

Good Practices in Tribal Education is a study that looks at various aspects of good practices which can be replicated. A part of this study was supported by a funding agency for 40 days. However, most of this compilation comes from the wide experience of the author from across the country. Every case cited here has been personally seen by the author who has gone deep into what works, so that these can be replicated at other places. The topics include problems in delivery of public goods and services in remote areas and how efforts to get over such problems fared, the contribution of residential schools and elitist schools, vocational education, institutional arrangements which work, and positive cases of people's initiatives. It also cites cases relating to special issues of tribal people: language barrier, syllabus, drop-out, backward and isolated tribes. It is expected that this will be translated into Indian languages and circulated ultimately to tribal schools and remote areas where tribal and other forest dwellers reside. The State governments and people's organizations have extended great support for this work and the author is grateful to them. This work is humble enough to admit that there can be no summary of recommendations which will work; therefore each case study has to be understood in its entirety and not summary.

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GOOD PRACTICES IN TRIBAL EDUCATION: A FIELD STUDY

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ACRONYMS

- AAJVS – Andaman Adim Janjati Vikas Sanstha
CTA – Criminal Tribes Act
DNT – De-Notified Tribes
ECC – Educational Complex at Chikitimatia
EMRS - Eklavya Model Residential School
HSC – High School Certificate (Includes equivalent terms used in various states such as Class 10, Board Certificate, matriculation, CBSE, ICSE etc.)
ICMR – Indian Council of Medical Research
ITDA – Integrated Tribal Development Agency
ITDP – Integrated Tribal development Project
ITI – Industrial Training Institute
JDA – Juang Development Agency
LDA – Lodha Development Agency
LWE – Left Wing Extremism
MDM – Mid Day Meal
NRTS – National Rural Talent Search
PA ITDA – Project Administrator, ITDA.
PF – Plasmodium Falciparum
PO ITDA – Project Officer, ITDA.
PCM - Physics Chemistry Mathematics
PTG – Primitive Tribal Groups
PV – Plasmodium Vivax
PVTG - Particularly Vulnerable Tribal Group
SSA – Sarva Shiksha Abhiyan
TAD – Tribal Affairs Department (Departments in charge of Tribal Affairs in the State Governments, known variously. For the sake of uniformity and easy understanding, all such Departments are described in the text as TAD.)
TSP – Tribal Sub Plan
VST – Very Similar Test

Chapter-1

Delivery of Public Goods and Services in Remote Areas

1. *Remote Areas* brings to mind inaccessible areas, forests, hilly areas, islands, swampy lands and mangroves and so on – where physical communication, particularly roads, are not available. In these areas, goods cannot reach easily, for example, food-grains or construction material. Even when they reach, the cost goes up. Often, the schemes do not account for the additional cost of transportation. Workers in health sector cannot go or even if they go, they cannot maintain the cold chain, because there is no electricity. If there is electricity, this is likely to be produced by diesel and the cost will be high and will have to be subsidised. These are some obvious barriers of remote areas.
- 2 For nomadic people, most of the services would not be available, when they move from one place to another. If they have ration cards in one place, they do not have access to Public Distribution System (PDS) in another place. Children of people who migrate from season to season (like the Gujjar

and the Bakkarwal of Jammu & Kashmir) miss out on education and immunization. Even when they live in accessible areas, the studies have discontinued and the immunization cycle has been disturbed. These losses of the children are often irreversible. The migrant labourers in Central India often go out for six months, particularly after Kharif harvest to next Kharif sowing. During the six months period, they do not receive PDS goods or immunization. When the children accompany the parents, they miss out on the schools. The living condition of the old people who are left behind is no better. Land improvement and irrigation does not happen. Maintaining of livestock becomes unsustainable at home and it affects income and nutrition. With the loss of livestock and depletion of fertility of land the poverty gets exacerbated. This is often the result of vicious cycle of lack of access to cash income, usury, indebtedness, sale of movable property including livestock, mortgage of immovable property, *dadan* or bonded labour and high morbidity, eventually passed on to the next generation.

3. Areas affected by continuous violence in our country are often areas where violence is based on ideology. In such cases, what services can reach depends on the people, who are engaged in violence. "*In the liberated zone*", for example, a postman could go and deliver a money-order at the entry-gate manned by an armed person, hand over the money and

the money-order form and come back on another day to collect the form bearing the signature of recipient of money-order. Here payment by transfer through bank does not help much for three reasons: bank branches are few and even these branches have thin manpower; distance of the banks makes transaction cost high; and poor telecommunication makes e-banking impossible or inefficient.

4. Another kind of violence is inter-ethnic conflict, particularly, in some areas of North-east. Here, a village which has a minor ethnic community compared with the district may not be treated at par on schemes like roads, electricity, schools, hospitals, PDS or any other socio-economic program. Another fallout of such a situation is that the minority tribe could be the majority community in another area and there the roles are reversed and so on, the problems get compounded. Many instances of recurring inter-ethnic violence are the fallout of this deprivation of one group by another group. The remoteness arising out of ethnic conflict can be far more ineluctable than an area which is remote only for geographical and physical reasons. People also bar themselves up for protest. Some recent cases are that of POSCO areas in Odisha and some mining areas in Jharkhand. In one case, in Santhal Pargana of Jharkhand, people of 30 odd villages shut themselves in and prohibited delivery of public goods and services until one Collector was courageous enough to walk into the area and talked to the people.

5. It is not a mere coincidence that these areas with serious inter-ethnic conflict also have strong district councils, and hereditary chiefs / clans in charge of village councils and do not have elected Gram Panchayats accountable to bodies like Gram Sabha. If one looks at the provision of Panchayat (Extension to Scheduled Areas) Act 1996 which provides that there will be a separate gram sabha at every habitation / hamlet level, one may wonder why this provision has been incorporated. (This law applies to scheduled areas of Odisha, Jharkhand, Andhra Pradesh, Telengana, Chhattisgarh, Madhya Pradesh, Maharashtra, Gujarat, Rajasthan and Himachal Pradesh and not to Northeast). One reason is that hamlets are small and distant and people from smaller hamlets would not participate in the Gram Sabha held at Gram Panchayat headquarters. The more important reason is that the voices of a smaller or more backward tribe, which is living in such a distant hamlet, will be drowned out by people from larger tribes and other communities. These areas had their own traditions and traditional chiefs. However, it was decided that in the name of tradition, a hereditary chief cannot be allowed to implement socio-economic programs in a democratic polity. Implementation of socio-economic programs must happen with participation of people through elected gram panchayats. The traditional rights can be about customs, religions, certain crimes and protection of heritage. It is doubtful if ownership of the land of a whole village by a family or clan can be considered a traditional right. In that

case there was no justification for abolition of feudatory system, kings and zamindars. If one person or family owns all the land, accountability to Gram Sabha becomes meaningless because the chief who is also the Head of the Village Council can and does drive out every dissenter. Between 2010 to 2013, I have met people in the areas where panchayats do not exist, including at the higher level of government. In some places changes were made. In some places changes were not made. The barrier to efficient and effective delivery of goods and services in such situation arises out of absence of participative institutions of governance at village level or habitation level. The regressiveness of such institutions is so much that there is no representation of women in matters relating to village level socio-economic program. Even in matrilineal societies positions in village are held by a husband of the daughter of the clan and not by the daughter. When women do not participate in village / Panchayat level discussions, issues like food, water, health, sanitation and education are not taken up because usually women face these problems (like: Did the anganwadi worker serve food on the that day ?) and not men. However, there have been reforms in some areas. Mizoram amended their laws for village councils, first in Sixth Schedule areas and later in rest of Mizoram to include women in village councils. They had already notified for Gram Sabha in 2011, soon after a range of consultations. The Councils in Sixth Schedule areas of Assam had agreed to have elected



(At a school in Lawngthlai district, inhabiting primarily Lai tribe in Mizoram. The elected women representatives are taking more interest in areas like education.)

village councils in line with gram panchayats of the State with some protection for traditional tribes and this was understandable in view of influx of illegal immigrants to the State. However, the laws were not passed by 2013, but may be passed in future.

6. Remoteness in education can happen even when people live in physically accessible areas because of language and cultural barriers. The child has to cope with the local medium of education. In case of rising aspirations for studying in English medium schools, the language barrier is further compounded. The barrier is equally bad for the teachers who cannot communicate not only because the language is alien, but also because the culture is different which makes connotations (paradigmatic meaning) quite different from the apparent language or denotation (syntagmatic meaning).
7. In order to reach the remote areas, we have to understand the kinds of barriers which cause the remoteness. Over a few years, GOI had been talking of Direct Benefit Transfer (DBT) as a sinecure for remote areas. There are couple of issues here. First is the bank, accessibility to bank, connectivity of the bank. Banks may exist, but in remote areas, the personnel could not be available throughout the office hours. The difficulty in e-connectivity is well known. There is huge transaction cost for a person to leave village, come to the bank and access funds. In North Cachar Hills (Dima Hasao) district of Assam, for example, many people withdrew from Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), when payment was mandatorily released through banks, because people had to *walk between 30 to 100kms* to collect payments from the Bank. In a tragic incident in Kandhamal district of Odisha in

2016, tribal and non-tribal people who were returning in an autorickshaw after collecting their MGNREGS wages from a Bank were shot at by security forces who suspected them to belong to LWE, and some of them died. Cash payment has become a dirty word in government and no doubt rent-seeking is easier in case of cash payment in a scheme like MGNREGS. But in the remote and later disturbed areas of Odisha and Chhatisgarh, delivery of PDS and pensions through Gram Panchayats on fixed days in the month has made delivery more effective for several reasons: fixed days mean that people of a village know when to come, transaction cost is less, presence of a large number of people prevents rent-seeking, supervision is easier, social audit is automatic and violence becomes difficult. However, I have found very little credibility of this model among people who have not worked in such areas.

8. For the language barrier in education, we are preparing primers, in which on one page, there is a theme relating to the local area in tribal language, but the local script and in opposite page in the local language and local script, the same topic. This helps the students to be interested in the text and thus, pick up the script. Eventually, it also facilitates the students to learn the local language. The teacher also is able to pick up some working knowledge of the local language and connotation through the primer. The primers for the subsequent higher Classes take up topics which are in the

curriculum, thus expanding the canvas of themes for the student.

9. A protocol for efficient and effective delivery of goods and services should be pragmatic and not dogmatic. The dogma of scientists is not less obdurate than that of the illiterate. Newton (1642-1727) had said that every possible undiscovered law of physics had been discovered by him, and there is no new law of physics to be discovered. In 1905, in less than 200 years, came the theory of relativity (huge distances, times and matter) and quantum mechanics (tiny matter, huge energy, tiny distance). And the search for a fundamental particle postulated by quantum mechanics has not ended. It would be a fallacy to believe that e-governance will solve all problems of remoteness. In 2014, many of us received income tax notices from authorities asking us to pay taxes for exactly the amounts which we had paid. We (including myself) had submitted income-tax returns. When we looked for the reasons, we were told that the computer had found that some other return by someone connected had not been filed. I am sure that if an Income Tax Officer had seen the papers, he would not have sent these notices. Digital technology has to be supported by a huge amount of infrastructure and human beings.
10. The absence of doctors and paramedics in remote areas has become inbuilt into the folk lore of governance issues. Incentives in the shape of cash and service conditions have

been provided from time to time and they do not seem to work. The discomfort of remote areas can often not be compensated by any amount of cash. A short-sighted solution to the problem was to put smaller medical units consisting of just one doctor and one paramedic in remote areas. The doctors had no work and since young freshly passed-out doctors were posted to these areas, they found the place and life extremely lonely. These posts were, however, always filled up when in the periphery of urban areas, because there the doctors stayed in cities, engaged in private practice while having the security of an institutional job. Bulk of the problems relating to health is actually public health issue. This requires the service of ANMs and paramedics for immunization and prevention / treatment of conditions like anaemia, malaria and gastro-enteric disease. The ANMs and other paramedics stay at their work place when they are local. The Ministry of Tribal Affairs was supporting the idea that local school children who do well can be trained as paramedics after completion of school. This will also motivate the children to study well because they are assured of a secure job after the completion of education.

11. In programs like agriculture, horticulture, fishery, poultry and dairy (which constitute the major source of employment and food security of rural population) remoteness results in deficit in both services like technical knowledge and inputs like seeds, medicine, seedling, fish fry and fingerlings. The other

problem is marketing, particularly, in case of highly perishable products like milk, flowers and certain vegetables. Besides, milk has to be chilled which requires quality electricity. In some areas producing high quality milk as a traditional occupation, people had been advised to convert this to *khoa*. However, these are extremely short term measures. A much better arrangement is to limit the activity like dairy to areas which are accessible. Road construction, particularly under PMGSY (Pradhan Mantri Gram Sadak Yojana), has improved the economics of dairy activity. But roads, by themselves, do not promote dairy which requires a convergent and concerted effort. One mental barrier we have is that tribal people do not take milk and dairy is too complex for them. But as in case of Malayali tribes of Tamil Nadu dairy is stabilizing - by addressing the infrastructure and training needs of dairy sector - and not the mindset! When I was working in dairy sector in Odisha, several dairy cooperatives were started in districts like Nabarangapur, Malkangiri and Kandhamal and they became viable in due course. During 2014 and 2015, funds for dairy sector for tribal people was sanctioned for many States from MOTA and are under implementation.

12. Absence of information also disables many students of remote areas to apply for scholarships or to make an informed choice relating to education. Information through websites is useful for people who have moved out from

remote areas and have achieved a certain level of education – students or their parents. But this reach-out is not good enough for children who are first generation students and studying in remote areas. After all there is wide disparity in literacy rates of tribes from single digit to nearly 100%. Disclosure of names of students, who get scholarships, before the Gram Sabha of the village to which the students belong can disseminate information about scholarships, and educational option. It can also result in verification of whether a person who has received scholarship is eligible to do so. Thus voluntary disclosure before Gram Sabha can result in dissemination of information and also social audit for most socio-economic programs of the government. The Gram Sabha needs to be a strong institution to achieve this. Even to carry information to the Gram Sabha, an Institution is required. In fact the low literacy rates of some tribes living in plains shows that many children who are enrolled never attended school to acquire even elementary reading and writing skills. This calls for special campaigns which need institutions located in tribal pockets, and involvement of people from government, teachers, people, panchayats and voluntary agencies.

13. The Integrated Tribal Development Agencies (ITDA) which were constituted in 1970s were strong, had flexibility and were located in areas with large tribal population. The idea behind ITDA ran something like this: “A line department

functionary, say an agriculture extension officer, is not likely to go to a tribal village because of various barriers. An ITDA will help to take such an official with inputs and services to a tribal area.” Some employees of these institutions belong to the tribal welfare cadre which meant that they were aware of the fact that they will have to continue to work in remote areas throughout their career. Over the years, these institutions became weak. Posts were not filled up. The ITDAs merged with other agencies. Even when they existed, they constituted of only a Project Officer with some clerical staff. There is need for professional staff in engineering, in livelihood sector and in social sectors. These categories of employees have to be re-positioned in ITDAs; only then, the information, service and other inputs relating to socio-economic developments can be taken to the tribal people and other forest dwellers.

14. Another institution which has become weak in many States is the Tribal Research Institute. They have been traditionally associated in working related to research on tribal culture and tribal languages. The other major activity, that is, capacity building relating to socio-economic development and legal rights has become weak. These capacities have to be developed inside the TRIs. Posts sanctioned, but not filled up should be filled up. More than that, the activity of capacity building of employees and elected representatives of remote areas has to happen continuously.

15. Micro Projects had been set up to address problems of Particularly Vulnerable Tribal Groups (PVTG) in some places like Odisha. These were situated in the remote areas where the PVTGs actually lived. The institutions looked after socio-economic development and also had untied funds. These institutions are important and are being promoted in areas where they do not exist.
16. A related problem is migration of tribal population to cities, many of whom have been displaced by projects. As a result, they do not have any land and find it extremely difficult to have even a caste certificate. (In Mumbai city a person from Varli tribe finds it impossible to get ST certificate – he has to go to Nashik to present evidence. That is because almost all people from Varli tribe sold or lost their land a century ago and the only evidence of their presence is a place called Worli in Mumbai city). Coming to migrants to urban areas, absence of habitat, the hardship of life in cities and the cultural and language barriers put such people at disadvantage. Most of the migrants to urban areas have similar problems; but the problem of tribal people is worse because of their initial remoteness, a burden of which they carry with them. It is necessary to have institutions in urban areas to take care of these special problems which are supported from the Ministry of Tribal Affairs. It is ironical how remote can the shanty be, in which a displaced person lives in a city, from the city.

17. The underlying theme in the above analysis is that education is the key factor which can minimize remoteness. The experiences of good practices narrated here have gone into the processes, so that they can be replicable. Each of these cases has been validated by me personally. I thank everyone who has supported the study. I hope that this paper reaches officials in charge of tribal affairs, TRIs, Education Department officials, Boards and Councils in charge of framing syllabus, and Universities whose Professors actually set the syllabi.

Chapter-2

Residential School (RS)

1. The rationale for residential schools for tribal students runs like this. In view of the remoteness and thin distribution of population, students had to walk over long distances to reach a day school. With the lowest levels of education, and the low value of education perceived by many forest-dwellers, the incentive of attending school was typically low. This was worse in case of tribal population who had language barrier and often cultural barrier. In view of low demand from the people and the hardship of remote areas, teachers of day schools had little incentive to come to these schools in tribal areas. In case of RS, the teachers and students had to stay in the campus and this increased the responsibility and security of both teachers and students. Since majority of tribes have language barriers with respect to the medium of instruction, the RS reduced and eventually removed the barrier. Language barrier was and is a reason why tribal students do badly in other subjects like Science, Mathematics, English and local

language as discussed in this report in various contexts. Tribal population had been deprived of education for various policy initiatives. There had been considerable intervention through Ashram Schools (AS) set up with public effort (like that of ThakkarBappa in Gujarat and many others) before independence. The concept of Ashram Schools was included in the first Five Year Plan based on these public initiatives. This program was priority because it tried to address educational deprivation of the least literate segment of society. But it involved huge costs: construction of schools, hostels and teachers' quarters in remote areas and recurring expenses of the students and teachers. The fact that tribal literacy gap has reduced from an abysmally low level compared with other groups is evidence of the success of RS model. Here we are looking at some models of RS, and how they work.

EMRS

Ekalavya Model Residential Schools (EMRS) are set up with support from MOTA to provide quality education to tribal students in remote areas. The facilities are intended to be at par with those for others such as Navodaya Vidyalaya and Kendriya Vidyalaya. The schools have Classes 6 to 12. The facilities include quality school and hostel buildings, playgrounds, laboratories, and facilities for extra-curricular activities to tap the natural talents of tribal students. The capital grant is Rs 12 crores and for remote areas is Rs 16

crores in 1915. The recurring grant is Rs 42,000 per student per year. There is additional non-recurring grant of Rs 10 lakhs per school for five years. This grant would meet the cost of boarding, lodging and learning and would also meet part of the salary of teachers and staff. The normative strength is 60 students (in two sections) for Classes 6 to 10 and 90 students (in three sections Arts, Science, Commerce) for Classes 11 and 12, thus a total strength of 480. However, depending on the needs, the actual number may vary. EMRS is coeducational and should have same number of boys and girls. Every ITDA/ITDP is to have at least one EMRS.

2. EMRS, Nandod, Narmada district, Gujarat:

This school was started in 2010 with Class 6 with 31 boys and 32 girls. Over the last five years one Class has been added each year. In the Classes 6 to 11 now the strength is 184 boys and 180 girls. This is a remote area and has some of the most backward people of the State. The management of the School is under Gujarat State Tribal Development Education Society. The school caters to one of the backward areas and some more backward tribes like Bhil. There is a local management committee headed by PA, ITDA with sufficient funds and authority for smooth management of schools. The teachers are engaged by the State Society on the norms of the State government. There are 13 teachers and 10 non-teaching employees. Class 11 has only science stream and the students are quite happy with this. Some salient features of the institution are the following.

- The quality of building is excellent. Only part of the building complex has been completed. Such a building gives a sense of dignity to the students. The cost of the building complex will exceed the grant of MOT A, and the additional cost will be borne by GoG.
- The students are disciplined. The science stream in Class 11 will provide better employment opportunity. The students have aspiration.
- The pass rate was *not* 100% in the first Class 10 examination of the school held in 2015. This was discussed at some length. The teachers, irrespective of the subjects they teach, are aware of weaknesses of specific students. Mathematics, Science and English are the core areas of weakness for 4 to 5 students of Class 10, 9 and 11. There is no English teacher for Class 11. Some decisions were taken in presence of Secretary, TAD, Gujarat and PA, ITDA, Narmada. There will be tutorials in the afternoon for the weak students in the evening. Students of Class 10 will be exempted from sports activities. Students of Class 9 and 11 who will take the Board examinations in 2017 will stay back for part of the summer vacation to make up on weaknesses and improve in subjects where they are doing well. The expenses towards students and teachers for this will be borne out of untied funds available with ITDA, if this cannot be borne out of grants of MOT A. MOT A had also allowed funds for some States for such remedial activities.

- The delegation of authority and funds to the Society and the ITDA has enabled better management as the above example shows. The government budgetary/treasury system does not ensure smooth flow of funds for 365 days a year; but children have to eat every day. However, as has been seen elsewhere a Society by itself does not ensure smooth management.
- Given the remote area, difficulty in hiring teachers, delay in construction because of remoteness, the school has progressed reasonably well.
- The inherent talent of the students in music is captured well by the parade band where even sixth Class students were playing perfectly.

3. **EMRS, Tilakwada, Narmada district, Gujarat.**

This school is run on public-private-partnership model (PPP) by one Global Indian Foundation, Singapore. GOG provides grant of Rs 10,000 in addition to Rs 42,000 provided by MOTAP per student per year. There is said to be a lot of extracurricular activity like sports, painting, crafts, plantation etc. The former Principal has retired last year. The school had been considered a model school and I had visited the School in early part of 2014. Since then something has gone wrong in the school.

- In 2014, all the students in Class 10 had secured > 60% marks. In 2015, only 25 students out of 77 have secured > 60% marks.

- In 2014, all students of Class 12 (Commerce stream) had secured more than 50% marks. In 2015, only 10 students out of 28 (Commerce) secured over 50% marks, and 5 *students failed*. The seriousness of the matter has to be gauged against the fact that admission to EMRS is based on merit, because the number of applicants is more than the number of seats invariably. The number of students who took the examination in this stream is less than 30, the normative strength has been 29, 22 and 28 in the last three years. Therefore, the low results were not because of non-retention at qualifying stage. The result for *Class 12 Science stream is worse for 2015 where 8 students out of 33 failed*.
- The remedial Classes are scheduled for 3.30 to 4.30 PM and this is not the best time for a student who is not strong in a subject to be interested. One reason argued by the teachers to justify this is that otherwise the student would miss out on sports. It was understood that all students do not participate in sports every day and this makes sense. But the more important issue is the following. When a student is admitted to a premier school after selection, his first priority is to pass with some distinction and take up a vocation or go on for higher education. Sports would come later, unless someone is good enough to take up sports as a vocation; and this was not the case here. Another disturbing finding was that a teacher for a

subject did not know which students were weak in other subjects. The teachers of Class 11 and 12 were not particularly aware of students with difficulties in Class 10 and below in their own subjects.

- This is not a very backward area and getting extra teachers is not as difficult as in Nandod. After the former Principal retired, a regular Principal has not been appointed by the Partner.

Shri R C Meena, the Secretary, TAD, GOG was also surprised with the decline and decided to issue instructions on the time and content of remedial Classes. The management problem such as non-appointment of a regular Principal, and if necessary, change in management structure will also be taken up by him. He has taken a number of steps to strengthen ITDAs. However, in this institution, the PA, ITDA may have been distanced from day-to-day management because this is in PPP mode. The Collector and the PA agreed to look at this more closely.



4. EMRS, Vejalpur, Panchmahal district, Gujarat

The school has Classes 6th to 12th. The student strength of this school is as follows:

Class	Boys	Girls	Total
6 th	33	25	58
7 th	33	29	62
8 th	36	29	65
9 th	23	30	53
10 th	37	27	64
11 th	8	30	38
12 th	19	0	19
Total	189	170	359

The school was started in 2007. It is an English medium residential school. First the school started in a temporary shelter with 48 students. Now the student strength is 359. The school is running in PPP mode with one Navarachana Education Trust as the partner.

- The teacher and students relationship is very good. There are 23 teachers engaged in this school. In academics, the school is showing good result. The school is doing 100% result in 10th Class (HSC) board examination. Last year the school has made 100% results for the first batch of 12th Class (HSSC) board examination in science.
- As the result table above shows, the school is coeducational.
- To evaluate the students' merit, the school organizes two terminal examinations in each academic year. Before each

terminal examination, they also conduct the unit test exam for the students. This helps the teachers to identify specific weaknesses of students and take remedial steps.

- Before the Board examinations of 10th and 12th, the teachers familiarize the students on the skill of facing the Board examination, the question pattern, ability to write the answers within the allotted time and familiarize on special types of questions like objective type questions or questions which require skills like drawing as in case of biology.
- Extra tutorial Classes are arranged for the students based on identified needs.
- For removing the language barrier of English, which the students face in Class 6, when they enter the EMRS, the teachers first speak in their local language, and then in English. Since most of the tribal students are exposed to Gujarati, they understand Gujarati and often speak a dialect of Gujarati.
- Now Career Counselling programme is also started in this school. It helps to guide the students for choosing a career and also focus on certain subjects in the School.
- The school has a functional computer laboratory with good computers.
- The school has very good laboratories in different subjects, like Physics, Chemistry and Biology with good equipment. Students are going to the laboratories as per schedule.

- Health check-up is also done in this school. Sickle Cell Anaemia test is conducted every year with the help of Health Department of GOG.
- This school is the first all-tribal school in India, to receive the British Council's "International School Award" on 19th November 2015 in Mumbai.
- The Board Results for the last four year of 10th Class (HSC) of the school are as follows:

Boys/Girls	2011-12	2012-13	2013-14	2014-15
91-100 (A-1)	0	0	0	0
81-90(A-2)	5	5	21	0
71-80 (B-1)	22	28	15	14
61-70 (B-2)	19	5	0	42
51-60 (C-1)	0	0	0	6
41-50 (C-2)	0	0	0	0
Total	46	38	36	62

Some areas which need to be improved are as follows.

- Mathematics is a problem area. This cannot be addressed if the remedial teaching is postponed to Class 10. The remedial teaching has to start from Class 6. It will be worthwhile to engage an extra teacher (on part time basis?) and have a schedule of remedial sessions. Such schedule should be in the evening and/or in the morning after an early breakfast. Perhaps a fulltime teacher may be justified. The teaching has to begin with arithmetic, because this is a weakness students

carry from Primary level. Second, other parts of Mathematics like algebra, mensuration and some parts of geometry are taught in English and this creates an unnecessary language barrier with no visible advantage. The policy makers should understand that it is more important to learn foundation level mathematics than English. The language barrier has to be addressed, and possibly removed. This can be addressed by a suitable teacher proficient in both English and Mathematics, but if this is not possible, this barrier has to be removed. I have observed that across the country, whenever the additional language barrier of English is imposed, the teachers teach in local language anyway.

- In Class 12, there is no girl student. Only the teachers can decipher the reasons.
- To improve oral English, there is need to divide the students in small groups. English should be related to the subjects where knowledge of English is necessary and not about Received Pronunciation (RP).

5. **Boys' Ashram School, Chilakalgedda, Vishakhapatnam district, Andhra Pradesh.**

- Ashram schools (AS) were started in 1950's for Classes 1 to 3 or 1 to 5 in remote tribal areas. Some of them were non-residential. Eventually the schools were upgraded depending on the demand of the students. The lower Classes, typically Classes 1 to 2 or 1 to 4 were hived off and located in the

habitation itself, often run by education departments of the state. AS thus have uneven pattern within a State and across States. This AS had Classes 3 to 10. This was under the management of ITDA. The day we visited (08/01/2016) was the day before Makar Sankranti (Pongal) holidays and attendance was 76 against 258 because most of the boys had left with their parents for the festival. The students belong to Kondadora, Bagata, Valmiki, KutiaKondh, Nukadora, and Paraja tribes. There are 14 teachers. All students stay in hostel. There is some selection at the admission stage as demand is more than the available seats. In Class 10 examinations of 2013, 2014 and 2015 the pass rate has been 100%. Some good practices which have contributed to this are the following.

- The identification of weak students is done on the basis of Class 9 examination. On this basis, remedial Classes are taken in the evening 5:30 to 6:30 PM.
- Every day one short test (3 or 4 questions) is conducted on a subject for Class 10 students. All possible questions are covered in the year. This identifies weaknesses of students on daily basis, and remedial Classes are taken.
- From 2016, daily examinations are held also for Class 9 students.
- To help the students get over the barrier of English language, a text is shared with the students who are

broken into a few groups. Each group has students with different levels of English language skill. Each group is asked to paraphrase it in English according to their understanding.

- ⇒ A detailed work plan has been drawn up at State level and adopted here. While this may appear to be micro-management from State level, this sets a benchmark. Of course, the manpower available in AS may not be able to achieve the benchmark.
- ⇒ There is a language barrier as far as the medium of teaching, Telugu, is concerned for students coming from hills. This barrier is more in case of students from Kandadora, Paraja, Kodu, Kutia and Gadaba. However, these students have working knowledge of Deshia or tribal Odia which is Odia with some words from Kandha and Gadaba tribes. Earlier the teachers had been trained in Odia language and such teachers helped in reducing the barrier. This has been discontinued.

Some areas in which improvement can be made are the following.

- Language barrier is a reality which is not sufficiently appreciated and therefore not addressed. As a result students who live in the plains and have gained some knowledge of Telugu are able to access education. People from hills and particularly girls are at a disadvantage.

- There is greater focus on pass rate in Class 10, which is partly because this is monitored. This happens at the cost of knowledge.

6. **Girls' Ashram School, Ananthagiri, Vishakhapatnam district, Andhra Pradesh.**

This is an old AS which has been upgraded and in 1979 the first batch took Board examination. Now it has Classes 3 to 10. The school is situated in the hills, but along the main road. The school had good results always. Its strength is 557 and there are 18 teachers. For Class 10, the following steps are taken.

- In 2015, the pass rate was 100%. In the previous two years, the pass rates were 98% and 96% respectively.
- A 101 day action plan has been prepared.
- There are remedial Classes from 7:30 PM to 9:30 PM and subjects are rotated.
- Exams are held in morning and evening and results displayed the next day.
- The weakness of each student is known to the teacher. Out of 64 students, 24 are weak in Physical Sciences and of them 16 are weak in Maths. Every week one extra Class for each of these subjects is taken.
- Teachers have been trained in the new syllabus.

- Though there are only few quarters for teachers, they share the accommodation and are staying in the campus.

Some areas which need attention are as follows.

- There is Telugu language barrier for students from Kodu, Paraja, Kotia, Kandadora and Gadaba tribes. No formal bilingual primer is used. Language is learnt by staying in hostel, and informally. Some teachers know some tribal languages and Odia understood by Paraja and Kotia people.
- The floors are tiled and the upkeep of school and hostel is good. But no bench/desk has been made available. This is surprising because the ITDA has enough flexibility and should have funds for this.
- There is only one physical science teacher. He is a bright teacher. However, since this is the weakest spot, the Headmaster should have the freedom to engage an extra teacher.

7. **Government College Girls' Hostel, Vishakhapatnam, AP.**

This hostel has been set up for tribal girls studying in 'general', engineering, nursing and other colleges. Ten students share a dormitory and the total strength is 200. State government bears the cost of electricity and house tax. Rest of the expenses are borne out of scholarship money which is Rs. 1050 per month. The local Government Hospital has a dedicated cell which looks after health problems of the

boarders. A well-qualified lady warden is in charge. However, there are several issues which are of concern.

- The scholarship is received once a year. This means that goods are bought on credit and paid for as and when the scholarship is received. This means higher rates and absence of choice to choose the vendor.
- When AS came up in remote areas, and the government scholarship flowing from GOI through the State, flow of funds was irregular. In such cases, ITDAs had the authority to advance money to the schools so that the children did not starve. Here, despite the presence of a strong ITDA, headed by an IAS officer, ITDA is not in the loop as far as fund problem is concerned.
- *The application for scholarship is online and only online.* This is a problematic. The scholarship papers traverse through the hostel, the college and then the State headquarters, all online, and then beyond the knowledge of the applicant. Thereafter, the student keeps his fingers crossed and is grateful as and when it reaches. Of course the credit bills have to be paid first; so the student gets enough money to go back to his home and return for the next academic session. The online application also has some special problems for tribal girls in communities where divorce and remarriage are not taboo and a student has a single parent.

- MOTA had advised that Aadhar card cannot be made compulsory for tribal students because coverage under this scheme is low for tribal areas. In fact, it had been argued by MOTA that their Secretary and Joint Secretaries had not received Aadhar cards for years. Yet, Aadhar card has been made compulsory here. There were at least 20 students who were otherwise eligible for scholarship; but did not get any because they did not have Aadhar cards. They did not have Aadhar cards because 'no one went to their place to take their photographs'. In December 2016, Aadhar cards have been made compulsory for all entrance examinations. This has resulted in only a small percentage of students to be able to apply for Joint Entrance Examination. If this is the situation for general population, the condition of tribal students can only be worse.
- *The combination of online application and Aadhar card has created a technological barrier for tribal students.* In this hostel with small capacity of 200 students, there were students from Srikakulam, Vizianagaram, Vishakhapatnam, East Godavari and West Godavari districts. Most of the boarders were from Bagata and Kondareddy tribes who are already better literate than other tribes. There was no boarder from Paraja or Kondh tribe.

4. **Bastar district, MP.**

The Bhil group of tribes is the largest in terms of numbers among the 700 plus tribes scheduled in India. Jhabua district in MP has a major concentration of Bhil tribes. One aspect of Bhil tribe is that the houses are isolated and the village is not a contiguous unit. The Govt. of Madhya Pradesh (GoMP) has started phasing out ashram schools for lower Classes. In many residential schools, Classes 1, 2, 3 have been phased out and they will continue to be phased out until Class 6. Basically no new admission takes place when students pass out from a Class; for example, when students pass from Class 1 to Class 2, there is no admission in Class 1. The argument has been that the day schools will take care of Classes 1 to 5, This argument is fallacious because of the nature of habitation of a Bhil village as stated above. There is also a language barrier which can be addressed in a residential school because in a hostel when the children comeback they speak in their local medium of instruction. On the other hand a day scholar goes back to his house and speaks in his mother tongue which does not reduce the language barrier. I visited some day schools and found that the students were absent, and a girl student in school uniform was selling carrots at a railway crossing. Intake of students in the Class next to the one which was abolished has been consistently declining. for example: Kanya Ashram Shala Talawali. I discussed this with the Commissioner, Indore and conveyed my anxiety about the

deleterious effects of phasing out residential schools at the primary level. The Commissioner agreed with my viewpoint and agreed to take up the matter with the State government.

5. Annapurna Central Kitchen:

- On 16th April, 2016 the team visited the Annapurna Central Kitchen. This kitchen is established in Government English Medium Residential School, Mundegaon, Nasik, Maharashtra. This kitchen caters to 40 schools, within distance of 3 km to 74 km. The food is kept in stainless cans and sent through covered vans. The main purpose of this kitchen is to improve the nutritional status of the tribal children and to have regular supply of high quality nutritionally balanced meals. The technical consultant is the Akshaya Patra Foundation. The capacity of the kitchen is to provide 4 meals (Breakfast, Lunch, Snacks and Dinner) daily for 20,000 students. This kitchen takes 40 to 50 minutes to prepare food for 1000 to 1500 students. Now the kitchen prepares meals for 3,356 students across 12 schools, spread over the distance of 7 kms to 70 kms, including 3 numbers of schools located in the campus. When all the schools have full capacity it will cater to 7,000 students. The kitchen atmosphere is quite healthy.
- I had visited this institute when under construction, in 2014. At that time the plan was to keep the students from Class 1 to Class 12. It has been decided that the present campus will have students from Class 1 to Class 7 only.

The students from Class 8 to Class 12 will be shifted to another campus which is currently under construction.

- The school has no play field. When I was Secretary to Govt. of India, I had advised the State government to get the land for play fields in nearby areas. However, all the land (over 100 acres) has been given for a film city. So, in 2016 I advised them to create indoor games facility like table tennis, squash, badminton and if possible lawn tennis, This will be feasible after the EMRS is moved out.

There is adequate equipment in the kitchen. The list is:

- Rice cooking cauldrons (600 liters Capacity) - 4 nos
- Dal cooking cauldrons (1200 liters Capacity) - 2 nos.
- Roti making machine (20000 pieces/Hr.) - 1 no.
- Vegetable cutting machine (500 kg./ Hr.) - 1 no
- Rice washing machine (50kg/10 minutess) - 1 no.
- Idli making machine (2500-3600 pieces/Hr.) - 2 nos.
- Wet grinding machine (40 liters) - 2 nos.
- Shallow fryer - 2nos .
- Cold room (+4 degree C) storage capacity of 3 tons vegetables.
- One lot kitchen utensils and serving containers.

It has been observed that chapatis are not being served in majority of tribal residential schools in the country because it is not practical to make 5000-15000 chapatis per meal.

Thus, chapatis were discontinued from the menu. The other healthy food, which also has gone out of the menus, is Idli. A major benefit of the mechanization is that these foods are included in the menu now. Some areas where there is scope for further improvement are the following.

- Minor millets like Ragi are produced in abundant quantities in the area. However this is not included in the menu. The inclusion of Ragi is healthy from many points of view, including controlling anemia. Some innovative food which can be made from ragi are khichdi or pongal (mixed with dal), idli (mixed with rice and dal paste/powder), halwa and upma (mixed with sooji/ semolina), boiled and served with sambar. Another advantage of minor millets is that it stays longer due to low glycemic index, and if given as afternoon snack, the children can study and play for a longer time. The school administration agreed to introduce immediately ragi from the next day.
- The movement of the vehicles carrying food should be monitored through GPS.
- Some amount of cleaning of the stainless cans and the kitchen equipment is done through chemicals like sodium alkylbenzenesulphonate. Chlorine based detergents are used for manual dishwashing activity. I suggested that hydrogen peroxide can be used because it leaves no residue which can get into the food.

- The samples of food should be collected from the distant schools in insulated cans for testing the bacterial load at delivery points. The bacteriological laboratory has not been made functional and should be made functional.

6. Model Residential School, Kaniyambetta, Wayanad district, Kerala

- The school has a wide range of sports activity suitable to their natural traits.
- The students of the school have excelled in several district and state level sport competitions.
- Kerala has high pressure on land. Yet the school has been allotted sufficient land to accommodate Class rooms, playground and hostels in a spacious layout.

Areas to be worked upon:

- Performance of girls in exclusive girls school and co-education school should be evaluated.
- Income limit for admission to the EMRS should be reviewed.
- Student in the entry Class, preferably in Class 5 of 6, to be kept in the school during first vacation or second vacation whichever is deemed fit for supplementary coaching.
- At least one art / sports / games should be taught in each school.

- Action should be taken to bridge the gap in knowledge especially in Science, Mathematics and English.
- Kitchen gardens should be set up in the school and hostels.

7. EMRS Kanjutia, Bolpur, West Bengal

- The total strength of the school is 272. In each Class 30 boys and 30 girls are taken. Class 10 examination will be held in 2015 for the first time. There are 52 students in Class 10.
- There is no vacancy of teachers. The teachers were there in full strength.
- The hostel has lot of space and the number of toilets is adequate. In fact the numbers of toilets exceed the norms fixed by MoTA.
- The teachers are aware of the strength and weakness of each student.
- They have estimated that 10 to 15 will pass in A category, 15 will pass in B category and all students will pass.
- Remedial Classes are taken up for specific students on specific subjects.
- All teachers are familiar with CCE which is being practiced.
- The campus has plenty of space.
- The hostel and Class rooms are maintained well.

On the down side:

- The tribal people in this area know Bengali and therefore there is no language barrier. Only few of them who had come from remote area had some language barrier. However English has been made the medium of instruction of EMRS. This has created a new language barrier. The teachers could not explain any advantage of teaching other subjects in English medium. This decision has been imposed by the State government.

8. Residential Girls' School, Salumber, Rajasthan.

In view of low female literacy, it has been considered desirable in some States to have separate schools for girls. The female literacy of Bhil group of tribes who live in the area is 30% (2011 Census). One positive aspect of the institutional arrangement here is that the Divisional Commissioner, Udaipur is also the Tribal Affairs Commissioner. The Commissioner has wide authority and is capable of taking and implementing decisions. Some positive aspects of the school are the following.

- The school has excellent architecture, which gives a sense of dignity to the students. The hostel has beautiful exterior, which also takes care of the safety of the students. The interior of the hostel is well designed, giving

space to the students, a little privacy so that the student can study without being disturbed and at the same time, she is not isolated.

- The teachers are aware of the strengths and weakness of each student. They knew about the subjects in which the students are going to fail. These were Science and Mathematics; but they were helpless in engaging teachers on contractual basis because of restriction of State government, which in turn, was because they led to Court cases. It was agreed that teachers may be paid on per Class basis and not for specific periods.
- The hostel has women staff and the only male staff are guards stationed outside the building. Great personal care of every student is taken by the staff.
- The food was healthy and the children were full of energy. However in the afternoon biscuits were served. I advised to serve snacks made from minor millets (*sama* known as *samai* in TN and *suani* in Odisha) and this was implemented. Most of the minor millets have disappeared from the menu of younger children and this is the cause of malnutrition among tribal people. The teachers agreed to explain this point to the students. In 2016 December I had checked this and found that this food is extremely

popular, liked by the students and this practice has been extended to other schools.

- There is good facility for sports and the participation of students in sports is enthusiastic.
- One reason of delay in construction of schools and hostels is inadequate delegation to the Commissioner coupled with the delay in getting approvals from the Secretariat. This had been taken up with the Government of Rajasthan (GOR) by MOTA and then the funds were released. In December 2016, I found that there is tardiness in release of funds again.

Chapter-3

Academic Excellence

1. Government High School, Basipitha, Mayurbhanj district, Odisha

The above school has the e-mail ID: basipithanumber1@gmail.com. Since 1997 it has 100% pass rate in High School Certificate (HSC) examination except in 2001 when it was 98%. The school is primarily residential. Since 1999, the number of students who pass in first division exceeds those who pass in other divisions. Since 2008 no one has passed in third division. In 2013, all students have passed in first division. Every year about 5 students from the school get NRTS, which is about 10% of the strength of a Class. The majority of the students belong to Santal tribe and the school is managed by Tribal Affairs department of the State. This is a matter of pride for the highly motivated teachers and students which explains 'number1' in the e-mail address.

The school started as an Ashram school in 1950 (Class 1 to 5). It was upgraded to High School in 1970. The first batch of HSC

examination (then Class 11) appeared in 1975. However, the excellence in Academic results showed from about 1994 owing largely due to some initiatives of the then Headmaster. These efforts were reinforced over the years.

Some of the steps taken to achieve academic excellence are described below:

- The teachers are aware of the strengths and weaknesses of every student. Accordingly, they are given special tutorials for subjects in which they are weak.
- In particular, after Class 9 this tutorial becomes intense. The students do not go home during summer vacation after Class 9. The teachers who teach subjects, where the students are weak, stay in the campus and also do not avail the vacation. Usually these subjects are English, Science and Mathematics. While this is the broad trend, there can be need for tutorials in other subjects and here such teachers also stay back during vacation.
- In Class 10, students do not go home in Durga Puja and Makar vacations. Makar/*Tusu* is, perhaps, the most important festival among tribal and non-tribal people of the area. This requires great determination on the part of students. This behaviour has been internalized partly by peer group pressure. Such pressure is generated through competition within a Class, and also with performance benchmarks set by previous batches.

- Every morning there is a tutorial Class before the regular Classes begin. The subjects are rotated so that the needs of students are comprehensively addressed and any particular teacher is not stressed out. At the time of my visit, I found that the post of PCM teacher has been vacant and the Headmaster, a competent teacher no doubt, is shouldering the responsibility.
- The evening is devoted to self-study by the students from 6.30 PM to 9 PM. There is some supervision by assigned teachers. This ensures that there is not too much rote learning.
- Mathematics is taught in logical format. For example, multiplication as an outcome of addition, or algebra can be understood in terms of arithmetic.
- Language barrier between Santali and Odia is not much; whatever is there is taken care of in Class 6. The weakness of arithmetic and algebra is also taken care of in Class 6.
- Class 10 students have been kept in a separate block of hostel and not with students from other Classes. This is to ensure that other students who do not have to face HSC examination do not divert Class 10 students to frivolities and entertainment.
- The hostel mess is managed by students. However Class 10 students are exempt, and more correctly not allowed, to be

part of mess management. This is again to ensure that these HSC candidates give full time to studies.

- Very Similar Tests (VST) simulating the questions, answer papers and examination are held from time to time.
- Plenty of green vegetables are grown in the campus. The quantity would be far from what is required; but it teaches the students the importance of green vegetables.

On the downside, a few issues need to be mentioned. This is not to undermine the good practices; but to point out what can go wrong in the best institutions built by some committed people over decades.

- It is inexplicable that in such a school with great track record, the post of PCM Science teacher should remain vacant. From MoTA, advisories had been issued and funds had been provided so that a Headmaster can engage teachers on daily payment basis. Such authorization has not been given to the Headmaster of this school. There is need for retrospection.
- The condition of toilets and bathrooms in the school and the hostels need serious attention. There is adequate fund for this under various programs including that released by MoTA.
- It is unfortunate that this school, which was once a co-educational school, has been reduced to a boys' school. We understand the knee-jerk reaction following some incident of violence against a girl student, compounded by excessive

publicity and without respect for privacy. Such publicity also ignores the cultural context, for example, where pregnancy before marriage is not a taboo. The advisory issued by MoTA is to convert single gender schools to co-education. Many states which had followed single gender policy for residential schools for tribal children have moved on to convert them to co-educational schools.



2. **Government Girls' High School, Thakurmunda, Mayurbhanj district, Odisha**

Government Girls' High School, Thakurmunda, Mayurbhanj district, Odisha is under the Tribal Affairs Department of the State. This is a residential school. Besides the 311 boarders, there are 61 day scholars. There are two groups of tribal students: Santal and Mundari. The school takes students from

Class 4. When the students complete Class 3 and come to this school, often they have no knowledge of Odia or any other subject which they are supposed to have learnt by Class 3. This problem has been exacerbated by the mandatory non-retention policy. A girl who does not speak at home Odia, the medium of language of teaching, has less knowledge of the language than a boy because she has less exposure to the world outside her community. This needs language teachers and the school has none. The students play football and take up trekking for which Coaches come and they also go out to participate. Yet, the results of HSC examinations (Class 10) for the last three years are:

2015: All the 58 students who appeared in HSC examination passed in first division.

2014: All the 55 students who appeared in HSC examination passed in first division.

2013: Out of 44 examinees 38 passed in first division.

Sometimes schools, which have excellent academic traditions, try to hold back students who do not do well in intra-school examinations so that the HSC results do not look bad. With the non-retention policy, this practice has been discontinued, assuming for arguments' sake, that it existed earlier. This is also reflected in the increasing trend of number of examinees.

Some of the good practices which have enabled the school to get over its disadvantages are summarized below.

- In the absence of language teachers, two teachers belonging to Santal tribe have the responsibility of familiarizing the students of Class 4 with Odia in addition to raising their level of knowledge in subjects like arithmetic. There is no teacher who knows Mundari language. Santal is the majority tribe of the district and many Mundari students know some amount of their language. The teachers take the benefit of the Mundari students' knowledge of Santali language for reducing the language barrier.
- Odisha was the lead State in preparing bi-lingual primers. More will be discussed on language barrier in another chapter. However, the primers for Santali language were not available in the school. These were obtained from the Block Education Officer and given to the two teachers. They agreed that these will help them immensely. They also agreed that this will facilitate their work.
- Every teacher has full knowledge of the strength and weakness of every student from a Class where he/she teaches. This facilitates tutorials for students.
- There is extra coaching every morning and evening anyway.
- Every prayer session in the morning includes a discussion about a person of eminence. Teachers, and more recently students, speak about such personalities.

- The multiple-choice questions which have been introduced recently require not only knowledge but skill. This is practised at different levels. The teachers are familiar with this.

A new challenge has started in 2015. Earlier the school had a policy of taking students in Class 4 with some formal/informal screening. This has been discontinued from 2015. As a result, about half of the students who have been admitted this year are extremely weak in Odia and it will hamper learning over several Classes. This needs extra efforts and manpower. Perhaps, certain tribal schools should remain schools of excellence and like EMRS should have some selection criteria.

- On the downside, it is sad that a residential school supported by MoTA, does not have decent toilets and bathrooms for some of the brightest girls. The toilets and bathrooms are badly designed which can be seen from outside. There is no water supply in the toilets. The toilets are inadequate for the boarders. We came to the conclusion that the toilets are not in use. This increases the physical insecurity of the students.
- The physical insecurity of the students is exacerbated by a hostel which is under construction. Sand with lot of clay was used here. A huge cement concrete water tower was built some years ago. The money spent for this could have easily taken care of need for water the existing toilets and bathrooms. We were not sure why more reasonable

technology was not used: for example, smaller plastic overhead tanks.

3. **Vigyan Vikas Kendra, Durg, Chhatisgarh:**

This is a very good concept which takes out girls from Left Wing Extremism (LWE) affected areas who have passed Twelfth Class in Science and enable them to study B.Sc. in a private college in Durg with full costs borne by the Government. There are a few students who are also studying M.Sc. after doing B.Sc. from their local areas. Some of the students are expected to go back to their villages and become teachers in schools so that the present problem of extreme shortage of science teachers is taken care of. However, majority of the students have the ambition to go for technical education. Besides providing an opportunity for higher education, this provides girls protection from the dangers of disturbed areas. The students are taken care of well and are happy. They are not homesick and have adapted to the hostel life. More such projects are being taken up.

4. **Colleges of Excellence (COE), Andhra Pradesh**

Andhra Pradesh Tribal Welfare Residential Junior Colleges of Excellence (also called Gurukulam) were started with three colleges for teaching and coaching in Class 11 and 12. The stated objective of the colleges is to select meritorious students after Class 10, provide them with good education in science, both Physics-Chemistry-Mathematics (PCM) and

Biology-Physics-Chemistry (BPC) streams, so that the students can compete and be selected for engineering, medicine, dental science, agriculture, biotechnology and other technical disciplines. The selection is made through an entrance test with written and oral components and *not* on the basis of results of Class 10 exams. In all the ‘colleges’ visited by us, the view was that Class 10 results do not reflect the intrinsic merit of the students – a point raised in this report under the chapter ‘Residential Schools’. A state level Society headed by the Minister in charge of TDD (also known as Gurukulam) is the Governing Body for the Schools.

Centre of Excellence (COE), Marikavalasa, Vishakhapatnam:

This was started in 2005 and the first exam at Class 12 was taken in 2007. This was among the three colleges started when the scheme was introduced. The present strength is 40 in each section of PCM and BPC, and for the two Classes total strength is 160. There are 12 teachers of whom 10 actually do academic work. This is a co-educational institution. Some of the good practices are as follows.

- The selection of students is done by a committee of teachers. The admission process is completed by June.
- Academic work begins in June.
- There is a house master for each section who notes overall academic and health status of all students in the section.

- Remedial Classes are held as often as necessary; but not as regularly as in some Ashram Schools.
- The faculty selects potential students for various technical courses around November and special coaching Classes are held.
- The Gurukulam prescribes an Action Plan for the year and this is implemented. One aspect of the Plan is when to focus on Class 12 examination and when to focus on preparations for entrance tests. Thus, from December to March, the focus is on Class 12 examination. In April and May the coaching for entrance tests is resumed.
- The Gurukulam prescribes hourly routines for working days and holidays.
- The significant achievement of the COE is the outcome. Students from the COE have won admission in MBBS in government colleges, NIT outside AP, Pharmacy, BDS, and private engineering colleges.

On the downside:

- *In a COE like this no student should fail.* But from 2008 to 2015, every year some student(s) failed in Class 12 examination. When we checked the causes of failure, we noticed two unnecessary interventions which are responsible. One was that through some misplaced logic, all COE were made English medium. At that time perhaps there was inadequate understanding of the language barrier of

Telugu, let alone a second language barrier of English. The second reason argued by the teachers was that most of the students failed in Physics; since the selection of students was made on the basis of total marks, and a student who secures zero in Physics could be admitted to the COE if he/she secured sufficient marks in other subjects, so failure in Class 12 cannot be prevented. This begged the question: if a student secures 0 in physics what is the chance that he/she will secure huge marks in Chemistry, Mathematics, Biology to get admission? This is highly improbable. The second question was: these tests have been devised by the state level Society, and why can they not have a minimum mark in each subject. If it is too complicated (or subject to abuse) to have minimum marks for the five subjects, at least a subject like Maths could be the subject for an additional baseline before selection. The highest rate of failure was in 2012, *when 23 students out of 70 failed*. This has more to do with the introduction of English as the only medium of instruction for other subjects; this was an additional language barrier in acquiring basic knowledge in subjects which did not need English as the medium of instruction.

- ➔ Veterinary Science has no unemployment problem. AP is a leading state in animal husbandry and poultry. There is plenty of job opportunity in Government and private sector and for self-employment. There is also job opportunity outside the State, as there is a shortage of veterinary doctors in the

country. However, this line of study has not been advocated or understood sufficiently by the teachers.

- While this COE is one of the better institutes, the teachers are not staying in the campus. The PA, ITDA has limited interest in the school as this is controlled by the AP Tribal Welfare Residential Educational Institutions Society, (also known as Gurukulam) headed by the Minister and located in State Headquarters.

School of Excellence, Jogimpeta, Vizianagaram district.

This School has the same objective as COE above: to enable tribal students to compete successfully for admission to technical education in high quality institutions like IIT, NIT and Government Medical colleges. The school has Classes 8 to 12. As in other schools in AP and other States, the Continuous Comprehensive Evaluation (CCE) model is followed. Some of the good features of the School are similar to those of COE.

- Between 2011 to 2015 the percentage of students getting higher grades has risen.
- Coaching for entrance tests and career counselling is held in the school itself.
- As in other Gurukulam schools, the medium of teaching is English since 2008. Students are admitted on the basis of an entrance test, with emphasis on language skill in Telugu and English. Such tests are necessary to reduce language barriers.

English is taught through multi-media, which also improves spoken English.

- Out of about 40 students who pass in Class 12, 8 to 10 go for engineering, and about 5 go for B. Pharm.
- Many students prefer to do a degree in science and then education and return to their areas as teachers. This is of significance for two reasons. Shortage and/or absenteeism of science/ mathematics teachers in remote areas are responsible for lower levels of capacity of tribal students to pursue higher technical education. For example, a child who missed out on learning basic mathematics in school is not likely to learn the fundamentals of physics or chemistry. So if local teachers are available, absenteeism will be less, language barrier will be minimized, and quality of education in primary and secondary level will be better. An Order issued under the authority of the Governor under the Fifth Schedule of the Constitution already mandates that in Scheduled areas certain jobs are reserved for people belonging to Scheduled areas only. *These practices need to be emulated in other States having similar problems.*

On the downside the following is observed.

- The teachers of Classes 11 and 12 constitute a separate cadre and do not take much interest in lower Classes.
- Students who are admitted in Class 8 are in the most disadvantaged condition owing to language barrier and the

barriers arising out of inadequate learning at lower levels and the apparent lack of relevance of the subjects. These three barriers are inter-linked and mutually reinforcing. Therefore, maximum care is necessary in Class 8. However, this is missing here, whereas in residential schools managed by ITDA, there is special care as well as remedial Classes in the first year in residential schools.

- Gurukulam has developed detailed protocols, including the days for remedial Classes for various subjects. The career of students who get admitted in technical courses after the school is also to be monitored. But the outcomes of schools vary considerably. One factor is whether teachers stay in the campus or not. Many schools have excellent buildings, and accommodation for teachers was forgotten. Often desks and benches were forgotten.
- There is inadequate appreciation of career planning for BPC stream. Examples are: Bachelor in Veterinary Science (BVSc), BSc (Nursing), paramedics, Microbiology, Biochemistry, Fishery, Dairy and Agriculture. In some of these disciplines, even if salaried job is not available, there is scope for self-employment.
- A view was expressed in many places in AP that a typical student from a rural and modest economic environment would like to earn as soon as possible to access a stable source of income. Medical degree like MBBS takes about six years, whereas engineering takes about 4 years. MBBS is not

a good enough degree for the medical practitioner and he needs a post-graduate (PG) degree. Between taking the entrance exams for PG degree and when the results come out, the time is almost three years. That makes it at least nine years from passing Class 12; most tribal boys and girls do not have the financial or social wherewithal to bear this burden. But getting doctors from forest-dwelling population is important, if their actual and visible presence has to improve. Post graduate students in government colleges get a decent scholarship; but this may not be enough to meet the expectation of the family.

- ➔ One barrier in entry to MBBS course in AP is the Classification in Class 12 examination. Traditionally, for science streams, there used to be two streams for colleges across a state: Physics-Chemistry-Mathematics (PCM) and Chemistry-Botany-Zoology (CBZ). PCM were eligible for engineering and physical sciences. CBZ went for life sciences, most important of which were MBBS and BVSc. Botany and Zoology are huge subjects and important for understanding subjects like Medicine and health care. Physics has less implication and if it is a question of how diagnostic equipment work, this need not be included in the syllabus of Class 11/ 12. There is need for Gurukulam and the larger body of Syllabus Boards to take a call on this.

5. **Girls Excellence Hostel, Jhabua district of Madhya Pradesh**

1. The Girls Excellence hostel in Jhabua district, Madhya Pradesh was established in the year 2001. This hostel caters to the children from tribes Bhil, Bhilala and Patliya. This eighty seat hostel is from the grade 9th to 12th. The result standards are 100% in 10th& 12th and 90% for 1st division. Eligibility for admission in this hostel is 1st division. On regular basis, extra coaching Classes are arranged for the students in the morning (7am to 8 am) and in evening from (5pm to 6pm). Computer Classes are also arranged for the students under extracurricular activities.

- ➔ The building architecture and quality of this hostel is very good and hygienic.
- ➔ The hostel kitchen is equipped with modern equipment like chapatti maker. The students have chapatti in their food basket. The hostel dining area is well managed.
- ➔ The Hostel warden is staying in the campus of this hostel. Affection and bonding between the warden and students was worth noting. She is quite familiar with the students and takes care of the students properly.
- ➔ If a girl student who goes to the school or college and is eve teased and complains to the warden, then she goes to the respective boy's house and takes it up. This is an example of great commitment. Of course, tribal population constitute

the majority in Jhabua town, and the dynamics of tribal communities facilitates such intervention.

- If the girl does not perform as per the prescribed norms, she is not eligible to get the hostel seat the following year. This ensures performance and competition.
- The hostel and Classroom furniture were apt and tables and bunk beds were there as per the student strength. The classrooms were spacey.
- The students have learnt to keep their toilet clean through internalization of value of cleanliness when they grow up.
- Green vegetables are included in the school menu as the prices are low.
- Active participation in traditional songs and dances.



On the downside following were observed:

- Students studying in biology streams had leveled their ambition at Nursing and similar courses. This is understandable because a medical course involves about 7 years of study and with a family dependent waiting to help the family would not want to invest that number of years. However, many girls who passed Nursing were without jobs because the State Government had not opened the existing vacancies for recruitment. There is little private medical facility in a place like Jhabua. I advised the warden and the district officials to visit adjacent places like Baroda in Gujarat where there is a great scope for employment for nurses. I explained to the students and the officials that a large number of the Bhil tribe girls from Gujarat have been employed in Gujarat itself. Later I requested the Commissioner of Indore to talk to the State government and open recruitment for the vacancies of nurses and other paramedics so that these students get employment and also medical service is available in tribal areas.
- I suggested that minor millets are included in the school menu to which they agreed.
- The hostel is located inside the town and lacked space. There is no space for outdoor games. There is some public land nearby and this can be useful for this excellent institution.

The results of the students staying in the hostel over the last five years is given below.

Annual Result 2014-15						
Class	Total	Pass	First	Second	Third	Fail
10 th	10	10	8	2	0	0
12 th	7	7	6	1	0	0
Grand Total	17	17	14	3	0	0

Annual Result 2013-14						
Class	Total	Pass	First	Second	Third	Fail
10th	14	14	11	3	0	0
12th	12	12	10	2	0	0
Grand Total	26	26	21	5	0	0

Annual Result 2012-13						
Class	Total	Pass	First	Second	Third	Fail
10th	11	11	11	0	0	0
12th	13	13	11	2	0	0
Grand Total	24	24	22	2	0	0

Annual Result 2011-12						
Class	Total	Pass	First	Second	Third	Fail
10th	12	12	11	1	0	0
12th	12	12	12	0	0	0
Grand Total	24	24	23	1	0	0

Annual Result 2010 -11						
Class	Total	Pass	First	Second	Third	Fail
10th	19	19	17	2	0	0
12th	5	5	4	1	0	0
Grand Total	24	24	21	3	0	0

Source: Girls Excellence Hostel, Jhabua district of Madhya Pradesh

SYLLABUS

In most courses, the School syllabus is designed by teachers of Colleges and Universities. When I used to visit schools, one question I asked was: 'In which subjects is any student likely to fail.' Often the response was Chemistry. Later when I attended the Foundation Day celebration of Berhampur as Chief Speaker on 2nd January 2017, I raised this issue. Some examples I gave were as follows.

- ➡ Why do we call the relationship between pressure, volume and temperature by the names of Boyle's Law and Charles' Law. How does it help a student to either remember the relationship or understand it? When there was competition between countries in Europe to compete on the growth in Science, such names were used. Today most developed countries have abandoned this extra information which does not add to knowledge. A better way to do this is have a simple equation $PV = KT$. Then the text book should go on to teach why this relationship? For example, the relationship between volume and temperature is explained like this: when

temperature rises the molecules have more energy and they move faster, as they move faster they need more space so they expand. When I explained like this in one class, the students said that they will never forget this.

- In one text book, I saw that glass is described as a liquid. Such classification may be of value in solid state physics; but why confuse a school student? If he has understood three states of matter solid, liquid and gas and their broad properties, is that not enough? In fact, the teachers too could not explain. I comforted them by saying that this information is of no use in school education.
- In several text books I saw the theories of Linus Pauling on atomic and molecular structure. Once the atomic structure is understood, what is the use of this for a school student? It would help if, for example, a student is taught why Na^+ is stronger ion than K^+ . I would not use the term electro-motive force. I explained like this. Sodium and potassium ion each has a charge of +1. But sodium is smaller and so the positive charge at its nucleus is closer. Besides, potassium has an extra layer of negative electrons, which reduces its force.
- In one school, when a student said that he will fail in chemistry, I asked to give an example of what he does not understand. He replied: 'hydrogen bonding'. I was not surprised that he did not understand; I was surprised that such a subject was taught before atomic and molecular structure had been learnt. Anyway I drew a large circle

representing O^- and two small circles representing H^+ . Then I drew a few more molecules. I explained like this: look at this little hydrogen, how lonely it feels. So it makes friends with another large oxygen atom. The whole class broke into a grateful smile.

It is time that school teachers are involved in syllabus content and design. It is also time that college and university teachers do not push down to schools subjects that they wish to discard; they should simply discard such subjects.

Chapter-4

Vocational Education

1. VanabandhuKalyanYojana (VKY), a comprehensive program for empowerment and development of tribal people of Gujarat was started in 2008. One part of this broad scheme was vocational training of tribal youth with meaningful employment.

Government of Gujarat (GoG) started vocational education through partnership with private sector partners (PSP) in 2008 with a certain protocol. These standards were set up to address some known shortcomings that were common across the country: inadequate skilling, skills that do not give employment, persons hopping from one vocational training to another only for the stipend, absence of help after training was over and absence of commitment for employment after training. Tribal students, particularly from remote areas had the additional problem of living and working in a different environ. The aspects of the protocol are given below.

A PSP, in order to be eligible to apply:

- Should run at least one full-time skill training centre with minimum quality prescribed by State or
- Should be a production/ manufacturing house in the related sector or
- Should be a financially sound company with proven corporate social responsibility.

For the project a Society is constituted under a Trust Act or Societies Registration Act, 1860. This is also called a Vocational Training Center (VTC). GoG provides up to ten acres of land and 75% of capital cost. There is no upper limit for project cost. Recurring costs are funded fully by GoG for ST students. The PSP will bear 25% of capital cost, develop the curriculum from time to time and run the Society. Some of the protocols which address the deficiencies of other vocational trainings are:

- After the project is started, the land will remain with GoG for the first five years. After successful completion the land can be transferred to the PSP; but if the parameters and outcomes are not achieved, the land and other assets will revert back to the GoG. This is an effective instrument in the hands of the
- State to ensure that the PSP has sufficient incentive to achieve the agreed parameters and outcomes.
- At least 75% of the trained persons should have placement and this is the responsibility of the PSP.

- The training facility is to be primarily residential. There should be at least 500 residential trainees annually. Residential training ensures that the persons attend training. It gives a sense of comfort to the trainees. It reduces bogus training as verification becomes easier.
- The PSP will monitor (handhold) the persons after placement for a year.
- The PSP can use the Society facilities for training its own requirement of personnel. While this gives a training facility for the PSP, they provide employment to tribal trainees who are taken.
- Disbursement of payment to PSP is made in instalments after monitoring outcomes.
- The ITDAs have been strengthened through a series of administrative decisions. This has helped in monitoring.

A number of these measures are of the nature of control. These provisions can be abused. But my finding is that they have not been abused. Anyway, all well-intended measures can be undone with change of personnel.

2. All Gujarat Institute of Driving, Technical Training and Research Institute (AGIDTTR)

AGIDTTR, village: Gajadhara, taluk:Waghodiya, in Vadodara district is one such venture. Here, the PSP is Maruti Suzuki India Ltd (MSIL). This was started in 2009. MSIL had already established training schools for driving in Delhi, Haryana and Uttarakhand. It



also runs drivers' training programs at 340 centres through its dealers. MSIL is a leader in the small cars sector. It was eligible in more than one way as PSP.

The Institute is managed by a Society registered under the Societies Registration Act, 1860. The Society has a governing body headed by MD, MSIL and includes two officers of GoG. A Deputy Director deputed from MSIL is functioning full time as head of the Institute. Other employees are engaged by the Society.

The entire capital cost was borne by GoG.

- The target was to train 26000 boys and girls over 10 years. During the first five years, 7328 had been trained and 5620 had been placed in salaried jobs. Thus it had satisfied the outcome conditions for training and placement.

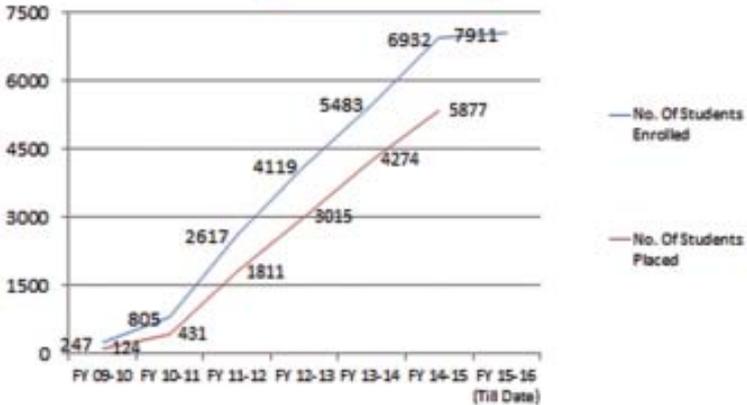
- Everyone who passes from the Institute is offered a placement. The ones who were not employed were those who went on for further studies or for their own ventures. The minimum starting salary is Rs 8000 per month and free hostel accommodation from the employer is common. Most of the employers are private sector companies.
- There is hand-holding of the trainees for a year and even longer. Most of the grievances relate to requests for change of employer. This request is generally accepted because employers are happy with the trainees of the Institute.
- The curriculum includes not only theory and practice of driving, but also personality development, learning of Hindi and English and good manners. These aspects of training make the trainees more acceptable in organized sector.
- Two car and one truck Simulators are used for training in addition to actual driving. This gives confidence to new drivers. This also helps in learning the practice of theory.
- The Institute also ensures that passed out trainees get their driving licenses (DL).
- Many trainees already know driving and some have driving licenses. Those who come for training for heavy vehicles and fork-lifting equipment already have a DL for light motor vehicles. After all 45 days is not long enough to perfect the skill of driving. Those who already know some driving acquire skills relating to theory, maintenance, Rules and Regulations and road etiquett.



ALL GUJARAT INSTITUTE OF DRIVING,
TECHNICAL TRAINING & RESEARCH
(MANAGED BY **MARUTI** **SUZUKI** INDIA LTD.)



Placement Trend



The following are some outstanding issues as perceived by us:

- The project had envisaged training of both boys and girls. Women drivers have a niche demand in view of the need for security of women. The Secretary, TAD, GoG has decided to start a batch of training for tribal girls soon. At present, most of the applicants for the Institute have come through word of mouth, though there is a protocol for marketing for the Course in tribal pockets. Getting women trainees will need some extra efforts.
- As already observed, 45 day duration cannot impart a functional level of driving. The Institute is contributing in many ways to develop other aspects of skill and personality to make the trainees acceptable to organized sector. As I gathered from some participants, trainees who come with

some knowledge/ practice of driving have an advantage in getting jobs and getting career advantages.

3. Sewa Rural Mission

Sewa Rural Mission, Jhagadia, Bharuch district, Gujarat was started in 1980 for providing healthcare to the under-privileged. In 1987 they started a training course in one trade: fitter. This was financed by contributions, primarily from industries. The objective was to provide skill to tribal and rural people to create employment opportunity as well as character building. On the other side, industries located nearby were in need of skilled and earnest young workers. In 1990, it received the first grant from a government agency, namely CAPART. The Courses taken up were automobile repairing, mason, gardening – basically activities which can be taken up in a village. However, these trades had little scope for salaried employment and were discontinued. Between 2002 to 2004, they received grant from MoTA. Some activities like electrical service centre (where tribal students learnt the skill and repaired electrical equipment) are continuing. This support opened an avenue for expanding the trades.

From 2009, they became a partner with DTA of GoG under VKY. With this support, they run six trades: turner, environment-cum-chemical plant operation, machining, welding, electrician-cum-motor rewinding and printing. Besides they have a six month duration course for computer. They received Rs 5 crore capital grant which was spent on modernizing equipment, building and hostel facility. They receive Rs 50,000 recurring grant per student

per year from VKY. Some positive aspects of the training are as follows.

- The selection process is innovative. The students are shortlisted through interview and the shortlisted candidates stay in the campus for three days when an aptitude test is conducted by all members of the faculty. In this process, a suitable trade is also chosen for a trainee. There is a positive discrimination for the poor.
- The training is structured. Out of one year, 7 months are spent for in-campus training. 25% of the time is spent for professional knowledge and 75% for skill training and hands-on experience. 3 months are spent on project work and 2 months on attachment to an industry. This period is long enough to impart sufficient skill to start working on the shop-floor.
- The training is residential. This gives more time for education. This imparts a sense of discipline on the students which trains them to be able to work in the organized sector. A character building component is included in the course and this is possible only if the training is residential. Residential training also minimizes drop-out rate.
- Reading engineering drawings has been added to all the courses which enhances the skill and employability of the students.
- Every month, there is a meeting with industries, where the PA, ITDA is also present.

- All successful trainees get a placement offer. After placement, there is hand-holding for a year. The major issues which come during this period are: lack of accommodation in some industries, adjusting to the factory and urban environ, and request for change of employer. The faculty in charge of placement is also in charge of hand-holding. About 75% of the students are working in their trade related fields including 8% of students who have set up their own units according to the survey of 2010¹. The main reasons of drop-out, according to the survey of 2015 are: household chores including cooking, pollution of every form, and absence of accommodation close to the workplace.
- The starting salary is Rs 250 to Rs 300 per day. Chemical trade gets better salary; there are many chemical industries in the area.
- Such vocational training centres in industrial areas are more effective because of synergy between industry and training centers.

There are some areas where attention is required. The officials and the institution agreed that these are areas which have to be looked into.

- The workshops inside the institution do not follow many safety norms. Like other work cultures included in the curriculum, safety should also be included. In fact, safety

¹ All surveys are by Sarvangi Vikas, Ahmedabad, an NGO.

should be way up in the priority list. However, here there is considerable complacency about safety. Machines, electrical equipment are placed around without a kind of red line, or mechanical barrier around say, rotating parts of a machine. The protective eye-wear does not appear to be enough for welders. The trainees should be wearing protective uniform in the shop floor. It was agreed that a safety audit will be conducted for the institution by a team drawn from industry, including their safety department officials. The recommended measures could be funded by the ITDA/ VKY.

- The large number of chemical industries has created demand for chemical course pass-outs, and also created sufficient pollution for the course on pollution control. However, combination of these two subjects has diluted the skill level in each of them. Therefore, there is a case for separate courses on (a) Environment and pollution control and (b) Chemical Plant Operation. The infrastructure for this can be supported by VKY.
- Absence of suitable accommodation seems to be the major reason of people who leave the jobs and then lose the skill. This should be taken up in the monthly meetings with the industries. The employers should attend to this not because of charity, but because high turnover of fresh employees has a cost implication – not only the cost of recruitment and training – more than that the unenviable reputation of being a bad employer.

4. AMRID (Ambedkar Memorial Rural Institute For Development)

Ambedkar Memorial Rural Institute for Development, Kalpetta in Wayanad district of Kerala was started in 1990. It is a charitable organisation contributing towards the educational needs and employment opportunities of students of Wayanad district, especially of scheduled castes and scheduled tribes. The institute, registered under the Societies Act, started functioning in July 1990 at Puliarmala, Kalpetta. In 1998 it shifted its headquarters to Muttill village on the Kalpetta - Sulthan Bathery Road. AMRID is engaged in several social and educational activities.

The major activities of the institute include running many training and production centres which help the ST youth of the area attain better job prospects. It runs a printing press where the prospective job seekers are trained and a training-cum-production centre of handicraft works in coffee stump and coconut shell etc. The handicrafts made here are sold across India.

A typewriting institute, tailoring institute, book binding, printing, plastic welding unit etc. too are run by AMRID. The institute provides training in three-wheeler driving and various computer courses. The Tribal Development Department, District Industries Centre, District Panchayat and other government departments contribute funds towards running various programmes under the institute. The institute provides training for Public Service Commission (PSC). The course duration is for 60 days. Approximately 78% of the students are recruited in the

government sector. So far, 400 students have been trained by the institute.

- This training centre has structured environment for in-house employment opportunities. This has been done through the directives of the Collector and the State government. The Collector has notified this institute as supplier of several products required by government institutions and which are produced under the training-cum-production activity of the institute. The advantage of this procurement system is that the procuring government institution does not have to go for tender. The advantage for the institute is that it does not have to depend on State budget for recurring expense. For example: training for tailoring and book binding is imparted to tribal youth, but is paid for the number of school uniform stitched and the number of exercise books supplied to schools. This may be frowned upon by outsiders as a system where the government is the sole buyer anyway. Kerala has only 1.5% tribal population. A State known for its high human development indices (a process which started under benevolent rulers like the king of Travancore), has tribes like Paniyan and Kattunayakan living in Wayanad district with extremely low HDI. The fact that the State government has reserved certain procurements for a training-cum-production center for tribal youth is to be viewed as positive discrimination arising out of courage of conviction and not political consideration.

- During the training the stipend is about Rs. 2,500 per month. It is a non-residential training institute and the stipend amount is sufficient to support their training tenure.
- The training for Government jobs also included recruitment for central paramilitary forces (CPMF). One coaching Class which I saw was on English language and it was quite professional.
- The driving training span is 7months followed by issue of driving license.

There are some areas where attention is required. The officials and the institution were advised and they agreed that these are areas which have to be looked into.

- Because of the existing assurance of employment from government agencies through contracts as stated above, there is not much effort to look for placements in the private sector. In the long term, orders from government institutions will have limited potential. On the other hand Wayanad is a prospering and growing district and tourism is the sector with huge employment potentiality. The Institute was advised to have a regular placement cell with monitoring for each student. They were also advised to visit Gujarat to see their model of placement.
- The ability to speak English is imperative for people working in organised sectors like public sector banks, hospitality and transport industry. However, since spoken English is not a

compulsory subject for Kerala PSC examinations, many students do not opt for this. The course component on spoken English should be made compulsory for every student.

- Same monitoring procedure should apply for students for Public Service Commission training as well.
- The level of education and employment among different tribes in Kerala is wide. A community like Paniyan is way below in terms of literacy and employment compared with tribes like Kurumban and Kurichiyar. Therefore there should be a system of positive discrimination in such vocational trainings in favour of tribes like Paniyan and Kattunayakan.

5. **Police and Military Pre- Recruitment Training Centre, Nashik, Maharashtra**

This is one of the nine centres of Maharashtra functioning from 1989. Good practices observed were:

- 3 batches are trained in a year with a capacity of 100 students in each batch. One-third of seats are reserved for women.
- The training facility includes gym, parade grounds and computer lab.
- The students are given free food, accommodation and other necessities.
- So far, 3706 students have been trained and of them 1693 have been selected which comes to 45%.

- Subjects taught are Maths, General Knowledge and Marathi besides physical training.

The downside was:

- The teaching faculty is inadequate. The Principal of the centre was absent and only an ex-service man from Army Supply Corps was present.
- The trainees were sitting idle.
- The recruitment for army and Central forces is extremely low. Bulk of the candidates have joined the State police.
- This is happening because the physical education is inadequate. I suggested to the Commissioner TAD to engage ex-servicemen from Infantry and Army Education Corps. Besides, teaching of Hindi and English should be included.
- The Centre was also used to provide training in driving and computer. These have been discontinued.

6. Government Industrial Training Institute, Nashik, Maharashtra

- The tribal population of Maharashtra is 9.35% of the total population. The reservation for ST in ITI Nashik is 22%. This is a positive discrimination.
- Since there are large numbers of industries in the district, every student who passes out gets apprenticeship. In fact, the position of apprenticeship available in Nasik district is 5000, against about 2000 who seek apprenticeship after passing out.

- In the workshop it was found that the tribal students including girls were extremely good in trades like fitter, turner, machinists, electrical, mechatronics, welder and motor mechanics. This is partly because of the natural trait of the tribal including women who make their own equipment for agriculture, archery, fishery and animal husbandry.
- Almost all tribal students get continuous employment in the places where they do apprenticeship or other industries because of higher levels of skill and discipline.

However the following problems need to be looked at:

- The pass rate for general student in Maths is 70% and for tribal students is 50%. As Maths appears to be a theoretical subject, at least the way it is taught, at the end this interesting subject is reduced to rote learning. Owing to lower levels of learning in Maths and Science in lower Classes, the tribal students are at a disadvantage in the ITI. This is considerably compensated by their natural trait that gives them excellence in all trades that require finger skills. The demand for such practical efficiency is more among the industrial environ. That is one reason why industries prefer tribal students irrespective of the marks secured.
- While extra coaching is given for Mathematics for all students, in view of basic weakness in Maths in schools it is difficult to improve this at a later stage.

7. Vocational Education in Primary and Related Sectors:

The above examples of vocational education are the typical images of vocational education : electricians, fitters, machinists, computer operators, mechatronics, welders, drivers, automobile mechanics, chemical plant operators, laboratory technicians, plumbers, pollution management technicians and so on. These are feasible if there are industries and services which employ people. This is part of the reason why the above cases show positive results. But many industries like steel and power plants, mining and large infrastructure, which come up in forest areas, have no employment for the local forest dwellers. One major entity in this category has raised its turnover by 10 times in the last ten years, has most of its resources from areas inhabited by forest dwellers (including in some of the poorest States) and has reduced the total employee strength to half². These are case studies which are lauded and applauded in leading business schools, who forget that they could be part of the 50% who have lost jobs. The fact that the capital intensive technology is reducing employments has been denied, accepted, denied again and accepted again in academic circles. However, none of these findings have made any difference for the technology policy in the world. In the tribal context, what can be done through education is the limited interest in this paper.

²Bhaduri, Amit, *Development by Dispossession*, SRSC Public Lecturer Series, National Institute of Rural Development, Hyderabad.

Let us take the dairy sector. In India, government intervention in dairy sector has usually started with purchase of cross-bred animals at high price, subsidize the cost heavily and hand it over to a very small farmer. If this new owner was familiar with a cow which gave less than a litre of milk a day, now the farmer had a cow which gives at least 10 litres of milk per day. This should have been a good narrative of financial empowerment. However, there are many unresolved issues in this narrative. A farmer or his wife or a cowherd from the village accustomed to milk half a litre of milk cannot milk 10 litres straightaway. He has to be trained. The cow has to be fed better. It has to be kept in cleaner environment. Since it has come from a different environment, the new environment may not suit her, and she needs better care and health care. The cow would have come from a better farmer and the new owner may not even own enough land near his house to construct a proper cowshed. And all this will need money. The money will have to come from sale of milk. Every farmer cannot take this milk to the market every day as the cost of selling would be loss of wage for the day and due to the cost of staying and eating in the market place every day. When milk cannot be sold, or when the trader does not pay promptly, the cow cannot be fed properly. Within a fortnight or so, the milk yield goes down and the cow is sold at a low price or abandoned. Everyone loses: the original owner who sold an income-yielding asset, the cow, the buyer who bought the cow and is now burdened with a loan that he cannot repay, the Bank and the government who lose money, and the Nation because the total milk yield goes down.

On the other hand, dairy sector can give a series of benefits and vocations if implemented through the cooperative model. No cow is purchased. The farmers are trained to take better care of cows that they have through cleaner environment, some basic health care like washing hands with soap before milking to prevent mastitis, deworming of animals, vaccination of animals against common epidemics, better feed through fodder cultivation and supplements like mineral mixtures. The additional milk produced is purchased by the cooperative and the overhead of marketing is borne out of economy of scale and dairy promotion schemes of the government and milk cooperatives. When the cow is healthy, artificial insemination is done to produce a cross-bred female calf, which would yield milk after 3 to 4 years. Since such a cross-bred animal is a progeny of a local cow, and is born and reared locally, it has acquired immunity and health care expenses of the animal will be low. Over these four years or so, the local farmer has acquired skill in several areas: milking, fodder cultivation, clean habitat for the animal, knowledge on supplementary feed, knowledge on milk quality, calf rearing and health care of the cow and the calf. As milk collection goes up, low-cost chilling units (Bulk Milk Coolers BMC) are set up in the village; this requires regular electricity which is often supplied because the milk cooperative pays regularly. When the villagers have regular cash income, they get proper electricity connection. Insulated tankers come to collect chilled milk. This spawns a range of vocations: electricians, drivers, automobile repair, refrigeration, fitter, mechanics and so on. Since dairy is primarily an activity of

women, when the earnings reach the women, this is more likely to be spent on food, education, health, clothes and houses. In a scenario of low employment industries, employment for the vocationally educated will come from the primary sector. The dairy sector has been narrated in some detail because even in 2014, when dairy activity was flagged by MOTA, many States who came up with proposals began with supply of cows with freshly born calves with subsidy.

Similar vocational education can be encouraged in sectors like poultry, fishery, horticulture, food processing at village level, and processing of minor forest produce. In each case there will be need to move on to a higher level of value. In poultry, from simple rearing of chicks, there is need to promote hatcheries. In case of fishery, one has to go back to fish seed production, hatchery, spawn production and fingerling production. In case of horticulture, a simple and extremely valuable practice like grafting which was common 40 years ago has disappeared from the villages. People have even forgotten why grafting was done. I am not answering that question here, and hope that people who go through this paper will look for the answer.

8. Other Vocational Education

Another aspect of vocational education relates to the innate abilities of forest dwellers in various skills which can become vocations. Painting is an example. Paintings in Indian culture were largely sacred, had been done on walls, converted to sculptures, and in Hindu houses wiped out with cow dung water after the

ceremony was over. Every tribal painting represented a sacred ritual. In view of institutions like TRI, a few painting traditions were transferred to other mediums like paper, cloth, wood and were marketed. The TRI Bhubaneswar continues to promote this activity at its workshop. When a visitor comes and finds a man or woman actually doing a piece of art, he is inspired to buy a piece of painting. There is no aggressive marketing; in fact there is no marketing. This gives a good feeling to the visitors.

The visible production of such arts gives immediate income to the artist. In some form or other it preserves traditional knowledge. Preservation of such knowledge is important not only for the glorious history of mankind; it is also relevant for protection of mankind as cited in the last Chapter.

In 2015, we had held a festival called Vanaj to demonstrate painting traditions from across the country where painters and sculptors came and demonstrated their art, sold them and went with a feeling that their art was respected. There are only about a dozen painting traditions of tribes which are marketed: Pithora, Warli, one group of Gond paintings from MP, one group of Bhil painting from Gujarat, and Lanjia Saura from Odisha. In 2015 Vanaj festival, many less marketed painting traditions were brought to the fore. This tradition was discontinued by MOTA. However, some States like Odisha, Rajasthan, Maharashtra, Manipur, Kerala and Gujarat are continuing with this live art-cum-sale tradition.

There are other traditions which can be marketed. One is food. Biryani cooked in bamboo did extremely well in the food festival

of Delhi. Someone asked why this is marketed as tribal food. I explained: 'Mongolia does not have Biryani. This was a tribal cuisine which was adopted and branded as Mughlai.' This has been successfully done in Maharashtra as a part of eco-tourism.



Chapter-5

Institutional Arrangements

1. When the necessity for a separate administrative entity for tribal population was conceived in 1950s, the rationale was the remoteness. Remoteness results in poor delivery of public goods and services. One reason is absenteeism of people in charge of delivery of such goods and services which is also related to poor supervision. The Integrated Tribal Development Agency / Project (ITDA/ ITDP) was conceived for areas with large tribal population and primarily areas covered by the Fifth Schedule of the Constitution. A concept of Tribal Sub-Plan (TSP) areas was introduced to take care of such areas. Each TSP area was to have an ITDA. However, over the years the ITDAs became weak or defunct as the grants from GOI stagnated and declined in real terms, and the tribal component of Plan schemes became a mere arithmetic exercise when the expenditure shown against TSP was not targeted for tribal people or areas where tribal people lived. At the same time the expenditure under Rural Development Ministry increased and most of this fund was routed through

District Rural Development Agency (DRDA). Thus DRDA became far more important.

2. **Andhra Pradesh**

Andhra Pradesh is among the States which had and have strong ITDAs. It was almost mandatory for young IAS officers to be posted as Project Officers of ITDAs after their posting as SDO was over. The tribal people (excluding Lambardi who were included as ST later) lived in hills and remote areas, had multiple language barriers, and these areas were under heavy presence of left-wing extremism (LWE). The PO was not a mere distributor of funds; he was the controlling officer of all officials in charge of development, welfare and social sectors. The headquarters of ITDA is inside the area where tribal people live, which is away from the district headquarters. These administrative structures ensured that AS functioned, did not suffer from crises like delay in receipt of grants which would mean no food for the students, and there was some accommodation for all the teachers. This has resulted in availability of free education in secure environment across the tribes, though conscious effort to reduce language barriers, through bi-lingual primers, was not done.

As detailed in the Chapter on *Academic Excellence*, the schools run by Gurukulam were not sensitive to the ground reality. An additional language barrier has been created by making English the only medium of language. This has also created *inter se* discrimination among tribal students: those living in plains and

those having higher level of literacy have an advantage over low literacy groups in accessing competitive advantage for higher education. Absence of teachers in the campus has reduced school academic standards. The PO, ITDA has limited role in these schools. Another example of inefficiency due to absence of local control is the Government Tribal College Girls' Hostel, Vishakhapatnam where scholarship comes late, students have to buy raw materials for food on credit from pre-arranged suppliers, and at higher rate.

3. Karnataka: Karnataka Residential Educational Institutional Society (KREIS)

KREIS is a society at State level in Karnataka. They look after certain residential schools, which as in case of Gurukulam of AP, are centres of excellence. The quality of the buildings is excellent. Furniture, where available, is of excellent quality. The local TD officials do not even visit these schools. The Society is headed by the Minister in charge of TAD. In November 2014, I had visited some schools, when I was the Secretary, MOTA.

At Bhuvanahalli Girls School, academic results were excellent. The teachers have set a target for not only 100% pass but also the number of students who will pass with distinction and first division. This commitment is trustworthy. Unfortunately, although the school has been in existence for six years, desks and benches have not been supplied for the Classrooms and beds have not been supplied for the hostels. The warden is a male

person and this is not acceptable. An ANM or a lady teacher should be appointed as warden for each girls' school hostel. No library books are available, and they must be supplied. Although there is a computer teacher, computer has not been supplied.

Sri MorarjiDesi Residential School (ST) School, Hiriyur district, Karnataka

In 2014, three students who could not clear the exam passed in subsequent examination. No one should fail in a school where students are selected on merit basis. While the passed rate has improved over the years, the numbers who have secured distinction and first division has not improved. However, there are many worrying things about the school. Male wardens have been posted in girl's hostel here. Male wardens are posted despite the advisory of MOTA that female wardens should be in charge of girls' hostels. The ANM or a lady teacher can also be warden, and if necessary additional honorarium may be paid for this purpose. Laboratory buildings are available but not equipment. Equipment / materials have not been supplied. IFA tablets administration was not streamlined as per MOTA advisory. There are vacancies against the existing strength which is for 250 students. Given the existing capacity in Class rooms and hostels, this strength can be increased beyond 250. One option is to have higher intake at admission stage to take care of students who drop out.

The supply of equipment and engagements of wardens are done by KREIS. In course of discussion on this it appears that the Chief Executive does not have sufficient delegated powers and this has resulted in dislocation. Even salary of teachers and staff had not been disbursed for nine months and was done after nine months. If the rationale behind creation of the Society was financial flexibility, this has not happened. It is more important to use the existing infrastructure rather than creating more schools and hostels. A system has to be built that will ensure that this kind of dislocation, such as not providing desks and benches to students, does not happen. The District tribal affairs officers are out of loop in running the school. This cannot be allowed to happen. The male wardens should be replaced by female wardens. Brick and cement cots is an option which may be explored. Financial and administration powers should be delegated to the Principal of the school for food, maintenance and medical expenses. One positive thing is use of coarse millet (ragi) in the school meals programme. The Director (Tribal Welfare) should have more active role in management of schools instead of merely releasing grants. Computers should be supplied to the schools. Before the construction of a new school is taken up, existing schools should be fully utilized to full capacity. School buildings have been constructed with shining floors, without basic furniture and without building up a system of control and supervision, without sufficient students and without a mechanism of smooth flow of funds. Some teachers observed that after building the schools

and hostels, the Society has forgotten the school and the students. Despite such disappointment, the motivation level in all the schools I visited was high, among teachers and students.

4. **Jharkhand**

The ITDAs have been constituted recently, but as of now consist of only one officer of the rank of Additional District Magistrate with no supporting staff or budget. In some places, the Collectors have deputed some clerical staff. There is no engineer nor any human resources support in socio-economic sectors. The weakness of the ITDA is also characterized by the creation of parallel bodies like a State level society which had been created for IFAD project namely JTDS. The JTDS has spawned parallel bodies with various acronyms and did not use panchayats or their sub-committees. The schools and hospitals created out of TSP funds have been leased out to private agencies for management. The absence of institutions has several problems. The leasing out to the private agencies does not have flexibility because when the contracts were proposed to be changed, court orders have been obtained, and the same agencies continue to run these projects. The State cannot abdicate its responsibility in a matter like tribal development. Most of the partners are from outside the State and this has resulted in not developing local skills. The maintenance of buildings is poor, and in many cases there has been no expenditure on maintenance at all for several years. There are no worthwhile laboratories. The targeted population

has not been able to rise beyond the basic services like mediocre school education. The officials of ITDA and before them the Collector and his staff did not appear to have any role in the management of the schools.

Another fallout of this has been that students go out of the State for every kind of education including nursing, hospitality management and ITIs. There is no gainsaying in the fact that students go out in large numbers for education in Medicine, Engineering and Management. The vocational institutions at below bachelor level and institutions like medical and engineering colleges should have come up inside the State. Such institutions would have had cascading effects on skill development and employment. For example, a medical college would create jobs at lower ends like pharmacy, nursing, laboratory technician, medical equipment maintenance, drivers, several other paramedics.

Another issue is that the annual expenditure on Post-Matric scholarship comes to about Rs. 100 crores and the State has little scope to examine whether the institutions to which the students go are the best and in some cases, whether they are even genuine. Cases had been reported to MOTA that after a student joined an institution and the scholarship had been sanctioned, he left the institution and the scholarship was appropriated by the institution. Direct Benefit Transfer (DBT) is not a solution because the money would go to the individual though he will not be

availing any education. It would be difficult for the State government to verify such cases when their administrative set up is unable to supervise the few schools running in the State.

The above observations are based on my visit to EMRS, Salagadi in October 2014 and other places in Jharkhand and discussions with several stakeholders. These observations had been communicated to the State government. Meanwhile, a new government has come and there must have been reforms. The whole purpose of bringing these facts on record in this report on 'good practices' is to show what can go wrong in the absence of institutional framework and not to find fault. Jharkhand has 26% tribal population and the percentage of tribal population has *increased* after it became a separate State. The fact that a large number of students from Jharkhand are studying in Bhubaneswar, Rajasthan and Delhi in excellent institutions is a testimony to the innate ability of the people to get over the adversity.

5. **Gujarat**

The model of Society of Gujarat is much better. This has been described under the Chapter Residential Schools. The Society is headed by the Chief Secretary. The Secretary TAD has sufficient delegated powers. The PO, ITDA has sufficient delegated powers and has untied funds. This is an excellent model.

6. Odisha

Odisha had built excellent institutions to take care of various needs. It has 62 scheduled tribes. Another 10 are waiting to be scheduled who had been left out through historical injustice. An obvious case of such injustice is Chuktia Bhunjia which is recognized as a primitive tribe by GOI (now renamed as Particularly Vulnerable Tribal Group - PVTG), but not as Scheduled Tribe. This happened because the place where they live is in a remote area, had been under the Commissioner sitting in Shillong, Meghalaya and the Committee of the Constituent Assembly forgot to include it. It is also possible that the Committee thought that Bhunjia, recognized as ST, should include them; but did not.¹ The 72 tribes of Odisha is the largest number among the States of the country. The tribal population of Odisha is 9.2% of total tribal population of the country. But the largest number of tribes required special institutions. There was another historical problem. Odisha which had Odia language as the main channel of communication had been divided into four parts during colonial rule. The Southern part had been under Madras Presidency, the Western part had been under Central Provinces, the areas under local kings in Western part under Sambalpur Division were controlled by the Chief Commissioner of Shillong and rest of

¹*Report of the Task Force on Scheduling of Tribes and Matters related thereto*, Chairperson Dr Hrusikesh Panda, 2014, Ministry of Tribal Affairs. Unpublished, but presented in the Parliament.

Odisha was first under Bengal Governor and then under Bihar. As a result, the representatives of these tribal people who had to communicate with outsiders had to learn different languages: Odia and Telugu in South, Hindi and Chhatisgarhi in West and Odia, Bengali and Hindi in North/ Coastal area. The sheer number of tribes already posed an enormous language barrier; the above situation exacerbated the language barrier.

This led the administration and academia to establish a few institutions. The TRI of Odisha is among the first to be functional in the country and continues to be one of the best in the country. However, the burden of documenting tribal languages, preparing authentic bilingual dictionaries, and preparation of functional primers was an academic exercise and this was taken over by the Tribal Language and Culture Academy. The primary education section of Education Department took up the responsibility of preparation of bilingual primers for use in schools. For isolated small populations of tribes with special needs and barriers arising out of remoteness, tribe-specific Development Agencies were created. These Agencies were located in remote areas, in the midst of the habitation. In addition to health and livelihood, education was a priority area. They had flexible financial powers and untied funds. Only committed officers worked there, and there are several cases where officers *chose* to go there. This may not be happening much today. However, this model of tribe-specific Development Agencies was funded by MOTA during 2014 and 2015.

The ITDA in Odisha was not as robust as in AP. However, the PA, ITDA was an officer next to the Collector, of the same rank as ADM. He had reasonable number of engineers to take care of schools, roads & bridges, and small irrigation works. But, they had untied funds and worked with other departments at the district level. For reasons I could not comprehend, the position of PA ITDA has been downgraded. First, the grades of ADM and PD, DRDA were raised and PA ITDA remained at a lower level. Now, it is further downgraded. The only lesson I can carry from this is: any institution created with commitment and hands-on knowledge of ground reality can be destroyed with no apparent rationale. The motive of the people who destroy such institutions is also not apparent.

Chapter-6

Peoples' Initiative

1. Sarangi Gram Panchayat, Jhabua district, Madhya Pradesh

Jhabua district has 87% of tribal population and their literacy rates are 37% for total population, 47% for male and 28% for female. (as per 2011 census) This is lower than the literacy rates of the Schedule Tribes of Madhya Pradesh which is 51%. The Ministry of Panchayati Raj with the support of UN Women had taken up an initiative in the year 2011 to empower women through special gram sabhas consisting of women only to take up issues such as education, health, livelihood, drinking water and sanitation. Jhabua district was covered under this programme. The rationale behind having special mahila sabhas was that in normal gram sabha meetings the subject that were taken out related to roads and contracts and the above issues were not taken up. Under part IX of the Constitution, education is one of the subjects to be handled by the panchayats. However, because of the above bias in the gram sabha meetings, education was rarely a topic for the gram sabha. Where it was taken up, it was because of some consciousness of particular sarpanch. The initiative of MoPR was

to create processes which could be replicated irrespective of the personality of the sarpanch. Sarangi Gram Panchayat had the same problems as the typical tribal areas. The teachers were irregular. Midday meal was managed poorly. Half of the children were not even enrolled. This is reflected also in the gross enrolment ratio (GER) which was 150 in Madhya Pradesh showing that students were getting admission at a much later age. In case of Sarangi, the students who had been enrolled were irregular and this was primarily for two reasons (i) absence of teachers (ii) people did not find value in the education. Before the programme got started in Jhabua a large meeting of elected women representatives of GPs was held. Thereafter regular mahilasabha meetings were held which focused, among other education. The men did not attend these meetings.

- The mahila sabha constituted a subcommittee for education which visited the schools as and when they decided. The demand of the villagers improved attendance.
- The absence of teachers was taken up with the teachers first by the villagers and if it did not improve, the matter was taken up at higher levels. Eventually if a teacher was absent, the students reported this to their parents on the same day. Truancy of students declined because teachers and other students reported this to their parents.
- Meanwhile the economic condition of the village also improved through creation of water bodies, and taking up high yield crops including vegetables. The sub group of

women would go to the house of the student who has missed the school.

- The group also ensured 100% enrolment in the right age. They also supervised the Aanganwadi centres to ensure soft skills including getting over the language barrier. They particularly ensured attendance of girls in school. As per the advisory under the programme Mahila Sabha meetings were held in every village or habitation instead of being held at GP level. This ensured attendance of all the women and taking up of the issues because they could speak up more openly in such meetings.
- The attendance in Aanganwadi Centre Sarangi has become 100%.
- The admission to Class 1 has become 100%.
- The no. of girls studying in Class 1 – 10 is 282 out of total families of 957. Which indicates that all the girls are coming to school.
- Truancy of students from Sarangi village has stopped, although there is some truancy of students coming from other villages.
- Over 150 students are going to colleges and there was a demand for a college in the village. There was not a single pucca house and now every house is pucca.
- 2 students from the village are pursuing education in medical college.

- Most of the women were illiterate and they have been educated through informal adult education: A Self initiative.
- The out of school children were brought into the school after giving them a bridge education and then admitted to higher Classes, appropriate as per the age.
- A tribal girls' hostel has come up attached to a nearby college which will become functional from the academic year 16-17. The students will also get sufficient fellowship to cover the cost of the education.
- For the boys a scholarship of Rs 1000 per month will be given for pursuing education above Class 12 . These students can support their living expense out of the scholarship.
- The village has installed a security CCTV camera to keep a watch on the theft cases in the village. As a result theft cases have declined.
- A child who drops out is persuaded to return to school by the women of the village.

Following are some areas that needs some attention:

- About 10% of the students fail in Class 10. Most of these students belong to villages other than Sarangi and who are truants. It was decided that the Mahila Sabhas in other villages will attend to truancy, in the same way as Sarangi.
- During harvesting of horticultural crops migration happens for about 15 days. And since earnings from this work fetched good wages and since children are good in plucking, there is

absence of students for about 15 days. It was decided that some arrangements to be made in the local school for keeping the students for 15 days. The peoples and the TAD officials will take a view on this.



(Mahila Gram Sabha meeting at Sarangi, MP)

2. Pazhassi Raja Tribal Residential School, Wayanad district, Kerala

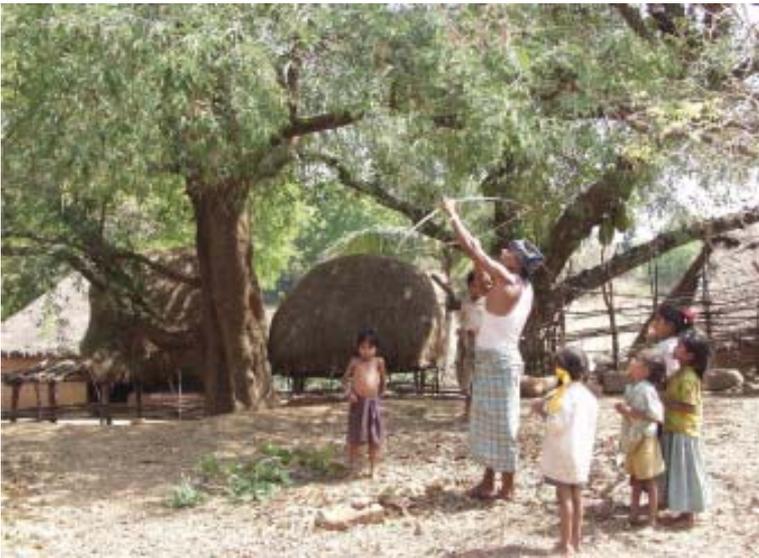
This school was started by one Mr. Nambiyar who is 76 years old. He has other business and his sons are earning good salaries abroad. The school is funded from the income of the founder and his family. Besides there is some earning from ancestral land of Mr. Nambiyar.

- The school takes particular care to ensure maximum admission of PVTG like Paniyan and Kattunayakan. Out of 162 tribal students Paniyans are 21 and Kattunayakan are 104.
- There are 64 boys and 88 girls.
- The pass rate is 100%.
- Tribal girls excel in outdoor sports like badminton, volleyball and archery.
- The school has a spread of vegetable garden growing wide range of vegetables and paddy crop. The vegetables are included in the school menu giving substantive nutrition to the students.
- The children are also educated in crop growing.

On the Downside

- The founder of the school is tired and particularly due to absence of any support from the Govt. The reason for not receiving support is that the school is not recognised by the State govt. In the same district students are paid a scholarship of Rs. 50,000 per year towards school fee in English medium schools. A school like this should not be allowed to die.

3. **The Jawadhu Tribal Higher Secondary School (JTHSS)**



Jawadhu Hills are in Thiruvananthapuram district of Tamil Nadu. The major tribe here is Malai Gounder. The Jawadhu Tribal Higher Secondary School (JTHSS), Guniganthur, Jawadhu Hills has two segments. The student strength of the School is:

Classes	All		ST		Total	
	Boys	Girls	Boys	Girls	All	ST
Primary Class 1-6	367	297	336	280	664	616
Higher Secondary Class 6-12	819	728	719	668	1547	1387
Total	1186	1025	1055	948	2211	2003
Hostel	303	256	303	256	559	559

JTHSS was started in 1991 by Society for Rural Development (SFRD), an organization based on Gandhian ideology. SFRD had been working since 1979 in the area for the tribal and other backward communities in areas of agriculture, handlooms, income generation, health, sanitation, and release of bonded labourers. SFRD started the School because the availability of school education was poor. The literacy rate was only 0.2%. The primary reason was absenteeism of teachers, and inability of teachers to have a personal rapport with the students.

While the SFRD was working on livelihood sector, it also made course correction. For example, to save the weavers from the cycle of bondage with master-weavers, they started a handloom 'factory' where weavers come and work for wages. The rest of production and the marketing were handled by SFRD. At some stage it realized that handloom production is basically a household activity and SFRD need not become another master weaver.

There is a School at Jawadhu hills run by Forest Department (FD) which was started in 1924. There is a School run by Christian Missionaries which is supported by the State Government.

- Yet JTHSS has an increasing demand from students from ST *and* other communities. The sanctioned strength of the hostel is 500 and the government grant is limited to this. However, 59 tribal students are paying for staying in the hostel.
- The student strength has gone up from year to year. In 2007, 61 students appeared in Class 10 examination with 100% success. In 2015, 229 students appeared with 100% success rate. In between in two years each only one student did not clear the examination, bringing down the pass rate to 99%.
- In 2007, 34 students appeared in Class 12 examination and 33 passed. In 2015, 127 students appeared and all of them passed. Since 2011, the success rate has been 100%.
- When the School was started in 1991, SFRD decided to start Classes 1 to 8 in one go. This is an unusual practice. One would normally start at one level and go to the next Class next year. This became possible because workers of SFRD were going to villages for over a year before 1991 and talking about the school in addition to their other activities. They went to the villages in the evening and spoke to the villagers and the parents in particular. The Headmistresses of JTHSS and PS were field workers then and moved on as teachers when the Schools were established. While admission to Class 1 was of fresh students, admissions to Classes 2-8 was of students who were in other schools, or were namesake students, or dropouts.

- In 1993 Classes 9-10 were started. In 1994 the first batch of students appeared in HSC (Class 10) examination.
- The problem of absenteeism of teachers has been addressed in JTHSS through some practical protocols. Unmarried lady teachers are allowed to stay inside the campus. Married teachers are to stay in the nearby areas. They are not allowed to go down to the plains. The teachers in the schools run by FD stay in the plains and are invariably irregular in attendance.
- There are regular meetings with the parents of students, particularly of Classes 10 and 12. Since the School has the option to send out students who do not attempt to perform, these meetings are well attended. For students of Class 10 and 12, the parent—teachers meeting (PTM) is held every month. Here a parent has to sign the progress report of the child every month. A discussion with FD officials in presence of representatives of JTHSS showed that while FD schools had perfunctory PTM, JTHSS schools had serious PTM. The crucial difference was because JTHSS had the option of sending away students who were not sincere.
- The problem of language barrier as well as other barriers has been addressed through a capsule course designed through experience. When students come from other schools (mostly Classes 5,6,8) the various barriers in subjects like Science, English and Mathematics are assessed through tests. Typically, the capsule course is designed for three months.

In case this is taken up during summer vacation, they are staggered so that each teacher gets some part of the holiday.

- Several examinations are held in crucial Classes like 10 and 12. The teachers have prepared sample tests based on previous HSC/HSSC examinations.
- The students who pass Class 12 generally have good marks. The policy of State government to admit students in government technical institutions on the basis of Class 12 marks and not have separate entrance tests has helped the tribal students to get admission in these courses since such students do not have either access or resources for coaching Classes. In other States where coaching for entrance tests is the priority for students, Class 11-12 is a waste as students focus on coaching. In TN simple focus on studies in Class 11-12 enables students to get admission in inexpensive government technical educational institutions. Such a policy has also helped the students to get automatic counselling for further education and/or career options. In TN, tribal students have been further helped by the decision in 1998 to carry forward backlog quota for ST which increased the number of reserved seats. Some subjects which the students have taken up are: medicine, engineering, agriculture, veterinary sciences, and paramedics.
- Many students finish their studies, acquire a degree in teaching and return to the area to become teachers. This has helped in reducing absenteeism.

There are some problem areas:

- With increase in demand from students and parents, the School has been forced to take more students than it has infrastructure for. Resources from government do not cover all expenses. The cost of cooks/ attendants and contingency is not borne by the State government. Fund for new infrastructure has also been discontinued.
- Among sports kabbadi and karate is encouraged and this decision is based on the competence of teachers. Archery which was taught earlier has been discontinued. Some dances are also taught again based on the competence of some teachers. The School is unable to engage professional teachers partly because they are not available, but more so because it does not have resources.
- Some of these disadvantages have also been turned to advantages. The teachers assist in cooking and by all accounts were proud of their culinary skills. A lot of the work culture is because of Shri Arjunan, Secretary of SFRD and working here since 1979. About sustainability of the institution he narrated a successor plan.

4. **Bharat SevaSangh (BSS) Adarshpalli, Bolpur, Birbhum, West Bengal**

- BSS was established in 1917 for a wide range of spiritual and social work. The Adarshpalli branch, also an ashram, was established in 1999. The school was established in 2001.

- This school enables children from nursery and Class 1 levels to be able to compete for admission to EMRS and other schools of excellence. English as a subject is taught from Class 1 to 5. The medium of teaching is English.
- The total number of students is 200. They are all boys.
- There is a quota of 24 for admission to EMRS from this school. There are more than 24 students every year who qualify for admission to EMRS but the admission is limited to 24.
- There is a personal hand holding for every child throughout his stay here. In this area the tribal people have no language barrier because even at home they speak Bengali. However, teaching English from Class 1 creates a language barrier. Besides, the students are very young and need extra care. Therefore the teachers are conditioned for personal care and handholding.
- This school follows NCERT syllabus.
- From 2016 a girls' hostel has been commissioned in the same premises. 22 seats have been created for girls. When I visited the school I found 77 mothers who had come with their daughters for admission to the school. There were another 20 mothers waiting outside the premises for entry. The team requested the TAD officials and the school management to raise the number of seats for girls. They were also advised to approach MOTA for additional scholarship.

- This school is sponsored, primarily, by private individuals. We met an artist couple who had worked as professionals in Mumbai all their life and who had volunteered their services for this school, leaving behind their profession. They were residing outside the campus in a rented accommodation.
- The ashram has about 25 acres of land dedicated for the vegetable cultivation and fodder. It has cows for the requirement of milk of the students. The range of vegetables include from traditional vegetables like brinjals to exotic vegetable like broccoli.

Chapter-7

Language barrier

1. Odisha

Out of about 700 tribes in India, Odisha has 62 tribes, the largest number in any State. Most of the tribes have a language distinct from Odia, though there is considerable presence of Odia words with modification in all the languages. There is proximity between the languages of various tribes. The languages can be divided into about 22 groups. Some of this grouping was done keeping the similarity of the languages. Many small tribes have taken to learning the language of bigger tribes like Santhali in Mayurbhanj and Paraja-Deshia in Koraput. When a child speaks a language different from the language in which he has to study, he has to learn the latter. However, in most cases teachers were not available who knew both the languages. The student had to learn the script of Odia language and later English language. Unless the child knew Odia language, he would not learn subjects like Social Sciences, Mathematics, Science and later English.

Therefore, in Odisha it was considered necessary to prepare bi-lingual Primers. The efforts to use them in all schools in forest areas started in 1990's. The objectives of the Primers were:

- To enable the teachers to learn some tribal language to communicate with the students.
- To enable the child to learn Odia script by giving reading material in tribal language and Odia script.
- To enable the child to learn Odia language through comparison with tribal language.
- Cooks, cook-cum-attendants and some teachers at basic levels like crafts are often the persons to help tide over the language barriers. But their knowledge of Odia script is sometimes indifferent.
- Even when a teacher from a tribe is available in a school, she will not know all tribal languages. Even the students from her own tribe who take admission in Class 4 or 6, and have not learnt Odia can benefit from studying the Primers.

The design of the Primers had been done with considerable understanding of the ground reality. I was associated with the work around 2002 when mid-course correction was required. The design of the Primers had the following aspects:

- These will have the tribal language in Odia script on one side/ column and Odia language in Odia script on the opposite side/ next column. This will facilitate a student as well as a teacher to have easy access to the knowledge.
- The first Primer will have pictures of objects and their names in two columns in tribal and Odia languages and Odia script.

- This book or another Primer will be devoted to teaching numbers. Most tribal languages have numbers up to 5, 10 or 12. Rest are repetitions. The limitations of 5 and 10 arise out of the number of fingers. Koya tribe of south Odisha has numbers up to 12, possibly based on the number of months and the festivals which depend on the months.
- The next volume will be descriptive text. The themes will be local: stories, poems, anecdotes, riddles, culture. The script will be Odia. As in other primers, on one side the language will be tribal and on the other side Odia.
- The next volume will have the above language and script format. However, the theme will relate to the subjects which will be studied in school and also about practical knowledge necessary: post office, agriculture, hygiene, Panchayat, Block, Tehsil, Primary Health Centre, Bank.

During our field visit in Odisha, we found that the Primers are put to use to various degrees. Some of these cases are summarized below.

- In Kundhei Primary School of Keonjhar district managed by Education Department, there is a Hostel funded by Tribal Affairs Department, but managed by Education Department. Here the Primers are used. There is some disruption in supply of books. However, the books are not designed in line with what had been envisaged. The tribal language book is separate and the Odia language book is separate. As a result, bi-lingual teaching in Class 1 is not happening.

- In Kaliapada Primary school, the primers are not printed. There are a number of hand-written/ typed books. Because of the small number of books these can be used only by the teachers and not by students. There are two full time teachers to teach Mundari and all the students are from this background. Presence of two full time teachers should have been an advantage; but has led to a disadvantage. The teachers have come to believe that it is their job to teach the students Mundari language and the first year is devoted to teaching Mundari. Since all students are day-scholars they continue to use Mundari at home and are not having the risk of forgetting their language. Thus this appears to be redundant. Besides, the students lose one full year without learning either the medium of instruction or any subject. On the positive side, one room is devoted to language lab, with pictorials and word in Mundari and Odia. However, in the numbers chart different objects are used: for example, for one (1) there is one chilly, for two (2) there are two brinjals, for three (3) there are three eggs and so on. This has led to displaced association – many students think one means chilly, two means brinjal and three means egg. After considerable discussion, the teachers agreed to revise the primers and other teaching patterns. ITDA or SSA will print these primers which can be used by both students and teachers.
- Inadequate language skill increases the burden on the secondary schools when they are admitted in Class 4 or 6.

An example of this has been given in the Chapter on *Academic Excellence*. However, residential schools have advantages in improving language skills. Some of the additional study hours available in morning and evening are devoted to language skills. When the students belong to a single tribe, the cook-cum-attendants and some Primary teachers are bound to be from the same tribe and they work as language teachers. Presence of students from higher Classes who have already become proficient in the languages of teaching helps.

- In Rehana (Palaspalli) Residential Girls' High School of Keonjhar district, students are admitted in Class 6 and pass out in Class 10. Here no Primer is used. The students are from three tribes: Munda/ Kolha, Juang and Santal. Here the students are selected on the basis of merit. Stay in the hostels with empathetic teachers helps bonding and learning the languages. There is a more detailed discussion on the School under the Chapter *Drop Out*.
- At Bhubaneswar, we have discussed the decline in quality of Primers with people who were actually engaged in the original work.
- The biggest challenge to language barriers remains in non-residential schools. Here students may belong to several tribes. There would be others who are familiar with the medium of instruction. It is not possible for a teacher to learn several tribal languages for the sheer numbers and also because of less time for interaction. The level of satisfaction

also is likely to require that most teachers will focus on a student who understands the language of teaching over someone who does not. In such cases, thoughtfully prepared Primers are essential tools. They can be supplemented by audio-visual (AV) and computers; but the Primers cannot be substituted.

2. Andhra Pradesh

The specific instances of language barrier have been given in the chapter on RS.

- Basically there is inadequate appreciation of the problem.
- Tribal students from the plains who have come in contact with Telugu face less language barrier. In hilly areas, the task of familiarizing the students with Telugu is left to cooks, attendants and seniors from their tribes, if there are any. However, if there is a language barrier vis-à-vis Telugu now, it is likely to be more in the past, and there are fewer students and teachers from such tribes. Such people, when available, do not know more than one tribal language and their knowledge of Telugu is also indifferent.
- Inadequate knowledge of Telugu affects learning other subjects and English.
- The children coming to high schools/ AS at Class 3 or 5 are expected to have learnt sufficient Telugu at primary level; but their earlier schools are non-residential schools, Telugu

is not spoken at home, and so the level of learning of Telugu is inadequate when they come to the schools at Class 3 or 5.

- The strong ITDA of AP should lead us to believe that absenteeism of teachers would be low. But as was seen in one girls' high school of Vizianagaram district, no teacher lived in the campus in the night. Many schools did not have accommodation for teachers and therefore, teachers cannot be faulted for this.
- Another language barrier has been created by converting Telugu medium schools to English medium schools. Since English language is often taught (in tribal and general schools) through the local language, if the knowledge of Telugu is indifferent, the knowledge of English is poor, and the subject taught in English will not be learnt at all.

The language barrier of tribes who live in hills and have indifferent knowledge of Telugu is reflected in the literacy rates, which is worst for tribes with highest language barriers (2011 census):

Tribe	Literacy (%age)		
	Total	Male	Female
Undivided AP	49	58	40
Kondh	30	41	19
Nuka/Mukha Dora	36	45	27
Paraja	35	46	25
Kondh (Odisha)	47	59	36

- The difference in literacy rates among various tribal groups is actually a little worse than what the Table shows because the above tribe-wise data aggregates many tribes for census purpose. While Odisha has weaker ITDAs, the literacy figures of Kondh tribe of Odisha are much better, and this is due to lowering of language barrier. Even in case of Odisha, this data shows the gap between male and female literacy for tribes with language barriers. MOTA had taken a policy decision to adopt the bi-lingual primer model across the country. Funds had been sanctioned to all States where this was an issue. For AP preparation of primers would have involved little expenditure because these primers are already available in Odia and the Odia words had to be translated to Telugu and in these border areas, there is no dearth of translators. There should be greater sensitivity about the language barrier. There should be strong institutions; but institutions cannot be effective without better realization of real life situations.

Chapter-8

Drop-out

1. The drop-out rates (%age) of various categories of students are shown by the following statistics for the year 2010-11.

	Classes 1 to 5			Classes 1 to 8			Classes 1 to 10		
	All	ST	SC	All	ST	SC	All	ST	SC
Boys	29	37	30	40	55	47	50	71	57
Girls	25	34	23	41	55	39	48	71	54
Total	27	36	26	41	55	43	49	71	56

(Source: Statistics of School Education 2010-11)

One aspect of the dropout rate is that there has not been any significant improvement since 2005. The second aspect is that while in 1990, the dropout of girls was higher by about 7% in 1990, now the drop-out rates are similar for boys and girls. It can be intuitively understood that the dropout would be less for residential students than for day scholars because of better security, reduction in language barrier and supervision.

The comparison between States with major tribal population shows that Odisha had a lower dropout rate at 22% between Class 1 to 5. However, this rises to 75% in Class 1 to 8 range and 86% in Class 1 to 10 range. These latter figures are much above the National average. The low dropouts in Primary level are due to presence of dispersed Ashram schools with or without residential facilities throughout areas with large tribal population. However, dropouts happen in case of residential schools also when sufficient attention is not given. An example has been given in the Chapter *Backward Tribes*.

But where sensitive teachers are present, as in Rehana-Palaspalli Girls' High School in Keonjhar district, there is zero drop-out in the range Class 6 to 10 even for backward tribes. This residential school is located away from habitation and away from the main roads. In 2010, there was some violence by left wing extremists (LWE) and a murder. The school almost closed down as teachers and staff were afraid to work here. The strength of students is 296 of whom 15 are day scholars. The 272 ST students belong to three tribes: Munda/Kolha, Juang and Santal. The School was started in 2008, and the LWE violence took place two years later. Perhaps this is one reason why there are only two lady teachers out of seven. The violence has subsided. No student has gone away before Class 10. When we asked some students separately whether they would like to go back to their homes, they said a forceful 'No'. No bi-lingual Primer is used here. We tried to

understand the environment which gives the girls the sense of security and comfort. Our finding is as follows.

- There is a sincere and empathetic relationship between teachers and students. Every teacher knew about the academic needs of every student. Unfortunately, this is not a practice which can come from training; it has to happen. The food includes some minor millets and green vegetables.
- The students clean the toilets up to a degree. This will help them to clean their home or hostel toilets in later life so that the toilets which are constructed are used.
- Archery is an innate skill of the tribes from where these students have come. However, over recent generations archery and hunting had been confined to boys and men. The girls showed tremendous confidence and performed well in the archery and one of them hit the eye of the target. Their unperturbed attitude impressed us the most. The archery teacher comes for two days a week.
- A dance teacher comes for two days a week. He teaches of Odishi, Santali and also some mixed dance. We watched a performance which was quite proficient and which goes to the State level '*sargifula*' festival.
- There is career counselling in Class 9 and 10. This is mostly about future studies.
- The security of the girl students is ensured through making the only available lady teachers as hostel superintendents. The cooks and CCA are ladies.

- The results of the school in Class 10 have been:

Table 1.1 Year	Total examinees in Class 10	Passed in 1 st division	Passed in second division	Total pass
2015	60	9	34	60
2014	52	32	20	52
2013	55	8	27	48
2012	40	1	19	38

- While the results are not as great as of the schools cited in the Chapter on *Academic Excellence*, the results are not too bad either. The decline in first division students in 2015 was ascribed to introduction of objective (multiple choices) questions by BSE. While teachers were trained for this in urban areas, in remote areas like this school, the teachers were not trained. Now the school has started training students in this kind of examination. The result for 2016 is expected to be better.
- We advised them to take up paramedic training so that they can stay in their villages and help their people to have better health care, and they can be engaged by ITDA/ JDA.
- Here the students do not go home even during Makar festival. Some students said that they will be sent to the fields or asked to take care of their younger siblings if they go home.

- Between sympathetic studies, clean hostels, caring teachers, dance and songs, archery and career counselling, no child is leaving this school until Class 10.

Other cases of controlling drop-out:

There are many other models which have been effective in controlling dropout rates. In the chapter on 'People's Initiative' there is an example of Mahila Sabha which has brought down drop-out rate to zero in Madhya Pradesh. In the same chapter there is the example of dropout being zero through long term relationship with the people in Tamil Nadu. In Rajasthan, Maa Bari Center is a model which has reduced drop out, and this is described under the Chapter 'Backward Tribes'. In fact, the strategies to reduce drop-out are the sub-texts in many chapters.

Chapter-9

Backward Tribes

1. The literacy rate of tribal population is lower than rest of the population except in certain parts of the country where the entire population is scheduled tribe. Among the low-literacy tribes there are certain tribes where literacy and other HDI are low. 75 of these tribes were called primitive tribes, and later as Particularly Vulnerable Tribal Groups (PVTG). Of them, 13 PVTGs have been recognized in Odisha. For their special needs, a Micro-project for each such tribal group was established. Juang tribe living in hills of Keonjhar district is one such tribe. This population under PVTG is 8592 out of total Juang population of 47,000. The name of the Project is Juang Development Agency (JDA). Another such tribe is Lodha living in Mayurbhanj district. The following figures indicate the relative literacy rates:

Category and source	Total	Male	Female
All Scheduled Tribes of Odisha 2011 Census	52.2	63.7	41.2
Juang 2011 Census	42.8	54.9	31.4
Juang in PVTG project Survey 2010	29.7	40.6	17.5
Juang in PVTG project Survey 2015	38.2	46.3	30.0
Lodha 2011 Census	43.1	51.2	35.1

The lower literacy rate of Juang people in project area is easily explained. They live in remote inaccessible forest areas, and their remoteness was worse earlier. Their language is different from Odia, creating a language barrier. This language barrier is worse for women who have less access to the world outside their community. Shifting cultivation and collection of forest produce were the most important sources of income for them. In fact, JDA was set up in 1978 after several reports of starvation deaths to address the issue of food security. And in this remote area Ashram schools had not been feasible for these reasons. Juang people living in plains had less language barrier and had better access to education which explains the higher literacy of the tribe as a whole over that of JDA area. The Lodha tribe lives in plains and has less language barrier as Lodha language has a large share of Odia. This partly explains their better literacy. The impact of this model is summarized here.

- The biggest impact of JDA was that an agency with multiple functions existed in the Juang habitation to look after the needs of 35 remote villages. Their support included agriculture, horticulture, animal husbandry, value addition to forest produce, road communication, irrigation, construction of youth dormitories (mandaghar for boys and majang for girls) and education. This all-encompassing role of JDA ensured a relevance for the institution for the isolated people and helped in delivery of public goods and services.

- The schools were supervised by the local JDA and not some remote official sitting in Block or District headquarters. JDA had the financial flexibility to intervene if government grant for the school or hostel did not arrive. When some local student became reasonably educated, he or she was engaged as cook-cum-attendant or primary school teacher. In terms of percentage growth in literacy, however, the boys did better than girls.
- In 2008, the Tribal Girls' (PTG Juang) Educational Complex was set up at Gonasika. This was funded by MOTA. At present the total student strength is 359. Class 9 was started in 2014 and Class 10 in 2015. So the outcome in terms of HSC results was not known at the time of my visit.
- On 26/02/2014 I, then Union Secretary, Ministry of Tribal Affairs, had visited the Girls' (PTG Juang) School at Gonasika. I had found that while the school had excellent facilities and motivated teachers, the drop-out rate was high. The drop-outs happened often when the school opened after a vacation or festival. At that time the school had opened after Makar festival. I advised the school to send a team of teachers and students in motor vehicles to the villages and get the dropped-out students and asked them to send the outcome of the efforts by SMS to me. Three days later I received SMS confirming that the students had been brought back.

- This kind of attention was possible because of the locally stationed Micro-project JDA. When we visited the school on 30th October 2015, we found that the drop-out rate was zero. The practice of reaching out to students who do not return to the school after a vacation is continuing.
- The total enrolment is 359. The survey report of the 35 project villages shows that almost every student in school-going age has been enrolled. A population of 8592 would have about 860 children of school going age. Of them about 430 would be girls. This school should be taking care of majority of girl students. There are other schools which take care of this. The survey, by JDA, can be theoretically flawed; but from this statistics, we believe that this is the best assessment.
- The policy of TSP revised in 2014 recommends creation of micro-projects for tribal people leaving in remote areas and PVTG.
- The JDA also assists in placement of students. Most Class 10 pass-outs have got jobs in SSA, in the micro-project, as Multi-language Education Teachers, and private sector; some have gone for higher studies or technical education. The five students who have not got jobs and did not go for higher studies have chosen to go back to their villages. The important fact is that JDA is assisting and monitoring placements.

- In 1950s when Ashram schools were established in remote areas, typically they had a student strength of 40-50. They were located in remote areas. In those days, there were teachers who were motivated enough (and often needy enough) to stay in remote areas. The rationale, and rightly so, was that students from tribal communities would not send their children to far off places. The governments also had sufficient system of control, including punishment, to keep the teachers in their allotted places. Today, a large school like this has advantages. This is located on the roadside and makes supervision easier. The large number of students strengthens the sense of real and perceived security.
- In a large school like this, the total number of teachers is large. Therefore, the absence/ vacancy of teachers can be made up.
- The location and largeness of the school facilitates and gives a sense of security to the lady teachers. Out of 21 teaching and other staff 4 are men and 17 are women. This large number of women staff gives better sense of security to the students.
- The positive environ of the school also prompts local officials to take visitors from the State, GOI, other States and non-governmental agencies to this school. This reinforces the positive environ and becomes a motivator.



On the issues to be addressed in future are:

- In these remote areas, the success of a program may depend upon the contingency of having a good Project Officer who has to sacrifice many comforts to be able to stay in the hills.
 - The residential girls' school was established in 2008; 30 years after the establishment of JDA.
 - The skill training for boys in other schools includes driving, fitter, welder etc. However, women-specific trainings are yet to happen. MoTA has suggested and funded vocational trainings for girls like paramedics, hospitality, office management, computer literacy, dairy, poultry, agriculture and horticulture.
2. An Educational Complex at Chikitimatia (ECC) was established in 2008, the same year as the school at Gonasika. This school

was for girls belonging to Lodha tribe. The school is managed by Lodha Development Agency (LDA), a Micro-project. The school has students from Class 1 to Class 10.

Lodha people have less language barrier than Juang because their language is a mix of Odia, Bengali and Mundari. However, their major barrier was a colonial legislation which notified them as a 'criminal tribe'. The Criminal Tribes Act (CTA), 1924 provided for notification of 'criminal tribes' by local governments – basically State governments, local Commissioners and their equivalents. The law presumed that certain tribes/ castes were innately criminal, had little other profession than crime, and therefore, required registration of every member of such a tribe in the police station, reporting every movement, restriction on their movement, separate habitations for them and enhanced punishments in case of convictions. This horrendous law should have been repealed in 1950; but was repealed in 1952. These communities have been variously classified as ST, SC, OBC but as a whole as De-Notified Tribes (DNT). However, the label of criminality subsists in parts of social psyche.

In October 2015 we visited ECC. Some of the points of the school are as follows.

- The capacity of the school from Class 1 to Class 10 is 310. There are 15 teachers. 10 of them are women. There are three teachers from Lodha community. Out of other staff, 4 belong to Lodha community. This removes a lot of the language barrier.

- The housekeeping was good. The design of the hostel was good. We have seen elsewhere that where double-decker cots are provided, there are ceiling fans, threatening the life of the child sleeping in the upper deck, providing no air to the lower deck and making both the decks unsuitable for study. Here the fans are fitted to the walls protecting and helping students in both the decks,
- There are 22 toilets and 10 more need to be constructed to match the strength of 310.
- The School is completely protected by boundary wall and security guard.
- Solar lights are actually used. But their maintenance has become indifferent.
- We watched the performance of the students in dance and songs.
- The students participate in *Chhau* dance in various functions including in *Sargiful*, the annual tribal festival at Bhubaneswar.
- The playground inside the campus provides for a number of sports: football, volleyball and several athletics. This taps innate abilities of the people.
- There is a computer lab which is used creatively.
- Health check-up is regular.
- Vegetables are grown.
- The education has helped the people to get over the stigma of a 'criminal' tribe.

The following are some of the issues that need to be addressed.

- There is need for career counselling and assistance since this will be the first batch.
- The vocational education should include subjects like agriculture, horticulture, poultry, dairy, *sabai* rope making etc. At present only tailoring training is given.
- Peer groups should be active in getting out-of-school children to the school.
- A bilingual primer in Lodha and Odia script is necessary. Since this is not a very difficult task, it can be prepared and printed here.



3. Kattunayakan Tribes of Kerala

Kattunayakan belongs to a category of particularly vulnerable tribal group (PVTG). The literacy rate among STs of Kerala is 76% against which that of Kattunakayam's is 57.5%. I visited Arnamala village in Vythiritaluka of Wayanad district of Kerala. For reaching the village the team travelled by a four wheeler jeep for 1 hour, and by foot for another 1 hour. The economic condition of some families was good because of the cardamom and cloves plantation. Although the team had informed the village most of the boys and girls had left the village for the town.

- There is a school with a single teacher from Class 1 to Class 4 which has been running for more than 10 years. The teacher stays in the village. The Kattunayakan tribe has a language closer to Telugu than Malayalam and therefore a language barrier is there. However the resident teacher has reduced the language barrier.
- The ITDA has been strengthened recently. The Collector and the PVTGs cell visits the area frequently.
- In some tribes which we saw (vide the Chapter '*Vocational Education*') the motivation for education is based on an aspiration for government jobs, and this is not very different from the aspiration of non-tribal people across the country. However, the people here do not want to depend on government jobs. Murali who has passed Class 12 in

Commerce had got a job but did not want to leave his village. He has 3 acres of land in which he grows cardamom and coffee. There is one girl who has got a degree in Nursing and for whom the Collector personally had arranged a job. She joined the job and after a couple of days came back to her village. She was present in the village when we reached; but as soon as we reached she disappeared in the plantations. She had put a condition before the Collector that she would continue with the job if she would be able to commute from the village every day to her workplace. Given the distance and absence of any public transport system in this terrain, this was an impossible condition. The reason she ran away when we reached was she was afraid we will take her back to her workplace. A little more hand-holding *during* vocational education would help. I suggested that she could be engaged as a paramedic in her village and other nearby villages from the MOTA grant or TSP fund of Kerala government.

- There is dedicated residential school where the priority is admission of students from PVTG communities. This gives an opportunity to every child belonging to PVTG to study in a residential school. However, the dropout rate is 40% by Class 10.

In addition to what has been stated, these areas need attention:

- The maximum drop-outs happen during long December holidays because this is the plucking /harvesting time for

most of the plantations. Commercial plantations continue to be the major part of economy in some parts of Kerala. The cash income from plucking is substantive and the daily income for a child is of the range of Rs 500. The other aspect is that children, with the nimbleness of their fingers are good in plucking.

- While the dropout rates in tribal residential schools is high, some students are getting admission in expensive English medium schools. It appears that there is a marketing aspect of this. On the downside this creates one more language barrier as has been pointed out elsewhere in the concerned chapter.

Paniyan tribe in Pozhuthana Grama Panchayat in Wayanad District

People from Paniyan tribe live in the following areas: Wayanad, Ernad, Calicut, Kurumburandy, Kottayam and Malabar. Paniyan tribes is connected to slavery: (*Castes and Tribes of India volume 6, Page 58*) :

Their position is said to be very little removed from that of a slave for every Paniyan is some landlord's man; and though he is free to work and leave his master, he is at once stressed and good care is taken that he does not get employed elsewhere.

- 33 families of Paniyan tribe are residing in an approximate extent of 1 acre of land. The entire land is water logged. The works of 'Jalanidhi' project is undergoing for providing drinking water.

- Economic development programme cannot be formulated for the development of the people from Paniyan tribe because there is no land other than homestead.
- Whenever income increases the people will construct houses according to their need. Hence 100% assistance for construction of houses will neither be available nor is the best option.
- Proper soil conservation, drainage system to be provided to cover families in the settlement.

There are committed people who would like to do something for the people. In 1980s, when Bonded Labour Abolition Act was implemented, these people were released from bondage and were given four decimals of land. After 35 years, the families have grown, and there is not enough homestead land for living, let alone do poultry or dairy which needs little land. Rest of the land has gone for plantation. The talk of acquiring land and giving them to Paniyan people has been going on for years; but nothing has happened. This is in sharp contrast with the attitude of land allotment for EMRS. The sole occupation of Paniyan tribe continues to be to work as labourers in plantations. Children who go to Primary Schools are likely to follow their parents' occupation.

4. **Karnataka**

In Coorg (Kodagu) district of Karnataka, I visited AS at Yadavanadu and Basavanarathi and a girls' hostel at Kushalnagar. First about

the hostel. The capacity is 50 and occupation was full. The boarding and lodging is borne by the government and the grant is Rs 1100 per month per student. The boarders study in 3 institutions. They walk to these institutions and the place is safe for girls. The warden, who is a lady, manages the hostel and the mess. There are part time tutors in English, Maths and Science. Admission to the hostel is decided by a Committee headed by the local MLA.

In the Ashram Schools, the students belonged to Jenu Kuruva and Yerava tribes. The Headmaster in each school was on deputation from Education department and was the only regular employee. Other teachers were on contract. The management of the hostel was indifferent. In the school at Yadavanadu, the strength in Class 1 was 13, 4 boys and 7 girls were shown to have been admitted; 2 boys and 3 girls were present. The girls said that there are other girls in their village who are not admitted. In Basavanarathi, 13 students have dropped out of the admitted 175 students and another 20 were absent. JenuKuruva, like Paniyan, are PVTG and often employed as workers in plantations. It appeared that here too the children from Jenu Kuruva community work in plantations.

The district officer in charge of Primary & Secondary Education stated that they follow activity based learning, school uniforms are supplied to all students irrespective of caste, MDM was given to students up to Class 10, free text books were supplied to all students, and CCE system is followed. He was of the firm view

that there is no need for any teacher who knew the language of Jenu Kuruva or any bi-lingual primer because *the Jenu Kuruva people have to learn Kannad*, and not the other way. I tried to explain that it is necessary to have bilingual teachers/ primers precisely for the same reason, but failed to convince him.

These cases have been included to show that even with good institutional set up, too much pedagogy and too little human element can be counter-productive. Quite simply, if a responsive person is not staying in the hostel campus, how can the small children stay? They will run away.



5. Maa Bari Centre, Udaipur district, Rajasthan

- In Rajasthan, the Maa Bari Centre was conceived as an alternative institution for remote and small habitations. The

Centre at Mina Basti, Salumber, Udaipur district is one such institution. Mina or Bhil Mina ('n' here is palatal and is different from Meena where the 'n' is dental) is a low-literacy tribe which lives in hills and forests of Udaipur division of Rajasthan. The Bhil Mina has a literacy rate of 52% and female literacy of 39%. This is similar to single teacher schools started in 1960's for remote areas, but with some significant differences.

- A local educated person from the same tribe is the teacher. This ensures that she is regular unlike a teacher who comes from outside. The teacher is selected by the villagers with a minimum qualification prescribed. This also removes the language barrier.
- The mothers of the students look after and cook midday meals (MDM) and snacks. Since the beneficiaries of MDM included their children, they ensure quality food.
- They also keep an eye on the attendance of teacher and students and the study time. The drop-out rate is nearly zero, as the parents of the student who drops out are approached by other villagers, and the parents are persuaded to send their children back to school.
- The presence of parents ensured that the students were not afraid of schools.
- Since adequate hostel capacity has not been created, this is a middle-of-the- way solution to provide basic education.

- The Centre also helps in education of illiterate adults.

Much can be said against this model where students from three or four Classes sit in one room and are taught by one teacher. The Centre had a room which comfortably accommodated all the students. There was a separate kitchen which also had adequate space. As and when a student was prepared to move on, he could go to a regular school.

Chapter-10

Isolated Tribes

The “Policy on Jarawa Tribe of Andaman Islands, 2004” was notified pursuant to the directions of the Hon’ble High Court of Calcutta (Circuit Bench at Port Blair) dated 9-4-2001 in W.P. No. 048 of 1999 (PIL)- Ms. Shyamali Ganguli v/s Union of India and others. The Policy is required to be reviewed periodically. Therefore, in 2007, an Expert Committee under the Chairmanship of Secretary, Ministry of Tribal Affairs was constituted whose mandate included, inter alia, to monitor and review the implementation of Jarawa Policy, 2004, taking into account any subsequent reports and studies on the Jarawa tribe. In 2010, Ministry of Tribal Affairs had set up a “Sub-committee of the Expert Committee” to review the policy. The Sub-committee had meetings on 8-4-2011, 7-6-2011 and 14-10-2011. In the meeting held on 14-10-2011, it was decided that “for the present, ‘facilitation’ was required and there is no need for a change in the policy at this juncture, as the suggestions made are already covered by the present policy and that for change in the policy, if required, the Administration of A&N may undertake evidence based research studies...”

In its meeting held on 2-2-2012, the Expert Committee decided that since there is little data and ethnographic studies about Jarawas, studies may be undertaken urgently through the Anthropological Survey of India and Universities having expertise in the subject.

A study was carried out by experts like Professor Vishwajit Pandya, Shri Manish Chandi, Director (Tribal Welfare), A&N and officers of Andaman Adim Janajati Vikas Samiti (AAJVS) with thrust on ethnographic observation and anthropological understanding of the concerns relating to livelihood security of Jarawa, their social organization, forms of education, learning, health and nutrition, and well being. The research team submitted its findings entitled "A field work based report - Jarawa movements in relation to time and space". The second phase of the work on Jarawa study to access the free will of the tribe is underway. An ethnographic research study report titled "Kangapo" (stitched garments in Jarawa language) prepared by Professor Vishwajit Pandya was also submitted.

I had visited some community centers with the Secretary, Tribal Welfare, A&N and officials of AAJVS in 2014. I observed several aspects where course amendment may be necessary, but did not send any instructions. The people, in particular, the younger people had an urge to write and paint. They had picked up a few Hindi words from the people they came in contact in their southern habitat. They generally came in contact with truck drivers and the words they picked up were not particularly polite. They also had an immense urge to draw and write, something

which was not encouraged under the isolationist policy. This propensity to draw and paint could be seen on the walls of the community centers where they had used pencils they found on the roads and stems of plants.

I had several discussions with officials of A&N and the Lt Governor. Depriving the people from accessing basic health and education was not acceptable to many of them. Access to health services had happened owing to a road accident. But in this paper, I will continue to focus on education. The way Jarawa people were picking up words from outside, their language may disappear as has happened and is happening in many oral traditions. It was necessary to reduce the Jarawa language to writing in Devanagari script. Devanagari script is the only phonetically accurate script which can capture all the sounds of tribal languages. The phonetic scripts based on Roman alphabet create an additional barrier, because one has to learn the script besides the Jarawa language. Use of such a script will not help even the officials of AAJVS. Use of Devanagari script will also help those people who wish to do so, learn the script. The frustration of these people who could not read, for example, the signboards in the hospital they visited, was enormous.

The Expert Committee in its meeting held on 8-1-2015, after considering various inputs, decided upon further strategies/ guidelines for the welfare and protection of the Jarawa. These are accordingly added to the "Policy on Jarawatribe of Andaman Islands, 2004":

Protection of Cultural Identity

- (a) Based on the recommendations of the study report “Kangapo” the stitched garments are being issued to Jarawa women. This should be done on their specific demand and on barter basis so that the individuals do not lose their dignity.
- (b) Responsibility of collecting of information/ surveillance protocol within the Jarawa Tribal Reserve should be restricted to AAJVS.

Protection of the Natural Habitat

Andaman Adim Jati Vikas Samiti (AAJVS) should be strengthened and deployment of forest officials on Western Coast should be limited.

Protection of Health status

- (a) The use of traditional medicine should be encouraged among the Jarawas.
- (b) The medical intervention should be calibrated; existing facilities inside the protected area should be the first choice.
- (c) The problems of anemia need to be attended to. As anemia is found to be related to worm infection, the latter needs to be treated.

Regulation of Traffic on Andaman Trunk Road

The sea route project will be expedited by the Ministry of Shipping in order to provide sea route to Baratang from Port Blair, so as to reduce the tourist traffic in Andaman Trunk Road (ATR).

Codification of Jarawa language

There is need for putting Jarawa language to written medium. Devnagari script is ideal for this purpose as this is the most accurate phonetic script. The people should be given pen, paper and primers (varnmala) in Jarawa language and Devanagari script if they wish so. In fact, a Jarawa dictionary has been prepared.

Institutional arrangement

For sharing the information between the tribal community and the experts/welfare staff of AAJVS and for delivering health and other supports to community, “Hot Spots” have been set up within the Jarawa Tribal Reserve. These should be renamed in Jarawa language in consultation with the Jarawa tribe, since the term “Hot Spots” seems inappropriate. Alternately, this could be called a community centre or its equivalent in Hindi.

While the above policy initiatives have maintained a balance between the emerging aspiration of the people and the isolationist policy, there are some knowledge areas which are of value for outsiders. A simple technique is about sustainable and non-violent way for collection of honey. In Jawadhu hills of TN, for collection of honey, the collectors wear sting resistant plastic overalls covering from head to toes, they squeeze out the honey and leave the queen bee in the honey comb. The Jarawa have a far simpler (or complex) method. There is a kind of tall grass, with stems resembling that of reeds. Typically a boy chews the stem and smears his body with the spittle mixed with the juice of the stem. Then he chews a little more stem and spits at the honey hive and the bees leave the hive. He collects the honey and comes

away. After some time the bees come back and carry on as before. Sustainability in honey collection is important for Jarawa people as honey is their daily food (the other daily food is wild boar meat).

While I know about this grass, I will not share anything more on this as this involves many ethical and ethnic rights issues. There is another knowledge which has far greater implication for forest dwellers across the world. In India tribal people account for 8.6% of the population but they account for over 60% of total malarial deaths. People living in plains suffered more from Plasmodium Vivax and this has reduced because of quinine and its derivatives. Quinine was discovered from Cinchona plant of South America and had supported malaria cure for nearly two centuries. But these medicines have little use today for P. Falciparum, the more virulent form of malaria. Tribal people have a 70% share of PF malaria, and 60% deaths due to malaria. As PV share in malaria goes down, and share of PF goes, the share of the burden of malaria of tribal people goes up. The next range of medicines came from an ancient Chinese herb which gave the Artesunate group of medicines. In India, this came to use in 1990s in small proportions, and with protocols that would prevent the malaria parasites from becoming resistant to these drugs, like intra-venous administration, use only in case of PF after testing. These protocols appear to be abandoned now, and oral administration has become common. In any case, intra-venous injection in most cases of tribal environ is a very big deal. There have been other treatment protocols such as combination with antibiotics and sulpha drugs, but they had limited use against the enormous level of morbidity due to malaria.

In 18th Century, the British and some European countries established plantations, mining operations and some metallurgical works. Some of these were set up in Andaman & Nicobar islands. They needed officers and soldiers from Europe and workers from South and South-east Asia. For getting the workers, the Europeans resorted to judicial processes in the colonies they had taken under control and punished residents of the area they had taken under control through exile, and these places came to be known as penal settlement. The entire penal settlement in Andaman set up by the British in 18th Century was abandoned as everyone from outside died because of malaria. This was sought to be re-established in 1857 after the first war of independence (Sepoy Mutiny according to the British), and again vacated because of malaria. But the Jarawa people of the same area remained completely immune to malaria. They did not wear clothes in the forest in the sense of outsiders, though they were sufficiently clothed according to their sense. Malaria caused similar destruction in the colonies in Nicobar islands on outsiders; but the Shom Pen people, who do not wear clothes in their habitats, had no incidence of malaria.

When I discussed this with health professionals, administrators and others from civil society working in the area, they raised the obvious answer that these people have developed immunity. What kind of immunity does malaria over generations give? It deforms haemoglobin in such a way that the malaria parasite cannot get oxygen and will die. (There are details to this; but I am limiting to a broad picture, which will help school teachers to understand.) But the main function of blood is to carry oxygen to

the cells of the body. When the haemoglobin gets deformed, it stops performing this function. Organs in the body become non-functional randomly depending on which organ is deprived of oxygen. And these deformed blood cells tend to crowd together, pack into narrow blood vessels and cause immense pain. This pain is in addition to the pain caused to the organs due to lack of oxygen; a broad example would be a heart attack where there is not enough oxygen. A young person with about 50% sickled haemoglobin is not likely to survive longer than 20 to 25 years. And the pain from the age of about 15 is difficult to see for an outsider, let alone bear. It is not immunity. The Jarawa and Shom Pen are protected because of some traditional food, or some traditional medicine. Some work has been done by TRI, A&N on tribal medicine. They are continuing with the work.



CONCLUSION

As the above studies show, it is difficult to draw generalized conclusions and make summary recommendations. Institutions like residential schools have contributed hugely in raising the literacy and education levels of tribal population; but they can become dysfunctional. PPP model may work for a while, but sooner or later can become mediocre and cause decline in education (and consequently livelihood) in cascading manner. Elitist schools are necessary for entitlement of tribal students, who may feel discrimination in general elitist schools; but introduction of English medium of education creates a new language barrier, and this puts low-education level tribes and people living in remote areas into higher levels of disadvantage. Such a system cannot be justified as this increases inequity. The presence of government is essential; there may be indifferent officials on many occasions, who may or may not carry the baggage of their prejudices; but it is more likely that good officials opt to work in such sectors or are pushed to such 'low priority' sectors.

While language barrier is a reality and can be tided over as seen above, cultural barrier is exaggerated. Like most Indians, the major motivation for education has been jobs. In States like Gujarat and Maharashtra, where industries and services sectors need technicians at shop floor level, the tribal students are preferred because of their innate dexterity in such jobs. In States where

the industries and mines are capital intensive (and these happen to be in places with large tribal population), if the students are averse to technical education, it is because there are no jobs. Creation of additional barriers through mandatory requirement of Adhar card, on-line application, Direct Benefit Transfer betray a lack of understanding of ground reality.

The low education levels in certain tribes in a State, and within the same tribe, those living in certain areas is not understood very well. This information is available in the Statistical Handbook published by MOTA and the State governments can get down to micro level data and take special action.

Good Practices on Education has been documented so that these can be emulated wherever relevant. The lapses which have been mentioned, somewhat parenthetically, are intended to show how continuous simple course corrections can help in improving the quality of education in tribal areas.

HRUSIKESH PANDA

January 2017

Details of Field Visits

Date	Institutions and places visited	Team members
4 th February 2014	VigyanVikas Kendra, Durg	Dr Hrusikesh Panda, then Secretary MOTA and the Secretary TAD, Chhatishgarh.
12 th October 2014	EMRS, Salgadi, Jharkhand	Dr Hrusikesh Panda, then Secretary MOTA and the Secretary TAD, Jharkhand.
14 th November 2014	Sri Morarji Desai Residential School (ST) School, Hiriyyur Kithuru Rani Channamma Residential School, Bhuvanahalli, Karnataka.	Dr Hrusikesh Panda, then Secretary MOTA and the Commissioner TAD, Karnataka.
21 st November 2014	School run by SFRD at Jamnamarathur, Jawadhu Hills, TN.	Dr Hrusikesh Panda, then Secretary MOTA and the Secretary, TAD, Tamil Nadu.
22 nd January 2015	Residential Girls School, Salumber, and Maa Bari Centre, MeenaBasti, Salumber, Udaipur district, Rajasthan.	Dr Hrusikesh Panda, then Secretary MOTA and the Commissioner TAD, Udaipur, Rajasthan.
30 th October 2015	(i) Govt. Girls High School Rebana, Palaspal in Keonjhar district, Odisha (ii) Kundhei Primary School Keonjhar district, Odisha (iii) Juanga Girl development Agency (PVTG) Special Education Complex, Gonasika, Keonjhar district, Odisha	Dr. Hrusikesh Panda, Lead Consultant, Ramesh kumar G. CMD, NSTFDC, Ms.Suhagini Chand, Research Associate, PA ITDA and Local officers
	(i) Govt. girls high school, Thakurmunda, Mayurbhanj district, Odisha (ii) Kaliapada project U.P. school in Mayurbhanj district, Odisha	Do

1 st November 2015	(i) Educational Complex at Chikitamatia, Mayurbhanj district, Odisha (ii) Govt. SSD High school, Basipitha, Mayurbhanj district, Odisha	Do
16 th - 17 th November 2015	(i) Jawadhu Hills	Dr Hrusikesh Panda, Lead Consultant, Mr Joseph
18 th November 2015	(i) Ashram school, Yadavanadu, Kodagu (coorg) district (ii) Ashram school, Basavanarathi, Kodagu district (iii) Prematric girl's hostel, Kushal Nagar, Kodagu district	Do
4 th December 2015	(i) All Gujarat Institute of Driving, Technical Training and Research (AGIDTTR), Waghodia, Vadodara, Gujarat (ii) Mahatma Gandhi Global Indian Eklavya School" Narmada district, Gujarat. (iii) Eklavya Model Residential School, Narmada district, Gujarat	Dr. Hrusikesh Panda, Lead Consultant, Ramesh kumar G. CMD, NSTFDC, Ms.Suhagini Chand, Research Associate, Principal Secretary of TW deptt. and local officers
5 th December 2015	(i) Eklavya Model Residential School. It is situated in the Panchmahal district of Vejalpur in Gujarat. (ii) Vivekananda Institute of Vocational and Entrepreneurial Competence (VIVEC), Gujarat	Do

6 th December 2016	(i) Sewa Rural Mission, Jhagadia, Baruch district, Gujarat.	Do
6 th January 2016	(i) Andhra Pradesh Tribal Welfare (APTW) Residential Boys School, Vizianagaram district, Andhra Pradesh (ii) Residential Girl's Ashram School, Vizianagaram district, Andhra Pradesh (iii) APTWR (Andhra Pradesh Tribal Welfare Residential) School of Excellence, Parvatipuram, Andhra Pradesh	Dr. Hrusikesh Panda, Lead Consultant, Ms.Suhagini Chand, Research Associate, PA ITDA and Local officers
7 th January 2016	(i) APTWR Boys School Visakhapatnam district, Andhra Pradesh (ii) APTWR junior college of Excellence, Visakhapatnam district, Andhra Pradesh (iii) Govt. T.W. College Girls Hostel in Visakhapatnam, Andhra Pradesh	Do
8 th January 2016	(i) GTWA (Govt. Tribal Welfare Ashram) Boys High School Visakhapatnam district, Andhra Pradesh (ii) GTWAS (Girls) high school, Ananthagiri, Andhra Pradesh	Do
15 th February 2016	(i) Ekalavya Model Residential School, Birbhum district, West Bengal (ii) BergrampalliSevaniketan High School Ashram Hostel (Boys) Birbhum district, West Bengal (iii) Bharat Sevashram Sangha in Adarsha Pally, Bolpur at Birbhum district of West Bengal.	Dr. Hrusikesh Panda, Lead Consultant, Ramesh kumar G. CMD, NSTFDC, Ms.Suhagini Chand, Research Associate, PA ITDA and Local officers

<p>25th February 2016</p>	<p>(i) Sarangi Gram Panchayat in Jhabua District, Madhya Pradesh (ii) Soyla Gram Panchayat, Jhabua district, Madhya Pradesh (iii) Teacher Training Center in Patelabad, Jhabua district, Madhya Pradesh</p>	<p>Dr. Hrusikesh Panda, Lead Consultant, Ramesh kumar G. CMD, NSTFDC, Ms.Suhagini Chand, Research Associate, Local officers</p>
<p>26th February 2016</p>	<p>(i) Girls Excellence Hostel, Jhabua, Madhya Pradesh (ii) English Medium Ashram School, Jhabua district, Madhya Pradesh (iii) Kanya Ashram School, Jhabua district, Madhya Pradesh</p>	<p>Do</p>
<p>9th April 2016</p>	<p>(i) Pazhassi Raja Tribal School, Wayanad district, Kerala</p>	<p>Dr. Hrusikesh Panda, Lead Consultant, Ramesh kumar G. CMD, NSTFDC, Ms.Suhagini Chand, Research Associate, Local officers</p>
<p>11th April 2016</p>	<p>(i) Kuruchia tribe Colony, Puzhamoola village, Wayanad district, Kerala (ii) Kuruma tribe Colony, Wayanad district, Kerala (iii) Ambedkar Memorial Rural Institute for Development (AMRID) (iv) Paniyan tribe, Pozhuthane GP, Wayanad district, Kerala (v) Kattunayakan tribe, Arnamala village, Wayanaddistrict</p>	<p>Dr. Hrusikesh Panda, Lead Consultant,, Ms.Suhagini Chand, Research Associate, PA ITDA and Local officers</p>
<p>16th April 2016</p>	<p>(i) English medium Residential School, Mundhegaon, Nasik, Maharashtra (ii) Police Recruitment Training Centre, Nasik, Maharashtra (iii) Govt, ITI, Nasik</p>	<p>Do</p>

