

Knowledge Enriched Despite Poverty



Seventeenth Shodhyatra organised by Honey Bee Network in the tribal dominated district of Koraput in Orissa challenged many of the basic assumptions of the fellow yatris. Why this region was affected by nexalite ideology became clear when we saw the degree of deprivation and administrative inertia

The Seventeenth Shodhyatra organised by Honey Bee Network in the tribal dominated district of Koraput in Orissa produced a different image of the region and helped everyone to view it from a perspective of 'source' rather than 'sink'. After all, why has a region remained economically backward for so long, is it because it lacks new ideas, innovations or is it because the administrative institutions and markets have ignored the needs of local people? Please walk with us through the pages to learn what did we discover and why we feel very optimistic about this region, even if administration hesitates in making local knowledge as a basis of building new futures. Having completed about 2800 km of walk with this Shodh yatra in the last eight years, we remained convinced that Honeybee Network can indeed show new way of development, if only we will care to listen to local voices of dissent, deviance and diversity. But the challenge is to mould the local anger into a pursuit of creative and innovative solutions. The local resources will have to remain accessible to tribals for them to use their knowledge for socio-economic transformation. Otherwise, will we have any right to complain if extremism takes over larger and larger territories in the region?

The Start Up

The Seventeenth Shodhyatra started from *Ganga Maa* temple in the Pattangi block of Koraput district in Orissa on 9th May 2006. Months of ground level planning and preparation before the Shodhyatra had set the stage for a tryst with nature and associated knowledge systems. The Shodhyatra covered a distance of 113 km, starting from Pattangi and culminating in Sabara Srikhetra. There were around sixty Shodhyatris from different parts of the country from as diverse professions as teaching, farming, accounting, community services etc., and from different regions like Orissa, Maharashtra, Kerala, Karnataka, Tamilnadu, Chhattisgarh, Gujarat, West Bengal, Andhra Pradesh, etc.

Honeybee network collaborator, Dr Balaram Sahu and his friends, colleagues and local network members had worked very hard to create this learning and exploring journey possible in Koraput, Orissa. The Jeypore tract in Koraput district is known as the birth place of rice. It is said that the district is home to more than three hundred indigenous varieties of paddy, many scented ones. The district is dominated by various tribal groups



Clockwise from left: Recipe competition at Kunduli, Student with his project in the science exhibition competition, Honey Bee database CD in Oriya being released, Biodiversity competition at Champakhenda

like Gadaba, Kandha, Juanga etc. and they have immense traditional herbal wisdom. Learning from their traditional wisdom, in a biodiverse region, with Naxalite influence made this Shodh yatra very different (Never before we had a police van trailing us, as it happened for a few days lest we strayed into unguarded territories or we needed the security help). The social imbalances which have made this region as one of the most poverty ridden region also made us inquisitive about the roots of the economic deprivation.

Diversity, Ethics and Conservation

In the inaugural meeting of the Shodhyatra, the administration was urged to initiate the institution of village knowledge register and start the experimentation itself with the schools. The two Block Development Officers (BDOs) of Pattangi and Semiliguda present during the meeting readily accepted the suggestion and promised to start the work on this issue from the coming educational year. Through out the yatra, we held several meetings, shared the Honeybee database and felicitated more than seventy five innovators and traditional knowledge holders.

During the yatra we made some points repetitively to draw the attention of people, opinion leaders, elected representatives and the district administration. It was emphasized that to stem the erosion of soil and water, people build check-dams. Similarly, in order to stem the erosion of knowledge, we need to document them through the village knowledge register. The village knowledge register (VKR) can comprehensively document issues and perspectives pertaining to soil, water, plants, animals, clouds etc. Unless we start thinking about knowledge based enterprises in the tribal areas, these regions will remain a source of cheap labour and materials. In each and every meeting, we explained the significance of protecting intellectual property rights of local people over their herbal knowledge and the safety net provided by Honey Bee Network and National Innovation Foundation (NIF) through the institution of Prior Informed Consent (PIC). They were advised that be it anybody (including NIF or Honey bee network scouts), they must ask the knowledge collector about the possible use of knowledge in the short and long run before they share their knowledge. The knowledge seekers should show their willingness to enter into a fair contract with them if some thing



Child journalists being introduced to the Shodhyatris in Pattangi

valuable or unique was found out from it. Also, people must have a right to learn from other communities through local language documentation.

Biodiversity competition was held in two villages, Champakhenda and Kunduli. In total twelve children participated in the competition with 112 plant names, usages and samples. R Manasi, a student of class seven spontaneously joined the competition with a massive collection of 87 plant names and more than seventy samples. What was astonishing about her was that she could confidently spell out the usages of the plant without looking at her text. It seemed that creativity flowed in their family. Her brother, a visually challenged boy, joined the Shodhyatra at Kunduli and entertained the Shodhyatris with his skill of drum-beating. Her sister was a fine singer and her mother was awarded first prize in the recipe competition held in Kunduli.

Two recipe competitions were held in Maliguda and Kunduli. The richness of the delicacies and the associated knowledge system can also be understood in terms of the blending of Telugu and Oriya culture. In this district Historically, it has been observed that much of the cultural richness and diversity is concentrated in the areas where two cultures interact (cultural ecotone) and Koraput is no exception to it. In total, there were sixty five participants, highest in any recipe competition organized during any Shodhyatra. The total number of recipes displayed during the competition was 182, again a record figure of highest number of recipes displayed in any recipe competition organized during the previous Shodhyatras. The most appreciated and applauded dishes for both taste and aesthetics included various sags like 'pumpkin sag', 'koshala sag', 'gajar sag' etc., manduru (a dish made from raagi), 'meeha' (a laddoo made from raagi), 'muan bhat' (a minor millet), 'mandia jau' (raagi soup), 'phonji patra pitha' (the leaf of phonji has curative properties for arthritis) etc. The recipe competitions demonstrated both, the diversity of local culture and the depth of nutraceutical knowledge.

A science exhibition was organized among the school children at the Aeronautics High School in Sunabeda. One of the highpoints of the stay at Sunabeda was the innovative welcome extended to the Shodhyatris by the school children. They welcomed the yatris by lighting the candles that used jatropa seeds, traditionally used for this purpose. Thirty one participants from across the state participated. Some of the best student projects selected in the Children's Science Congress of Orissa were displayed in the exhibition. The projects belonged to a vary wide spectrum, ranging from bio-diesel preparation, sewerage management, and organic dyes for yarns, jute and textile to organic fertilizer, preservation of paddy germplasm etc. Though most of the projects were actively guided by the teacher-mentors, the experimenting spirit of the children was also apparent. Some interesting futuristic projects like the bio-diesel candle, the innovative sewerage management system, fertilizer made from the horns of the dead animals were given prizes. It was felt that if teachers had not mentored the students, perhaps their own creativity could have blossomed much more.

Lateral Learning among Yatris

The learning took place in shodh yatra not only from people but also from each other. Gurucharan Pradhan, a retired school teacher has devised a machine that can perform nine types of agricultural functions like cutting the hay, dehusking, separating rice from paddy, sharpening the blades, cutting of wood, lifting water, harvesting groundnuts etc. He shared his work enthusiastically with others in villages and also with fellow shodh yatris. Chakradhara Pradhan from Sambalpur has made many experiments with lemon trees for increasing the productivity such as cutting the bark of the lime plant for advancing the flowering date, using stethoscope for sensing insect attack in the roots of trees. He has also systematically recorded the data on sale, production and distribution of plants since early nineties. His initiatives and diligence have been captured by national and international media.

Indramani Sahu, Jagatsinghpur is a versatile farmer-experimenter. He shared an interesting method of pest control. He uses smashed snails and packs them into several packets. Then he posts those packets at various places in his farm. He claims that this helps in repelling the pests. Sahu has also spotted a local paddy variety called 'saanra', which if powdered and fed to the cows, acts as a milk enhancer. Indramani also is a store house of various solar crop treatments. In fact, he has developed a whole regimen of solar-based plant treatments, especially for rice.

An interesting instance of community initiative to tide over water scarcity was seen in Mali Doliamba. Kabikarna Kirshani along with fellow villagers from Mali Doliamba built a 3 km long canal to water their



Kabikarna Kirsani is now a local hero for his outstanding contribution

rain-fed farms in the face of stiff adversities (See the box for details)

Another interesting experimentation was seen in the farm of Prafulla Pangi in Taupadar. He intercropped *alsi* (*linseed*), ginger and beans, sown in that order. It is used as an interesting source of green manure. After *alsi* is ready, it is uprooted and laid on the field still

In Maligunja village, a small exhibition on local varieties of rice, minor millets and pulses was organized. To everyone's surprise, within a small time, farmers were able to bring four varieties of local paddy (three of which were scented varieties) such as '*lchai*', '*ninamanjee*', '*langadacha*' and '*jaya*'. There were three varieties of minor millets such as common raagi, mami suan and sakara. The seven indigenous variety of pulses that came up in the exhibition were '*kandula*', '*dangar rani*', '*buta samba*', '*naka chana*', '*biri*', '*kala kolatha*' and '*simba mala*'. Most of the local varieties were cultivated by the farmers for their own consumption but they preferred growing improved or high yielding varieties to meet the market demand. In a meeting at Turia, an old lady farmer could easily recall eight varieties of indigenous scented rice, some of which were no more grown. In a meeting at Mali Doliamba, another old woman farmer talked about twelve varieties of indigenous paddy. The experience proved that women, particularly old women are more familiar with the indigenous variety of paddy than their male counterpart.

The icing on the cake was provided by Kamla Pujari, who has shot into international prominence for her effort in the field of conservation of indigenous variety of paddy.



Multiple mulching beds experimented by Prafulla Pangi

having ginger and beans. After ginger and beans are harvested, the *alsi* is ploughed into the land to act as green manure. In his ginger field, Prafulla is undertaking experimentation with mulching. He has prepared different sets of mulching beds with three different leaves- banana, eucalyptus, and paddy straw and in some places stalks and leaves of pigeon pea.

Her husband passed away at a young age. She started cultivation after the death of her husband and she has been cultivating all the varieties of indigenous paddy in a cyclical way. She started the seed bank in her village and has been instrumental in the preservation of more than seventy two varieties of indigenous paddy in that locality. She started the seed bank with a personal

contribution of around nine indigenous varieties and later on others started to joint her.

At Sunabeda school exhibition, we also met Mr Laxmidara Sethi, an arduous preserver of innumerable traditional veterinary tools and instruments. With the onset of modern veterinary science and accessories, the traditional tools and instruments of feeding the



Laxmidhara Sethi displaying traditional veterinary kits at Sunabeda

livestock, chaining them, gauging their body temperature etc., have virtually disappeared. Mr Sethi has preserved some forty plus such tools, and instruments, mostly of wood and is also trying to popularize them. Most of these tools and accessories are made of wood and are very convenient to use.

The institution of child journalism was an interesting experiment in itself. It is believed that the observation of children is usually more unbiased and truthful than that of adults. Furthermore, the reporting by children involves aspects which adults often ignore. To foster this spirit of minute observation about the local problems and search for its solution within the local community, some local voluntary organizations have joined hands

to promote child journalism. Here children themselves collect the news and they are printed in a local bulletin with minimal editing. In fact, before being felicitated some of them had already interviewed the Shodhyatris and found out their likes, dislikes, tastes, opinions etc., about the state.

'Thenga Vahini', a local community policing initiative started by Laxman Das impressed the yatris a great deal. He joined on the sixth day. Originated in mid-eighties, the 'Thenga Vahini' (baton army, they have only wooden rod and small pebbles as their weapons) has, of late ventured into the naxalite areas of Orissa to wean away angry youth from the fold of violence. Till date, he has been able to wean away twenty six young men from naxalism and other kind of violence and helped them integrate into the mainstream. Mr Das is rehabilitating many of the erstwhile extremists in agriculture. However, he dreams of further consolidating his incentive structure for bringing back more angry young men from the violence and integrating them meaningfully with the civil society. Mr Laxman Das is also a skilled farmer. He made a history when he cultivated rice on the sandy soil of Mahanadi river bank. He created bunding on the sandy soil and planted paddy within the two rows of the bunding. Even though there has been description of polyculture where limited available space is used to grow multiple crops but there has not been any instance of growing paddy on sandy soil. The achievement of Laxman Das was widely covered by the local and national media and he was invited to International Rice Research Institute (IRRI) Manila, Philipines to undertake further research.

In a public meeting at Mali Marila, a lady breeder, Laxmidei Hantala was felicitated for her keen spirit of experimentation. She observed that in kankada (spine guard) after two female flowers, one male flower appears. She is experimenting with her breeding technique, so that she can produce ten female flowers in proportion to one male flower to increase the production of the spineguard. In a meeting with



Left to right: Laxmidei Hantala being felicitated at Malimarla, Krushak Laxman Das being felicitated by DIG, Koraput, Local Kuduli market is inundated with all varieties of seeds but the indigenous ones

herbalists in Turia, Ramachandra Pujari demonstrated the way he treats arthritis and labour pain with the help of eight types of parasites. Through out the yatra, numerous herbalists generously shared their knowledge with Shodhyatris. In some cases, the herbal treatment was blended with some kind of supernaturalism but in most cases they were based on proper observation and experimentation.

Learning with an Open Mind and Heart

In Sergiguda village an innovative ginger storage and sprouting system developed by a tribal was put to the demonstration. The government-disseminated method, as widely practiced in the locality, dries up almost one third of the ginger before sowing. However, the method practiced by the tribal of Sergiguda keeps the ginger fresh. Similarly, in Mali Marua village, indigenously prepared very fine powdered compost was spotted and it was so fine and had free flow that it could easily command a niche organic market. Farmers from Gujarat could not help appreciating a skill which tribals of the region had better than them.

Koraput has a living tradition of herbal treatment. What could prove the point better was a young tribal person, Birshu, who showed ten different plants used for treating different kinds of pain within a span of hundred meters? However, what was also astonishing was the marked disinterest among the young generation to learn this living tradition. Except a few Birshus, most of the young men did not seem to be interested in herbal healing tradition.

In Gunthaguda village, an outstanding community knowledge pertaining to extraction of edible oil was observed. In fact, the villagers claimed that this community practice is hundred of years long. In this system of oil extraction, a whole series of activities are done before the actual edible oil is extracted. They primarily use *karanj* (*Pongamia pinnata*) for food and hair. Initially, the villagers dry up the seeds of *karanj* and then that is boiled up. After they are boiled up, the seeds become a little soft and hence it becomes easy to crush for extracting oil. A huge *dhenki* (a device where top part is moved by pushing the lower part) is attached to a jackfruit tree (in fact, all these traditional oil expellers are attached with jackfruit trees). The pressure put on the *dhenki* presses the bag that contains the *karanj* seeds and the oil is extracted and collected. Once the oil is extracted from the seeds, the seed waste is treated as fertilizer. Hence the seed is not only a source of food, cosmetics and personal care but also a source of bio-fertilizer.

During the walk, it was repeatedly pointed out that many bauxite rich areas in Mali mountain range have been opened up to the private mining interests (even if these

were under protection given to local communities earlier). We were also told about numerous reportedly unethical means adopted by private mining companies in connivance with the state government to acquire the mining leases. We could sense considerable tension among local communities on account of anticipated eviction due to corporate mining in the region. It was very distressing to hear that no public hearing had been held and the whole process was being pursued in a subterfuge manner. The Shodhyatra experience proved that the poverty of biodiversity prone areas like Koraput does not simply lie in the strategic exploitation of state and market forces but in the systematic exclusion of people's knowledge from market place. Shodhyatris visited one of the traditional market places in Kunduli. To the surprise of all, products as petty as soaps came from Raipur (400 km away), other trinkets from Vizag but hardly any goods made locally were found. Similarly, improved and hybrid seeds of companies as far as Taiwan were home to the Kunduli market except that of the local varieties. In the previous day, sheer abundance of local tribal culinary skills had baffled the Shodhyatris the recipe competition at Kunduli; but not a single such delicacy was found in the local market. If proper premium is not attached to the resources of the tribals and they are kept dependent upon external goods, impoverishment will be the only outcome. Worse still, we hardly found any working Primary health centre working on the route of yatra during our journey. Hardly any teacher of primary school lived in local villages.

The yatra provided insight to the yatris about some of the less explored cultural practices of the tribal of Koraput region. They observed that goat sacrifice is still prevalent in most parts of Koraput. The practice has been in vogue for generations to please the goddess of earth for bumper yield. The juxtaposition of tradition and modernity was apparent. On one hand, the tribal used the modern hybrid seeds and on the other hand, they were held many deep seated unscientific cultural beliefs. But is not that true of all of us too?

The importance of sacred groves in the preservation of ecological balance was evident in Mali Doliamba village. As they are sacred, neither the plants nor the sacred places are encroached upon by the villagers. Numerous studies have proved that sacred groves have been refugia for many of the endangered species.

The yatris tasted a local fruit called '*gulab jamun*'. The name resembles one of the famous Indian sweet delicacies because it smells like that. The outstanding feature of the fruit is that its taste evolves with chewing. In fact, the fruit is so popular locally that a young social worker came up in one of the night meetings at Kunduli to seek guidance on how to establish an enterprise to carry the fruit to wider market.



Three centurion women felicitated in a public meeting held at Gunthaguda

Eight centurions during the Shodhyatra were felicitated. Out of them five were women. All the five centurion women were still active and did most of their work independently. While conversing with them, they recalled hazily the *khakhi* trousers and shirts of the foreigners as the semblance of colonial era. They mentioned that earlier when people in khaki shorts came (they referred to British soldiers), they used to run away into forests. Not any more. At least some mercies.

During the Shodhyatra, at Sunabeda, the yatris met for internal reflections. KP Mullick, one of farmer participants who represented Swanirvar, an organization working to promote organic farming in West Bengal told that he has learnt some of the herbal remedies during the shodhyatra that he would experiment in his village. Maulik Raval, a student, talked about the possible experimentation of community radio in Koraput to tide over the communication gap. He was referring to a situation of the previous day, where tribal from as distant as ten kilometers across the Mali mountain had come to Turia, where the ration shop is located. However, they were told that the shop had run out of ration and it might be available some time next week. Mr. G Singhee suggested that the students of the nearby schools must be sent to the tribal hamlets on learning trip to gauge

the reality of harsh life, internalizing the value of struggle and developing innovative solutions.

Beginning of a new journey

In an instant bio-diversity knowledge competition held in the Sunabeda high school, the children were urged to do two things: a) sensitizing their parents to undertake an audit of their monthly expenditure, finding out what percentage of their spending is committed to the products/ commodities made by the tribal communities and b) asserting their right to safe organic food.. All the people were repeatedly told that unless we do not buy the products and commodities manufactured locally, the money will keep flowing outside and will not help tribal improving their economic conditions. During the yatra, the administrative machinery was quite cooperative. Both the BDOs (Block Development Officers) promised to begin the work on Village Knowledge Register from this educational year itself. The yatra not only expanded the horizon of all the yatris but also made them see an economically poor region as 'source' of knowledge, values and ideas and not just as a 'sink' for draining aid, advice and assistance. To the extent that one of them concluded: 'Shodhyatra was a living learning experience as I was walking along the mobile university of practical learning'.

Realizing the Idea of Bringing Water to Malidoliambo

The instance of Common Property Resources (CPR) being managed through some kind of community institutions is well documented (see <http://www.sristi.org/cpr/index.php3>). However what is intriguing is the process in which properties, often considered as useless evolve into valuable community resources. Such processes may or may not espouse the growth of corresponding governing institutions. But nevertheless, such processes remain historical, at least in the annals of the region. The example of Malidoliamba is a case in point.

Kabikarna was a young boy when he used to see the misery of his villagers primarily because their fields were rain-fed. Despite being a bright student, owing to financial problems he had to drop out of his studies. As he grew old, he observed that the problem of water still persists in his village. He was no leader, no bureaucrat, and no village headman. He was a simple farmer who had the zeal and courage to invest in something, whose return would accrue to everybody. He observed that three streams from the Mali Mountain are getting merged at a place barely three kilometer away from his village. It struck to him that if somehow, the streams - now a small river, is dammed, then solutions can be found out to take the water to the village.

However, there were numerous challenges. The first part of Kabikarna's vision i.e. damming the river at kankadaambo, a small village, was supported by the Government. Kabikarna Kirshani convinced the neighboring villagers by cajoling the village leaders of Munda tribe. The Mundas primarily opposed the idea of a dam because the land owner feared loss of land due to submergence. Kabikarna negotiated with the headmen of the tribe and worked out a deal. He promised villagers of Kankadaambo to give Rs4000/- in cash and some amount of paddy on an annual basis. Everyone was happy with the deal. However, after the construction of the dam Government engineers were not sure whether water can be lifted to Mali Doliambo, a village that was situated on a higher plane. In due course, they abandoned the idea and the project.

However, Kabikarna was convinced. Initially people didn't believe that water will enter their village as the terrain was unruly and leveling the upland to

facilitate the flow of water was not easy. Kabikarna and few of his aides adopted bunding technique, where the tunnels were so dug that leveling became easy. The average depth of the canal is 7-8 ft but in some places, it is as deep as 15 ft. The villagers used spade and other indigenous stone cutting materials. They didn't use dynamite for digging the canal (partially because it was not possible to explode those thick rocks with dynamite also).

Initial flow of water for a few hundred feet towards their village boosted the confidence of the villagers. More and more people joined hands for digging the canal. It took about one and half year on a cumulative basis and 60 man-days to complete the work. It is estimated that the total cost of the dam and canal is 14 lakh, out of which Rs 4 lakh was contributed by the villagers, mainly in terms of shramdan. After seeing the success of the canal, the block officials and engineers appreciated villager's efforts. They came forward to extend the canal so that water reaches the field smoothly.

Today Mali Doliamba is perennially irrigated. This made the villagers of Malidoliambo to undertake the second cropping such as cabbage, chilies etc. in an additional of 25 acres. The canal has potential to irrigating 40 acres of land.

Now the new challenge for Kalikarna is to maintain the canal, especially during the rainy season. He is yet to reorganize his villagers under *Pani Panchayat* (Water Users' Association) Programme to get support from Government. Government officials have nick named him as local '*Bhagirathi*'. But till date he has not received any award.

