the absence of milling facilities closer to the villages (which would mean higher effort to use some grains) is already leading to the disuse of certain food items. It is noted by the employees of the Living Farms that people are not growing or eating different varieties of millet (also some local paddy varieties) due to the unavailability of milling facilities. When they grow these, they may be selling rather than consuming these due to lack of milling facilities. Living Farms can think of establishing milling centres in different panchayats². Similarly, oil extraction facilities that are appropriate for the locally available oil-seeds will be very useful. All these have the possibility of yielding positive results in terms of consumption as well as, growing. A milling centre of the Living Farms is going to start near Muniguda but it may not be enough. The Timbaktu collective in Andhra Pradesh has done this task of establishing millet milling units. The tribal people may not preserve all the varieties of food grains just for the sake of preserving culture or because these have to be protected for themselves and the world. Hence, creating an environment wherein the protection of this food diversity is in their own interest, is crucial.

- Living Farms is already working towards creating and nurturing 'nutritional gardens', however, our impression is that there can be more focus on the expansion and augmentation of these gardens to meet a greater part of the requirements of the people living there. We have seen organic farming carried out by the tribal households in the Northern Gadchiroli district of Maharashtra, which seem to be contributing to greater

consumption by the local people. It may be useful if Living Farms assesses the challenges in establishing nutritional gardens and the ways in which to make these more effective in making available more and varied type of food and vegetables to the tribal population in these hamlets.

- Since these are not closed societies, and they participate in the exchange of goods and services with the outside world, therefore, one way to sustain their interest in the diversity of products that they cultivate and collect is to enable them to generate a higher surplus through the exchange. Many people may shift towards commercial crops due to the increased need for cash. Living Farms can promote the growing of food crops by assuring the tribal people of higher surplus through better marketing. These people may currently be dependent on a few traders to sell these products and may not get a good share of the market price. It may be desirable if Living Farms or similar organizations intervene to minimize the extraction of the high share of surplus by the middle-men.
- There are interesting experiments that connect the producers of sustainable or organic agriculture with those consumers who are concerned about the environment and sustainable lifestyles. These consumer-producer connections may help producers to have a stable and wider market for their products, and also to fetch a higher share of the price (by avoiding multiple layers of middle-men). There can be similar interventions on the part of Living Farms.
- When the focus is on food diversity, the organization cannot neglect the possible negative impacts of the current cultivation practices. There have to be awareness-building and other intervention programs to make the cultivation practices amenable to soil and water conservation.
- While focusing on food diversity, Living Farms cannot

neglect to reflect on the non-vegetarian food diversity. It is acceptable if the organization decides to focus on vegetarian food for ideological or logistic reasons, but this may be reflected upon and articulated clearly. On the other hand, if the organization is open to non-vegetarian food diversity too, it may think about strategies to develop and strengthen it on a sustainable basis, for example, without destroying the endangered species in the forests.

6.2 Suggestions if the focus is on the nutritional status

If the purpose of Living Farms is to improve the nutritional status of people in these tribal settlements, and if they see the strengthening of food diversity as an entry point, then they may consider the following suggestions.

- There are other aspects or behavioural trends in these tribal hamlets that work against enhancing the nutritional status of the people there. Hence, the strategy of rejuvenating food diversity per se, may not be adequate. The presence of other disabling factors may reduce the potential of a diverse food in enhancing the nutritional status of the people.
- Ensuring the functioning of Anganwadies is important in this regard. This is needed to ensure the supplementary nutrition of infants and pregnant mothers. It may be possible to think about using the indigenous food for this supplementary nutrition.
- The behavioural change that discourages open defecation is critical if the objective is the mitigation of malnourishment. This may also require innovative strategies since the toilets that are provided or constructed by government agencies may not be appropriate in the existing living conditions.
- There have to be appropriate interventions in schooling and education, which are also closely connected with the nutritional status and human development. There can be

interventions to make the content of schooling appropriate to their socio-cultural conditions. There is also a need to strengthen early-childhood education and to ensure that all boys and girls attend primary and high schools. Even if the completion of schooling may not lead to employment (that requires education), it is necessary for bringing about desirable changes in health and reproductive practices.

- There have to be sustained efforts to avoid child marriages. The completion of education and the availability of employment opportunities for girls outside the village may enable this process. This is important since such marriages and early pregnancy may enhance infant and maternal morbidity and mortality. There may be a need for other behavioural changes as in the case of the mainstream society. There is a stigma around menstruation, which may have implications on the hygiene and ultimately, the health of women. Though drinking is part of their culture, there are examples of alcoholism leading to the death of male members of the family, which puts the family into a vicious circle of poverty that also impacts poorly the nutrition of women and children.
- The current situation with regard to the functioning of the Anganwadies and the construction of toilets informs that the people in these tribal hamlets are not mobilized socially and politically to demand better-quality public services. Such a mobilization is necessary for the sustained welfare of the people. It may be difficult to accelerate the process of social and political activism since the governments may suppress these as part of their anti-Maoist operations. However, there is a need for secular, democratic and non-violent activism. How external organisations can encourage such a mobilization in these villages in the current context is an important matter that needs deliberation.
- The need for social and political activism among the

tribal people is notable when we see that the Forest Rights Act is not implemented in its full sense in these areas. We could see a significant change in the living conditions of tribal people in the localities (outside Odisha) where they are able to assert the community rights under FRA. Our impression is that a sustainable improvement in the welfare of the tribal people in India is possible with the proper implementation of the FRA and when outside agencies help them to use these rights in a transparent and sustainable basis. This is evident from our experience documented [here](#). However, the effective demand for the proper implementation of the FRA by the people depends on their social and political mobilization, which can be an important strategy of organizations such as Living Farms if their interest is the sustainable improvement in the human development of the tribal people.

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