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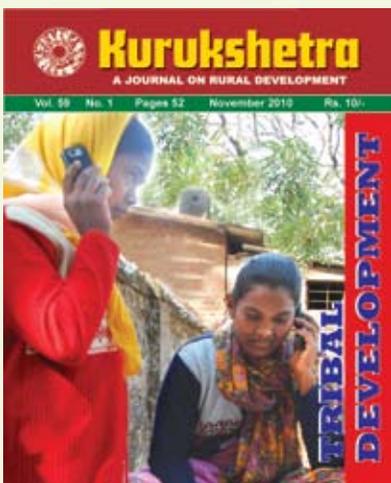
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Kurukshetra seeks to carry the message of Rural Development to all people. It serves as a forum for free, frank and serious discussion on the problems of Rural Development with special focus on Rural Uplift.

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INSIDE

The Scheduled Tribes, constituting over 8 per cent of the country's population are mostly concentrated in Madhya Pradesh, Maharashtra, Orissa, Bihar, Andhra Pradesh, West Bengal and Gujarat. The Indian government has taken extra care to help the tribal or the indigenous people of this country preserve their distinctive culture, and better their economic well-being.

Protection against the exploitation of the indigenous people has also been an important agenda of the government policy.

The main safeguards include promotion of educational and economic interests and their protection from social injustices and all forms of exploitation. In this issue of the magazine we discuss to what extent these schemes have helped the Tribal people. Field reports and case studies form the basis of this discussion.

The development plans and policies of the government have resulted in a noticeable improvement in the socio economic status of the Tribal.

Whereas the status of the Tribal have improved, there have been reports of displacement of the indigenous people from their place of habitat as a fall out of big ticket development programmes like building of hydroelectric dams.

Despite the Constitutional and various legal protections against alienation of tribal land, the problem is widespread. Once the tribal is alienated from his land, it is extremely difficult to restore the land to the original tribal owners. The tribal have been protesting against various development projects like dams, mining, and industrial plants.

However, the government has been taking a pro-indigenous people stand on the issue, which includes a balanced approach towards economic growth as well.

In August the government rejected the forest clearance to the Niyamgiri bauxite mines in the state of Orissa. The decision came after years of campaign by the tribal people against giving a mining license and the government admitted that giving a license to the bauxite mining could affect large swathes of forested hills considered sacred by indigenous tribes.

The Government is working towards a new social order based on social equality and social harmony and there has been a positive outcome.

TRIBAL DEVELOPMENT IN INDIA: AN OVERVIEW

Dr.Tarun Bikash Sukai

The prominent tribal areas constitute about 15 percent of the total geographical area of the country. Scheduled Tribes, Scheduled Castes and denotified tribes constitute the weakest section of India's population, from the ecological, economic and educational angle.

India has the largest concentration of tribal people anywhere in the world except perhaps in Africa. The tribals are children of nature and their lifestyle is conditioned by the eco-system. India, with a variety of ecosystems, presents a varied tribal population throughout its length and breadth. The areas inhabited by the tribal constitute a significant part of the under developed areas of the country. The tribals live mostly in isolated villages or hamlets. A smaller portion of their population has now settled in permanent villages as well as

in towns and cities. On the whole, as per rough estimates, the prominent tribal areas constitute about 15 percent of the total geographical area of the country. Scheduled Tribes, Scheduled Castes and denotified tribes constitute the weakest section of India's population, from the ecological, economic and educational angles. They constitute the matrix of India's poverty. Traditionally, tribal people of India have been outside the purview of the Hindu caste system. Tribal communities interacted with the non-tribal, caste Hindu communities but largely remained



separate from the social structure. Caste groups which were at the lowest end of the caste hierarchy – the Dalits or untouchables (referred as Scheduled Tribes in the constitution) are the ones who were at the receiving end of the system. From the historical point of view, they have been subjected to the worst type of exploitation. They are practically deprived of many civic facilities and isolated from modern and civilized way of living since so many centuries.

The British rulers did something in providing certain facilities in villages and towns such as, education, transport, communication, medical etc. though inadequate and mainly with self-interest. But it did nothing for ameliorating the socio-economic conditions of tribal people, except to the people in North-East region of the country. However, after independence, the new policy of tribal development and integration is initiated. The Constitution of India has made definite provisions for the welfare and uplift of the tribal people throughout the country.

Tribal Population

There are approximately two hundred million tribal people in the entire globe, which constitute, about 4% of the global population. They are found in many regions of the world and majority of them are the poorest amongst poor. There are 533 tribes (with many overlapping types in more than one State) as per notified Schedule under Article 342 of the Constitution of India in different States and Union Territories of the country with the largest number of 62 being in the State of Orissa. Thus, if the sub-tribes and state tribes are taken into consideration, the number will be many more. About 50% of the tribal population of the country is concentrated in the

states of Madhya Pradesh, Chhatisgarh, Jharkhand, Bihar and Orissa. Besides, there is a sizeable tribal population in Maharashtra, Gujarat, Rajasthan and West Bengal. According to 2001 census, the population of Scheduled Tribes in the country was 84.3 million, consisting about 8.19 % of total Indian population. The population of Scheduled Tribes has been found increasing after 1951. The decadal population growth between Census Year 1981 to 1991 in respect of tribal population has been much more (31.64%) than the same for entire population (23.51%). As compared to the sex ratio for overall population (927 females per 1000 male), the sex ratio among the Scheduled Tribes is more towards females (972 females per thousand males).

Population in millions

Census Year	Total Population	Population of ST	ST percentage (%)
1951	361.1	19.1	5.29
1961	439.2	30.1	6.85
1971	548.2	38.0	6.93
1981	685.2	51.6	7.53
1991	846.3	67.8	8.10
2001	1028.6	84.3	8.19

Literacy and Health

As per 2001 Census, the literacy rate among tribals (47.10%) is found to be far below the overall literacy of the country (64.84%). The female literacy rate among tribals is far lower (34.76%) as compared to overall female literacy for the country (53.67%). However, the significant point is the increase in total as well as female literacy among tribals, though still at lower pace

Literacy amongst STs and all Social Groups

Year	STs			All Social Groups		
	Male	Female	Total	Male	Female	Total
1961	13.83	3.16	8.53	40.40	15.35	28.30
1971	17.63	4.85	11.30	45.96	21.97	34.45
1981	24.52	8.04	16.35	56.38	29.76	43.57
1991	40.65	18.19	29.60	64.13	39.29	52.21
2001	59.17	34.76	47.10	75.26	53.67	64.84

as compared to the overall population for the country.

The development of health facilities for scheduled tribe got impetus through successive plans. The Primary Health Centres (PHC) Health Sub-Centres (HSC) and ICDS project established in tribal areas are indicators of extension of medical services to the tribals (see the following table). The medical facilities though not adequate are hardly used by tribals living in isolated villages and hamlets.

Medical Facilities in ST Areas

Types of Medical Centres	Total No.	No. in ST Areas	Percentage (%)
Primary Health Centres (1996)	21853	3258	14.9
Health Sub Centres (1996)	132778	20355	15.3
ICDS Projects (1998-99)	4200	70	17.8

Economic Condition

The majority of tribals constitute the labour work force though their participation in works is declining, but not steadily. Workers among tribals can be divided into three categories – main workers (43.10%), marginal workers (7.61%) and non-workers (49.29%). More than half of the rural tribal population is found to be below poverty line as per latest survey available with Ministry of Rural Development (1993-94).

Land Holdings of Tribal population

Sl. No.	Types of Land Holdings	Percentage
1.	Marginal and small holdings	62.42%
2.	Semi-medium	20.59%
3.	Medium	13.58%
4.	Large Holdings	3.41%

The per capita income of tribals continues to be one of the lowest in the country and their alienation from their own land continues. As on January 1999, the tribals were alienated from 9, 17, 590 acres of

tribal land and only 5, 37, 610 acres of such land was restored as per latest statistics published by the Ministry of Rural Development.

Tribal Development under the Five Year Plan

The special programmes for Tribal development have been implemented in our country to benefit the tribal population under backward classes sector from First Five Year Plan. **First** Five Year Plan (1951-56) did not play any specific and special attention towards the development of tribal areas, because only certain piecemeal attempts such as educational schemes, welfare schemes etc. were introduced. During the **Second** Five Year Plan (1956-61), recognizing the Socio-economic conditions, prevailing in the tribal areas, concrete developmental schemes were planned. A novel administration system was introduced, with creation of “Multi-purpose Tribal Projects in certain selected Tribal Areas”. Tribal Development Block System had been implemented under **Third** Five Year Plan (1961-66). This system was evolved not only to improve the conditions in the tribal areas, but also to involve the tribal “people in the process of development with the aid of Panchayat Institutions. On the eve of the commencement of **Fourth** Five Year Plan (1969-74), 489 Tribal Development Blocks had come in to existence for the economic betterment of the scheduled tribes and intensive development areas with large concentration of tribal populations. A number of new programmes were also introduced, besides intensifying programmes, which were already popular. In view of the weaknesses of the earlier area based programme viz. Tribal development Blocks and Tribal Development Agencies, a new strategy was evolved in the **Fifth** Five Year Plan (1974-79) for the foundation of tribal sub plan (TSP) for the areas of tribal concentration. This is intended to achieve an intensity of attention to the tribal areas and devise measures to suite their local ethos. The TSP includes all scheduled areas and Tehsils/Blocks, with more than 50% Tribal population. Substantial tribal population was covered under sub-plan according

to these formulations. For operational purposes, the Tribal sub-plan areas have been organized in 178 Tribal Development Projects during Fifth Plan. The financial investment flows in TSP came from four important sources – (1) outlays from the State Governments plan, (2) Sectoral outlays from Central Ministries / Departments, (3) Institutional Finance and (4) Special Central Assistance.

In the **Sixth** Five Year Plan (1980-85), it was noticed that certain pockets of tribal concentration outside the tribal sub-plan area were still left out of the tribal sub-plan strategy. Therefore, it was decided during the Sixth Plan that pockets of centre groups villages /pockets having a minimum of 10,000 tribal populations of which at least 50 percent are scheduled tribes, should be carved for intensive integrated development and Modified Area Development Approach (MADA) under the TSP. A definite target of 50% of the scheduled tribal families to cross the poverty line was adopted during the Sixth Plan for the first time. The coverage of tribal population during this plan reached 75 percent as against 65% in Fourth plan. For the **Seventh** Plan period (1985-90), about 40 lakh scheduled tribe families below the poverty line are targeted to be provided economic assistance. In the Seventh Plan the objective remains to be indicious mix of area-cum-family development. By the end of 1987 -88, total of 184 ITDPs are functioning. ITDPs areas covered 313.21 lakh tribal population.

Tribal Development Policies and Programmes

The founding fathers of the Indian constitution were aware of their problems. Therefore, they made special provisions for their protection and development. The main safeguards include promotion of educational and economic interests and their protection from social injustices and all forms of exploitation. The constitution protects the general rights of all Indian citizens to move freely, settle anywhere and acquire property. It also permits the States to make reservation in public services in case of inadequate representation and requiring them to consider their claims in appointments to public services. The constitution provides special representation for the STs in the Lok Sabha and State legislative assemblies till 25th January, 2010 (Articles 330, 332 and 334) and enjoins the setting up of separate departments in the States and National Commission at the Centre to promote their welfare and safeguard their interests (Arts 164 and 338). Special provision for administration and control of Schedule Areas and Tribal Areas (Art. 224, Fifth and Sixth Schedules) and grant -in-aid to the States to meet the cost of such schemes of development as may be undertaken by them for promoting the welfare of the Schedule Tribes or raising the level of Schedule Areas (Art. 275 (1) are also guaranteed. Later on with a view to effectively deal with the crimes against the Scheduled Tribes two special

Plan Outlay and Expenditure for Tribal Development Programme in India

Sl. No.	Plan Period	Total Plan Outlay (Rs. in crores)	Tribal Development Programme (Rs. in crores)	%
1.	First Plan*(1951-56)	1,960	19.93	1.00
2.	Second Plan* (1956-61)	4,672	42.92	0.60
3.	Third Plan* (1961-66)	8,577	50.53	0.60
4.	Annual Plan* (1966-69)	6,756	32.32	0.50
5.	Fourth Plan** (1969-74)	15,902	75.00	0.50
6.	Fifth Plan** (1974-79)	39,322	1,182.00	3.01
7.	Sixth Plan** (1980-85)	97,500	5,535.00	5.67
8.	Seventh Plan** (1985-90)	1,80,000	12,000.00	6.67

Note: * Expenditure; ** Outlay

Source: Ministry of Home Affairs-Occasional papers on tribal Development-1966 p.I, 19 -20.

laws, viz., Protection of Civil Rights Act, 1955 and the Scheduled Castes, Scheduled Tribes (Prevention of Atrocities) Act, 1989 were enacted.

A number of commissions and committees were appointed in the recent past to look in to the problems of developments in the tribal areas in the country and they have recommended a number of measures to remove the socio-economic imbalances and also to break down their old psychological barrier, which existed in the tribal areas. The important commission and committees appointed so far are:

1. The Social Welfare Team of the Committee on plan projects 1959.
2. The Committee on Tribal Economy in Forest Areas -1967.
3. The Schedules Areas and Scheduled Tribal Commission (Dhebar Committee 1961).
4. The Special working Group on Cooperatives for Backward Classes - 1961 (Shri M.D. Bhargava as its Chairman).
5. The Task Force on Development of Tribal Areas -1972.
6. The Dube Committee -1972.
7. The Study Team on Co-operative Structure in Tribal Development Project Areas -1976.
8. The Study Group on Relief of Indebtedness Land, Alienation and Restoration in Development Agency Area -1973 (Shri P.S. Appu as its Chairman).
9. The team of Marketing, Credit and Cooperation in Tribal Areas -1978 (Shri K.S. Bawa Committee).
10. The Working Group on Development of Scheduled Tribes during the 7th Five Year Plans (1985- 90).

The Ministry of Tribal Affairs is the nodal ministry for planning, promotion, coordination and overseeing implementation of programmes for the development of Scheduled Tribes (ST). A special

ministry to safeguard the interests of tribals is definitely justified. Various Constitutional provisions emphasize the need for a strong watchdog and protector of tribal identity, their habitat, and natural wealth. This is also necessary to prevent their exploitation by many unscrupulous, vested interest groups. Concentration of STs in certain areas facilitates dissemination of benefits of area specific general schemes to ST population of the area too. There are 194 Integrated Tribal Development Projects (ITDPs), set up in Blocks/group of Blocks where ST population is more than 50% of the total population. Villages with a population of 10,000 or more and having 50% or more tribal population form pockets under Modified Area Development Approach (MADA) and 259 such MADA pockets have been created. In addition, 82 clusters have also been formed for groups of villages having population of 5,000 or more but where STs constitute more than 50% of the population. In other words, in these areas of ST concentration, it becomes feasible to reach the benefits of the welfare programmes of other agencies in the field of education, health etc. to the ST population. The thrust areas identified by the Ministry include development of Primitive Tribal Groups (PTGs); setting up of 100 model residential schools; development of infra-structural facilities in tribal areas; encouraging research in tribal affairs; and monitoring utilization of funds released to States/UTs and NGOs under various Central Sector and Centrally Sponsored Schemes. The Ministry gives Special Central Assistance (SCA) to 20 Tribal Sub-Plan States/ UTs as an additive to their own outlays. These grants are meant basically for family oriented income generating schemes. The Ministry supports 14 Tribal Research Institutes located in different States. A National Institute for Research & Training in Tribal Affairs is also being set up. The Ministry also has under it Tribal Cooperative Marketing Federation of India Limited (TRIFED) – an apex body for ensuring remunerative prices for Minor Forest Produce (MFP) and Surplus Agricultural Produce (SAP) of the tribals and to protect them from exploitation. Apart from making equity contribution, the Ministry also provides price support to TRIFED. In addition, in April, 2001, National Scheduled Castes and Scheduled Tribes Finance and Development Corporation (NSFDC) was

An Overview of Schemes/Programmes for Schedule Tribes

Sl. No.	Name of Schemes/Programmes	Objectives
1.	Grant-in-aid to NGOs for ST including Coaching & allied scheme and award for service exemplary	To provide coaching to ST candidates through pre-examination training Centres for preparing them to compete in civil service and competitive examinations
2.	Vocational Training Centres in Tribal Areas	To provide skill upgradation training to tribal youths for better employment avenue
3.	Educational Complex in low literacy pockets	To impart both formal and vocational education to tribal girls in rural areas where the literacy rate is very low
4.	Investment/Price Support to TRIFED	To provide remunerative price to Minor Forest Produce (MFP) and Surplus Agricultural Produce (SAP) of STs
5.	Grant-in-Aid to STDCs for MFPs	Financial support for STDC to increase the quantum of MFPs and for setting up of Warehousing facilities.
6.	Village Grain Banks	Establishment of storage of food grains as safety net against starvation deaths of STs living in remote belts.
7.	Development of Primitive Tribal Groups (PTGs)	Protection, survival and development of PTGs spread over in 15 States/UTs
8.	Support to National/ State ST Finance & Development Corporations	To accelerate economic and income generation development activities amongst STs whose annual income is below double the poverty line.
9.	Promotion of Tribal Culture	Promotion/preservation of Tribal Art and Culture
10.	Rajiv Gandhi National Fellowship for ST students.	To provide financial assistance for ST students for pursuing higher studies leading to M.Phil and Ph.D.
11.	Scheme of Post-Matric, Book Banks & Upgradation of Merit of ST students	To provide text books to students pursuing higher education and to provide special and remedial coaching to ST students study in classes XI & XII
12.	Girl Hostel & Boys Hostel for STs	To provide facilities to ensure more enrolments of tribal students in educational institutions.
13.	Ashram Schools in Tribal sub-Plan Areas	To promote education among STs living in remote areas
14.	Research, Information & Mass Education, Tribal Festivals and other	To conduct action research, evaluation studies holding seminars/workshops, tribal museum, exhibition of artifacts on socio-economic development of tribals
15.	Special Central Assistance (SCA) to TSP	To provide financial support to States/UTs for implementing family oriented income-generating activities among STs living in below poverty line.
16.	G.I.A. under Article 275(1) of the Constitution	To meet the cost of development schemes/projects for promoting welfare of STs.
17.	Establishment of LAMPS	For providing integrated services such as credit, marketing, storage, distribution of consumer goods, etc. to the members.
18.	Job opportunity	Reservation of posts in Govt. Services.
19.	Training-cum-production Centres & Subsidies.	Development of Cottage & Small Scale Industries to provide employment.
20.	Concessions	Concessions were offered by Forest, Revenue, Excise Departments, etc.

Source: Ministry of Tribal Affairs, Government of India.

bifurcated to form a separate National Scheduled Tribes Finance and Development Corporation (NSTFDC). It is a fully owned Government of India Undertaking and is managed by a board of directors with representation from Central Government, state level agency, financial institutions and persons representing scheduled tribes etc.

There is a need to make a review of the tribal situation. This review would indicate that the strategy for development would require an intensive approach to the tribal problems in terms of their geographic and demographic concentration, if the faster development of the community is to take place. While these achievements are a matter of some satisfaction as various development plans, policies and programmes have brought forth a perceptible improvement in the socio-economic status of the Scheduled Tribes, a lot more needs to be done with concerted focus on the issues crucial to improve their status on par with the rest of the population. These are: prevention of land alienation from tribal to non-tribal; review of National Forest Policy and Forest (Conservation) Act 1980; consideration of

symbiotic relationship that the tribals are having with forest; provision of clean drinking water and medical facilities; effective rehabilitation of the tribals who are displaced on account of setting up of development projects; and legal measures to curb the activities of money lenders and traders by effective implementation of laws and regulations. Women play a significant role in tribal society; therefore, their empowerment with upgradation of their skills is one of the issues to be addressed urgently. After independence the policy stresses the need to recognize tribal rights over land and forest and to let them develop along the lines of their own genius, but in reality, tribal communities have been progressively alienated from their traditional rights over natural resources like land, forest, river and that has eroded the very basis of their existence. The Government is working hard towards a new social order based on social equality and social harmony, but still it is not adequate enough for the development of tribal people in India.

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TRIBAL DISPLACEMENT: THEIR RIGHT TO LIVELIHOOD CANNOT BE DENIED

Dhurjati Mukherjee

It is significant that N. C. Saxena, a member of the National Advisory Council (NAC), came out with startling findings that 85.39 lakh tribals have been displaced since 1990 for mega projects, constituting 56 per cent of India's total displaced population. "Since 1980, 9.8 lakh hectares of forest land have been diverted for 11,282 projects", the note stated, giving the example of Orissa where 54-56 per cent of tribal land has been lost to non-tribal over the last 25-30 years. If the other tribal-based areas are considered, one can easily calculate the extent of displacement of tribals while their poverty and squalor is now a well known fact.

Another estimate found is that of the one lakh families – mostly of tribals – disposed and displaced by bauxite mining operations of just one private sector giant, a mere 400 have received Class IV employment in the enterprise.

Both illiteracy and malnourishment in tribal areas are over 50 to 60 per cent and consumption of foodgrains has fallen by 10 to 15 per cent. "Studies have found that tribal population has showed not much improvement in the food and nutrition intake over time", Saxena pointed out and quite rightly.

It also needs to be mentioned here another stern report of the 4-member Saxena committee about the Vedanta's group's violation of environmental and forest laws have not only highlighted the pitiable condition of the tribals and their poverty and squalor but also forced the authorities to take action against corporates who have disregarded rules. This report very aptly pointed out: "This committee (feels) allowing mining in the proposed mining lease area by depriving two primitive tribal groups of their rights over the proposed mining area to benefit a private



company would shake the faith of tribal people of the laws of the land, which may have serious consequences for the security and well being of the entire country". It is thus necessary that companies like Vedanta, POSCO and many others must be prevented from despoiling the forest areas, violating forest and environmental laws and destroying community rights and established lifestyles.

In the case of Bellary also, the search for iron ore has led to the forests being stripped and the soils rendered unfit for cultivation. As in Orissa, here also, mining has been carried out because of the close links forged between the worlds of crime, business and politics. Thus the decision of the government to stop bauxite mining in the Niyamgiri hills and in Araku is no doubt welcome and the Ministry of Environment & Forests needs to be congratulated for taking a bold decision.

Many research studies reveal the degradation of tribal life, alienation of tribal land and devastation caused by alcohol and moneylenders. As is always the case, the contractors and business community, who have unholy links with the politicians funding them at regular intervals, have gained unlimited right to plunder supposedly protected forest wealth and resort to illegal mining. Added to this is the clause of 'public purpose' for which the law sanctions land acquisition but which is done to favour a class of people, as has been the case in various parts of the country, affecting specially the tribals.

The question thus arises how will the condition of the tribal-dominated districts improve in the coming years? With growing extremist violence continuing in these areas, the government has been talking of plans and programmes for social and physical infrastructure development in these areas/districts. In this connection, the Rs 13,000 Integrated Action Plan (IAP) is proposed -- based on these criteria: tribal regions, forest areas falling within the ambit of the Backward Region Grant Fund (BRGF), extremist affected areas etc. -- for delivering effective governance at the grassroots is being seriously considered.

Some people have argued that mining activities for feeding factories with raw materials would

generate jobs and change the lifestyles of the people of the area. But this is erroneous thinking as experience has shown that in most areas where big industrial units have been set up, the pollution -- whether of water, air or soil -- of the place has increased and people continue to live in poverty and squalor. One may mention here the case of Jamshedpur where the city looks posh and beautiful but just a few kilometers away the people languish from poverty, malnutrition and hunger.

Tribals have long received step-motherly treatment from the state which has pushed them to extremism and the Maoist violence could continue unless there is positive and quick intervention by the government. This is not realized by a section of politicians and bureaucrats who feel violence has to be countered by armed resistance -- very much contrary to Mahatma Gandhi's thinking and philosophy. Thus more than reservation for scheduled tribes, what is needed at this juncture is providing social and physical infrastructure in the tribal and backward villages to help improve their quality of life and create employment opportunities for them.

The planning strategy followed in the country is geared to mega projects in urban areas with little concern for the countryside. Moreover whatever projects are there for the rural poor do not reach the real beneficiaries. This has to change with a pronounced pro-tribal, pro-rural, pro-poor outlook. But as things stand today the powerful lobby of the business--politician-bureaucrat nexus may not allow this to happen. Moreover the industrialization-liberalization phobia for more profits has made the economy to focus primarily on industrial projects neglecting agriculture and rural industries which could have benefited the masses in a big way.

In the present scenario, an action plan needs to be formulated that could be executed at the grass root level with participation of the local people -- free from corruption. If necessary, the involvement of the civil society organizations, including tribal groups, working in the place would have to be enlisted. Only then will the interventions be fruitful and effective and in the interest of the masses.

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STATUS OF TRIBALS IN INDIA: AN ANALYSIS

- Anupam Hazra

More than half of the rural tribal population is found to be below poverty line. They constitute a large proportion of agricultural labourers, casual labourers, plantation labourers, industrial labourers etc.

One of the greatest challenge that the Government of India has been facing since independence is the proper provision of social justice to the scheduled tribes by ameliorating their socio-economic conditions. The tribal population of India continue to suffer from discrimination, marginalization, extreme poverty and conflict. They are being deprived of adequate access in the basic needs of life such as health, education, housing, food, security, employment, justice and equity. Issues of sustainable livelihood, social and political participation of the tribal exists as a major problem in India. Some of them are being dispossessed of their traditional lands as their livelihoods are being undermined. Meanwhile,

their belief systems, cultures, languages and ways of life continue to be threatened, sometimes even to the point of by extinction. Governments have failed to guarantee tribal people's rights in the implementation level. Members belonging to tribal societies are unable to acquire and use their rights.

Crime and Violence against Tribal Population

According to the 2007 Annual Report of the National Crime Records Bureau (NCRB) of the Ministry of Home Affairs, a total of 5,532 cases against Scheduled Tribes (or tribal) were reported in the country during 2007 as compared to 5,791



cases in 2006 showing a decline of 4.5% in 2007 over 2006. But the NCRB figures do not reflect the actual intensity of violence against the indigenous peoples of India. Majority of the atrocities are not reported and when brought to the police authorities, they sometimes refused to register. The conviction rate of the accused also remained low. Only 8,228 persons out of 9,483 persons arrested for crimes committed against Scheduled Tribes could be charge sheeted accounting for 86.8% charge-sheeting rate but the conviction rate remained as low as 27% during 2007. The Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act of 1989 remains largely unimplemented.

Status of Tribal Women and Children

Among the Scheduled Tribe population the most vulnerable group are tribal women and tribal children. Gender based violence and domestic violence is high among women in general in India. Girl child and women from the tribal population are more vulnerable to violence. The dropout and illiteracy rates among them are high. Early marriage, trafficking, forced prostitution and other forms of exploitation are also reportedly high among them. Tribal women face violence including killing, torture, rape, and other inhuman and degrading treatment at the hands of the law enforcement personnel, vigilante groups, the armed opposition groups, non-tribal and in many cases from the tribal themselves. According to the NCRB, a total of 627 cases of rape of tribal/indigenous women were reported in 2007. Tribal children were victims of killings, sexual violence, arbitrary arrest and illegal detention at the hands of the security forces and the armed opposition groups. In general India's juvenile justice system is in shatters. But for the children caught in conflict zones the situation is still worse.

Economic Scenario of Tribal Society

The poverty levels of India's tribal population have remained persistent over time. Deprived of formal education and with little access to capital,

they fail to find work, either self-employed or within regular jobs, ending up in casual employment or in agriculture. They constitute a large proportion of agricultural labourers, casual labourers, plantation labourers, industrial labourers etc. More than half of the rural tribal population is found to be below poverty line. It has been observed that while poverty among the general population had declined, there had been little change in poverty levels among the tribal people. The poverty gap between Scheduled Castes and other groups in India has decreased while that between the Scheduled Tribes and other groups has widened.

Tribal Population and the Environment

The 1992 United Nation Conference on Environment and Development identified indigenous peoples as one of the major stakeholders in Agenda 21. Yet the rights of the tribal population regarding the environment and natural resources have frequently been overridden by governments, transnational corporations or multilateral agencies. Their identity is in grave danger, since the forest cover in the country has drastically been reduced causing unnatural damage to the environment and forests, they were living in. **Unfortunately the forests conservation laws did not support them and denied them even a small share from the forests. So they became unnatural intruders to their own home land.** Strategies for pro-poor economic growth that rely on natural resource exploitation often have an adverse impact on tribal communities. They may contribute to their further impoverishment or cause displacement. Development should be meaningful to all potential beneficiaries; yet the rights of tribal people have often been violated in the name of 'development'. The tribal in India are routinely marginalized and deprived of their access to fundamental resources.

Health Care Facilities in Tribal Societies

The tribal population are less likely to afford and get access to healthcare services

when required. The health outcomes among the Scheduled Tribes are very poor even as compared to the Scheduled Castes. Among the scheduled tribes or adivasis of India, mortality, morbidity and malnutrition rates remain particularly high when compared to the Indian population at large. Remoteness of villages, uncooperative attitudes among medical personnel, limited manpower, and a lack of awareness within tribal communities - all pose difficulties in achieving adequate health care delivery.

Ensuring a better future for Tribal Population

The Constitution of India has made several provisions to safeguard the interests of the STs in Articles 15(4), 16(4), 46, 243M, 243 ZC, 244, 334, 335, 338A, 339(1), in the Fifth as well as in the Sixth Schedules; besides these, several laws have been enacted by the Central Government like the Protection of Civil Rights Act, 1955; the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989; the Provisions of the Panchayats (Extension to Scheduled Areas) Act, 1996; the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 etc. Despite of these elaborate provisions in the Constitution and other laws, it is an unfortunate reality that social injustice and exploitation of Scheduled Tribes and other weaker sections persist.

Though Government has emphasised on decentralised planning as a means of localising policymaking, bringing decision-making closer to disadvantaged groups; however, several factors have blocked this potential. The social and economic power of local elites has often translated into disproportionate influence over

the political process; top-down, insulated and non-transparent decision-making structures have made it difficult for the socially excluded group to raise voices for their rights through involvement in decision-making process. In this context formal decentralisation has to be accompanied by efforts to democratise local government while recognising that on technical as well as political grounds, certain problems must continue to be addressed at higher levels. Here the instruments of governance in the country, and the energetic and committed non-governmental sector and civil society organisations can play a crucial role. Promoting civil society networks will be helpful in mobilising the tribal population for building their alliances with organisations, which are fighting for tribal-rights and social justice by adopting a bottom-up way of strengthening the capacity of the tribal population to exercise their voice and to ensure their claims, as addressed by policies and political processes.

Cultural norms and values which lead to the persistent discrimination against the tribal population can be changed through the media, public campaigns and setting up a legal framework which discourages discriminatory behaviour and strengthens the civil and political rights of the tribal population. The media can play an increasingly powerful role in shaping everyday perceptions about difference and diversity within a society and can be mobilised to educate, inform and entertain in ways which break down some of the barriers that separate socially excluded groups from the rest of society.

Among the scheduled tribes or adivasis of India, mortality, morbidity and malnutrition rates remain particularly high when compared to the Indian population at large.

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TRIBAL EDUCATION AS A TOOL FOR RURAL TRANSFORMATION: A CASE STUDY OF PANIYAS IN WAYANAD

Raju Narayana Swamy

Education of the Scheduled Tribes has received a lot of attention in independent India. However, the form and content of education for the tribes has continued to be more or less the same. They are among the most socially and educationally disadvantaged groups in India. The aim of this paper is to take up the questions regarding tribal education in Kerala with special reference to Wayanad. It discusses ways to better understand the influence of education on rural transformation from an indigenous perspective. The study attempts to portray the dismal state of literacy among Paniyas, a tribal community in Wayanad and factors contributing to the generally low literacy rates and educational attainment among them.

The “Kerala Model Development” has been the hypothesis of development that took shape in Kerala during the first three decades following the formation of the State. The characteristic feature of this model was the priority given to democratic culture in development. But the internationally acclaimed “Kerala Model” came under sharp criticism as it began to rust

in the late eighties. The criticism was rooted in the perception that the model had outlived its purpose. It was criticized for its failure to produce enough wealth to satisfy the growing demands of a consumerist society. It was apprehended that the model would not even help to produce enough wealth and employment to sustain levels of living standards already achieved.



The results of the Kerala model of development are highlighted in the following indicators: a generally high literacy rate, a low population growth rate and high life expectancy and greater accessibility to essential services like health, water, electricity, public distribution system, roads etc. These indicators are important because these are attributes available to, experienced by, a large section of population to show up significantly when measured on a spatial or per capita basis. The “Kerala Model” has in fact laid the foundations for the development of a new model based on knowledge-intensive industries and services and modernization of traditional agriculture and cottage industries. In the new “Kerala Model” education is the key of development. The state lays claim to the highest literacy rate in the country-90.92 percent in 2001 as compared to the national rate of 65.38 percent. However the quality of education still needs to be improved. It is in this context that we are analysing the impact of the new model on the education of adivasis in Kerala

The Scheduled Tribes constitute the most backward group among the weaker sections in Kerala. The social reality of the Adivasis in postcolonial Kerala is characterized by poverty, malnutrition, illiteracy, socio-economic and sexual exploitation by settlers and the depletion of their traditional resource base (C. P. Balan Vaidyar, 1997). The scheduled tribes lag behind the ‘others’ of Kerala Model of Development in their basic achievements like education and health, which has played a central role in Kerala’s development process (Human Development Report 2005, 2006). A review of literacy rates among ST population in comparison with that of the general population indicates a growing gap between literacy rates of these communities. In the recent past tribal education has achieved considerable progress in terms of primary education enrolment. But further analysis suggests that progress is lacking

in terms of quality and in effecting the desired transformation. The following section will discuss about this in detail.

Statistical Profile of Adivasis

The Scheduled Tribe population is 3,641,89 (2001 census), which is nearly 1.1 per cent of the state population. The highest percentage of ST is in Wayanad District forming 17.43 percent of total population in 2001 census. The coastal district of Alappuzha has the lowest percentage (0.15 percent). More than 37 percent of the ST is concentrated in Wayanad district, another 14 percent is in Idukki. Thus more than 50 percent of the total population of ST in the state is concentrated in the hilly districts of Wayanad and Idukki. There are 10 districts viz. Kannur, Kozhikode, Malappuram, Thrissur, Ernakulam, Kottayam, Alappuzha, Pathanamthitta, Kollam and Thiruvananthapuram having proportion of ST to total population less than the state proportion of 1.14 percent showing that southern districts have lower proportion of ST population. The 4 districts having proportion higher than the state average are Kasargode, Wayanad, Palakkad and Idukki. Kasargod and Palakkad together constitute more than 19 percent of the ST in the State. The primitive tribes as recognized by the Government of Kerala are in the pre-agricultural stage of development with very low literacy rates. They together constitute nearly 4.8 per cent of the total Scheduled Tribe population in the State.

Literacy Status of Adivasis

At present the education sector as a whole in the state is characterised by the existence of a dual system: one segment comprising high quality institutions catering to the affluent 5 per cent of the population and the second consisting of low quality institutions meant for the masses. The state has never made any attempt at equitable distribution of quality higher education, the

access to which is virtually barred to children of marginalized groups like SC/ST (Abdul Salim, 2008).

A review of literacy rates among ST population in comparison with that of the general population indicates a growing gap between literacy rates of these communities (Kerala Development Report, 2008). It is found that the literacy rates of the tribes are far behind those of the other sections of populations. The literacy rate of the scheduled tribes population in the State is as follows:-

Table 1.1
Literacy Rates – STs vs. All Castes (in %)

Category	1971	1981	1991
General	60.42	70.42	89.81
Scheduled Castes	4.21	55.96	79.66
Scheduled Tribes	25.72	31.79	57.22

Source: Census of India, Series-10, Kerala. Paper-3 of 1971, 1981, 1991 Final Population Totals.

Even though a significant increase had occurred among the Scheduled Tribes a wide gap is still existing between the literacy rate among STs and general population.

Economic Conditions

The backwardness and the poor living conditions of the Scheduled Tribe population are major concerns. Most of the tribal people have a low economic profile. The adivasis constitute 3 per cent of the total BPL population while their proportion to total population is only 1.14 per cent (Economic Review, 2009). It implies that the incidence of poverty among the Scheduled Tribes is about three times that of the total population of the state. The study of C.Krishnan points out that the major factor accounting for low educational achievements and low aspirations on the part of tribefolk in Wayanad (One of the 14 districts in Kerala) is their poor social and economic condition.

They live in unhealthy environment, do low-paid physical labour, and own very little land (Krishnan, C. 1999).

Drop-out Rate

Among the Indian states Kerala has achieved the distinction of the state having the lowest dropout rate among school students. In the year 2006-07 dropout ratio among school students in Kerala was 0.81 per cent. The drop-out rate in Lower Primary Section, Upper Primary Section and High School Section were 0.59 Per cent, 0.52 per cent and 1.38 per cent respectively. Among the Districts, Wayanad has the highest drop out ratio in the Lower Primary section (1.89 %), Upper Primary Section (1.92 %) and High School Section (2.56 %). Drop-out ratio among Scheduled Tribe students is 4.18 per cent.¹

According to the report of SC/ST Development Department, the state never made any attempt at equitable distribution of quality higher education, the access to which is virtually barred to the children of the marginalized groups like Scheduled Tribes. The principles of equity and access are thought to be the concerns only of government-run and aided private institutions. Even here the SC/ST and other backward sections are unable to avail themselves fully of the facilities statutorily made available to them. Though the government has reserved 20 percent (15 Per cent for SC and 5 Percent for ST) of seats in the government aided Arts and Science Colleges in Kerala for SC/ST students, their annual quotas are seldom filled, not even as late as 2000 (Report on the Implementation of Safeguards and Development Programmes for SC/ST, 2000). In 2000 the share of SC/ST enrolment in Arts and Science Colleges was only 12.86 per cent. In a note prepared by the department in August 2000, it was pointed out that in the case of self-financing courses run

by the University, the share of SC/ST students was marginal.

The study of Sam Mohanlal highlights that the main reason for dropout is the total incompatibility between the students and the use of language in the textbooks, language used by the teachers in the school, and the contents of the text that are often not ecofriendly (Sam Mohanlal, 2001).

Role of Teachers

The representation of Scheduled Tribes in the cadre of teachers is very low. During 1997-98, out of 187088 teachers up to the High School level, there were 6642 (3.5%) belonging to SC and 354 (0.18%) belonging to ST. At the Primary, Middle and Secondary levels the representation of ST teachers was 0.1 per cent and 2.7 per cent and 0.18 per cent respectively. It is also seen that there is no inservice training for tribal teachers. The need for special training to understand the tribal traits for teachers in the tribal areas should be considered (Chapter X, 1998). The State Government should make efforts to fill up the prescribed percentage of reservation of 2 percent for STs in the teaching profession.

State and Tribal literacy Programmes

The government has been implementing several programmes for the educational improvement of the tribes for the past few decades. The levels of awareness and utilisation of these schemes are relatively low among the tribefolk. In almost all the recent years, more than fifty per cent of the allotment under the State-level schemes of the Scheduled Tribes Development has been on education (Krishnan, C., 1991, p.44.). The total literacy campaign launched in 1991-92 did not fully succeed in incorporating tribes mainly because of non-easy accessibility to their settlements and dearth of qualified instructors to carry out the programme. A special project titled

Tribal Literacy Project was launched for tribals once the total literacy campaign was over. This programme covered several programs incidental to the cultural and socio-economic advancement of tribals. During 1995-96, the literacy programs were transferred to the Panchayat Raj Institutions. The experience in Kerala shows that in spite of successful completion of the Total Literacy Campaign, a good number of literates and semi-literates relapsed into illiteracy mainly due to the lack of continuous and systematic follow up programmes. (Environmental Literacy Programme: Evaluation Report, 2006).

Due to the gaps between and within education systems the current status of education prevailing is quantitatively inadequate, and qualitatively incompetent to address the education and training/skill needs of the adivasi population in Kerala.

Promoting skills through education

There are many traditional skills and technologies practiced by adivasi people for generations. Many of them are locally specific which people learn usually through informal education. Some examples are mat making using bamboo, pandanus leaf etc., vegetable preservation techniques for long term use (Bamboo seeds used for making 'Puttu' a favourite dish of Paniya community), meat preservation technique, seed preservation technique for the next crop (paddy) etc. These diverse skills serve up the local requirements. These usually include low cost or cheap process, with locally available natural raw materials and above all simplicity of the process. Most of these skills are now found to be in decline in the absence of support for production of commodities and marketing. Further improving these skills are necessary as the students can gather the necessary orientation and prepare themselves for wage and self-employment.

Rural non-farm sector development

Poverty situation in Kerala clearly suggests that the majority of the rural poor are marginal and landless farmers, agricultural labourers and other asset less non-agricultural workers. Agricultural growth is providing only limited possibilities for labour absorption and poverty continues on a massive scale in rural areas. In this context there is an obvious relationship between the rural non-farm sector income and the rural poverty. When the income from the rural non-farm sector sources are higher than that of the agricultural sector, access to the non-farm sector jobs represents an upward mobility improving wellbeing and reducing poverty. By diversifying their sources of income rural adivasi households can augment their incomes and minimize the extent to which they are affected by adverse income shocks from farm activities. The rural non-farm incomes increase the households' income. They can buy farm inputs more easily, thus increasing their farm productivity. Rural non-farm sector offers landless adivasis an important option for generating income. Biswajith, Choudhury's (2010) study on the rural non-farm sector in Bangladesh finds that the rural non-farm sector has played an important role in limiting rural poverty, particularly where land ownership is skewed and labour force growth remains high.

In the quest of diversification of the rural economy the significance of this sector in terms of potential for economic conversion has to be looked into. In the current overriding concern to have improvement in the rural economy, policy emphasis has to be laid on non-farm sector, particularly with its scope of contribution to accelerating the poverty reduction process. Training the adivasi students in these sectors to

some extent can help them to earn money from these sectors. They could acclimatise with the situation by trying to learn skills on the job, by which productivity and quality of rural small scale products will also remain high.

Conclusion

Education in Kerala is heavily biased against the Scheduled Tribes. Although a few ST students do benefit from education, they represent the cream of the community and not the masses. The children of the poor, less educated parents with low income occupations are only marginally represented. Decentralization of educational management is an aspect that needs special

Education in Kerala is heavily biased against the Scheduled Tribes. Although a few ST students do benefit from education, they represent the cream of the community and not the masses.

consideration in the context of tribal areas. In fact, considering the geographical terrain and communication problems in tribal areas, it is crucial to restructure the existing system of educational management. From the above study we can

conclude that the present education system for adivasis is not a well planned one, although the government has succeeded in the enrolment of these people in primary school level. The education system has failed to meet the needs of adivasis. Shortages of trained teachers, reading materials, poor infrastructure facilities etc are the prime causes behind this. Finally, the study finds that educational system must suit with the rural and agricultural base- towards a knowledge skills-based economy. Overall, the available data evidence shows that importance to farm/non-farm activities in the rural areas can help in reducing poverty. The education system should also be moulded by giving priority to these sectors.

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NEW TRIBAL PANCHAYAT IN NICOBAR ISLANDS

Dr. S.K. Biswas

Like other tribes in India, the Nicobari had their age-old self governing village council. In each island, there are number of villages. They live under joint family system, which is called "tuhets". Every Tuhet is governed by a head of the family.

The study of Indian tribes has impressed many researchers for a long time. India being a classic homeland of various tribes, castes and other forms of ethnic groups, offer a very good human laboratory for empirical observation. India has the second largest tribal population in the World next to African countries. Out of total population of India, STs found 8.27 per cent. Of these 1.95% are primitive tribes. The highest concentration of schedule tribes is found in North-East States. The framers of

Indian constitution were very much respectful towards the welfare and development of our indigenous tribal population. These may be broadly divided into two parts (I) Protective (II) Development.

Pandit Jawaharlal Nehru, the first Prime Minister of India was very much in favour of the integration of Tribals with the mainstream of the nation. (Verma, 1990, PP.174-176). The Tribal people are the earliest settlers in India, who are called "son of the soil".



Before the British arrived in India, the tribal groups were excluded groups because they were not a part of the greater traditional Hindu society. At best they may be termed as the parallel segment in a different domain. For the development and welfare of the tribal and other marginalized groups in the society, a number of schemes and programmes have been launched by the Union as well as state governments through various agencies.

PROFILE

The Andaman and Nicobar Islands, a Union Territory was the homeland of indigenous tribes. This chain of Islands was declared a Union Territory on November 1st 1956, under the jurisdiction of the Indian Union. More than five hundred Islands consist of three districts, two in Andaman group of Islands and one district in the Nicobar groups of Islands. Out of these Islands, only 33 Islands are inhabited by the people in the Andaman and Nicobar group of Islands. There are in all six Scheduled Tribes in Andaman and Nicobar Islands viz. Great Andamanese, Jarawas, Sentinelese, Onges, Shompen and Nicobari. The tribes, other than Nicobari are classified as Primitive tribes. The welfare and development of the Nicobari are undertaken by various departments of the Administration under Tribal sub-plan, while that of the Primitive Tribes is looked after by an autonomous body known as Andaman Adim Janajati Vikas Samiti (AAJVS), which is headed by the Lt. Governor of Andaman and Nicobar Islands. The Tribal Welfare Department provides cent per cent grant-in-aid to AAJVS out of its annual plan. (Biswas, 2008, pp.2-4)

The tribal population as a whole has increased to a great extent during the last few decades (1951-2001). But the growth of the population of the primitive tribal has decreased very sharply.

The tribal population as a whole has increased to a great extent during the last few decades (1951-2001). But the growth of the population of the primitive tribal has decreased very sharply. The great Andamanese are settled at Strait Island and their total population is 55, which includes two non – tribals ladies and one non – tribal gent who married to Andamanese. The Jarawas (Once they were hostile) tribal with the estimated population of 328 inhabit the Western Coasts of South and Middle Andaman Islands. The Sentinelese, the only hostile Negrito, who remain isolated, inhabit islands named North Sentinal. They are hunter-gatherers, whose population is estimated to be 39 as per 2001 census. The Onges have been settled in two defined areas in Little Andaman Island, within an area of 110 hectares only. The total population of the Onges is 88, as per recent counting. The Shompen is a Semi – nomadic inhabiting the defined areas of Great Nicobar Island. Their population is estimated at 398 in the last census report. The Nicobarese are the most advanced and populous tribes in the Bay Islands. The total population was more than 28450 (Basic Statistic, 2006 pp.12-14)

Like other tribes in India, the Nicobari had their age old self governing village council. In each island, there are number of villages. They live under joint family system, which is called "tuhets". Every Tuhet is governed by a head of the family. The criteria for selecting the heads of the "tuhet" are seniority in terms of age, proficiency, profound knowledge of customary laws and the qualities of administrative leadership to control and command over a large lineage group. Generally he holds his office for a lifetime. The



significance of the tuhet is the socio-economic integrity of its members. A village has a number of *tuhets* with heads known as **ma-roo** or **ma kuo tubet**, who organize all important matters i.e. political, economic and social. The *tuhet* head is responsible for maintenance of peace and welfare of the lineage members. Even after independence, the government has allowed to continue their tribal council with some changes accordingly. The Village tribal councils and Islands Council are two institutions which have been performing as link agencies with local administration for their development plans and programmes exclusively.

Like other tribes in India, the Nicobari had their age old self governing village council. In each island, there are number of villages.

CONCEPT OF TRIBAL PANCHAYAT (PESA)

To further intensify the democratic decentralization mechanism among 8.5% of tribal community, the three tiers Panchayati Raj

system has extended to Tribal communities to further strengthen and streamline the genuine grass-root level activities. The provisions of 73rd Amendment did not apply to schedule Areas located in eight states. But in the year 1996, the Parliament extended the 73rd Amendment Act to these areas by legislating the Panchayats (Extension to the Scheduled Area) Act 1996, (PESA). The PESA is a unique piece of legislation; it gives radical self-governance powers to the tribal community and recognizes its traditional community rights over natural resources. PESA empowers the tribal Gram

Sabha to approve all development plans, control all functionaries and institutions of all social sectors, control all minor water bodies, minor minerals and non - timber forest resources.

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HEALTH ISSUE OF TRIBALS IN RAJASTHAN

Dr. Suman Pamecha

The present paper analyses various facets of health issues of the tribal people of Rajasthan. This study is a direction towards understanding complex web of ecosystem of human settlements and specific cultural processes which play explicit part in sickness and health. This paper also examines tribal response to health problems which reveal multiple and simultaneous usage of home remedies and multiple therapy and how they are in congruity/incongruity with existing medical system in the country.

Health is a function, not only of medical care but of overall integrated development of society (cultural, economic, educational, social and political). The World Health Organization defines health in positive terms as “a state of complete mental, physical and social well-being.” While this concept may appear straight forward, it does not easily lend itself to measurement. Consequently, to describe the levels, trends and differences in healthiness demographers measure the deviations from the health status as indicated by the levels of mortality (death) and morbidity (disease and disability).

Tribes of Rajasthan are said to be the original inhabitants of Rajasthan. These tribes of Rajasthan comprises of about twelve percent of the total population of the state which is nearly double the national average. The major concentration of these tribes of Rajasthan is found mainly in the foothills of the Vindhya, Aravali ranges. Each and every tribe of Rajasthan have their unique customs and rituals, thereby making the whole of the culture of tribes of Rajasthan quite enriched. Their style of making houses, festivals, costumes all bear witness to the cultural exquisiteness of the Rajasthan.



Rajasthan has large indigenous populace- *Minas (Minawati)* in Alwar, Jaipur, Bharatpur, and Dholpur, Udaipur areas. The *Meo* and the *Banjara* are travelling tradesmen and artisans. The *Gadia Lohar* is the Lohar meaning ironsmith who travels on Gadia meaning bullock carts. They generally make and repair agricultural and household implements. The tribes share common traits, which seem to link their past but it is the differences in their costumes and jewellery, fair and festivals that set them apart from one another. Other tribal communities of Rajasthan are *Bhils, Garasia, Bishnoi, Meghval, Rabari, Sahariyas, Damors* etc.

Population Size and Growth

According to 1991 census, Rajasthan has a tribal population of 54,74,881, which forms 12.44 percent of the total population of the state. The population has grown at a rapid rate during the last three decades. During 1901 the total population in the state was 103 lakhs, which rose to 564 lakhs in 2001. During the decades 1961-71 and 1971-81 the growth rate of tribal population in Rajasthan was 35.33 percent and 34.46 percent respectively.

Distribution of Tribal Population

Around 54.75 lakhs or say about 12.44 percent of the entire population of the state are scheduled tribes. The highest concentration is noticed in Banswara and Dungarpur districts where their proportion to total population of the districts comes to 73.47 percent and 65.84 percent respectively. Other districts with higher proportion are Udaipur (46.34%), Sirohi (23.39%), Swai Madhopur (22.47%), Bundi (20.25%), Chittaurgarh (20.28%) and Baran (21.13%). Looking at the dispersal of tribal population of

the state in various districts in terms of absolute number it is found that the highest proportion of 19.41 percent of the total tribal population resides in Udaipur district followed by 15.51 percent in Banswara, 10.51 percent in Dungarpur, 9.71 percent in Jaipur and 8.10 percent in Sawaimadhopur districts. As a matter of fact, these five districts together constitute two third of the state's tribal population. Other districts have very low proportions, the lowest being 0.04 percent in Bikaner district. The districts, which have less than one percent of the state's total tribal population, are Ganganagar, Churu, Jhunjhunu, Sikar, Ajmer, Jaisalmer, Bikaner, Jodhpur and Nagaur. The population profile of the tribes varies from the general population

situation. The tribes have been confined to their closed land of forests and hills, hence, in most of the places, the density of population has been low.

It is generally presumed that tribal in India tend to be healthy, living as they do in unpolluted surroundings away from the stress and

strain of modern living. This no longer holds good as is evident from the numerous health reports on tribal communities. It is indeed disturbing that sufficient data regarding tribal health is not available with the government itself. Different studies have explained health status of tribals with the help of morbidity, mortality and health statistics. The plight of tribal whose health parameters are below the national average is worsening.

In Rajasthan, both historical and contemporary social, economic and political conditions are responsible for the current health states of the tribal population. Human settlements are territorially bounded by social system or subsystems serving a resident population. Be it economic, material,

It is generally presumed that tribal in India tend to be healthy, living as they do in unpolluted surroundings away from the stress and strain of modern living. This no longer holds good as is evident from the numerous health reports on tribal communities.

culture, religious, political, educational, legal, social or reproductive.

One of the basic factors which affect the tribal health is the physical environment from which majority of them draw their sustenance. Degraded eco-systems no longer support tribal population, many of whom have registered a higher growth rate than the national average. The diseases which can be easily cured, assume epidemic proportion among tribals because of isolation of their habitats, illiteracy and lack of access to medical care. Reliable and comprehensive data on disease level, patterns and trends in tribal areas are required to monitor local epidemics and to assess the effectiveness of public health programmes and prevention and control of diseases. In most tribal communities, medical care, treatment and aetiology of disease are defined within the social context. It is important to identify processes by which tribals recognise sickness and the ways to counteract it. The illness could well be attributed to the evil eye, magic or offending some deity, the treatment for which could be through folk medicine or magico-religious methods. Religious rites are used mainly to treat diseases like small pox and propitiating the deity concerned most of which tribals believe can cure the plagues, which are associated with various diseases.

Health Status of Women

The persistence of ill health in tribal areas is strongly correlated to social variables. Health status of the tribal women is reflected by its sex ratio, female literacy, women-child ratio, and marriage practices, age at marriage, fertility, mortality, maternal and child care practices and here women are more vulnerable to diseases that afflict the population in general. Expectant mothers and girl children are neglected. This is borne out by analysis of indicators such as infant and child mortality, fertility incidence of Sexually Transmitted Infections (STIs). Reproduction health problem (ant-natal and post-natal) are not paid much attention and are

considered as a built in part of the child bearing and child rearing. Terminations of pregnancies are resorted in cases of pre-marital and extra-marital relationship, with the help of local herbalist without attracting much attention. Tribals use charms, amulets, perform rituals to please the annoyed deities, sacrifice animals and also allows free discussion of subject quite openly in the community and medical counter measures can be taken unimpeded by shame and secrecy.

Sex Ratio

Sex ratio is number of females per thousand males. Sex composition of a population is an indicator of the socio-economic and health conditions of males and females. The sex ratio of tribal population (929) was higher than the general population (909) of the state or say twenty female per thousand males was more in tribal population. It shows no discrimination of sex of birth in the tribes.

Fertility Pattern

The results of National family Health Survey, (NFHS.2) India, Rajasthan indicate the issues of fertility pattern of Tribes. A tribal woman produced 4.31 children during her reproductive life but they want only 2.7 children. Tribals considered on an average 2.9 children as ideal in their family. The tribals maintain sufficient space between births of two children. Median months interval since previous birth was 29.5 months. It shows that tribals are aware about adverse implications of rapid growth of population. Preference for son is strongly reported among tribes, 97 percent of tribes want at least one son.

Level of Mortality

Like fertility, mortality is also higher among tribes in comparison to the general population of the state. Among the tribes 58 births per 1000 live births do not survive the first month of life, about 37 percent of infants die in between age of one month to 12 months and 95 percent infant die before reaching

their first birthday. Child mortality (1.5 years) was calculated to be 155. The major causes of infant and child mortality in tribes are acute respiratory infections, fever, diarrhoea and anaemia. It is suggested that for reduction in mortality specially infant mortality, existing infrastructure of health and medical facilities should be improved and RCH Programme should be popularized more among them through modern and traditional methods of motivation and communication.

SOCIO-CULTURE ISSUES OF HEALTH

Every culture, irrespective of its simplicity and complexity has its own belief and practice concerning disease and evolves its own system of medicine in order to tend diseases in its own way. The tribal communities vary among themselves in terms of socio-cultural tradition; economy and interaction with outside world, the concept of disease and nature of treatment are likely to be different. Tribal practices different type of diagnoses and treatments during illness of person

Supernatural Belief

In tribals, interference of supernatural agency is particularly strong in the context of health and disease. The different deities and spirits are connected with various types of disease. The tribal communities have specific gods for their health and disease, for calamities, diseases of cattle, bit of snakes and dogs and so on. All these deities have their own respective sphere and field. Elwin (1955) noted various gods associated with children disease, cough, cold, blindness, madness, diseases of pregnant women, and so on. Propitiating the respective god associated with the disease either directly or indirectly through shamans can cure most of these diseases.

Treatment Through Priest (Bhopa)

The tribal Priest known as *Bhopa* whose services are sought after find out the cause of illness. He is mainly entrusted with the benevolent

deities. Bhopa are believed to control the malevolent deities. The dependency and believe on Bhopa are often responsible for the non-acceptance of modern medicine. The traditional approach established faith and assurance in the patients while modern medicine lacks it. The Bhopa share the common cultural beliefs and practices of the patients, naturally they have more faith in them.

Conclusion

The tribals with modest physical assets, limited education, and feeble claims to public goods are lagging behind in health sphere as well. According to the Global Indicators for assessment of progress towards the Health For All a population may be considered to have adequate Primary Health Care Service, if the following are available: (1) Safe drinking water in the home or within 15 minutes walking distance, and adequate sanitary facilities in the home or immediate vicinity. (2) Immunisation against diphtheria, tetanus, whooping cough, measles, poliomyelitis and tuberculosis. (3) Local health care including availability of 20 essential drugs, within one hour's walk or travel. (4) Trained personnel for attending pregnancy and childbirth and caring for children up to at least one year of age.

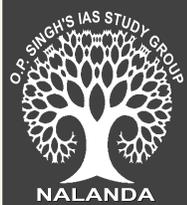
Economic empowerment is a powerful tool against poverty. To improve the conditions of the tribals, it is important to economically uplift its members and empower them to fight their own battles. In culture, where fertility is crucial to both men and women's sense of self worth and where children are a source of income and insurance against destitution in old age, family is not limited willingly. Large number of pregnancies i.e constant bearing and child rearing pose health problems for women. Pregnant and lactating mothers are at a clear disadvantage with regard to nutrition to both men and other women. Social discrimination against women is wide spread in developing countries where women mortality rates are high. Despite the high mortality rates in the tribal area,

recorded maternal deaths in the six tribals are few. The set of children who experience bouts of sickness are those whose mothers were unable to utilise curative health services, immunisation or institutional deliveries. Mother's health status prior to pregnancy, and conditions during foetal life and early infancy profoundly influence the physical and psychosocial development of children. Tribals need information, education and communication concerning the risk of repeated pregnancies and other associated danger signs in case of complications. Simultaneously, the health service delivery system needs to be upgraded. Most of the tribals' health problems are related to unsanitary conditions and lack of education. They are preventable by public health measures. In these areas importance is given to curative measures instead of preventive ones.

The paper corroborates the theory that social development level and availability of various facilities leads to lower mortality rates.

Health supporting facilities are supposed to have direct or indirect affect on the health status of the people. Low death rates have been achieved in parts of India where primary health care procedures, midwifery, maternal education on breast feeding and weaning, vaccination, oral rehydration for victims of diarrhoea, and antibiotics against respiratory functions have been introduced. While designing a health strategy for these tribals all these issues need to be tackled. In addition, distinction between supply of and access to health care should be abided by. Access is not coterminous with supply. Access implies locational, economic and social access; access also implies access to quality health care as opposed to the mere physical presence of a health care facility.

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A DOOR CLOSING FOR ADIVASI FARMERS

- Pratima Nagvanshi

In Bhanupratapur, Kanker district of Chattisgarh, farmers are busy. The month of Jeth (July) is almost upon us, a time to till the fields, to sow seeds and be in readiness for the rains. The region, lush green with expansive fields lies in the heart of what used to be the old undivided 'Bastar' known for its tribal culture and way of life. Chhattisgarh produces an astonishing variety of 'dhan' or rice, more than 500 varieties and this region contributes to it.

The fields are dependent on the monsoons for life saving water, for the seeds to sprout and the entire cycle of life to sustain itself. Agricultural labourers set out early to tend to their crops. The energy, is palpable. This is not the time to rest as even a small oversight could lead to loss once the rains set in. Instead of the rainwater giving life to

the fields, it could as well destroy crops, which are in different stages of being prepared. Agriculture is really about the small, systematic, nuanced steps towards nurturing life and like a parent, the farmer has to keep watch over his crop, be sensitive and vigilant to its requirements at all times.

Given the crucial role of the farmer in sustaining this form of life which in turn sustains all other forms, animal and human, do we really as a country give due respect to them? Do we recognize their hard labour, their immense care, the risk they run at a time when environmental degradation and global warming are gradually making the patterns of nature go awry. Excess rain damages the crop, little rain does the same. Rising input prices of fertilisers, seeds or poor infrastructure like power or irrigation is coupled



with falling support prices in the market. The farmer in India is a beleaguered figure caught between an unfriendly even hostile set of factors both in terms of creating and selling the produce.

The farmer in India is a beleaguered figure caught between an unfriendly even hostile set of factors both in terms of creating and selling the produce.

In Chhattisgarh, this profile of the farmer shifts subtly. Much of the region is prime forestland, inhabited by tribal communities. Here tribals who primarily live off minor forest produce, also cultivate land whose ownership rights may be with the Forest Department but the right to cultivate it remains with them. The system of handing over 'pattas' to overcome these lacunae in ownership is also under way.

However there is another aspect which in fact is drawing these tribals away from their traditional activities. MNREGA which has been undertaken across the tribal areas hold up an alternate path for the adivasis, who till now combined forest gathering and cultivation for sustaining themselves. They are now gravitating towards employment as wage labour. This also has another implication. Lands which do not technically belong to the adivasis now fall under the government's purview to be used for purposes other than cultivation.

The 'Pandos' one of the tribal groups in Sarguja district are a case in point. Though they were never 'land owners', they cultivated the land in their villages over generations inspite of all its difficulties. Now the lure of regular wages is too much for them, so they are also gradually shifting from cultivators to wage labourers, leaving their 'cultivable lands' to the government since they were not the owners in the first place. In Batauli block, the 'Pahari Korba', classified as 'primitive tribes' used to cultivate paddy, wheat and barley over

generations. Infact 'barley' cultivation was introduced by Tibetan communities who had settled there now for decades. But here too gradually the shift is becoming apparent. According to one of the community leaders "There is no irrigation facility on the mountains. It makes farming impossible." They complain equally vociferously about the prohibitive prices of seeds and fertilisers, making agriculture unviable.

This is a worrying shift and the government should be concerned about balancing the needs of the people for employment with the larger issue of sustaining agriculture. But it lags behind in supplying information about agricultural practices, credit, information and modern techniques to the adivasi cultivator in Chhattisgarh. There seems to be a marked discrimination between the level of information inputs to the rest of the farming community and the adivasis who need a different approach being primarily forest gatherers and intermittent cultivators of land.

These are underlying questions in an area where development is now being focused on with redoubled strength as a panacea, an antidote to the growing menace of Naxal violence. Given the current policy focus, it seems imperative that the core needs of the adivasi communities related to their livelihood, their prime economic activity be given due attention. Only when this base is fortified can any talk or move for the upliftment of tribal communities lead to a positive outcome.

(Charkha Features)

A NEW ASPECT FOR ECONOMIC SUSTAINABILITY AMONG TRIBES OF CHHATTISGARH

**Tankesh Joshi
Muktesh Joshi**

This Paper examines the potential of using aboriginal tourism as a strategy for rural tribal development in Chhattisgarh using Bastar as a case study.

Chhattisgarh has many tribal pockets around hills and forests, awaiting to be explored for the good objective of tourism and to fetch the currency to better the life standards of the aboriginals. Aboriginals of Chhattisgarh have their own traditions and cultures and lifestyles, beautifully maintained since centuries, arousing interests and curiosities among non-tribals of Nation and World from last three decades. The present paper synthesizes this peculiar aboriginal culture and tradition to be picked for the tribal

society as Mint, involving the same aboriginals as guide to serve the picture for the near and far brothers of the Earth. This Mint will definitely create employment opportunities for tribal youths and can also showcase Chhattisgarh's tourist spots in a better perspective to globe-trotting tourists. The author thinks that there should be some projects through which the tribal poor can be taught how they can earn money from tourism sector. A project named "Tourist Guide Training Programme" for the economic sustenance of



Tribal Poors had been drafted ,implementation of this can achieve much for poverty eradication.

The present Paper is focused to draw a well knitted well crafted project on real grounds in favour of a newly carved out state Chhattisgarh, taking its aboriginals in employment and the merits to attract growing tidal tourists and establish this sector as well developed business sector. The Scheduled Tribes are concentrated in the southern, the northern and the north-eastern districts. The highest concentration is in the erstwhile Bastar district. The new district of Dantewada has 79 percent tribals followed by Bastar (67 percent) Jashpur (65 percent), Surguja (57 percent) and Kanker (56 percent). Chhattisgarh absorbs 37.1 percent of the scheduled tribes and 22.3 percent of the scheduled castes of the undivided Madhya Pradesh.

Aboriginals, the word indicates the group of people, which includes the tribes the scheduled castes and the villagers originally living in the specified land from the ages of grand grand parents to the present generation, with the same culture and traditions. The word Adivasi is a synonym of this in Chhattisgarh. The adivasi or the tribals people in Chhattisgarh inhabit all the districts. This tribal people have the best knowledge about their surroundings and their villages and villages.

Study area

Bastar was taken as the exploring area for the study and documentation as role model for the whole state. Bastar and Dantewada districts were formerly part of the Princely state of Bastar. Earlier studies of the region were conducted by Verrier Elwin a colonial anthropologist. The state is described in Nandini Sundar, Subalterns and Sovereigns. After Indian independence in 1947, the princely states of Bastar and Kanker acceded to the Govt of India, and were merged to form Bastar District of Madhya Pradesh state. Division

Bastar had only one district, Bastar, which had an area of 39,114 km², was one of the largest district in India. In 2000 Chhattisgarh was carved out of Madhya Pradesh and Division Bastar presently borders Chhattisgarh and is divided into 5 districts respectively Bastar, Kanker, Dantewada, Bijapur, Narayanpur. The divisional head quarter is Jagdalpur, which is the district head quarter of Bastar district.

The Main tribal groups in Bastar are:

- Gonds
- Abhuj Maria
- Bison Horn Maria
- Muria
- Halbaa
- Bhatra
- Dhurva

Each tribal group has their own culture and each of them are following their own traditional living ways. These tribal groups are having different spoken languages and they differ from each other in their costume, eating habits, customs, art, and living ways .

Methodology of the Research:

The case study was carried out in Bastar where large number of are illiterate. As such it was a hard task to document the realities. Different strategies were employed to get the real results. Educated Youth of the same tribe served as bi-linguists. Camps were made in villages and 800 tribal families were studied by random selection around the tourist spots and the villages far from modern society. The results are quite interesting and knowledge gaining. Data was collected on average family size, family type, youth population, literacy rate with gradation of education level. Knowledge of old customs, traditions, tourist spots, traditional villages.

Results

The villagers are more familiar to the nearest tourist spots to their living area. The old age aboriginals are illiterate but know better about forest, the spots, and the periods to tour, but unable to explain in easily communicating languages. The literate tribal youth is less attracted towards the education system and a major group is up to primary only. With the decrease in forest land and modern approaches in labour system the tribals face unemployment.



Fig:1 Tribal coming from field after hard work.



Fig:2 A tribal woman in traditional ornaments, out fit and traditional tattoos on Shoulder and Arm.



Fig:3 Tirathgarh Waterfall



Fig: 4 Tourists enjoying at Chitrakot Water Fall

Conclusion

This Paper examines the potential of using aboriginal tourism as a strategy for rural tribal development in Chhattisgarh using Bastar as a case study. But tourist guides occupy an important place in the tourism industry and thus this paper also describes the approach to their recruitment and training. Benefits of an increased focus on ecotourism will include regional development employment, wealth generation, and conservation of the environment. As the results show the tribal people know more about their local ecology and, the tourist spots.

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LIVELIHOOD ENHANCEMENT STRATEGIES FOR TRIBAL REGIONS OF MAHARASHTRA

Aditya Petwal,
Bharat Kakade,
Kiran Petare and Ganesh Neelam

Maharashtra, the third largest state of India, with an area of 307,713 kilometres is located in the south western part of the Central Indian tribal belt. Tropical conditions prevail all over the state with temperatures ranging between 22°C-39°C. Spatially, rainfall is unevenly distributed, wherein districts of Thane, Raigad, Ratnagiri and Sindhudurg district receives an annual rainfall of 2,000 mm, whereas districts of Pune, parts of Ahmednagar, Dhule, Jalgaon, Satara, Sangli, Solapur and parts of Kolhapur get 600 mm or lesser annual rainfall. The state reports high Gross Domestic Product (GDP) of approx. Rs. 20,600, but stands relatively low within the Human

Development Index (HDI), ranking 8th in the list. The agriculture development is low and only 15% of Net Sown Area is under irrigation. The state's Human Development Report (2002) indicates that about 57 per cent of rural and 54 per cent of urban households consume less than the required standard daily intake of 2,700 calories. Nutritional deficiencies are more prevalent among women, children and tribal population. For NRM based livelihood interventions, out of 35 districts, 17 districts have been identified by the Central Indian Initiative ,CINI¹ as tribal districts, based on high concentration of tribal population. These districts cover 80% of the total tribal population of Maharashtra.



Strategies

For strategy formulation, the tribal areas in Maharashtra have been categorized into five regions, based on respective agro-climatic

features. On the basis of local geo-hydrology, agro climatic conditions and existing livelihood system, region specific water centric NRM based livelihood strategies have been suggested. As food insecurity is the larger concern in tribal villages,

Socio Economic and Agro ecological details of Tribal zones of Maharashtra

Tribal Regions	Rain Rich Western Ghats	Moderate Rains Western Ghats	Undulating Hilly Mountainous Moderate Rains	Rain Rich Eastern Vidharbha	Other Drought Prone Tribal Pockets
Districts	<ul style="list-style-type: none"> Thane Raigad Nashik Ahmednagar 	<ul style="list-style-type: none"> Nandurbar Dhule 	<ul style="list-style-type: none"> Amravati Nagpur Yavatmal Wardha 	<ul style="list-style-type: none"> Gondia Gadchiroli Chandrapur 	<ul style="list-style-type: none"> Buldhana Akola, Nanded Jalgaon
ST population (in Percentage to District Population)	12	43	14	22	9
Major tribes	<ul style="list-style-type: none"> Mahadeo Koli, Thakur, Bhil Kathodi. 	<ul style="list-style-type: none"> Bhil, Gavit Pardhi 	<ul style="list-style-type: none"> Halba, Andh, Dhangar, Gond 	<ul style="list-style-type: none"> Gond Halba Pradhan 	<ul style="list-style-type: none"> Andh Pardhi Dhangar Mahadeo koli
Forest Cover (in Percentage)	21	38	13	58	10 to 13
Mean Annual Rain (MAR)	800 to 3300 mm	600 to 800 mm.	1150 mm	1458 mm	700 to 1000 mm
Geohydrological Feature	Basaltic rocks with very low porosity and permeability	Weathered rocks demarcated by joint, plains and vesicles	Weathered sedimentary rock areas with porosity and permeability	Schistos and Gneissos rocks	Basaltic rocks with low porosity and permeability and storage.
Livelihood system	<ul style="list-style-type: none"> Hunting Fishing Cattle rearing Agriculture Casual labour M.F.P collection 	<ul style="list-style-type: none"> Cattle rearing, Agriculture Casual labour M.F.P collection 	<ul style="list-style-type: none"> Cultivation Forest Food gathering, Fishing, Agri and wage laborer M.F.P collection 	<ul style="list-style-type: none"> Agriculture, Agri-labourer Casual Labour M.F.P Collection. 	<ul style="list-style-type: none"> Cultivation, Food gathering, Fishing, Agri and wage labourer
Net Sown Area(in Percentage of total cultivable area)	51	51	60	24	68 to 73
Irrigation Coverage (in Percentage)	21	14	11	27	5
Major Crops and Productivity (Ton/Ha)	<ul style="list-style-type: none"> Rice, (2.15) Bajri(0.70) Ragi(0.95) Wheat (1.63) 	<ul style="list-style-type: none"> Cotton(0.95) Jowar (0.97) Rice (0.96) Soyabeen (0.71) Tur (0.70) 	<ul style="list-style-type: none"> Rice(0.46) Jowar (0.95) Cotton (1.12) Bajri (1.03) 	<ul style="list-style-type: none"> Wheat (2.02) Cotton (0.87) Jowar (0.97) Mung (0.22) Soyabeen (0.54) 	<ul style="list-style-type: none"> Cotton (0.97) Rice (0.73) Soyabeen (0.98)

emphasis in on augmenting the Net Sown Area and Net Irrigated Area through water resource development. Depending on local conditions, models of agro-forestry and micro enterprises (livestock development) can also be promoted in different zones. These activities need to be based on household level and village level micro plans, which take cognizance of the local agro geo hydro socio economic conditions. Based on the resources owned by households and the available water resources in the area (not only with the particular household), members of the local community, together with the programme implementers, should identify suitable interventions for sustaining their livelihoods.

Rain Rich Western Ghats

This area gets mean annual rainfall of the range of 800 to 3300 mm. Presence of Basaltic rocks with very low porosity and permeability allows limited scope for ground water development. In absence of irrigation support (21%) the net sown area is only

51 percent. Productivity of dominant crops is also less.

To develop irrigation support, surface water potential can be tapped, through creation of small water bodies like farm ponds in the catchments and pick-up weirs in the streams. In degraded areas, regeneration of vegetative cover is important to maximize the water availability to streams and springs. Presence of numerous fractures and dykes can be explored for recharging the up-stream area, which then could be extracted in downstream areas. A series of recharge pits and small ponds can be used for augmenting the water in these features. To augment the yield and flow of existing large number of springs, which mostly go dry in summers, recharge measures in catchments can be undertaken. Additionally, by developing storage facilities like ponds or tanks, water stored can be utilized for drinking or irrigation purposes. Due to rugged nature of the topography, gravity flow based water supply for irrigation is restricted only in the nalla / river bank areas.

WADI Program of MITTRA

Promotion of tree based farming on private wastelands for food security and income generation is a major programme of MITTRA, a grassroots organization having its operations spread majorly across parts of tribal Maharashtra.

The poor families participating in this programme, popularly known as Wadi (Orchard Development), cultivate drought tolerant fruit crops such as mango, cashew, Indian gooseberry, tamarind, custard apple, ber, etc. on their marginal or wastelands covering one acre. The inter-space is used for cultivating arable crops, which they have been growing earlier, while the field bunds and borders are used to establish hardy shrubs and trees useful for fodder, fuel, timber and herbal medicines. Formation of Self Help Groups (SHG) of women and men, establishing village level planning committees to organize essential support services and linkages of these groups with financial institutions were the other components to implement the programme more efficiently. Each Wadi owner can earn Rs. 20,000-25,000 annually from his small plot of land, once the trees start bearing fruits.

Providing means of livelihood during the gestation period was very critical. This was provided through promotion of agriculture in the inter-space, introduction of short gestation cash crops, processing of food and herbal medicines, livestock and poultry husbandry, etc.. Micro-credit was organized through SHGs and their linkage with financial institutions to take up these activities.

Wadi orchards can be definitely seen as a long term natural capital base to support tribal livelihoods. This model can therefore be replicated on large scales in other parts of country for tribal development.

Hence, extensive use of lift irrigation schemes needs to be promoted to supply water from low level valleys to plateaus. Another option is roof rainwater harvesting, which can be used both, for consumptive and productive purposes – mainly for small-scale vegetable cultivation. For enhancing the people's livelihoods, immense potential of orchard farming needs to be exploited. Mango and cashew orchards under the *Wadi* program can be highly rewarding to tribal households. The water resources development strategy has to be complimented with promoting cultivation of short duration and low water demanding crops, whereby both, area under cultivation and yield under Rabi crop can be enhanced.

Moderate Rains Western Ghats

Most of the physiographical and geohydrological features in this region are similar

Tree Based Farming in Upper Reaches

to the rain rich region. However, in this area, there is alluvial cover in Tapi river basin (Shirpur). This needs to be explored for deeper aquifers. The ground water potential also exists in joint plains and vesicles. Unconfined aquifers are at depths of 15-20 meters and deeper aquifers at 50 meters. Consequently, a water budgeting exercise is recommended in this region to access the water availability in selected aquifers. In this region there are two extreme situations: (1) Agricultural land is in upper reaches of the plateau, far from drainage course where stream water is not accessible; and (2) Agricultural areas are around the seasonal streams along the drainage courses (perennial or seasonal) where stream water is also accessible. In the first case, tree based farming needs to be promoted, which also utilizes the surface water sources such as small to medium size farm ponds, lined or unlined, depending on nature of strata. In the relatively better areas of the second case, a combination of tree based farming, crops for consumptive purpose and cash crops can be promoted. Improvement and promotion of

traditional *phad* systems and constructing series of water harvesting structures in the steams will make the water available for direct use and will also improve the ground water. This will result in assured irrigation during the Rabi season and increase the second crop area. Temporary gunny bag structures are very useful for using the water stored from ephemeral flow of seasonal rivers for protective irrigation to the second crop, cultivating the vegetables and also for the livestock. By promoting grassland development programmes in catchment areas, livestock development activity can get a boost.

Undulating Hilly Mountainous Moderate Rains

Though this region receives over 1,000 mm rainfall annually, it has faced consecutive drought

Community wells: Strategy for judicial and equitable water exploitation

situations. In Yavatmal and Amravati areas, ground water occurrence is restricted to the weathered zone controlled by fractures and joints (in Yavatmal – South East portion). Ground water recharging through existing open wells will enhance the ground water in the area. General water table is at a depth of 10-15meters (Yavatmal) and 15-20 meters (Amravati), which is seasonal and wells have tapped unconfined aquifer. In Yavatmal and Wardha, emphasis should be given on development of Dug Wells in South-East areas and Bore wells and Dug wells in other areas. Both, surface water and ground water availability, is greater in the low-lying areas and consequently, elevated areas have no access to the assured water. Concept of community wells can be introduced in this area to tap ground water available in the potential aquifers. Water tapped in the aquifer can be shared by the group of farmers owning the land in the aquifer – both in upper reaches and lower reaches. It is most important to ensure that the water extracted is replenished through recharge measures. In Amravati, surface water harvesting structures should be in the areas of 'Dharni' and

'Chikaldhara' and in case of 'Warud', ground water development based on recharge measures should be undertaken. The recharge measures could be based on a Watershed Approach. In Nagpur area, aquifers are unconfined and seasonal water table is at a depth of 10-15 meters. Bore wells tap deeper aquifers at a depth of 50-60 meters; thus, wherever there is potential for ground water development, aquifer based water resource development can be done effectively. In eastern side of Nagpur district, i.e. Ramtek, Umred Taluka side, farm

pond based decentralized water harvesting measures are proposed. In the western part of this district, in Katol taluka side, well recharging, farm ponds, field bunding and drainage treatments can be promoted. Water budgeting exercise is recommended in this region to assess the water availability in the selected aquifers and accordingly crop planning needs to be undertaken. Broadly, in this region, a combination of horticulture, field crops for household consumption and cash crops and vegetable cultivation may be planned.

Phad Irrigation: A case of Yavatmal district



The community-managed phad irrigation system, prevalent in northwestern Maharashtra, probably came into existence some 300-400 years ago. The system operated on three rivers in the Tapi basin - Panjhra, Mosam and Aram - in Dhule and Nasik districts. The size of a phad can vary from 10-200 hectares. Length of canal varies from 2-12 km, with a discharge capacity of 450 liters/second. The farmers at the head region receive the water first. The excess flow reaches the low-lying farms, once the upper area is irrigated. The farmers at the head

region are not allowed a second irrigation until all the farmers at the lower end receive the irrigation water. The uniqueness of the system lies in regular maintenance by the committee through collection of water charges; equitable sharing of available water by the members and pre decided cropping pattern based on water availability. However, with consistent deterioration in management system, traditional systems are gradually dying.

Dilasa, a civil society organization working in Yavatmal for development of neglected tribes, came across an indigenous practice similar to the phad system being undertaken by Dhangars of Dhangarwadi. However, the Dhangars, who had tried to revive the traditional Phad system, had to construct, on a regular basis, a temporary dam and the phad channels, which used to get washed away due to the rains. To revive the system, a planning exercise was carried out along with Dhangars, concentrating mainly on the construction of the masonry structures and the phad channels to take water to the agriculture fields. The technical experts dovetailing the indigenous knowledge of the Dhangars designed the construction of two structures; one immediately beneath the body wall of the minor irrigation tank and the other about 200 meters downstream. Apart from these physical interventions, inputs in terms of the crop management, soil conservation, horticulture promotion and capacity building have been provided to the Dhangars. Having studied the past management systems and the discussions with the Dhangars, a strong and robust management system was developed. The farmer who had initially undertaken the revival work is the President of the user group formed for the Operations & Maintenance (O&M) of the project. All the families benefiting from the irrigation are members of the group and pay the water charges for the management purposes. The user group presently is at a nascent stage, but has developed all the norms for the sustainable management of the system. The key output has been the large scale increase in land under irrigation from the previous 9 acres to presently 72 acres, which has become the base for cultivating diverse crops.

Rain Rich Eastern Vidharbha

In the tribal blocks of this region, the rainfall varies between 1,200 mm to 1,400 mm, but its pattern is highly erratic. Paddy, which is the main

Reviving Bodi can develop ground water as well as can promote second crop

Kharif and staple food crop of this area, gets severely affected due to erratic rain and consequently has a negative effect on the food security in the region. Thus, enhancement of food security in tribal villages through provision of supportive irrigation by field level water conservation during dry spells needs to be promoted in this region. Especially in Chandrapur district, farm level conservation or smaller catchments management approach seems to be best suitable. *Bodi* (a traditional water harvesting structure) needs to be strengthened and revived, by enlarging the existing ones and developing new ones. It also enhances the groundwater around, which can be tapped through open wells. Recharge measures, especially bunding, can be adopted in the entchment of bodi tanks. The bodi / ponds also can also be networked for efficient water harvesting. A cropping pattern with Silvipasture in the uplands, dryland farming in the cultivated area of catchment and irrigated crops (field crops and horticulture) in the commands of bodi bandh can then be promoted in this region. This would tend to mitigate the risks associated with an erratic monsoon and would also increase the existing cropping area through promotion of a second crop. In Gadchiroli area, the study of

geohydrology indicates that area has good potential for ground water development and utilization through open wells. In this region, a combination of watershed based resource management, mainly water in the streams and groundwater development, will substantially enhance the irrigated area and allow second crop cultivation. Malgajari tanks, a dying traditional water conservation and utilization system in Vidarbha region, also needs to be revived to harvest maximum amount of rainwater.

Through increase in the irrigation coverage in the region, the agricultural production can be enhanced and micro-enterprises, including fishery, can be promoted thereby creating employment for the community, including landless. Through development of pasture land by involving people, livestock development and livestock based enterprises can also be promoted successfully in this area.

The other drought prone areas in Maharashtra

Except for the tribal blocks of Nanded, other blocks of drought prone tribal areas receive less than 800 mm of annual rainfall. Although agriculture land is of relatively better quality here than the other tribal areas, rainfall quantity, pattern and dependability are unfavorable. Hence, agriculture based livelihoods are always at stake. Consequently, development of a drought proofing approach in the drought prone areas is the need of the hour. In the areas where there is constraint

Malgajari tanks

In Vidharbha region of Maharashtra, about 10,000 Malgajari tanks were constructed over 300-350 years ago. However, these traditional systems have either completely become defunct or are on the verge of becoming so. The structures are located in a manner so as to create decentralized water bodies around the village and ensure access to most of the population in the area. The tanks are also interconnected to harvest maximum amount of rainwater. Surplus water of upstream tank goes to the downstream one. Tanks were constructed and managed by the local communities. They were supposed to be the lifeline of the village. Unfortunately, unscrupulous interventions from outsiders led to a collapse of traditional management mechanisms.

Some of the proven drought proofing approaches are:

- Reserved aquifer: Identification of potential aquifers, enriching the water reserves through intensive recharge measures, saving them for the dry period and then if required for next year
- Development of forest cover: Developing the forest cover (emphasizing on indigenous species) on private waste lands, bunds of agricultural lands and common lands. This resource so developed is available in future for sustaining the livelihoods of the community and the requirement of livestock during periods of drought.
- Silvipasture development: Developing silvipasture on common lands ensures the availability of fodder for livestock, fuel wood, and surplus can be sold. This also helps recharge the groundwater.
- Emphasis on tree based farming: Normally, the water demand for tree-based farming (wadi approach) is less than the conventional field crops. Any deficiency in rains, which normally the drought prone areas face, does not significantly affect the production of tree crops.
- Cropping pattern with minimum water demand: Cropping pattern should be devised on the basis of minimum water availability. Detailed studies on water budgeting are necessary for assessing the water availability and demand in different seasons.

of substantial improvement of groundwater, tree based farming (wadi approach), silvipasture and livestock development should be the priority. In areas like Jalgaon, due to good groundwater potential, groundwater development should be the priority, whilst ensuring its balanced use. In case of Nanded district, surface water resource development can have more potential for irrigation purposes as groundwater is restricted to weathered zones. Revival of traditional *Malgujari* tanks can positively change the socio-economic conditions of people in the command areas. Water harvesting and recharge through farm ponds can be also adopted, mainly in Kinwat and Dharmabad. Jalgaon, on the other hand, has better potential for ground water development in both, alluvium and Deccan trap formations. Here, the area between Chopda and Yaval has been identified as exhibiting potential for shallow tube well development (GSI). As the ground water is already being overexploited in this area, it needs to be recharged through *in-situ* measures in the catchments and well recharging in the down slope areas. Wherever there are silty or sandy beds in the streams, *Underground Bandharas*



Livestock Improvement

could be constructed. In such areas, field crops for consumptive purposes, besides cash crops can be promoted for agriculture based livelihood enhancement.

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HOW FARMERS GOT A BETTER PRICE

Dr. V Shunmugam and Nazir A Moulvi

My loan application has been processed. Now I can take delivery of a brand new bike,” exclaimed Chatrapal, an agricultural labourer in Hatras, a major potato growing centre in Uttar Pradesh. Chatrapal came running and broke the good news in huge excitement after he received it from the banker on his cell phone, when our research team was visiting a cold storage.

A labourer, a cell phone, and a brand new bike! Such stories are becoming common today, thanks to the kind of transformation the commodity futures trade on national online exchanges has been bringing to the lives and fortunes of millions of farmers in India’s hinterland in recent years. And, we as part of MCX Research Team chanced upon

some incredibly startling revelations; yet proving out to be the stark ground reality, like the story of the labourer, his latest mobile instrument and the two-wheeler, one after another in our explorative trip of the major potato growing regions of the state. As the potato futures on MCX was just completing four years since its introduction, it got us curious to explore if this trade and its attendant direct and indirect benefits had in any case contributed to the prosperity of UP’s potato belt as exhibited by the fortunes of other potato ecosystem stakeholders elsewhere.

Commodity futures trade has touched millions of lives in the rural India...

Coming back to the story of the labourer’s bike, the news came in the midst of our long probing



conversation with a group of potato farmers of the Hatras district. The dramatic change of the farm labourer's fortune not only stunned us but also kindled in us an irresistible curiosity to enquire about their wage levels with a group of farmers. According to them it is `140-150 a day.

We continued probing: "But can you afford to pay so much? Do you get enough value for your harvest?" They replied, "They too have gone up." The farmers continued, "We generally harvest three crops a year depending on the availability of resources like water, labour, etc. This keeps the labourers engaged in farming for almost the entire year."

Rural India is shining!

In fact, the story of the state's potato economy remained very different until just a few years ago: bogged down by several constraints, as if the probable potato prosperity of the rural economy is being exported out to urban consumers and the processors. It is the resurrection of the commodity futures market in India in 2003-04 in their multi-commodity, nationally-traded avatar which seemed to have brought the prosperity back. Our findings from the survey of the state's potato-producing belt came in handy to prove it.

Pre-futures, due to opacity and asymmetric information in the markets – and/or their inability to access information about future probable price situation – small and marginal farmers were neither able to realize fair returns on their produce nor could take a well-informed selling decision.

But, as our Research Team found on our visit, the transformation of state's potato economy seemed to have been initiated since potato futures started during early 2006. Rightly so, it created awareness about present and future probable prices among the farmers through both conventional

(news paper, television, etc) and unconventional modes (Traders' Work Station) as possible.

Stories as they unfolded and told...

Naglamam Singh, a potato grower in Firozabad, told us that he takes his selling decision only after taking cue from the MCX prices. He said, "In mid-March 2008, potato was trading at a premium compared with the harvest month. I sold only 200 bags (50 kg each), of my total 400 bags of produce, at `650 a quintal to meet my exigencies. Having seen higher futures prices I stored the rest of harvest of the year of 200 bags in a cold storage and sold in the local mandi when the prices increased to around `900 a quintal i.e. by end-May as indicated by the futures price signals."

Such is the kind of benefit that commodity futures that happens on the national exchange platform are ensuring for the farmers through the simple story of price empowerment. On MCX, one can see three concurrent potato futures contracts available for trading to be delivered on maturity during the successive months. The prices of far-month contracts are signals that indicate as to what will be the probable price at a future date. If these are foretold in advance, the farmer can take an effective decision to hold his produce (preserved in a cold storage) and sell at a future date to benefit from the expected price rise.

Singh is not alone. Many other farmers our Research Team spoke with testified that they keep a tab on exchange prices through television channels, and regional newspapers. Another farmer in Hatras, Hotil Lal, said, "I can't recall if we ever realized anything more than `350 (a quintal) for our produce before potato futures started. But with futures, we have been able to realize much better prices for the past few years."

Naglamam Singh, a potato grower in Firozabad, told us that he takes his selling decision only after taking cue from the MCX prices.

Yaduveer Singh, a farmer-cum-trader in Agra who sows potato on a 50-acre farm land both owned and rented, has been hedging on MCX platform since 2006. He locks in the price on MCX at an appropriate time and delivered his produce on several occasions at the maturity of the contracts he sold on the exchange. When our Research Team enquired of him to know how he has so far benefited from the use of MCX hedging platform, Singh said, "In 2006, I was in debt and had to rent a tractor for farm operations. Today, I am completely debt-free and own a tractor myself, thanks to MCX potato futures."

Improved investments in Infrastructure and availability of finance

With their gradual development and maturity, India's commodity futures markets have also catalysed investments in infrastructure. For example, the number of cold storages in UP and Uttaranchal has increased by around 13 and the storage capacity increased by around 10 percent during 2005-08 (source: Loksabha proceedings, 2009). Partially contributing to the growth in the number of cold storages has been the policy initiative of National Horticulture Board.

Ajay Gupta, a farmer in Hatras narrated his agony of the past when the cold storage business used to be a sellers' market. "Until a couple of years ago, due to storage scarcity we had to pay an advance to book storage before harvest. And if for some reason the output happened to be lower than expected, we still had to pay for the entire space that we had booked based on anticipated yield levels."

The gradual development of the futures market paved the way for investments in agriculture infrastructure including scientific cold storage

facilities by letting the farmers know of future possible prices. Tables have been turned in favour of the farmers as an ever-increasing number of cold storages are intensifying competition. And the farmers who were at the receiving end are today calling the shots. Sumit Sehgal, owner of Pradyumna Ice and Cold Storage in Hatras, said, "Now, we have to lure the farmers to bring their produce to our warehouses once their harvest is complete by paying them 'bardana' (the local term for pay advances) for pre-harvest activity." The cold storage owners adjust their advances and storage charges from the sale proceeds when a farmer chooses to sell his crop.

Conclusion

Returning from the field trip, we were convinced that the existence of potato futures is slowly empowering the potato farmers of the region helping them share the prosperity that it had given to its often urban-based consumers. Empowerment and hence better realization by the farmers also helped improve the wages in the rural economy that could be noticed in the prosperity of the Chatrapal that we started our story with. More striking

was that, Chatrapal was not only confined to casual work in the potato or other fields during seasons, he is able to find employment in one of the new cold storage facilities as a non-skilled labourer for the last two years. Added to it, that the empowerment had reached to this extent wherein the cold storage owners that we encountered had to change their business model to the advantage of the farmers than to perish in the competition.

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The gradual development of the futures market paved the way for investments in agriculture infrastructure including scientific cold storage facilities by letting the farmers know of future possible prices.

BIOREMEDIATION - CREATING HEALTHIER ENVIRONMENT

Krishna S. Tomar

“Tree is a living symbol of boundless benevolence. It does not demand anything from anybody for its own nourishment; it goes on giving enormous quantities of useful material to the world. Not only this; but it goes on giving shade even to a wood cutter who has come to cut it.”

Lord Buddha

For a healthy and all-round development of a nation, a beautiful environment is of paramount importance. Colorful trees and flowers play a very significant role in making the environment salubrious and in refining the minds of the people. The logical meaning of **TREE** is as follows:

T-Temperature & microclimatic Moderation

R- Removal of air pollutants

E- Erosion control

E- Energy Conservation

Moreover, Prof. T. M. Das of the Department of Life Science Centre, College of Agriculture, Calcutta University has calculated that a fifty years old tree weighing about 50 tones would produce for the society in the next fifty years value worth about Rs.1.57 million calculated on following services.

- i. Oxygen – Rs **0.25 million**
- ii. Prevention of air pollution and cleaning atmosphere-Rs **0.50 m**
- iii. Rain water & regulation of atmospheric humidity-Rs **0.30 m**



- iv. Protection against soil erosion, silting of dams, reservoir and rivers - Rs **0.25 m**
- v. Shelter to wildlife – Rs. **0.25 m**
- vi. Animal fodder – Rs **0.02 m**

Pollution monitoring reveals that 35% to 45% of pollutant of atmosphere is composed of particulate matter in India. It has long been estimated that green areas can filter out dust, smoke, and many other fine particles dispersed in air. The shapes of the leaf, presence of leaf-hair, phyllotaxy, age of the leaf, type of plant association are the determining factors for the dust collecting efficiency of a tree. The evergreen trees with simple leaves are better dust collectors than deciduous trees with compound leaves. Most of the grasses possess copious auricular hairs at the juncture between the leaf blade and the leaf sheath. Auricular hairs occupying a strategic position at the base of the lamina which can absorb various chemicals from air borne particulates that are deposited on their surface. A green lawn or field covered with grasses can reduce the concentration of particulate pollutants to a significant degree.

The shapes of the leaf, presence of leaf-hair, phyllotaxy, age of the leaf, type of plant association are the determining factors for the dust collecting efficiency of a tree.

There are various ways and means to mitigate the urban environmental pollution. Planting of trees and shrubs for abatement of pollution and improvement of environment is an effective way and well recognized throughout the world. Earlier, the purpose of planting trees in urban areas was purely aesthetic. The incessant increase of urban environmental pollution has necessitated to reconsider the whole approach of urban landscaping and its orientation in order to achieve dual effect i.e. bio aesthetics and mitigation of pollution.

Bioremediation: Bioremediation may be defined as the use of biotechnological routes for transformation, degradation and detoxification of

waste constituents that result in environmentally acceptable assuring the protection of public health.

Phytoremediation The ability of plants to remediate heavy metal contaminated soils. Plants are often capable of the uptake and storage of significant concentration of some heavy metals and other compounds in their roots, shoots, leaves referred to as phyto-extraction.

Greenbelt Greenbelt is defined as the mass plantation of pollution tolerant trees and shrubs in an area for the purpose of minimizing air pollution by filtering, intercepting and absorbing pollutants in an effective manner for improvement of the environment. Every town and city must have certain area earmarked for the development of greenbelts. The effectiveness of the greenbelt depends on the several factors viz. climatic conditions, design, selection of plant species and its characters and type of pollutants. The importance of greenbelt can be ascertained from the estimate of cleansing capacity of 3.7 tonnes of CO₂ from atmosphere and supply of 2.5 tonnes of oxygen from one hectare of woodland.

Central verge of the two way roads in the cities and towns are often found neglected and devoid of any planting. It is recommended that this area should be well utilized by planting dwarf trees and shrubs. This will not only serve aesthetic purpose but also functional being physical barrier for the glare of head lights of the vehicles which is essential for effective and safe operation of the roads during dark hours. Planting may be done either in single or double row depending upon the space available. Since these plants are more close to the automobile exhaust, their capacity for pollution tolerance should be considered before selection.

Traffic Triangle and Traffic Island: Traffic islands at the main road intersections vary in shape and size from square, triangle to round. Whatever may be the shape, these islands should be properly planted with the dwarf trees, shrubs and ground covers recommended for planting along the road and central verge which will contribute effectively in mitigating the air pollution.

Bio-aesthetic Planning Bio-aesthetic planning i.e. conscious planning of available flora and fauna is necessary for beautifying the surroundings. Here our scope is strictly restricted to ornamental plants. The object of the bio-aesthetic plan for India is the encouragement of the planning of selected ornamentals flowering plants in our town and villages. We must improve the environment in our towns by introducing the modern architecture and landscaping. Mr Le Corbusier, a renowned architect who gave practical shape for planning Chandigarh city; he said towns are, biological phenomena. They have a brain, a heart and lungs and feet like human beings. It is on these conception new cities, towns, and other residential as well as new establishments should be modelled. A bio-aesthetic planner can be described as a master artist who uses the whole country as his canvas and his paints are the rich colours of red, blue, orange and white of the different flowers. The older congested cities and towns should be retrieved from their present state by bio-aesthetic planning. It may be really impossible to get land in the city proper for bio-aesthetic planning. In such cases 'Garden Suburbs' should be developed on the outskirts of the city easily approachable by vehicles or even bicycles.

Urban Forestry If the plantation program is brought to the urban sector, where the dependence on trees for economic reasons is less, we could create greenery chiefly as a protective shield against pollutants, a mechanism to improve the O₂ : CO₂

balance in the urban atmosphere. Therefore, instead of designing the plantation programme in the urban agglomeration as social forestry, a better term may be coined as urban forestry in the cities and towns. The main role of the tree cover in urban areas is as follows:

- a. Act as filters by holding suspended pollutants in the air
- b. Maintain O₂ : CO₂ balance
- c. Control the temperature and humidity
- d. Increase the aesthetic beauty of the city

Ideal Landscape Plant: To fulfil the objectives stated above, landscape trees should have the following characteristics:

1. Trees selected for roadside plantation should have some morphological features to reach the objectives physically as well as conceptually.
2. Tree should be evergreen; if unavailable, deciduous trees should be preferred which have very short leafless period.
3. Trees should be of spreading canopy and good foliage.
4. The trees should be deep rooted to avoid frequent road blockades due to uprooting.
5. Trees with strong branches should be selected against snapping and high winds. Trees in general should have a good look in order to avoid depressing effect.
6. Trees should have showy flowers.

(The author is In-Charge, Landscaping Unit, College of Fisheries, Central Agricultural University, Lembucherra, Agartala, Tripura (West) - 799 210 e-mail: tomarhorti@rediffmail.com)

A fifty years old tree weighing, about 50 tones would produce for the society in the next fifty years value worth about Rs.1.57 million

IMPLEMENTATION OF INDIRA GANDHI MATRITVA SAHYOG YOJANA ON PILOT BASIS IN 52 DISTRICTS APPROVED

Implementation of Indira Gandhi Matritva Sahyog Yojana on pilot basis in 52 districts approved

The Cabinet Committee on Economic Affairs has approved the implementation of Indira Gandhi Matritva Sahyog Yojana (IGMSY) on pilot basis in selected 52 districts during the remaining period of XI Five Year Plan at a total cost of ` 1000 crore. The Scheme will be implemented by using the infrastructure, personnel, systems and structures of ICDS including support of health systems along with the additional personnel on contractual basis as approved in the Scheme.

The Scheme will be centrally sponsored with 100% assistance from the Centre. Accordingly, Rs.390 crore and Rs.610 crore have been allocated for 2010-11 and 2011-12 respectively. IGMSY will be implemented in all the Anganwadi Centres of the selected 52 districts from all the States/UTs.

Under the scheme, Cash transfers will be made to all pregnant and lactating women as incentives based on fulfillment of specific conditions relating to mother and child health and nutrition. All Government/PSUs (Central & State) employees will be excluded from the scheme as they are entitled for paid maternity leave. Each pregnant and lactating woman will receive a total cash incentive of ` 4000/- in three installments between the period from the second trimester of pregnancy to the child attaining the age of 6 months.

It is expected that in the initial years with cash incentives, around 13.8 lakh pregnant and lactating women in 52 identified districts may avail of the benefit under the scheme. The beneficiaries would be pregnant women of 19 years of age and above for first two live births (benefit for still births will be as per the norms of scheme).



Each beneficiary will be required to open individual account (if she does not have one already) in the nearest bank or the post office for cash transfer.

IGMSY will be implemented by the State / UTs through the existing State and District ICDS Cell supported by additional contractual staff. Anganwadi worker (AWW) and Anganwadi helper (AWH) will receive an incentive of ` 200/- and ` 100/- respectively per pregnant and lactating woman after all the due cash transfers to the beneficiary are complete.

There will be Steering and Monitoring Committees at all levels to oversee implementation and monitor the progress. An IGMSY Cell within the Ministry of Women and Child Development will also be set up.

The objectives of the scheme are to improve the health and nutrition status of pregnant, lactating women and infants by promoting appropriate practices, care and service utilisation during pregnancy, safe delivery and lactation; encouraging the women to follow (optimal) Infant and Young Child Feeding practices (IYCF practices) including early and exclusive breast feeding for the first six months and contributing to better enabling environment by providing cash incentives for improved health and nutrition to pregnant and nursing mothers.

