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Contents

Performance of Agriculture, Diversity of Crops and the Role of Technology in North-East India	1
UTPAL KUMAR DE	
Development Issues in the East and North-East States of India	26
ANIL BHUIMALI & MUKUL SAHA	
From De-Jure to De Facto Panchayats: Critical Appraisal of the Expert Committee Report, 2013	50
MANJIMA MANDAL & AMAL MANDAL	
Global Environment Vs Food Security	77
C. R. DIWAKAR REDDY & S.P.RAJENDRA	
A Critical Review of Food Security in Sikkim	87
ANJAN CHAKRABARTI	
PESA Act and Tribal Welfare: In the Globalization Era in India	99
NOTAN BHUSAN KAR	
Eating Disorder among Elderly Causing Heart Attack: A Study on Impact of Life Style Management in Post Retirement Life	115
HARASANKAR ADHIKARI	
Ethnic People and Culture: A perspective from the Khamti Community of Assam with Special Reference to the Western Part of Lakhimpur District	128
DIKSHITA BHUYAN	
A Study to Assess the Effectiveness of Janani Suraksha Yojana in Rural Community of West Bengal	139
SIDHARTHA SANKAR LAHA	
Outsourcing Babies: A Discourse on Surrogacy and the Attitude of Today's Youth In India	158
SREYASHI GHOSH & BHOLA NATH GHOSH	

Diversity of Crops and the Role of Technology in North-East India

Utpal Kumar De

Limited access to modern technological inputs and implements was the primary constraint for farmers to achieve the desired level of efficiency in resource use and to maximise net gain from the limited land. Thus increase in the arable land available was necessary to meet the growing demands, particularly of food-grains by the population. Over the years, due to gradual decline in possibility of further expansion of agricultural land, increase in productivity was given importance with the application of various technological inputs. Here intelligent engineering takes over the lead, in promotion of irrigation (surface and groundwater), development of varieties of seeds (resistant to flood or drought), synthetic fertilisers and powerful modern implements, that made cultivation of large areas in a short span of time, possible. This in turn enhanced the efficiency of labour force and allowed farmers to diversify their cropping activities.

However, with gradual stagnation in technological progress, productivity in agriculture ceased to grow at the same pace as before. However, in case of Assam and other North-Eastern states of India we are yet to see the full potential in the effective utilisation of existing technology. Even under these constraining circumstances, farmers can increase their earning and improve the performance of agriculture (productivity, resistance to climatic changes, flood, drought) and make sustainable use of agricultural resources through the diversification of cropping activities. Here lies the role of the technology, infrastructure along with the institutional policy makers to make the agricultural activities more efficient and alleviate the hardship of the rural poor.

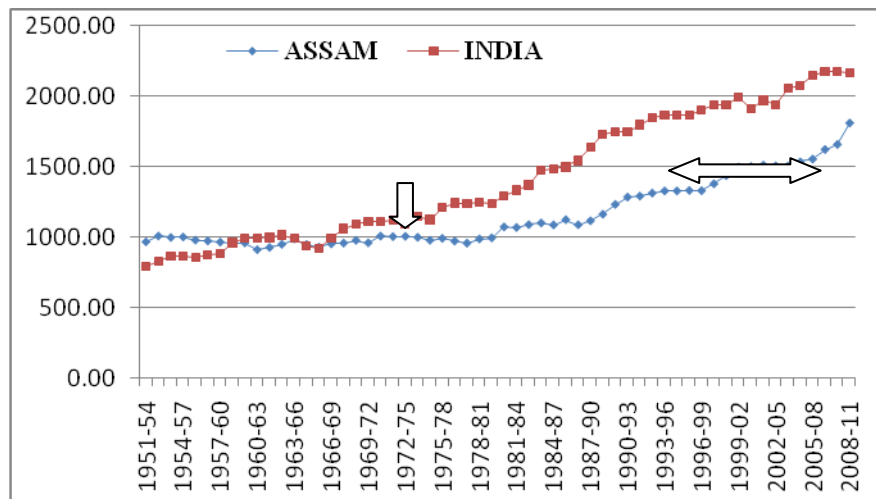
In this paper, we have tried to examine the trends and patterns of diversity in agriculture in Assam. Along with these patterns, the use of modern technology and the deficiencies in its application are identified and the scope for technical intervention is highlighted.

Introduction

Historically, agricultural development of any region, started by bringing more arable land under cultivation, when agriculture remained at the subsistence level. It was practiced mainly for the purpose of self consumption. Thus with rising populations, at that stage required more

agricultural output, particularly food and that could be met by cultivating on more land. Limited access to modern technological tools and implements were the primary constraint for the farmers to achieve a desired level of efficiency of resources and maximise net gain from agricultural activities. Thus expansion of cultivated area was necessary to meet the growing demand particularly of food-grains. Availability of cultivable land initially did not come on the way of expansion. In India, we find this phase, up to the mid-nineteen sixties, when growth of output per unit of area was small. Fig.-1 below reveals the almost stagnant productivity of main food crop rice up to 1966-69 triennia average year. Condition of Assam, the largest agricultural state of North-East India was not much different, though the figure was little more than the all India average.

Fig.-1: Growth of Yield of Rice in Assam and All India Average (Kg/ Hec.)



The second phase starts with the growth of agricultural productivity and application of more external and scientific inputs on the limited available

land. Over the years, due to decline in possibility of further expansion of agricultural land, increase in productivity was given due importance with the application of various technological factors. There agricultural engineering took the lead for the promotion of irrigation (surface and groundwater), development of varieties of seeds (resistant to flood or drought), fertiliser, modern implements such as tractors, that made cultivation of larger area in a short span of time possible and enhanced the efficiency of labour force and allowed farmers to diversify their cropping activities. In India, this phase is marked by the beginning of application of Green Revolution technology and take-off of agricultural productivity after mid-nineteen sixties. The Fig.-1 reveals the upward movement of yield of rice at all India average from that time. While the same started in Assam almost after mid-nineteen eighties, about two decades later. Despite rising population pressure and declining land-man ratio, it took a long time to improving the yield of rice in Assam. Fig.-2 shows the rising net area under cultivation till mid-nineteen seventies and rising gross cropped area was mainly due to expansion of cultivation over new areas and very less for the adoption of multi-cropping system or cropping intensity growth. Poor growth of adoption of Green Revolution technology in Assam is also revealed from the slow growth of irrigated area, especially in the off-monsoon season. Fig.-2 reveals the rising area under cultivation in the off-monsoon season without having any irrigation facility despite the fact that a large number of Himalayan Rivers and tributaries pass through this state. Fig.-3 shows the rising gap between the area under cultivation in Assam more than i.e., in the off-monsoon season and area irrigated in the off-monsoon season.

Fig. 2: Growth of Net Sown Area and Gross Cropped Area in Assam

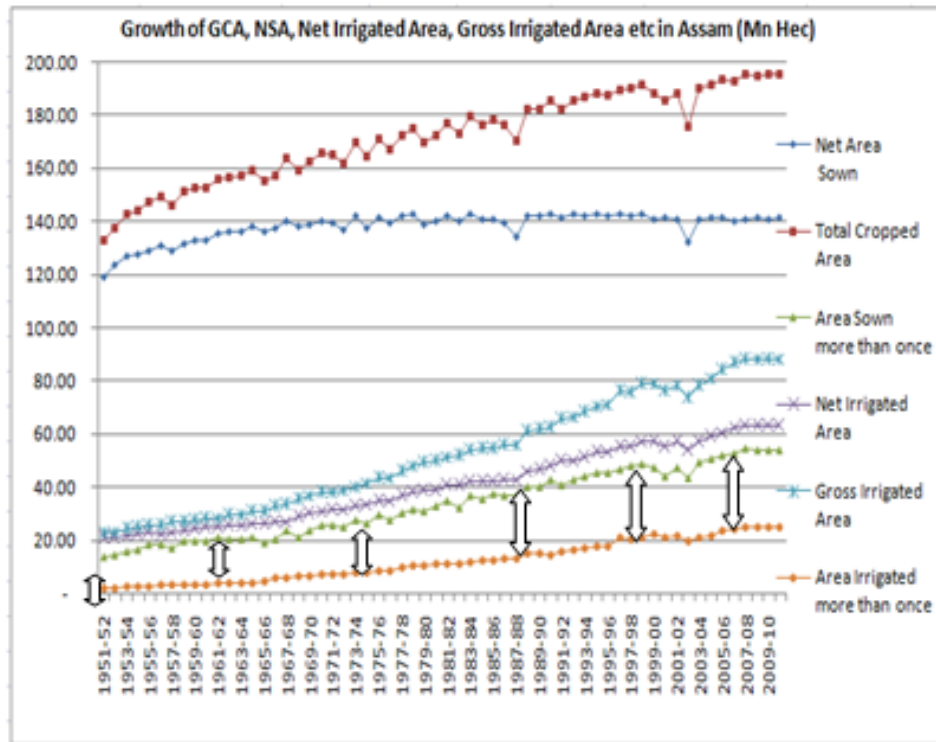


Fig.-3: Growth of Gap between Area Sown in the Off-monsoon Season and Area Irrigated in the Off-monsoon Season

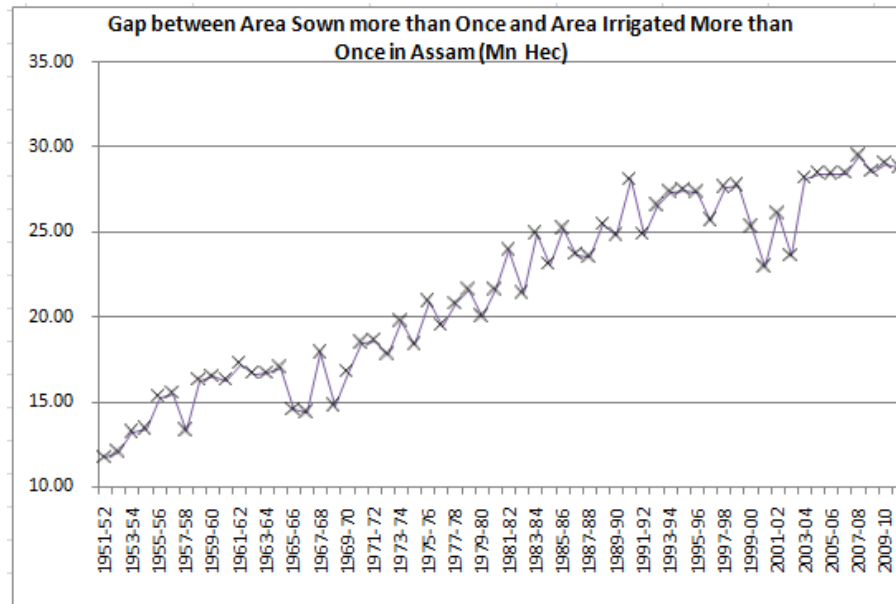
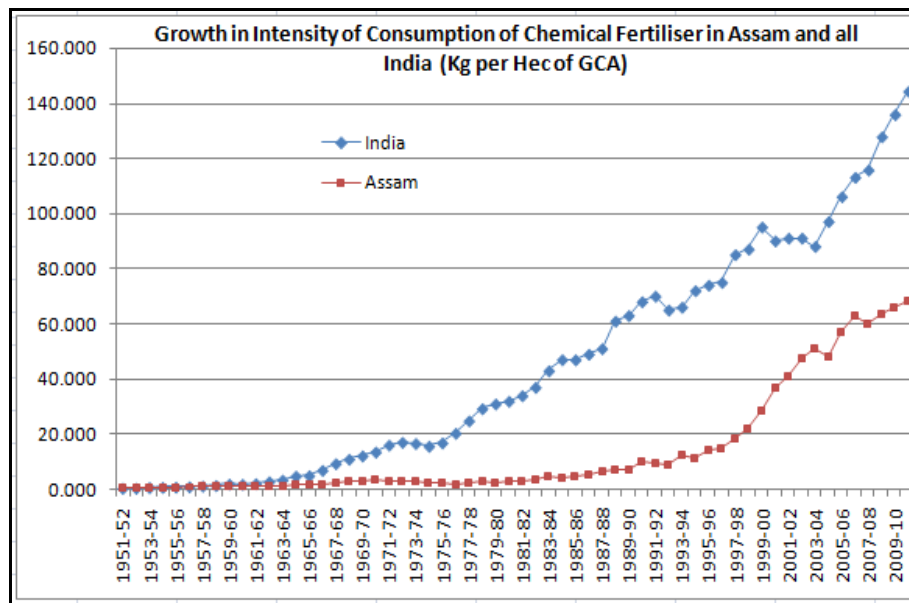


Fig.-4: Growth of Gap between Area Sown in the Off-monsoon Season and Area Irrigated in the Off-monsoon Season



Also, in case of use of chemical fertiliser, Assam was at par with the national average till mid-nineteen sixties. Thereafter, though newly developed agricultural regions took off in the application of fertiliser along with irrigation, Assam, took over two decades to apply chemical fertilisers in the production of crops. The growth however started mid-nineteen nineties. It requires a massive effort in the expansion of area under intensive cultivation to catch up with the national average (Fig.-4).

Anyway, a stage of agricultural development comes when without further technological intervention, productivity in agriculture ceases to grow at the same pace. This third phase has already in place in the states like Punjab, Haryana, West Bengal, Gujarat etc. (De, 2003; De and Chattopadhyay, 2010). In those states, further growth in earning from agriculture is still possible through judicious allocation of cultivable land among the competing crops and a continuous shift of area from the low value crops to the high value crops, which is known as cropping pattern change. This becomes successful depending upon the influence of institutional efforts, agro-climatic conditions, infrastructure supports, access to capital and obviously technological know-how. However, in case of Assam and other North-Eastern states of India, we are yet to see the use of prevailing technology with full potential. Even under this circumstance, the farmer's can further increase their earning's and improve their performance (productivity, resistance to weather aberrations, flood, drought etc) and make sustainable use of agricultural resources through the diversification of cropping activities. Herein lies the role of the technology, infrastructure along with the institutional policy makers to make the agricultural activities more efficient and address the hardship of the rural poor.

In this paper, we have tried to examine the trend and pattern of diversity in agriculture in Assam. Along with that the pattern of use of modern technology and the deficiencies in its application will also be identified and finally the possible scope for technical intervention would be highlighted.

Materials and Methods

The analysis is made on the basis of secondary data on area, modern technical inputs like consumption of fertilizer, irrigation; structure of land holding, collected from various issues of Statistical Hand Book of Assam, Economic Survey, Reports of Directorate of Economics and Statistics and Directorate of Agriculture, government of Assam.

Quinquennial (five year) moving average of area and proportion of area under each crop to GCA have been calculated for the periods 1951-56 to 2006-11. Thereafter, elasticity of each crop with respect to GCA in the state is computed to understand whether the increase or decrease of area under a crop has been due to expansion of GCA or due to substitution of area under other crops. This is defined as the ratio of percentage change in area under a particular crop and percentage change in GCA. If the elasticity is greater than unity then we can conclude that the growth of the particular crop has been due to both the expansion of GCA i.e., area under cultivation in the season of cultivation of such crop and partly due to the substitution of area under other crop/s in that season. Similarly, the negative elasticity is an indication of inverse relationship between the growths of area under cultivation of a crop to that of GCA. However, if the value of elasticity is positive but less than one, it would reflect the change in area of the concerned crop either due to

expansion of GCA or substitution of other crops. Despite the fact that one effect is negative, the net result would be in the positive direction.

Apart from the proportional distribution of GCA, various indices are commonly used to measure the degree of diversification. These are Herfindahl Index (HI) (Theil, 1967), Simpson Index (SI) Simpson (1949), Ogive Index (OI) (Tress, 1938), Entropy Index (EI), Modified Entropy Index (MEI) and Composite Entropy Index (CEI) etc. (Shiyani and Pandya, 1998; Shannon, 1948). HI is the sum of squares of acreage proportion of each crop in the gross cropped area and can be written as: $HI = \sum_{i=1}^n P_i^2$. Here, n is the number of crops grown and P_i represents proportion of area under ith crop to gross cropped area (GCA). The value of HI lies between zero (for perfect diversification) and one (for perfect specialization). A higher value of HI implies less diversification. Hence, it is subtracted from one to get the index of diversification (De and Chattopadhyay, 2010). OI is also based on the proportion of area under crops, while EI is defined as $EI = \sum_{i=1}^n P_i \log (1/P_i)$. EI also increases with the increase in diversification and it approaches zero when there is perfect concentration, i.e. when P_i equals one. The upper bound of the index is $\log (n)$ that depends on the number of crops cultivated (n) as well as the choice of base of logarithm. In the MEI however, number of crops is chosen as the base, which would change over time and thus gives more appropriate result. But, the number of major crops in Assam remains same over time, excepting their proportional share to GCA. Along with that the simplicity in computation prompted us to choose HI here.

The tabular method is used to describe the growth of fertiliser and irrigation in agriculture across the districts of Assam. At present Assam is constituted of 27 districts. But, information related to various aspects of agriculture is not available for all these districts throughout the period. This is due to the fact that many of those districts were created at different times by dividing some of the former districts. Thus, for the purpose of analysis, data has been compiled from the available information on all current districts, to the erstwhile undivided 10 districts existing in 1971 as shown in the geographical map of Assam of that time.

Changes in Cropping Pattern in Assam

Change in cropping pattern from the production of less productive crops to more productive varieties is an essential strategy that can increase income from agriculture, minimize risks due to crop failures and make earning sustainable. Initiative at individual farm level to diversify farm enterprises is associated with cash needs of agriculture, combating risk, technological changes and deliberate government policies that accelerate diversification.

Due to rich geographical and agro-climatic diversity, various types of crops are grown in the state of Assam (Table-1). Here Paddy, Jute, Mustard, Sugarcane, Pulses and Tea are the major crops. While Tobacco, Wheat, Maize, Potato, Vegetables and Fruits, Banana, Papaya, Oranges, Coconut, Betel-nut, Pineapple, etc are also grown in the state as subsidiary crops. Excluding tea, Assam is basically a food grain producing state that occupies about three-fourth of the gross cropped area (Table-1). Food crops including both cereals and pulses, constituted 78.2 per cent of GCA of the state in 1951-56 and that increased marginally to 80 per cent in 1971-76. Thereafter, it decreased slowly

to 74.13 per cent in the year 2006-11. Though paddy is the single most important crop, the cash crop jute is grown on the low lying areas on the bank of Brahmaputra and tea, the most important cash crop of Assam is grown on large scale in the upland areas. There is a significant decline in allocation of land towards winter rice continuously since 1951-56 and also of autumn rice since 1991. On the other hand, cultivation of summer rice recorded accelerated growth especially during last two decades and now occupies about 10 per cent of GCA of the state.

As far as cereal cultivation is concerned, percentage of GCA under wheat, maize and other inferior cereals has increased over the years. This is an indication of diversification towards inferior crops and that happens only when there is a lack of basic input like irrigation and other inputs like HYV seeds, chemical fertilisers as well as technological support. People in the region, particularly the large number of small farmers cannot afford costly investments, especially in winter like various rabi pulses, potato unless there is secure irrigation facilities and thus uncertainty in output and profit. Though cultivation of potato and mustard has increased, it is very slow and at present only 2.24 and 6.83 per cent of GCA is used for the cultivation of potato and mustard respectively. Overall, proportion of area under rabi pulses to GCA remains more or less stagnant. The indication is that much of the cultivable area in Assam was uncultivated in the off-monsoon season. With the expansion of area under cultivation in the off-monsoon season, except pulses, cultivation of most of the winter crops has increased very slowly and not at the cost of area under other crops. It also indicates very slow growth of multiple cropping across the seasons of the year. The rise in area under cultivation in the off-monsoon season without assured irrigation

indicates that the farmers choose low cost crop cultivation. Due to lack of irrigation, the poor farmers do not want to take risk of costly cultivation of potato, mustard etc, which are highly irrigation intensive. Thus the chance of more profitable cultivation is also forfeited. They are contented with whatever can be earned from the cultivation of inferior, lost cost crops (wheat, maize etc) and at the mercy of rain god.

Table-1: Quinquennial Average Proportion of Area under Principal Crops to GCA in Assam: 1951-56 to 2006-11 (Percentage)

<i>Crop/Crop Groups</i>	1951-56	1961-66	1971-76	1981-86	1991-96	2001-06	2006-11
Autumn Rice	16.47	18.77	19.96	17.77	17.33	12.45	10.23
Winter Rice	57.52	55.03	52.31	48.27	47.63	47.66	47.79
Summer Rice	0.30	0.49	1.26	1.17	3.76	8.89	10.41
Total Rice	74.29	74.29	73.53	67.22	68.72	69.00	68.43
Maize	0.18	0.33	0.51	0.57	0.51	0.54	0.55
Wheat	0.11	0.17	1.77	3.14	2.16	1.80	1.68
Other cereals& Millets	0.18	0.20	0.64	0.34	0.28	0.23	0.19
Cereals (Excluding Rice)	0.47	0.70	2.92	4.05	2.95	2.57	2.42
Total Cereals	74.75	74.98	76.45	71.27	71.67	71.57	70.85
Gram	0.14	0.08	0.16	0.11	0.08	0.06	0.05
Tur (Arhar)	0.16	0.11	0.20	0.26	0.17	0.19	0.18
Other Rabi Pulses	3.15	3.23	3.04	3.37	2.74	2.81	3.04
Pulses	3.45	3.42	3.40	3.74	3.00	3.07	3.28
Total Food Grains	78.2	78.4	79.85	75.02	74.66	74.64	74.13
Jute	5.60	5.45	4.38	3.29	2.45	1.75	1.78
Mesta	0.06	0.40	0.42	0.36	0.17	0.14	0.14
Cotton	0.19	0.29	0.14	0.11	0.05	0.04	0.05
Fibres	5.85	6.14	4.93	3.76	2.67	1.93	1.96
Rape & Mustard	5.36	5.18	5.18	7.96	7.81	6.96	6.83
Sesamum	0.27	0.39	0.42	0.40	0.41	0.39	0.35

Castor seed	0.08	0.10	0.07	0.06	0.05	0.04	0.03
Linseed	0.06	0.04	0.08	0.22	0.24	0.26	0.21
Oil Seeds	5.78	5.70	5.76	8.65	8.51	7.66	7.43
Potato	0.91	0.99	0.92	1.32	1.83	2.12	2.24
Tea	7.55	6.92	6.56	6.21	6.32	7.57	8.01
Sugarcane	1.19	1.19	1.33	1.43	1.01	0.69	0.77
Coconut	NA	NA	NA	0.21	0.45	0.56	0.54
Areca nut	NA	NA	NA	1.45	1.94	2.01	1.92
Tobacco	0.41	0.41	0.26	0.15	0.05	0.02	0.02
Plantation Crops	9.14	8.52	8.15	9.45	9.77	10.86	11.26
Sweet Potato	NA	NA	NA	0.27	0.25	0.22	0.21
Banana	NA	NA	NA	0.81	1.11	1.19	1.27
Tapioca	NA	NA	NA	0.05	0.06	0.08	0.09
Pineapple	NA	NA	NA	NA	0.36	0.36	0.38
Horticultural Crops	NA	NA	NA	1.13	1.78	1.85	1.95
Chillies	0.12	0.25	0.39	0.30	0.36	0.41	0.47
Onion	NA	NA	NA	0.13	0.18	0.20	0.19
Turmeric	NA	NA	NA	0.24	0.24	0.33	0.37
Others Total	0.12	0.25	0.39	0.67	0.78	0.94	1.03
Total Non-Food Grains	21.80	21.60	20.15	24.98	25.34	25.36	25.87
GCA (Hec.)	1973559	2221439	2647354	3254463	3440098	3325427	1875844

Source: Statistical Handbook of Assam (various issues); Economic Survey of Assam (various issues).

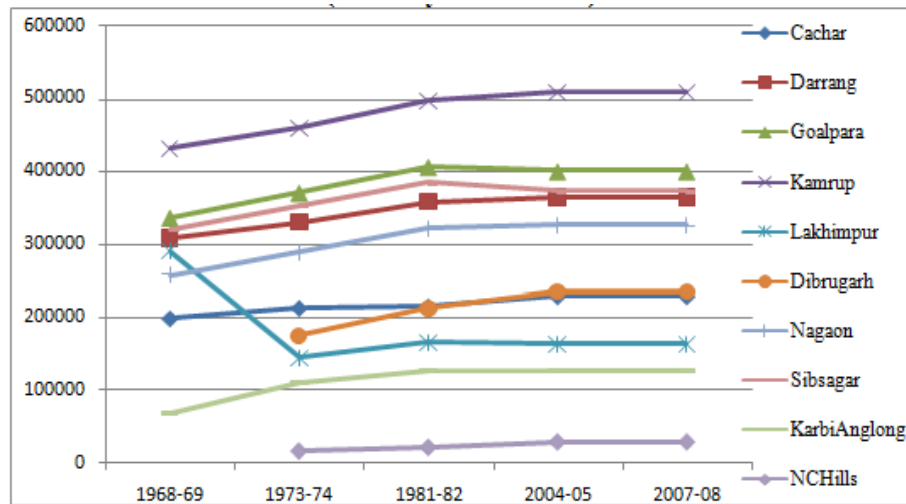
Note: NA indicates not available.

Whether the growth whatever has been observed in terms of area allocation towards various crops has been due to the expansion of total area under cultivation or owing to the substitution of other crops has been examined through the elasticity of changes in area under various crops with respect to the changes in gross cropped area (GCA) for a particular period. It is interesting to note that the GCA in Assam had increased from 211.90 thousand hectares in 1951-56 to 375.30 thousand hectares in 1996-2001 and that was mainly due to the expansion of net area under cultivation i.e., Net Sown Area (NSA). Many uncultivated lands were brought under cultivation

during that period and even some forest land was converted into the agricultural fields. Very small area has been brought under multiple cropping in off-monsoon seasons as irrigation expansion has been very limited despite having so many rivers in this sub-Himalayan state. The wave of Green Revolution technology has reached in most of the backward and tribal dominated areas. After 2001 GCA has even declined and reached 351.40 thousand hectares during 2006-11, which happened mainly due to fall in NSA in some areas like Sibsagar and Karbi-Anglang, and due to reduction in area sown more than ones.

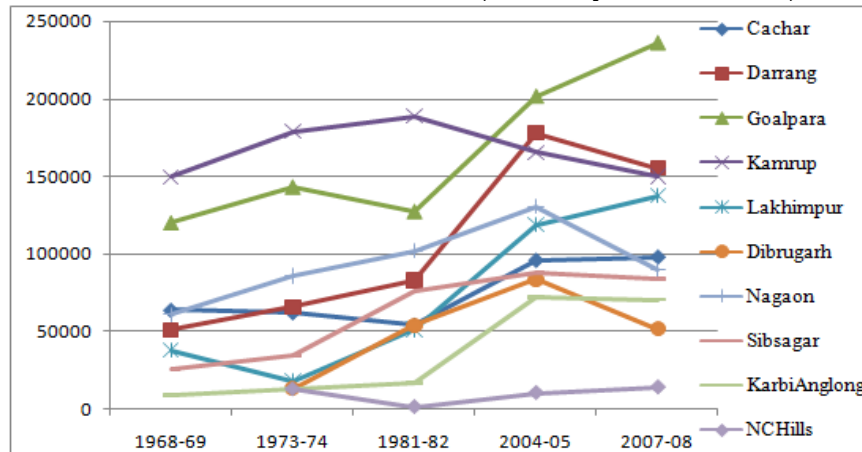
Figure-5 shows that Net Sown Area has not increased much in Assam after 1980, rather it has declined in the district of Sibsagar and marginally in Goalpara. Moreover, area cultivated more than once in a year has declined in Kamrup since 1980 and significantly in Nagaon, Dibrugarh, Darrang after 2000 and also marginally in Karbi Anglong. It is revealed from the trend of GCA as shown in Figure-6. It shows the stagnation of agriculture in Assam despite rising requirement of agricultural products for the growing population in the state, which is not compensated by increasing industrial activities. Nevertheless, increase in cropping intensity has been observed only in limited available land, net area cultivated also increased at the cost of forest and other fallow or less productive hilly terrains. In Assam there is a lack in approach towards agricultural activities despite having economic crisis at the household level in rural areas.

**Fig.-5: Changes in Net Cropped Area since 1968-69 across the Districts of Assam
(Formerly Ten Districts)**



Lack of progress in irrigation, chemical fertilisers and implements may be the principal reasons for the decline in NSA and cropping intensity. Another reason can be cited here is that there has been significant growth of area under tea, (the most important commercial crop of Assam but not cultivated in all the districts) across the districts of Assam (due to its more relative profitability) especially in Sibsagar, Dibrugarh where it grew much faster and at the cost of some other crops. Also, a part of the cultivable land has been lost in recent years due to growth of new townships, and industries along with the declaration of some agricultural areas as reserved forest areas in the state in recent years. Frequent occurrence of floods has also contributed to the decline in area under cultivation in the prime agricultural season.

Fig.-6: Changes in Absolute Area Cultivated more than once since 1968-69 across the Districts of Assam (Formerly Ten Districts)



(Note: Here each district includes the following present day districts as follows: Cachar: Cachar, Karimganj & Hailakandi; Darrang: Darrang, Sonitpur & Udalguri; Goalpara: Goalpara, Dhubri, Kokrajhar, Bongaigaon & Chirang; Kamrup: Kamrup (R & M), Barpeta, Nalbari & Baksa; Lakhimpur: Lakhimpur & Dhemaji; Dibrugarh: Dibrugarh & Tinsukia; Nagaon: Nagaon & Morigaon; Sibsagar: Sibsagar, Jorhat & Golaghat, Karbi Anglong, N.C. Hills).

Table-2 reveals that the elasticity of area under various crops or crop groups changed significantly over various sub-periods. Elasticity of area under overall food-grains has been positive and greater than one throughout except in the periods 1961-66 to 1971-76 and 1981-86 to 1991-96. Area under food-grain increased at higher rate than that of GCA during 1950s and 1970s. But after 1991-96 the positive value is actually an indication of decline in area, as both overall NSA and GCA have declined in the state as a whole. Only the values of elasticity in case of potato and tea along with plantation and horticultural crops have been more than one for most of the time, which are the indications of both substitution of some other crops and whatever expansion of GCA was recorded till 1999-2004, went in favour of these crops. Again the negative value of elasticity in post 1991 period has been due to the

falling GCA and thus an indication of growth of the identified crop and the positive value during that period indicates the reverse one. Except minor plantation and horticultural crops, growths of inferior cereals and some inferior winter crops (as mentioned earlier) indicate the absence of irrigation and other technological progress in agriculture that compels the farmers to adopt such low value crops for getting whatever possible from their available land. That is another reason why the area under cultivation decreased. Thus, the overall crop diversification in Assam does not reflect much progressive agricultural scenario in the state.

Table-2: District wise Area Under Tea in Assam since 1951-52 (Hectare)

<i>Crop/Crop Group</i>	<i>1951-56 to 1961-66</i>	<i>1961-66 to 1971-76</i>	<i>1971-76 to 1981-86</i>	<i>1981-86 to 1991-96</i>	<i>1991-96 to 2001-06</i>	<i>2001-06 to 2006-11</i>	<i>1951-56 to 2006-11</i>
Autumn	2.26	1.41	0.40	0.55	14.90	8.44	0.04
Winter	0.62	0.68	0.58	0.76	0.98	0.84	0.58
Summer	6.52	11.11	0.63	41.67	-66.36	-6.14	85.14
Total Rice	1.01	0.94	0.54	1.42	0.81	1.31	0.80
Maize	8.64	4.62	1.52	-0.82	-2.06	0.49	6.25
Wheat	5.72	62.08	5.19	-4.83	9.02	4.00	36.93
Other cereals & Millets	2.02	15.52	-1.52	-2.59	9.82	7.28	1.22
Cereals (Excluding Rice)	5.43	21.62	3.07	-4.09	7.18	3.55	11.59
Total Cereals	1.03	1.13	0.63	1.11	1.07	1.39	0.87
Gram	-2.99	7.33	-0.56	-4.36	11.47	9.06	-0.63
Tur (Arhar)	-1.43	5.96	2.72	-5.40	-4.19	2.72	1.46
Other Rabi Pulses	1.24	0.63	1.58	-2.45	-0.31	-2.35	0.92
Pulses	0.94	0.97	1.55	-2.72	-0.22	-1.80	0.88
Total Food-grains	1.03	0.02	1.69	0.92	1.02	1.26	0.87
Jute	0.76	-0.28	-0.32	-3.76	15.13	0.31	-0.729
Mesta	52.21	1.32	0.26	-8.93	8.42	1.26	4.50
Cotton	3.29	-2.33	-0.04	-9.07	9.47	-1.98	-1.02
Fibres	1.38	-0.27	-0.26	-4.41	14.61	0.33	-0.68
Rape &	0.70	1.00	3.91	0.60	6.27	1.87	1.69

Mustard							
Sesamum	4.76	1.56	0.80	1.23	3.34	5.38	1.719
Castor seed	3.05	-0.91	0.78	-3.66	8.12	7.49	-0.39
Linseed	-2.06	8.36	9.25	3.25	-2.14	8.53	7.28
Oil Seeds	0.89	1.06	3.72	0.66	5.90	2.30	1.72
Potato	1.83	0.52	3.38	8.07	-7.01	-1.15	4.68
Tea	0.26	0.67	0.71	1.34	-8.70	-1.41	1.15
Sugarcane	0.98	1.76	1.41	-4.50	16.34	-3.36	0.11
Coconut	--	--	--	22.30	-11.23	2.43	141.75
Areca nut	--	--	--	7.37	-0.83	3.04	29.76
Tobacco	1.00	-1.39	-1.30	-11.12	26.79	13.90	-1.42
Plantation Crops	0.38	0.72	1.85	1.64	-4.48	-0.47	1.58
Sweet Potato	--	--	--	-0.76	5.57	3.85	-19.90
Banana	--	--	--	7.97	-2.20	-1.80	51.17
Tapioca	--	--	--	3.21	-13.70	-3.30	54.63
Pineapple	--	--	--	--	0.91	-0.60	0.09
Horticultural Crops	--	--	--	--	-0.89	-0.95	63.87
Chillies	10.50	4.50	-0.18	4.34	-6.17	-5.54	8.30
Onion	--	--	--	8.41	-3.60	2.49	43.08
Turmeric	--	--	--	1.04	-17.23	-4.40	49.97
Others Total	10.50	4.50	5.00	3.96	-8.98	-3.42	20.09
Total Non-Food-grains	0.90	0.56	2.30	1.25	0.95	0.23	1.46

Source: Computed from data published by the Directorate of Economics and Statistics, Government of Assam:

Statistical Handbook (various issues) and *Economic Survey* (various issues).

Notes: (i) -- indicates not available, (ii) E stands for elasticity of each cropped area with respect to GCA.

Level of crop diversity was very low across the districts/zones of Assam during 1951-56. Karbi Anglong combined with N.C. Hills, one of the most backward agricultural zone of Assam recorded highest level of diversification as per HI index and comparatively less diversification was observed in relatively well off Sibsagar, Jorhat, Golaghat oil and coal-field areas; Lakhimpur, Dhemaji flood prone districts and Cachar Barrack Valley zone (Table-3). Also, changes in HI index over time revealed that relatively rapid

progress in diversification has been achieved by N C Hills district, which is followed by formerly undivided Goalpara region. It is again followed by Darrang, Sonitpur and Nagaon region of the state. Expansion of some flood resistant but less productive inferior cereals along with paddy and some winter crops and vegetables has been observed over time. All through there has been very slow progress in diversity in the Dibrugarh, Tinsukia, Sibsagar, Jorhat, and Golaghat, where more concentration towards tea plantation has been recorded. Since 1981 these zones of upper Assam and Nagaon recorded more concentration of tea cultivation and several paddy fields have been converted to suitable tea gardens especially, by the big landowners and also by multinational companies for the relative profitability of tea as compared to food or other commercial crops (Table-4). However, in Cachar zone slow rate of diversification has been taking place against tea and gradually in favour of summer paddy, though still now proportion of land allocation towards tea is higher than the state average and summer paddy is cultivated on a small portion of area.

Table-3: Changes in Crop Diversification in Assam Measured by Herfindahl Index since 1951-5

<i>Dist./Year</i>	<i>Value of Herfindahl Index (HI)</i>						
	<i>1951-56</i>	<i>1961-66</i>	<i>1971-76</i>	<i>1981-86</i>	<i>1991-96</i>	<i>2001-06</i>	<i>2006-11</i>
Cachar, Karimganj, Hailakandi	0.46	0.46	0.40	0.39	0.43	0.43	0.44
Darrang, Sonitpur, Udalguri	0.35	0.34	0.29	0.24	0.24	0.22	0.21
Goalpara, Dhubri, Kokrajhar, Bongaigaon, Chirang	0.36	0.30	0.29	0.25	0.22	0.20	0.19
Kamrup(R&M), Nalbari, Barpeta, Baksa	0.36	0.33	0.30	0.27	0.26	0.25	0.24
Lakhimpur, Dhemaji	0.45*	0.44*	0.34	0.35	0.40	0.35	0.38
Dibrugarh, Tinsukia	--	--	0.62	0.28	0.33	0.34	0.40
Nagaon, Morigaon	0.34	0.34	0.32	0.25	0.22	0.23	0.23
Sibsagar, Jorhat, Golaghat	0.50	0.53	0.46	0.40	0.38	0.43	0.43

Karbi Anglong,	0.24**	0.23**	0.42	0.46	0.42	0.43	0.40
N.C. Hills	--	--	0.34	0.24	0.17	0.16	0.15
Assam	0.37	0.35	0.32	0.28	0.27	0.26	0.26

Note: (1) The index for Dibrugarh and Tinsukia could not be computed separately for the year 1951-54 and 1961-64 as these districts were parts of Lakhimpur at that time. Similarly, the index for N. C. Hills could not be obtained separately for the year 1951-54 and 1961-64 as it was a part of Karbi Anglong at that time.

(2) * indicates including Dibrugarh and Tinsukia,

and ** indicates including N.C. Hills.

Table-4: District wise Area under Tea in Assam since 1951-52 (Hectare)

District/Year	1951-56	1961-66	1971-76	1981-86	1991-96	2001-06	2006-11
Cachar, Karimganj, Hailakandi	30445	29928	31018	32368	35314	32703	31573
Darrang, Sonitpur, Udalguri	25320	26509	30897	35198	40126	41367	49789
Goalpara, Dhubri, Kokrajhar, Bongaigaon, Chirang	1467	1603	2098	2576	3188	3471	3409
Kamrup(R&M), Nalbari, Barpeta, Baksa	1881	2074	2713	3159	3660	3436	3468
Lakhimpur, Dhemaji	46926*	50243*	57297*	3680	4287	4763	4887
Dibrugarh, Tinsukia	--	--	--	60273	68385	93484	95324
Nagaon, Morigaon	5064	5577	6372	6822	7829	8004	8299
Sibsagar, Jorhat, Golaghat	44571	46433	51930	58962	64895	76113	77335
Karbi Anglong,	--	--	--	--	1367	1748	1803
N.C. Hills	--	--	--	--	4233	4065	4528
Assam	155674	162367	182325	203038	233284	269154	280415

Source: Tea Board, Guwahati, Assam and Economic Survey of Assam (various issues)

Note: (i) -- indicates not available. (ii) * indicates that the data includes area under tea in Dibrugarh, Tinsukia for those years

Use of Modern Technology

In Assam, use of modern technological inputs and implements recorded a very slow pace despite the fact that application of technology, agro-infrastructure and material inputs are the important governing factors for the choice of agricultural production activities and its sustainable progress. Though majority of the people are engaged in agriculture and there is huge scope of utilization of Himalayan river water flows through the state, very little of the available water resources has been used for the agricultural purposes directly, or indirectly through the generation of hydropower that could be used in lifting water and running other agricultural implements. As there is a lack of growth in use of irrigation water, there is also a lack of progress in utilization of chemical fertilizers which complements the effectiveness of water for the diversification of agricultural activities. Data on irrigation expansion and application of chemical fertilizers has been available only from 1976-77 and 1983-84. There is also very limited information on other modern technological inputs (HYV seeds, use of plant protective chemicals, fungicides, complementary food for enhancing yield etc) and implements like diesel or electric pump sets, tractors, power tillers, threshers, sprayers etc). Thus the slow growth in the use of irrigation potential and chemical fertilizers has been described as the possible explanation for the poor diversification of crops in the state and inter-district variation.

Merely 11 per cent of the gross cropped area was under irrigation during 1976-77 and increased to only 18 per cent during 2006-07, which has been much lower as compared to all India average and available Himalayan River streams carrying huge water resources and potential groundwater sources (Table-5). Proportion of GCA under irrigation ranged from 2.42 per cent in

Dibrugarh region to 25.37 per cent in N. C. Hills in 1976-77. The variation reached from 4.67 per cent in Cachar Barrack Valley zone to 34.41 per cent in Nagaon area. Relatively better progress is observed in Karbi Anglong, Dibrugarh and Nagaon region. On the other hand, very slow progress is recorded in Goalpara and Kamrup, while the situation in Cachar became worse in terms of progress. Over the years, Nagaon*, Darrang*, N.C. Hills* and Karbi Anglong* regions recorded relatively faster crop diversification in terms of HI, but not necessarily in favour of high value crops, rather towards some inferior food crops and some winter crops, horticultural crops for the survival of the farmers, who are mostly small and marginal. That has however been backed by the relatively faster growth of irrigation as compared to the other districts. Thus whatever slow progress in crop diversification has been observed, its variation across the regions has been hardly due to the spatial variation in growth of irrigation potential.

Table-5: Growth of Irrigation Intensity Across the Districts of Assam since 1976-77 (Percentage of GCA under Irrigation in any form)

<i>District/Year</i>	<i>1976-77</i>	<i>1979-80</i>	<i>2001-02</i>	<i>2004-05</i>	<i>2006-07</i>
Cachar*	5.28 (7)	6.66 (8)	4.78 (10)	4.41 (10)	4.67 (10)
Darrang*	22.07 (2)	16.65 (3)	24.43 (1)	25.92 (2)	30.07 (2)
Goalpara*	9.67 (5)	10.54 (5)	10.28 (7)	11.29 (7)	11.20 (8)
Kamrup*	10.41 (4)	12.71 (4)	16.07 (4)	18.93 (4)	20.34 (5)
Lakhimpur*	1.06 (10)	3.41 (10)	6.91 (9)	6.85 (9)	6.65 (9)
Dibrugarh*	2.42 (9)	4.34 (9)	9.44 (8)	10.21 (8)	12.19 (7)
Nagaon*	12.87 (3)	17.13 (2)	23.84 (2)	28.26 (1)	34.41 (1)
Sibsagar*	9.17 (6)	9.49 (6)	12.67 (6)	13.95 (6)	15.40 (6)
Karbi Anglong*	5.21 (8)	8.09 (7)	14.34 (5)	15.98 (5)	21.57 (4)
N.C. Hills*	25.37 (1)	19.00 (1)	21.63 (3)	22.04 (3)	28.34 (3)
ASSAM	10.48	11.33	14.95	16.56	18.21

Source: Statistical Handbook of Assam (various issues).

Note: (1) * indicates formerly combined district. (2) Figures in the parenthesis represent rank.

Use of chemical fertilizers progressed relatively faster than irrigation in Assam (Table-6). It was merely 5.37 kg per hectare in 1983-84 and increased significantly to 67.87 kg per hectare in 2006-07. Yet it is much lower than all India average. Not only that, regional pattern of fertilizer use is highly skewed and its growth has been highly irregular. Though irrigation expansion has been relatively more intensive in N. C. Hills region, consumption of fertilizer and its growth has been at very low level. However, this district recorded high level of diversity in terms of index, which indicates a diversification towards low fertilizer intensive inferior crops. It may be owing to risk aversion, scarcity of resource and peculiar hill texture that is not suitable for modern day profitable agricultural crops and not supported by the increasing use of mechanical devices. Horticulture, inferior winter and other food crops as well as sericulture has been practiced in N.C. Hills* and Karbi Anglong* regions.

Only in Dibrugarh, Goalpara, Nagaon and Kamrup where irrigation progress has been relatively faster, growth in per hectare fertilizer consumption has also been relatively faster. These districts showed remarkable progress in terms of growth in consumption of fertiliser and also recorded rapid diversification in terms of HI except Dibrugarh where expansion of area has taken place more in favour of tea and other horticultural crops.

Table-6: Growth of Intensity of Consumption of Chemical Fertilizer (NPK) Across the Districts of Assam since 1983-84 (Kg/per hectare)

<i>District/Year</i>	<i>1983-84</i>	<i>1987-88</i>	<i>2000-01</i>	<i>2003-04</i>	<i>2006-07</i>
Cachar*	10.12 (2)	10.22 (2)	28.72 (6)	40.75 (6)	59.06 (5)
Darrang*	3.99 (5)	7.24 (3)	30.75 (5)	51.91 (5)	46.68 (6)
Goalpara*	1.68 (9)	6.51 (5)	47.95 (4)	87.89 (1)	104.58 (2)

Kamrup *	2.62 (6)	5.69 (6)	48.64 (3)	61.62 (4)	78.16 (3)
Lakhimpur*	1.74 (8)	2.91 (9)	5.08 (9)	7.76 (8)	9.18 (8)
Dibrugarh*	13.94 (1)	4.50 (7)	67.62 (2)	70.51 (3)	76.54 (4)
Nagaon*	8.36 (4)	6.76 (4)	66.42 (1)	72.96 (2)	126.19 (1)
Sibsagar*	9.59 (3)	13.46 (1)	21.80 (7)	39.81 (7)	39.67 (7)
Karbi Anglong*	0.97 (10)	2.00 (10)	5.20 (8)	4.66 (9)	8.60 (9)
N.C. Hills*	1.86 (7)	3.14 (8)	1.85 (10)	1.79 (10)	3.40 (10)
ASSAM	5.37	6.87	39.73	55.63	67.87

Source: Statistical Handbook of Assam (various issues).

Note: (1) * indicates formerly combined district. (2) Figures in the parenthesis represent rank.

Table-4: District wise Area Under Tea in Assam since 1951(Hectare)

Year	1976-77	1979-80	2000-01	2005-06	2010-11
Cachar	0.30	0.34	0.29	0.33	0.47
Darrang	1.16	2.02	2.89	3.40	3.90
Goalpara	1.52	1.63	1.43	1.64	2.27
Kamrup	2.09	2.56	2.87	3.23	3.49
Lakhimpur	0.05	0.19	0.44	0.48	0.53
Dibrugarh	0.17	0.23	0.47	0.55	0.61
Nagaon	1.50	1.99	2.68	3.26	3.31
Sibsagar	0.90	0.97	1.12	1.24	1.23
Karbi Anglong	0.21	0.36	0.90	1.13	1.89
N.C. Hills	0.08	0.11	0.14	0.19	0.20
ASSAM	7.98	10.40	13.24	15.44	17.90

Source: Directorate of Agriculture, Government of Assam.

Concluding Remarks

The above discussion reveals poor progress of agriculture either in terms of productivity of crops or in terms of growth oriented cropping pattern change. If we compare this with the development of technology used in agriculture, primarily irrigation, chemical fertiliser etc. We find a huge gap between the progress in such factors at all India average level and that of Assam. Not only

that, but within Assam also, there is significant inter-district variation. The region having progressed relatively faster in those areas along with agro-infrastructure and institutional support could diversify rapidly than the other region.

The most important source of irrigation in Assam is the river or major source that can be undertaken at the level of government and its engineering department. The designing of water storage and its distribution on the one hand can help growing area under cultivation to be irrigated and adoption of cultivation in the off-monsoon season. Also, a simultaneous progress of hydrological power can help progress the use of power in agriculture, which is crucial for the modernisation of agriculture. Table-7 reveals that till now only about 18 per cent of gross cultivated area is brought under the potential capacity of irrigation and a part of it has been utilised every year.

Development of weather resistant seed varieties are essential as the climate of the region is under continuous change and that necessitates the development of suitable crops that can be grown and farmers can generate maximum possible revenue from their limited land holdings (De and Bodosia, 2014).

Thus, there are several areas where continuous technological development and its use in a planned and judicious manner can lead to a desired sustainable growth of agriculture in North-East India.

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Development Issues in the East and North-East States of India

Anil Bhuimali & Mukul Saha

Regional disparity in development is a severe problem afflicting both the developed and the developing economies of the world. Disparity (inter-regional and intra-regional) is partly due to resource endowments and partly due to policy framework and execution. Initially it was thought that differences in income level across countries or within regions in a country lead to development disparity. But over the period, some studies reveal that income by itself is not a sufficient measure of disparity. All the states of India are not developed equally. There are differences in the levels of development in the different sectors of the Indian states. Some states like southern and western states are relatively developed if compared with east and north-east states. The impact of globalization also has created differences among the countries and also within different parts of a country. The present paper tries to discuss different aspects of development initiatives undertaken in eastern and northeastern states of India especially since the post-liberalization period with a detailed analysis on employment scenario, the growth of per capita income in the region and the impact of handloom and handicrafts, tea, coal, forest and tourism to different stakeholders.

Introduction

Our discussion centers around the development paradigm of east and northeast states of India comprising four states of eastern part, namely, West Bengal, Bihar, Orissa and Jharkhand and eight states of North-eastern India, namely, Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim.

The Eastern region was once the historical centre of the Nanda, Maurya, Kharavela, Sunga, Kalinga, Gupta and Pala empires. In the Medieval India, it was incorporated into the Mughala and in the mid-18th century by the British Empire (East India, Wikipedia, 2011).

All the regions of India are not equally developed economically. The Northern and the Western regions, for example, are fairly developed while the East and Northeast region remains backward. Apart from these inter-regional differences, there is also intra-regional disparity in development. Economists, historians, sociologists and other social scientists have offered various explanations for such imbalances for the east and northeast state of India.

Development Perspective for Eastern Region

The partition had its roots in East India. The feudal land system, established through the Permanent Settlement of Bengal, was unpopular among the farmers and the agricultural labourers. Along with this, Gandhi's freedom movement and many Great Poets of the stature of Rabindranath Tagore championed the movement for self rule. The partition also had its roots in undivided East Bengal. The Direct Action Day protests in Calcutta led to further communal violence across British India. In 1947 further communal violence displaced millions as independence and partition of British India occurred. Some Muslims from Bihar and Bengal fled to the newly created East Pakistan and most East Bengal Hindus fled to India. Industrial progress was witnessed in East India during 1950s and 1960s and in 1971, in the Independence War of Bangladesh, millions of refugees fled into East India. In course of time West Bengal became one of the socially and economically

powerful states of East India and it rocked second largest GDP contributor after Maharashtra (according to list of Indian states by GDP, 2000) and it became the third fastest growing economy. Bihar and Orissa struggled steadily and in November, 15, 2000 Jharkhand became a separate state. It witnessed economic boom since 2005 to spread new mills, highways, airports, and IT office complexes but not evenly across the region.

The Bihar economy has recorded a huge growth rate of 11.95 percent during the 11th Five Year Plan, the highest among the all states of India. This is perhaps due to good governance of the Nitish Kumar Government. A report comes in about the growth of Behar economy (ZEENEWS.com, March 5, 2013) which states that Bihar has come out on top as the fastest growing state with a sparkling 13.1 percent growth in 2011-2012. Its economy has also grown bigger than that of Punjab which is the prime destination for Bihar workers. There has been a remarkable transition of Bihar from a moribund economy to an expanding economy with a State Government actively engaging in good governance. National Institute of Public Finance and Policy (NIPFP), New Delhi has brought out a Working Paper Draft (September 2012) on Bihar titled Bihar: What Went Wrong? And What Changed? under the joint authorship of Arnab Mukherjee and Anjan Mukherjee. The paper states that there has been a spectacular growth of the economy (agriculture, commerce and service sectors). However, the impact of such a growth has not reached to all the sections of the economy. Thus, the economy has been suffering from lack of inclusiveness. Planning Commission data also showed that poverty ratio in Bihar remained stagnant over the period 2004-2005 to 2009-10. Poverty ratio in Bihar declined from 54 percent to 53.5 percent during this period. Even the poorer states like Orissa managed to reduce

poverty from 57 percent to 37 percent during the same period of time. Mukherjee & Mukherjee (2012) said: "With a very weak industrial sector, the chances of sustaining growth through strengthening industry seem very limited currently. In addition, with power situation being very constrained there is little ability to support industrialization".

Industrial growth remains slow in Bihar because of infrastructural bottlenecks in power situation, availability of land due to high density of population, lack of FDI & FII etc. Only possibility is that small and medium enterprises (SMEs) are likely to flourish. The sustainable growth of the economy will only be attainable if it includes larger and poorer sections of the society in the expansion process.

Mukherjee & Mukherjee in the working paper mentions: "In this respect, agro and horticulture based industries have begun entering Bihar. The framework of governance that the Bihar government has successfully used in the last few years to tackle law and order issues, encourage transparency, give a voice to citizens, and push hard to roll-out public programmes and public service delivery, 'susashan', will remain extremely important".

Bihar's high population growth has been a major concern for its all-round development. In this context chief minister Nitish Kumar mentions on March 2, 2013: "If the (high) population Growth rate continues in the years to come, our population will double by 2051 and put insurmountable pressure on infrastructure, resources and land, in particular, that cannot be stretched to accommodate the growing number of people." Very recently, the Planning Commission of India has published the poverty data for India. This shows a

remarkable slow down of Poverty in this state. The poverty rate in 2011 has gone down to 33.7 percent (2011-12).

Jharkhand as a state came into being in November 15; 2000. It has been growing slowly in comparison with the national average. This economy depends on mineral resources, industry, agriculture and tourism sectors. Various forms of minerals such as iron ore, granite, coal, copper, mica, bauxite, and chromites are found in Jharkhand. Mineral products are exported to Saudi Arabia, Bangladesh, South Africa, and Nepal. Agriculture plays a vital part in the economy because more than 75 percent of its population depends on agriculture. Major crops are ladies finger, brinjal, tomato, cabbage, mango lemon and papaya. Only a little amount of rice and wheat are produced. These are imported from neighbouring states of Orissa and West Bengal. The tourism sector earns huge revenue. The sector can flourish much more if the government can fully exploit the sector optimally.

The economy of Orissa has witnessed a structural change with the service sector becoming more and more vibrant accounting for 53.73 percent of real GSDP for 2009-10, followed by industry (27.82 percent) and agriculture (18.44 percent). The change has significant implications for those who depend on these sectors for their employment and livelihoods (Economic Survey: Orissa, 2010-11). There has been remarkable improvement in real GSDP during 11th five year plan, at an average rate of 9.5 percent per annum. In spite of this, there are acute regional, social and gender disparities. This is why the state government has given much importance to the social sectors such as education, health, drinking water, nutrition, sanitation as well as development of marginalized groups including women and the development of backward regions.

Agriculture contributes less than 20 percent (like national average) to the GSDP. But it gives employment and sustenance, directly or indirectly, to more than 60 percent of the state's total workforce. Thus, agriculture still is the mainstay of the economy of Orissa. This sector suffers from frequent natural shocks like cyclones, droughts, flash flood. The production of HYV paddy is spectacular and cropping intensity is much higher at 160 percent than the national average of 139 percent for 2007-08. Still inadequate and erratic irrigation remains a major constraint for improving agriculture and agricultural productivity. Irrigation intensity was only 31 percent in 2006-07, much less than the national average of 44 percent. But the situation is improving through two innovative irrigation schemes, namely, construction of Cheek dams and sustainable harvesting of ground water through installation of bored wells in massive scale.

Industry is growing at a faster rate of 12.56 percent at 2004-05 prices during first three years of the 11th five year plan. Most industries are mineral based. Orissa retains at 10 percent of the total capacity of the nation, while it has 25 percent of total iron ore reserves in the country. Orissa has been receiving heavy investments in industrial sector in recent times. Vedanta, Jindal and Posco are some of the investors in recent years. Orissa occupies first place in aluminum in terms of production capacity and actual output. SMEs are also flourishing in Orissa especially in the Sundargarh, Cuttack, Khorda and Ganjam areas. Also mining contributes 7.5 percent to the state's real GSDP.

The service sector dominates the Orissa economy contributing 54 percent to its real GSDP. It comprises of sub-sectors such as banking and insurance (6 percent), trade, hotel and restaurants (23 percent), transport and

communication (18 percent), construction (13 percent), real estate (10 percent), public administration (9 percent) and other services (21 percent).

West Bengal is highly dependent on agriculture, although services and industries play an increasingly significant role in the economy. A large part of the state is economically backward, namely, large parts of six Northern districts and three western districts of Purulia, Bankura and Birbhum and the Sundarbans area. The Green Revolution (1965) only touched two districts- Burdwan and Hoogly. However, there has been a significant spurt in food production since the 1980s and the state now has a surplus production. Agriculture contributes around 19 percent to the state's gross domestic product during 2009-2010 ('West Bengal' India Brand Equity Foundation, 2011). West Bengal's NSDP at factor cost at current prices (2004-05 Base) is shown below in Table-1.

Table-1: Net State Domestic Product

Net State Domestic Product at Factor Cost at Current Prices (2004-05 Base)	
<i>Year</i>	<i>Net State Domestic Product</i>
2004-05	190,073
2005-06	209,642
2006-07	238,625
2007-08	272,166
2008-09	309,799
2009-10	366,318

Source: National Accounts Statistics, Government of India, New Delhi

West Bengal is known for its position among one of the leading industrialized states of India. It is noted as one of the major centre for industries such as jute, steel, tea, sugar, chemicals and fertilizers. But its share to total industrial output in the country has been in a declining condition (less than 6

percent). Very recently the state has been facing hardships. Land is not made easily available. In this context, it is necessary to have full cooperation from the people and from the state and central governments. The state government, in particular, should come forward to settle the problem and create a congenial atmosphere in establishing large and medium-sized industries along with the thrust for the expansion of cottage and small scale industries (SMEs). Service sector has been the fastest growing among the three sectors at a compound annual growth rate of 15.2 percent from 2004-2005 to 2009-2010. It is one of the country's leading exporters of finished leather goods. In 2009-10, the state accounted for around 13.5 percent of the country's exports of leather and leather products. The state accounted for around 70 percent of India's dried flower exports in 2008-09. It is also the leading exporter of shrimps and tea. However, the rapid industrialization process has given rise a debate over land acquisition for industry in this agrarian state; although NASSCOM-Gartner ranks West Bengal power infrastructure the best in the country. The progress West Bengal has been achieving, although slowly, has been reflected in its progress in the literacy (both males and female) and the reduction in poverty. Poverty in West Bengal has gone down to 19.9 percent. It is remarkable if compared with some industrially developed states of India.

Development Perspective for North-eastern Region

It has been widely admitted that there has been development disparity among all the states of India including the East and Northeast states especially during the post liberalization era. Montek Singh Ahluwalia (2000), while narrating development disparity among different states of India during post reform period, mentioned that states like Maharashtra and Gujarat had

lower growth rate compared to Punjab and Haryana in the pre-reform period. Since liberalization period, Maharashtra and Gujarat have made tremendous growth of their economies and this has been a continuous process. This is because of deriving conducive environment from the new policies in these two states during post reform period. Ahluwalia also states that for a proper development of a region it is necessary for huge investment on human resources development and on infrastructure in right form and in right manner. It would not be effective without proper policy execution and good governance. But Ahluwalia's study does not cover the Northeast region of India due to lack of sufficient data.

We will study the development paradigm of Northeast states of India in the new global order with the help of whatever data are available with reference to Assam, Manipur, Meghalaya, Mizoram, Arunachal Pradesh, and Sikkim. The average population, human development & infrastructure index and annual compound growth rate are shown respectively in Tables 2, 3, and 4 below.

The decadal growth rate is higher than the national average of 21.54 percent excepting Assam and Tripura. Nagaland witnessed the highest growth rate, that is, 64.46 percent. This is the highest among the states of India, followed by Sikkim (33.25 percent) and Meghalaya (30.65 percent).

The economy of the region primarily depends on agriculture sector contributing over 40 per cent of the income and employing about 70 percent of the total working population. Although NSDP share of agriculture sector has declined to about 30 percent, the number of population dependent upon this sector continued to remain high even in the post globalization period.

The decline in the NSDP's share of agriculture sector has been more or less compensated by the increase in the share of service sector. That is, the service sector growth rate during the corresponding period is commendable. Nevertheless, the industrial sector in the region continued to be in pathetic condition. Industrially, the region is one of the most backward regions in India. Only Assam, and to some extent Meghalaya, have moved ahead of the rest of the states in terms of industrial development whose industrialization centred on tea, oil and timber.

Table: 2-Area and Population of North East India (Census 2001)

<i>State</i>	<i>Area (sq. km.)</i>	<i>Population</i>	<i>Density per sq km</i>	<i>Decennial Growth Rate (1991-2001)</i>	<i>Sex Ratio</i>	<i>Literacy Rate</i>
Arunachal Pradesh	83,743	10,97,968	13	26.94	893	54.3
Assam	78,438	2,66,55,528	340	18.92	935	63.3
Manipur*	22,327	22,93,896	103	24.88	978	70.5
Meghalaya	22,429	23,18,822	103	30.65	972	62.6
Mizoram	21,081	8,88,573	42	28.84	935	88.8
Nagaland	16,579	19,90,036	120	64.46	800	66.6
Sikkim	7,096	5,40,851	76	33.25	875	68.8
Tripura	10,486	31,99,203	305	16.03	948	73.2
India	32,87,240	102,87,37,436	313	21.54	933	64.8

Source: Statistical Abstract of Manipur, Directorate of Economics & Statistics, Government of Manipur, pp. 29-31.

Note: * Excludes population for Mao-Maram, Paomata and Purul sub-division of Senapati District.

Table: 3- Human Development and Infrastructure Index

<i>Category</i> High	<i>Human Development Index</i> Mizoram	<i>Infrastructure Index</i> -
High Middle	Manipur, Nagaland, Sikkim	-
Middle	Arunachal Pradesh, Meghalaya, Tripura	-
Lower Middle	Assam	-
Low	-	Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura

Source: Report of the Twelfth Finance Commission, p 61.

An examination on the overall annual compound growth rate of NSDP in the region reveals that there is a slight improvement in post globalization period though varies from state to state.

Table: 4-Annual Compound Growth Rate of NSDP & Per Capita Income of NE States, (At 1993-94 prices)

<i>State</i>	<i>NSDP</i>			<i>Per Capita Income</i>		
	<i>1980-1990</i>	<i>1991-2002</i>	<i>1980-2002</i>	<i>1980-1990</i>	<i>1991-2002</i>	<i>1980-2002</i>
Arunachal Pradesh	8.386	3.517	6.811d	5.027	1.421	4.09d
Assam	3.254	2.417a	2.823d	1.139	0.770a	0.960
Manipur	4.49	5.095a	4.649	2.094	3.080a	2.371a
Meghalaya	4.626a	6.747a	5.483a	2.009a	3.515	2.928a
Mizoram †	19.737	15.073	17.501a	15.380	12.316	14.577
Nagaland	5.624	7.428a	6.2a	3.232	2.296	2.460
Sikkim	11.41*	6.323**	NA	8.543a*	3.254**	NA

Tripura	5.111a	8.512a	6.715a	2.461	7.185a	4.536a
All India	5.455	6.025	5.591	3.230a	4.020a	3.476a

Source:

http://mospi.nic.in/rept%20_%20pubn/ftest.asp?rept_id=nad03_1993_1994&type=

NSSO Note: * At 1980-81 prices, ** From 1993 to 2002 only, † at Current Price, a denotes Acceleration, d denotes Deceleration .

Currently, daily status (CDS) of unemployment rates by sex and population below the poverty line and per capita consumption expenditure in North-eastern states have been shown in tables 5 and 6 respectively.

Table: 5-Current Daily Status (CDS) Unemployment Rates (per 1000) by sex in NE state

State	1993-94				2004-05			
	Rural		Urban		Rural		Urban	
	Male	Female	Male	Female	Male	Female	Male	Female
Arunachal Pradesh	19	4	18	73	16	11	26	119
Assam	70	124	65	256	60	87	81	140
Manipur	10	22	50	31	19	11	55	81
Meghalaya	6	2	16	41	2	7	37	39
Mizoram	10	5	4	5	8	3	13	22
Nagaland	21	6	69	67	40	22	47	104
Sikkim	6	17	19	49	29	21	33	55
Tripura	34	104	82	215	122	374	189	589
All India	56	56	67	105	80	87	75	116

Sources: NSSO (1997): Employment and Unemployment in India, 1993-94, 50th

Round, Report No. 409. NSSO (2006): Employment and Unemployment Situation in India, 2004-05, 61st Round, Report No. 515.

Because of absence of major industries and lack of alternative employment opportunities in the region unemployment rate is on the rise. This has been more acute among the urban educated youths. The unemployment rate is highest in Tripura, followed by Assam (Table-5). This is more than the national average. The volume of unemployment in absolute term is growing in the whole region. This is the negative effect of globalization. This grave

situation provokes the unemployed youths to involve in bad activities like insurgencies and drug abusing.

Table: 6- Population below the Poverty Line and Per Capita Consumption Expenditure (percent)

<i>States</i>	<i>Percentage of Population below the Poverty Line</i>			<i>Per Capita Consumption Expenditure (Rupees per month)</i>		
	<i>1983</i>	<i>1993-94</i>	<i>1999-2000</i>	<i>1983</i>	<i>1993-94</i>	<i>1999-2000</i>
Arunachal Pradesh	40.88	39.35	33.47	-	343.75	672.31
Assam	40.47	40.86	36.09	117.87	280.42	473.42
Manipur	37.02	33.78	28.54	133.25	305.79	596.36
Meghalaya	38.81	37.92	33.87	-	390.00	639.13
Mizoram	36.00	25.66	19.47	142.73	472.59	935.53
Nagaland	39.25	37.25	32.67	-	454.48	1005.99
Sikkim	39.71	41.43	36.55	-	321.12	559.97
Tripura	40.03	39.01	34.44	-	367.43	589.50
All India	44.48	35.97	26.10	125.13	328.18	590.98

Source: The Planning Commission, Government of India, 2001

Table- 6 shows that people living below the poverty line remain high in the Northeast region, particularly in Assam, Sikkim and Tripura. If we study poverty trend in this region we will see that it is Mizoram which has done well in eradicating poverty. In case of other states there has been a marginal decline in poverty rate. During 1999-2000, all the states excepting Mizoram have higher poverty rate than the national average of 26.1 percent. Around 1/3rd of the population in the entire region are in vulnerable condition. Inequality in the per capita monthly consumption expenditure has increased in spite of a multiple initiatives undertaken by the central and the state governments in the period of globalization.

We will now have a special look on some of the states of Northeast region.

Arunachal Pradesh government ever since the planning era tried to promote the traditional handicrafts, handloom and village and cottage industries. The cottage and small scale industry achieved significant growth in the state. This has been reflected with the expansion of the number units (increased more than 9 times from 1990 to 2000), and total employment increased a little more four times in 2000 from 1990.

The major industries are agro-based industries such as livestock, agricultural services, forestry logging and fishing. There are some non-agricultural enterprises such as mining quarrying, manufacturing, electricity, construction, wholesale and retail trade, restaurant and hotel, transport etc.

Various study groups such as NCAER (1967), TCS (1997) and IIE (1996) have identified several resource base industries that would have tremendous potentials for development in the state. The broad industrial categories as identified by the study groups are agro-based industries and industries based on forest, horticulture and plantation, commercial production of hydroelectricity, mineral based industries and development of tourism industry.

Data relating to poverty presented in tables 7 and 8 amply show the relative economic status of the North-eastern states of India during 2004-2005 and 2009-10. Table 9 exhibits the relative poverty in the east and northeast states of India.

Table 7: Number and Percentage of Population below the Poverty Line, 2004-2005.

<i>States</i>	<i>Rural</i>	<i>Urban</i>	<i>Total</i>
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	<i>Percentage of Population</i>	<i>No. of persons (Lakhs)</i>	<i>Percentage of Population</i>	<i>No. of persons (Lakhs)</i>	<i>Percentage of Population</i>	<i>No. of persons (Lakhs)</i>
Arunachal Pradesh	33.6	3.2	23.5	0.6	31.4	3.8
Assam	36.4	89.4	21.8	8.3	34.4	97.7
Manipur	39.3	6.7	34.5	2.3	37.9	9.0
Meghalaya	14.0	2.9	24.7	1.2	16.1	4.1
Mizoram	23.0	1.1	7.9	0.4	15.4	1.5
Nagaland	10.0	1.5	4.3	0.2	8.8	1.7
Sikkim	31.8	1.5	25.9	0.2	30.9	1.7
Tripura	44.5	11.9	22.5	1.5	40.0	13.4
All India	42.0	3258.1	25.5	814.1	37.2	4072.2

Note: Population as on 1st March 2005 has been used for estimating number of person below the poverty line (Revised on the basis of 2011 population census).Source: Government of India, (March 2012): Press Note on Poverty Estimates, 2009-10, Planning Commission.

Lack of infrastructural facilities like proper land, transport and communication, power, banking, absence of proper investment climate, technology appropriate to the local conditions have been very limited. The state has failed to translate the vast resource base of the region into productive industrial activities. Resource-industry interlink age has been found to be weak.

Table 8: Number and Percentage of Population Below the Poverty Line, of North-eastern State 2009-2010.

<i>States</i>	<i>Rural</i>		<i>Urban</i>		<i>Total</i>	
	<i>Percentage of Population</i>	<i>No. of persons (Lakhs)</i>	<i>Percentage of Population</i>	<i>No. of persons (Lakhs)</i>	<i>Percentage of Population</i>	<i>No. of persons (Lakhs)</i>
Arunachal Pradesh	26.2	2.7	24.9	0.8	25.9	3.5
Assam	39.9	105.3	26.1	11.2	37.9	116.4
Manipur	47.4	8.8	46.4	3.7	47.1	12.5
Meghalaya	15.3	3.5	24.1	1.4	17.1	4.9
Mizoram	31.1	1.6	11.5	0.6	21.1	2.3

Nagaland	19.3	2.8	25.0	1.4	20.9	4.1
Sikkim	15.5	0.7	5.0	0.1	13.1	0.8
Tripura	19.8	5.4	10.0	0.9	17.4	6.3
All India	33.8	2782.1	20.9	764.7	29.8	3546.8

Notes:

1. Population as on 1st March 2010 has been used for estimating number of persons below the poverty line. (interpolated between 2001 and 2011 population censuses)
2. Poverty Line of Tamil Nadu is used for Andaman and Nicobar Island.
3. Urban Poverty line of Punjab is used for both rural and urban areas of Chandigarh.
4. Poverty Line of Maharashtra is used for Dadra & Nagar Haveli.
5. Poverty Line of Goa is used for Daman & Diu.
6. Poverty Line of Kerala is used for Lakshadweep.

Source: Government of India, (March 2012): Press Note on Poverty Estimates, 2009-10, Planning Commission.

The competitive and efficient market structure that is necessary for economically viable industrial activities is almost non-existent. Marketing network with the neighbouring states has not been developed. Also the size of the local market is very narrow. In addition to this communication is a major constraint in this hilly region.

Assam is well endowed with mineral resources. Among these, petroleum (crude), natural gas, coal, and limestone occupy important place. The total forest area constitutes about 34.14 percent of the total geographical area (Economic Survey, Assam: 2002-03). In terms of forest cover, Assam ranks last in the region. It is richly endowed with water resources. The rivers and their tributaries offer vast scope for irrigation and hydroelectric facilities. But irrigation for rice production is only 21 percent in comparison to 99.2 percent in Punjab and 49 percent in India as a whole. Institutional sources have failed to meet the credit demand of the farmers.

In the absence of a proper network of regulated markets in Assam, the farmers have failed to reap benefits from the agriculture sector. In general, they are often forced by the village traders and other middlemen to sell their produce at a price lower than the market price or minimum support price.

Agricultural sector along with fisheries would be intensely developed. It is necessary to promote cultivation during the Rabi season. This can be an engine for agricultural growth in Assam.

An industrial development initiatives and better understanding needs to be created by solving the long-pending insurgency problem. Though it is a difficult task, but a whole-hearted sincere effort can definitely make a difference in this regard. The state government can play an important role in the development of socio-economic infrastructure facilities as well as ensuring good governance in the state. The state must open and develop the waterways so that the water connectivity between Assam and Kolkata will improve greatly. It is necessary to explore marketing opportunities for the products of the state in the neighbouring countries with diplomatic initiatives and better understanding.

Meghalaya is a state with highest rainfall in the world. The average rainfall is 2050 mm. and in a year the region experiences rainfall in 200 days. The share of primary sector to NSDP has gone down from 41.88 percent to 35.14 percent in 1990-91 and further to 28.75 percent in 1995-96. It increased to 32.59 percent in 2000-2001 and in 2001-2002 it was 32.45 percent. The share of the secondary sector to NSDP decreased from 14.55 percent in 1980-81 to 10.65 percent in 1990-91 and in 1995-96 it slightly rose to 11.78 percent and in 2000-2001 it further increased to 12.26 percent. But a steady growth in the tertiary sector

was noticed. The share of this sector increased from 43.56 percent in 1980-81 to 48.56 percent in 1985-86 and to 54.21 percent and 59.48 percent respectively in 1990-91 and 1995-96. But in 2000-2001 it went down to 55.15 percent.

The investment priorities have centred around four categories-agriculture and allied activities, transport and communication, social and community services and energy. The state suffers from power crisis. There has been little effort to develop industries based on the state's minerals. Due to lack of government initiative, this sector remains stagnant. But it is to be noted that social and community services (including education) have received a high proportion of funds. These sectoral changes in outlay are in conformity with changes in the National Plan.

Meghalaya is immensely rich in forest resources. Meghalaya's forest cover is 69.8 percent of the total geographical area and the forest area occupies 42.3 percent. In India forests are generally state owned (95 percent), but the situation is quite opposite in the case of Meghalaya. In 1998-99 the state forest department had control over 10.7 percent of forest area while the remaining is managed by the District Councils of Khasi Hills, Jaintia Hills and Garo Hills as per the provisions of Sixth Schedule to the Constitution of India.

An increasing feature is the existence of pockets of undisturbed natural forests along the southern slopes of the Khasi and Jaintia Hills. These are protected by the tribals (approximately 100,000 hectares) as 'Sacred Groves' and have remained untouched because of the religious beliefs and myths attributed to them. These groves are a rich store house of vegetation wealth and provide numerous benefits such as soil protection, conservation of flora and fauna, water and genetic resources. They also help in the regeneration of

the eco-system. The forests provide valuable timber trees like Teak, Sal, Titachap, Walnut, Mahogany, Khasi pine and other products like fuel wood, resin, tannin, gum, fiber, latex, essential oils, edible fruits, honey and numerous medicinal plants.

The state is rich in mineral deposits and occupies a significant position in the mineral map of India. Limestone, coal, kaolin, clay, glass sand, uranium, phosphate, gypsum, iron-ore, base metal, gold, mineral oil, granite, quartz and feldspar etc. are available in this region. In spite of this huge mineral reserve the state has remained backward.

The credit-deposit ratios of the commercial banks (15.67 percent) and regional rural banks (27.27 percent) are low. Also there is low saving levels and unviable project proposals. Market imperfections such as lack of information regarding the availability of products, technology, size of market etc. exist in great degree. Moneyed people prefer to invest in landed property and shy from risky ventures. The peripheral locations of the state, the terrain and inadequate infrastructure have impeded the growth of industry.

Due to shifting cultivation in more than 75 percent of the cultivated area multi-cropping is rarely done in this area; although people mostly (more than 80 percent) depend on agriculture for their livelihood. There is only one industry, Cherrapunjee Cement Industry. Transport bottleneck, poor progress in electrification, and lack of other infrastructure facilities impede the growth of industry.

Overall Development Strategy for East and Northeast India

The East and Northeast India largely depend on agriculture, although other sectors, especially the service sector is getting prominence in the entire region

of India. The urbanization process in this region has been slow (which is an indicator of development of a region). In northeast India, in particular, the urbanization process is very slow, but significant growth has taken place in the urban centres in the course of last sixty years. The history of modern economic development of the northeast region started with the discovery of oil, coal, and tea in Assam by the British East India Company. The region needed adequate and good transport connectivity both within and outside the region for proper utilization of these resources and tea. Consequently the British Government spent for the expansion of railways and road transport system in this region especially in the entire oil, coal and tea belt of upper Assam. Navigation was also developed through the Brahmaputra and Barak river system via Bangladesh. Thus a huge investment was made in the social overhead capital following Hirschman's theory on development. It is to note that the British Government gave much attention to the growth and expansion of tea industry in Assam. But the other part remained underdeveloped due to lack of government initiative.

In the post independence period, many institutional agencies have been working towards the region's economic and overall socio-economic development. Considering strategic geographical location, the North Eastern Council (NEC) was set up in 1972 to give a holistic approach to the entire development process of the region. However, the paradox is that the NEC has been put under the Ministry of Home Affairs rather than the Ministry of Finance. The socio-economic development in the region is at present guided by the three tier macro planning-Central Plans, Plans of the States and Plans of the NEC.

Jairam Ramesh (2004) has analysed the development discourse in the region in four discernible development paradigms, namely, the culture paradigm, security paradigm, political paradigm and economic development paradigm. The economic development paradigm, the fourth one, was introduced since 1980s when huge investments were pumped into the entire North-eastern zone.

Table 9: Number and Percentage of Population Below the Poverty Line, in East and Northeast States, 2009-10.

<i>States</i>	<i>Rural</i>		<i>Urban</i>		<i>Total</i>	
	<i>Percentage of Population</i>	<i>No. of persons (Lakhs)</i>	<i>Percentage of Population</i>	<i>No. of persons (Lakhs)</i>	<i>Percentage of Population</i>	<i>No. of persons (Lakhs)</i>
Arunachal Pradesh	26.2	2.7	24.9	0.8	25.9	3.5
Assam	39.9	105.3	26.1	11.2	37.9	116.4
Manipur	47.4	8.8	46.4	3.7	47.1	12.5
Meghalaya	15.3	3.5	24.1	1.4	17.1	4.9
Mizoram	31.1	1.6	11.5	0.6	21.1	2.3
Nagaland	19.3	2.8	25.0	1.4	20.9	4.1
Sikkim	15.5	0.7	5.0	0.1	13.1	0.8
Tripura	19.8	5.4	10.0	0.9	17.4	6.3
Bihar	55.3	498.7	39.4	44.8	53.5	543.5
Orissa	39.2	135.5	25.9	17.7	37.0	153.2
Jharkhand	41.6	102.2	31.1	24.0	39.1	126.2
West Bengal	28.8	177.8	22.0	62.5	26.7	240.3
All India	33.8	2782.1	20.9	764.7	29.8	3546.8

Notes:

1. Population as on 1st March 2010 has been used for estimating number of persons below the poverty line. (interpolated between 2001 and 2011 population censuses)
2. Poverty Line of Tamil Nadu is used for Andaman and Nicobar Island.
3. Urban Poverty line of Punjab is used for both rural and urban areas of Chandigarh.
4. Poverty Line of Maharashtra is used for Dadra & Nagar Haveli.
5. Poverty Line of Goa is used for Daman & Diu.
6. Poverty Line of Kerala is used for Lakshadweep.

Source: Government of India, (March 2012): Press Note on Poverty Estimates, 2009-10, Planning Commission.

The Northeast states are part of Special Category States and thus receive 90 percent of the plan allocations as central grants and the remaining 10 percent are met by the states themselves. Also they receive special economic package from time to time from the Central Government. In spite of all such special privileges the region has failed to generate tangible viable development opportunities. Lack of local governance and people's awareness on the level of local governance has contributed to its failure in emerging as a strong vibrant region in the country. As a result, we can see that the rich is getting richer and poor is getting poorer. This has led to increase the absolute number of people below the poverty line in the region by 1.26 lakhs during 1993-2001. The NSS data (50th and 55th rounds) say that there has been a gradual decline in the main workers in both east and northeast regions. This has, in fact, created helplessness and insecurity among the working class population. This effectively shows that the sustainable livelihood opportunities are being increasingly limited in the entire region. The reduction in employment opportunity in the organized sector has left huge number of human resources unutilized or underutilized.

The loss of opportunities not only creates economic losses but it at the same time creates social tensions. The economic backwardness in the east and northeast and the ethnicity problem especially in the northeast states are such direct outcomes. Demand for separate states by different groups of people to ascertain their 'right to development' cannot be the right thing. It is a fact that development can best be achieved by well-integrated states and nations rather than by small entities with poor utilization of resource bases. This is

high time to realize that by bifurcating a region only reduces the resource base. This ultimately turns to uneconomic use of the resources leading to reduced potential gains of utilization. This is also the case that huge fertile land remains underutilized in different parts of this entire east and northeast India (West Bengal, Bihar, Orissa, Assam and other states). This is because of lack of irrigation facilities and of institutional credit facilities. The subsidy on agricultural inputs has been reduced substantially by the Government and the farmers are not been able to sell their produces at a remunerative price/minimum support price. This has happened in the selling of jute, rice and vegetables and many other cash crops.

Conclusion

Development would be really sustainable and equitable if it touches all the economic agents benefiting farmers, daily wage earners (in industry and in agriculture), men and women engaged in different occupations and engagements reducing regional imbalances and income disparity. In the context of long run sustainability inter-sectoral linkages are essentially required and at the same time there should be free mobility of goods and services within the region and between regions of a country. Thus there should not be any imperfections in the goods as well as in the factor markets.

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From De-Jure to De Facto Panchayats: Critical Appraisal of the Expert Committee Report

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For the rural people Panchayati Raj institutions may, at least constitutionally, be the institution of local self-governments, yet their functional process attests the story only of one promised paradise. Panchayats are still to shed their insipid baggage and their outcomes are not generically contrasting to the pre-constitutional avatar.

In the panchayat discourse the Central Government has now and then attempted to offer the idea, suggest the framework and to iterate the potentialities of panchayats in impacting regeneration of the otherwise retarded rural development and governance. Together with the 1957 report to which modern panchayat system owes its genesis, many central level committees have suggested refurbishing the structural and functional expanse of panchayats. And the state governments have, by and large, displayed scant interest in actualising the suggested pathways.

On the occasion of 20th anniversary of the constitutional panchayats, yet another (expert) committee has put forth a long list of recommendations and this paper examines, somewhat critically, and reflects on those propositions.

“Our challenge today is to institutionalise this system of local self-governance to make India not only the world’s largest democracy, but also to make it the world’s most representative and participatory democracy. Much remains to be done however, before we can actually claim to have empowered the elected bodies to function as institutions of local self-government.”¹

Introduction

At least till the advent of 73rd Amendment Act, 1992 the overall inclination and eventuality was that the central government took the initiative, devised the framework and functional ambit as obtained through the reports of various Committees so appointed and urged the state governments to follow the course. The local self government being one State Subject in the

constitution of India, the Central government could not compel the states to go as per its prescription or preference. Barring Gujarat and Maharashtra at the initial phase and Karnataka (for a brief spell) and West Bengal later on, Indian states were indeed loathsome to strong and effective panchayat system.

Three-tier panchayat system as recommended by B Mehta Committee, 1957² might have received enthusiastic support across the board and many state governments went to constitute panchayat institutions but the functional experience was more or less dejecting. By 1960s Gram Panchayat (GP) might have covered 90 percent of rural population of India, block panchayat or middle tier spanned across 4033 (out of 4974) community Blocks and district panchayat was set up in 262 (out of 399) districts, yet their life span, function and outcome etc. were rather dismal. Those bodies had very limited powers, resources and oscillating or wavering existence.

Many factors conspired to its languishing status. i) After a brief span, the reverse process of decentralisation set in. Many important schemes like Small Farmers Development Agency, Drought Prone Area Programme and Integrated Tribal Development Projects were rolled in without involving panchayat institutions. The states began to attach scant importance to panchayat, thus elections were withheld, flow of fund reduced to trickle thereby chocking the verve of panchayats. ii) Their position was further weakened by the creation of many parastatals - like water supply, slum improvement trust - which received emphasis due to the conviction that those functions are complex and require massive resources not available with panchayats. iii) Many states simply abandoned the decentralisation

experiment and those still clinging to the concept deflected the importance of panchayat by creating other bodies with representation of state level leadership and bureaucracy. Even the successful states in the process of decentralisation both in planning and administration like Gujarat and Maharashtra reverted to District Rural Development Agency (DRDA) with a mix of higher political leadership. iv) The acceptance of and sustentation to panchayat as the appropriate institution for rural development and poverty alleviation consequently began to be weaker gradually and unmistakably. To be specific, during 1967-1977 Panchayati Raj (PR) underwent the phase of definite decline. As per the prognosis of the Mehta Committee (1978;6), ³ the crux of the problem was the lackadaisical attitude of the political elite at higher level who perceived a threat to their hold and sway in the emergence of panchayat leadership. Another factor was the lack of clarity in regard to the very concept of PR. Some would treat it as an administrative agency, an extension of democracy at grassroots or a charter of rural local governments and all three concepts simultaneously militated against each other.

Given the aberrations and implicit antagonism of the state governments, constitutional status of panchayats was supposed to be indispensable. Thus came the 73rd amendment which is perhaps one covert attempt to clip the wings or to ward off the apathy of state governments. Even then panchayats discourse continues to be characterised by virtual duel or hide and sick game between central and state governments. The central government tends to offer the idea, to champion the importance as well as poignant potentiality of panchayat and to suggest the framework of the structure and function. Surely most state governments have ratified the 73rd amendment but it was not possibly for their endearment per se but for the political consequences of

outright opposition to one sensitive issue of people's participation and popularity of democratic decentralisation. States like West Bengal and Tamil Nadu manifestly rebutted the amendment on the ground that it was wrong on the part of the Centre to introduce mandatory provisions and thereby to usurp the authority of the state governments in the guise of decentralisation. West Bengal in particular, insisted that the Union had no business to tell the states as to what extent and how much they would endow or devolve powers to the panchayats and the state did not ratify the amendment.⁴

Arguably, one perceptible political motive is embedded in the interest displayed by the central government. Except as patron or facilitator or playing the role of captain of the game, it does not have any risk of shedding powers and authority etc. Instead, it is politically expedient to favour popular participation and the fund transfer to panchayats would signal to the electorate who is the benefactor.

If the central government wants to steal the show, it is the states that are to lose in the plot, literally. And here lies the inertia of most of the state governments. One vibrant panchayat system would pose political challenge to the political elites; the democratic seed-drilling would ultimately lead to transparent and accountable governance. The development decision making would also pass on to thousands of panchayat members. And all those would mitigate the hold and sway of the established political class. Such adverse political eventualities were major dynamics of the growing dormancy of panchayat system in the states. Such a reading is vindicated by the aversion of the Indian states save West Bengal, Karnataka and Andhra Pradesh. Despite lack of constitutional status, the ruling (non-Congress) political

leadership of those states (though for brief spell except West Bengal) perceived panchayat institutions as the fountainhead of the state politics and those states went to the extent of making panchayats genuine political institutions, the focal point of self government with all its ramifications and a 'microcosm of the state itself'. Even after the constitutional status the states dilly-dallied with their conformity state act: as many as 11 state governments choose to present their respective Panchayat Acts at the last moment and many others preferred to keep silent on such a vital issue, which indicated a calculated indifference.

PRIs have after 73rd Amendment Act received constitutional structure and functions, resource base and status. Having lost the leeway, the states have by and large complied with constitutional directives; they have established tiers of panchayats , held elections, conferred powers and functions. Thus, one new genus of constitutional panchayats has made advent from 1993 onwards.

Nonetheless, the questions survive; whether and how far the constitutional panchayats have been able to shed its earlier insipid baggage or whether they are substantially different from its earlier avatar or how they are performing the role or achieving the envisaged objectives and goals etc. Tersely, have PRIs transformed themselves from de jure (legal entity) to de facto (factual or practical) position and role? Regarding the questions to what extent the post-73rd Act panchayats are generically different or what are their outcomes the report of the Expert Committee, 2013 ⁵ is both relevant and revealing. Indeed, this is the very first national level report peeking into the working of the constitutional panchayats and charting out the future roadmap for those.

Major Recommendations

The Report is rather voluminous- four volumes with total 1194 pages. And it has delved into many aspects- both conceptual and operational. The basic premise of the Report is that Panchayati Raj Institutions (PRIs) epitomise power to the people and demonstrate faith in the people to manage their own affairs through maximum democracy and devolution of functions, funds and functionaries. It has suggested/recommended myriad measures including constitutional amendments.⁶

The major recommendations of the Expert Committee include; scheme of devolutions of functions, funds and functionaries (by states), deepening decentralisation through animated Gram Sabha (GS), reorientation of the outlook of lower level bureaucracy to PRIs, unconditional fund transfer on the recommendation of the State Finance Commission, model GS laws to motivate state legislation, freezing of rotation of reserved seats to 2/3 terms to incentivise good works, facilitate capacity building of panchayat members, provisions for transparency, accountability and collaborating and supporting role of PRIs and NGOs and CVOs. Few collateral and institutional measures are; electronic tagging of funds, constitution of single Ministry of Panchayats and Nagarpalikas, bringing District Planning Committee under district panchayats, free and fair elections by effective state level Election Commission, setting up one National Commission for Panchayati Raj and strengthening of GS in Fifth Schedule areas.

The Committee has also endorsed two amendments to the constitution. i) For ensuring synchronous operation of the central and state level Finance Commissions and for alignment of all State Finance Commission with that of

central Commission, the Committee advocates for adoption of the phrase “or earlier” after the word “every five year” in Art 242(1). ii) The Committee also supports establishment of District Council in place of district panchayats (Zilla Parishad) that will comprise constituencies from both rural and urban areas and such council is expected to take care of all district level departments, thus it will facilitate devolution of functions and functionaries at the district level.

For the sake of convenience one may divide the Report into two parts; one appraising or evaluating the performance of PRIs during last 20 years (from 1993 onwards) and the prescribed roadmap for strong and effective regime. No doubt, the terms of reference of the Committee were somewhat restricted; to review the existing policy and guidelines of relevant Central Sector/ Centrally Sponsored Schemes (CSSs) dealing with social sector /antipoverty programmes and to give specific recommendations i) for an appropriate role and responsibility of Panchayats ii). for strengthening their capacity to deliver services, iii) for making them accountable to respective Gram Sabhas and iv) to suggest ways to incentivize States to devolve funds, functions and functionaries to Panchayats. Yet, the appraisal of the outcome of panchayats is manifest in many passages of the Report. However, one should concede that the suggested measures or roadmap is strongly associated with the perceptible role performance of PRIs.

From the Report it becomes unequivocal that even when the states have complied with the constitutional mandate and provisions, the soul of PRIs seems to be missing still. Like pre-amendments period, the conceptual confusion continues to dog the trail of panchayats. They are being treated in

an off-hand manner. Mere existence of panchayats has made trifling little in the alleviation of poverty and inequalities. Empowerment and capacity building are largely absent. Devolution of funds, functions and functionary has not come by. Even the central government has not done enough to strengthen panchayats. The CSSs - the livewire without which their steam will simply evaporate ⁷ - have ignored or subverted the panchayats. Indeed, the Report has focused on how CSSs can be reconfigured so as to energise and empower PRIs- obviously so as it was its basic term of reference. The outcomes of panchayats are not in sync with the outlays they are receiving. Outlays have gone up from Rs. 7500 crore to 2.5 trillion, yet the results are remaining the same. The very system is dysfunctional and there is something really sick. And these facets should be redressed fairly and squarely.

Without attending to other aspects of the Report, this paper is engrossed exclusively with two facades- Gram Sabha and devolution of functions. This is not to belittle other recommendations but to emphasise that the Committee has pinned its focus more on these two somewhat related aspects. Moreover, glaring deficiencies are more marked in those fronts and without addressing those, redirection will not be feasible. After elaborating the recommendations of the Committee on GS and devolution, some reflections on the recommendations have also been appended alongside each aspect.

Gram Sabha: the Pivot of Panchayat System

The Expert Committee has dwelled at length about the pathetic performance and accordingly prescribed few steps for the invigoration of Gram Sabha. The main premise of the Committee being that panchayats should better be based on participatory democracy and not on concentration of powers at the hands

of a few elected representatives. The efficacy of PRIs would hinge on how accountable is the panchayats- more specifically Gram Panchayat (GP)- to the people.

Though the states have envisaged GS as one popular assembly of villagers- either at composite or bifurcated level- the performance of GS has not been emboldening. Attendance in GS meetings (including Ward Sabha) in most places is rather poor. Thus, GP President and the cohort of bureaucrats/NGOs could easily get away with token and bogus meetings, without being held accountable for their works and actions. The Committee rues about the fact that the declaration of 2010 as the Year of Gram Sabha by the Ministry of Panchayat and issuance of two advisories in 2009 relating to the steps to be taken by the states for rendering GS more proficient could not improve the situation.

Considering the dejecting situation the Committee has recommended;

- i) Central government /Ministry of Panchayat should incorporate relevant directions in the CSS Guidelines specifying the accountability to GS. Such guidelines should detail specific points/aspects on which the elected representatives/officials of panchayat would be answerable to GS.
- ii) Central government should draft one model GS laws and would urge the states to legislate on the draft proposal.⁸
- iii) GS will have the statutory rights to information and grievance redressal mechanism.
- iv) The Committee iterates the need of bifurcation of GS at constituency or neighbourhood level- replicating the provision of Panchayat (Extension to the Scheduled Areas) (PESA) Act, 1996-, particularly where population is large.

Such smaller GS would ensure larger participation of people and would provide better inputs for village specific development plans. Moreover, when meeting of all electorates even in smaller GS is not always possible, various Committees for dealing with specific aspect/subjects of public wellbeing may be encouraged.

v) Another interesting recommendation relates to the beneficiary selection function of GS. For enabling GS better identification and selection of beneficiary for ongoing scheme/programme, GP must have specific and reliable database. For this purpose BPL survey ought to be conceptualised at GP level. Multipurpose household survey with user friendly format should be supervised and managed by GP members. GP would then make GP/Ward level register for use during selection of beneficiary in GS meeting.

vi) Various community based organisations working at village level may place their reports before GS meetings and this would help in their eventual integration with panchayats system.

vii) The Committee has also urged states to bring out policies and rules for conduct of effective social audit. For instance, experts/ eminent citizen may be selected by GS itself or initially by higher level institutions for evaluation of works carried out by GP.

viii) States may consider video recording of GS proceedings for monitoring the nature of participation of people.

In order to ensure regular meetings where open discussion would be held on structured agenda and where accountability of GP members would be upheld, the Committee has suggested few practical and legal measures. Administrative instructions should be issued so that GS meetings are held, these become inclusive and participatory. The date, time and location should be convenient for all members. Enough publicity should be made through use of local communication system. People are to be encouraged to express freely so as to turn aside domination of a single group or so. Agenda should be circulated in advance. Full disclosure of funds and resource available for planning and implementation are to be instructed. Meeting of common interest groups like Self-help Group should precede GS meetings. Directives should be there for forestalling that GS meetings do not end up as petition collection one or wrangling match between groups and panchayats leadership. GP President should be duty bound to convene GS meetings and in case of failure there should be punitive measures like disqualification. Similarly, officials are to be instructed to attend and there should be stringent stipulation in case of non-compliance.

The Perspicuity

Regarding the future course of GS, the Committee has nearly echoed the framework envisaged by the Roadmap for the Panchayati Raj (2011-16) ⁹ where it was suggested that the position of GS would be the core of PRIs for self governance and accountable panchayats and GS should be empowered to take decisions and to monitor the operation of social sector schemes. The Committee is convinced that its suggested roadmap for GS would remove the lacunae in the 'last mile delivery' of the schemes

In hindsight, it can be observed that GS has received focal attention and panoply of positive expectations. Many, particularly at the central government level, have thrown weight behind the strong and vibrant GS. But the ground reality is no less disheartening. At another remove, it transpires that many of the suggestions/ recommendations are already in place in some states, particularly in Kerala and West Bengal.

GS has two tiers, has got comprehensive (though not enough) powers and disqualification stipulations are there (as in Haryana, Punjab, Maharashtra, Goa, Tamil Nadu and Kerala). GS already has three specific types of function. i) *Developmental* such as approval of village plan for socio-economic development, GP budget and selection of individual beneficiaries on priority basis, selection of development schemes/programmes including the location, ii) *Review* functions such as consideration or review of GP's activities, implementation process of development programmes and scrutiny of GP's audit & accounts report. iii) *Mobilisation* functions extend to securing community participation and its contribution to welfare activities as well as to scheme implementation, building awareness or undertaking sensitisation programmes. More importantly, the recommendations/resolutions of GS are either binding or 'shall' be considered by GP concerned.

Overall, there is marked improvement in the powers and status of GS in most states, at least relative to pre-amendment era. Yet, the functioning of GS has not seen considerable improvement; it has remained more or less token or ritualistic. The statutory endowment has not impacted a sea-change either in attendance of people, in holding of meeting or in the outcome etc. It has rather remained as one "lofty ideal".

The past of GS was dismal and the present is more or less dejecting. About the role of GS there is more enthusiasm, if not idyllic romanticism than perspicuity. The working of GS throughout Indian states authenticate that there is wide, if not insurmountable gaps between theory and practice, between what GS could do and what it does. Research studies reveal that GS has till date failed to fulfil its role as one deliberative body, as one participatory forum or as one mechanism for upholding accountability over the elected representatives.¹⁰ GS might have been one innovative means for ensuring that villagers, particularly the subdued sections get incorporated in the local level panchayat institution and the representative structure acts in accordance with the plural interests of the constituency. But GS is less practised and has least influence over the panchayat decision making. Before reposing fervent expectations, one should better be objective and pragmatic.

The bottom line is the alienation and incapacity of the people. Legal empowerment does not necessarily heighten GS to the centrality of decision making. The quantum and quality of participation of people is uniformly deficient and wanting, thereby giving the democratic and developmental parts a short shrift.¹¹ It is no less ironic that the participation of villagers does not improve in the exalted states where GS has been endowed with significant, though not enough powers, as in Kerala and West Bengal. Accordingly, the assumption that people shy away from GS primarily because of lack of comprehensive powers needs introspection. The absentee phenomenon is arguably much deep down. Politicisation, majoritarianism and beneficiary selection nature of GS is likely to impinge on the evolution of one 'common sense' and inclusive community.

(Dearth of) Devolution

After 73rd amendment the very concept of PRIs has undergone paradigm shift. Instead of conventional notion of being agency for implementing few entrusted civic functions, panchayats are now the self-government institutions responsible for economic development and social justice which would be achieved through integrated local level planning by participatory mode. New dimension of responsive and equitable socio-economic redistributive role has been assigned to PRIs through the insertion of social justice idiom. Yet, the conceptual conundrum continues to haunt the constitutional panchayats (para 2.31).

The Committee contends, rather forcefully, that comprehensive devolution of functions etc. is indispensable for the emergence of PRIs as the powerful and effective self governing institutions. The greater is the measures of devolution, the more significant is the outcome of panchayats (para 2.30). When the panchayats system is more meaningful and panchayats members are more involved, GS meetings will be livelier and the less will be the nefarious nexus between panchayat functionaries and bureaucracy. If and when panchayats system is more effective, the demand for stronger panchayat system will surely leap up. Well demarcated functions and adequate resource base is sine qua non for panchayats to function effectively and independently. And this will depend on what are their specific powers and responsibility. Nothing tangible is likely unless and until it is earmarked what are the unbundled activities of each panchayat, who are the functionary and who are to report to whom. Moreover, the devolution process will have also to be reinforced by accountable service delivery, clear delineation of

role/responsibility of key department/functionaries, strong monitoring mechanism and public awareness etc. (para 2.30).

However, the present ambience does not bode well. Where panchayats have little significance in their daily lives, the villagers rarely demand panchayats (para 2.45). Because of scant devolution, panchayats members have little incentive to be fully involved in the works of panchayat. And many panchayat members are indeed disillusioned with their not having clearly defined role to play. Having ambivalent functions and role, the political class perceives little electoral advantages in promoting panchayats beyond the structural (not functional) compulsion of the constitution.

Mere statutory existence of thousand of elected governments has not impacted much in the sphere of alleviation of inequality and poverty. While the economy grew at over 8 per cent annually on an average, the rate of poverty alleviation ran at under 0.8%. And this attests that the causal connection between growth and equity is awry. This is primarily because the devolution of powers, authority has so far been 'ad hoc, fitful and sometimes reversed'(para 2.31). Consequently, many distortions like *Sarpanch-raj*, proxy or bogus GS meetings have tarnished the status and credential of PRIs.

One specific contribution of the Committee is the recommendation for central role of PRIs in CSSs and state schemes- a 'radical departure' from the existing design of the programmes. "The single most important instrument available to promote equity in our system without detracting from high growth would be to use CSSs to empower PRIs and Gram Sabhas to promote inclusive growth"(para 2.27). The Report has called for CSS guidelines to be

“substantially modified to provide centrality to elected rural local bodies with a view to enhancing coverage and outreach”.

The Committee has emphasised on Activity Mapping (AM) through which devolution of functions, functionaries and fund to PRIs might be promoted in scientific, structured, practical and pragmatic manner. For demonstrating as well as accentuating the future pathways, the Committee has furnished detailed Model Activity Mapping for 8 major CSS guidelines and this authenticates how synergy between CSSs and PRIs could be successfully ensured.¹²

Nevertheless, it has also been conceded that AM is not always favoured and if attempted it often remains perfunctory.¹³ Except in MGNREGA and BRGF, no other 148 CSSs have afforded a role to PRIs and this is even after the express directive of the Cabinet Secretary to all Union Ministries to allow panchayats a role in the operation of CSSs. Such aversion to AM often leads to serious breakdown of service delivery. The service delivery institutions tend to be located far away from the villagers; they get hamstrung by lack of capacity, responsiveness and compliance mechanism. Thus, the ordinary villagers gain little understanding of the delivery system and they begin to regard themselves as mere beneficiary and not the critical actors. The tendency to establish plethora of un-elected, un-representative and non-responsive parallel bodies is no less destabilising and the inertia of central ministries/departments to devolution of powers is anathema to the letter and spirit of the constitution.

Every CSS guideline should invariably include comprehensive AM, the Committee ordains. However, differential AM may be undertaken at the state level, hopefully in consultation with PRIs. The ineluctability of model activity mapping in CSSs is supposed to incentivise the states for similar AM for the state level schemes as well. With such detailed AM, effective panchayat system will follow and consequently more effective delivery of services would be imminent. When accent is on to incentivise rather than didactically seeking better PR, the political will to promote PR might grow stronger and the electoral rewards of grassroots empowerment would become more unequivocal. In other words, effective devolution is the key to securing better outcomes and this will engender the political will to find solution to the systemic issues and challenges.

The Perspective and Prospect

Indeed, what would be the role and status of panchayats and what are the dos have been foreseen right from the very inception of PRIs. B. Mehta Committee, 1957, ¹⁴ on the basis of which the PRIs started its journey, recommended unequivocally; all Central and State funds spent in a block area should invariably be assigned to the Panchayat Samiti to be spent by it directly or indirectly. The State Government should give to the Samitis adequate grants- in-aid conditionally or unconditionally or on a matching basis. The technical officers of the Samiti should be under the technical control of the corresponding district level officers but under the administrative and operational control of its Chief Administrative Officer. The Report also charted out the functions of the Panchayat Samiti; agriculture in all its aspects, improvement of cattle, promotion of local industries, public health, welfare work, administration of primary schools and collection and

maintenance of statistics. It should also act as an agent of the State Government in executing special schemes of development entrusted to it. Similarly, GP should have few compulsory powers.

Yet again, Mehta Committee 1978 categorically contended; transfer substantial quantum of powers from the state government to the local bodies. However, such demarcation of functions and devolution of powers remain to be illusive. In their conformity PR Acts consequent upon 73rd amendment the states had initially copied and pasted the items of 11th Schedule and assigned those to almost each tier of PR and no subsequent reconfiguration has been attempted. Thus, patent overlapping and confusion have bedevilled the functional expanse of panchayats. The approach of most state government has almost been casual.

The Report inadvertently corroborates the popular apprehension that CSSs have suborned the function and status of PRIs. Parallel bodies have been established under CSS and bureaucracy of the line department has received prominence. And PRIs are not taken in the loop, without having organic link with the preparation and implementation of CSSs. The responsibility of the prastatals is upwards to officers of line departments and not downwards to people. Instead of integrating or involving in the programmes affecting their lives, the people felt alienated from the machinery of government.

Though AM is one mode through which specific functions, fund may be devolved to designated institutions and its is surely one better option than the prevailing anachronism, it is equally important to emphasis that PRIs may not still get what is statutorily due to them. For substantiation, let the

first enumeration of AM that the Committee appended in the Report be taken into consideration.

Regarding National Rural Livelihood Mission, the functional endowment of GP- the tier having the most intimate and direct association with people- will include few functions which are almost ceremonial in nature; identification of families/progress of self-help groups (SHG) including their federation, community resource persons, procurement of materials of setting up SHG, ranking to poor/BPL members, organise all left out poor into SHG fold, providing support in training, book-keeping, helping in opening bank A/C, monitoring SHG-bank linkage, status studies and awareness building etc. The fund allocation (for 2012-13) could be in the proportion of 14.8 per cent for GP, 34 per cent for PS, 27 per cent for ZP and 17.5 per cent for the state government. Regarding the functionaries, mainly state and occasionally district and block panchayats would have bulk of them.

From another perspective the expectation of the Committee is that if CSSs take PRIs in their loop and shift ownership to the community people, significant turnaround will be impending. And MGNREGA has been regarded as one model worth emulating for other schemes. Undoubtedly, MGNREGA has detailed and somewhat comprehensive guideline ordaining that the village plan would emanate from GS. Such framework notwithstanding, does the village plan start off from the village assembly? Our field experience attests ¹⁵ that in many GPs in West Bengal such planning from below was more a fiction than fact. In no survey GPs, the people suggested the plan(s) and GP incorporated this in the GP plan, which later on was integrated into Block and District plan. Even when the general

conclusion should be desisted, it is also worth pondering that GS meeting is hardly one fitting forum for village plan. People may clamour for NREGA works but what project should be selected involves many technical issues, particularly when the scheme has many preordained criteria and list of permissible works. One specific instance is the availability of proper land for carrying out the work. Redesigning CSSs with active engagement of PRIs in planning and execution is unlikely to be the panacea curing all mess plaguing PRIs. That can improve the situation marginally but not substantially.

If an exclusive functional domain for the Panchayats is to be carved out, then many State or Central laws on different subjects now under operation in the state will have to be amended for several reasons. Firstly, few laws come in conflict with the functional domain of Panchayats and restrict their autonomous status. Secondly, in some cases parallel bodies created by some statutes impinge upon the legitimate functions of local bodies. Thirdly, many acts were framed before the introduction of Panchayat system and therefore require amendments to make functioning of the Panchayats harmonious with provisions of the act. Take the instance of West Bengal. The Roadmap¹⁶ scrutinized 44 Acts, of which 6 are Central Acts and the other 38 are State Acts. These acts are either regulatory in nature or contain provisions having implications on local development. No role for the Panchayats is envisioned in such legislations. Therefore, it was suggested ¹⁷ that each subject-matter law, which has functional elements that are best attended to at local levels, should have provision for appropriate devolution to such levels – either in the law or in subordinate legislation. All the relevant Union and State laws have to be reviewed urgently and be suitably amended or modified.

No doubt, there are too many central schemes, each with its own setup, objective and each standing apart from each other. To overcome such ambiguity and cross-purpose Rao Committee ¹⁸ suggested one composite district development plan embracing all development activities in the district. For the district plan the committee suggested one administrative arrangement. District panchayats would have freedom to make plan as per its perception of development potential as well as constraints. The administrative machinery concerned with this plan related functions would come under the operational control of district panchayats while the career planning and professional competence would be looked after by the departments concerned.

Concluding Reflections

The Committee has made few interesting observation; bad panchayat is worse than no panchayat, it is not lack of political will but bureaucratic will that accounts for the fumbling of panchayats and if panchayat outcome improve, so will political will.

The general concurrence is that panchayats have stumbled to take firm roots because of lack of political support; indeed they have been caught in the vortex of party politics. Decline of PRIs during pre-constitutional era was largely attributable to the reluctance of the state level leadership to share powers with district leadership which was viewed as rival centre of power that could compete with the state leadership (Rao Committee, 1985). Somewhere apprehension or antipathy of the political elites has led to the distortion, if not destruction and somewhere the political motive has strangled the emergence of panchayat as the institution of the people and

for the people (PRIs under Left Front rule in West Bengal). Bureaucratic inertia is one weak argument. After all, in any parliamentary democracy bureaucrats are under the control of the elected representatives; their apathy largely reflects the inability of the politicians to direct and control the bureaucrats.

The Committee has eulogised and indeed reposed much faith on the effervescent GS. The moot question is to what extent such positive expectations are logical and pragmatic. It is no revelation that people's participation in the panchayat process, more so in GS, is far from satisfactory. Despite statutory provisions and penal measures, the situation is yet to improve, even in the best case scenario as in Kerala and West Bengal. In ideal situation PRIs should be the pivot of planning, development and governance at the grassroots; GS should be vibrant, the popular assembly will take decision, devise micro plans and enforce accountability etc. However, how and when tangible breakthrough will come about remains uncertain. What seems desirable is not always forthcoming.

Even if the ownership of CSSs is handed over to PRIs- highly unlikely given the short shrift to the Report of the Committee- PRIs would not still emerge as the self government institutions. Every CSS does have its exclusive objectives, guidelines and above all preordained criteria/beneficiary which restrict the choice and autonomy of PRIs. For substantiation, MGNREGA has its permissible list of works and PRIs cannot go beyond those even if their felt needs are otherwise. The planning and implementation of CSSs (also state schemes) by PRIs is by and large ornamental in the sense that they are to act

in terms of other's perception, priority and resources. Those schemes have fit-all approach which may not be apposite for everyone.

If CSS guidelines stipulate that PRIs will be involved in planning, execution of the scheme and villagers will oversee the activities, the position of GS is unlikely to come to the fore. Because of proximity to people, direct involvement of and accountability to the villagers is only plausible at the GP areas, more so at the constituency area of each GP. The prevalent fact is that higher panchayat tiers like Panchayats Samity and Zilla Parishad receive more allocation of fund and works than GP and their accountability to the people can at best be indirect.

Mere involvement in micro planning is unlikely to improve the situation. One option could have been to invite area development plan from each and every panchayat and thereafter to assign the allocation with designated helping hands from the line department. And this could incentivize those hapless institutions. Of course, there will have possibility of misuse, leakage and collusion etc. But such eventualities are not entirely absent either.

Constitutionally and ideally, PRIs should have exclusive functional domain and operational autonomy with adequate resource base. They should be accepted and allowed to be yet another government with respective domain, role and status like central and state governments. Wider role in central schemes falls short of the spirit of the constitutional scheme. It may at the moment seem idyllic but panchayats should come out of the clutches of other's schemes and programmes. The gut issue is whether anyone is willing

to treat PRIs just in the same way the state and central governments are functioning!

Notes and References

1. Prime Minister M Singh's inaugural speech at the Chief Ministers Conference on Poverty Alleviation and Rural Prosperity through Panchayati Raj, on 29th June, 2004.
2. *Report of the Team for the Study of Community Projects and National Extension Service*, Committee on Plan Projects, National Development Council, Vol. I-II (submitted in November 1957) and Vol. III (submitted in December 1957). (Chairman Balwant Rai Mehta and popularly known as Mehta Committee)
3. *Report of the Committee on Panchayati Raj Institutions*, 1978. New Delhi: Ministry of Agriculture and Irrigation (Chairman Asoke Mehta) (popularly known as Asoke Mehta Committee report).
4. While replying in the state Assembly on the Panchayat Amendment Bill, 1994 on 13 April, 1994, Surjya Kant Mishra, Panchayat and Land Reforms Minister, observed that the state government had registered its protest when the 73rd Amendment was presented by the Centre. It was the political will that is really required to make panchayats operational and not the Constitutional Amendment. The Amendment had a hidden agenda, namely to encroach upon the jurisdiction of the states. Yet, despite reservations on and even opposition to certain issues, "we had to incorporate changes introduced through the 73rd amendment since we did not have any choice. That was the constitutional obligation, we had to accept that". It should be noted, however, that panchayat elections were already due. Therefore, the mandatory provisions of the 73rd Amendment were incorporated in the state Panchayat Act before the panchayat elections were held in May 1993. (Source: Kumar Girish, 2002. *Constitutionalising Panchayats; the Response of State Legislatures*. French Research Institute, New Delhi. Occasional Paper, No 4.)
5. The Expert Committee on Leveraging Panchayats for Efficient Delivery of Public Goods and Services, 2013. *Towards Holistic Panchayat Raj, Twentieth Anniversary Report*; Volume I –IV. Government of India. (Chairman: Mani Shankar Aiyar)
6. Two features of the report are interesting. Instead of usual Panchayati Raj, the Report goes for *Panchayat Raj* and the use of plural verb after Committee.
7. Everywhere panchayat activities pertained to Jawahar Rojgar Yojana. So pervasive was the JRY fixation that in the event of the scheme being withdrawn, the panchayats would have little to do and they would have to be folded up (Mukarji, Nirmal &

Bandyopadhyaya, 1993. *New Horizon for West Bengal's Panchayats- A Report for the Government of West Bengal*. Kolkata: Department of Panchayat.)

8. Of course, Ministry of Panchayats issued one draft Model Panchayat and Gram Sabha Act in 2009. But as the model draft contained several other aspects, the Committee finds it sensible to issue one draft laws exclusively on GS.

9. *Roadmap for the Panchayati Raj (2011-16): An All India Perspective*, 2011. Ministry of Panchayati Raj, Government of India.

10 For survey based reports see: Bhattacharya, Moitree, 2002. *Panchayati Raj in West Bengal: Democratic Decentralisation or Democratic Centralisation*. New Delhi: Manak Pub: Chathukulam, Jos & John, M S, 2002. 'Five Years of Participatory Planning in Kerala; Rhetoric and Reality'. *Economic and Political Weekly*, December 7: Chattopadhyay, Chakrabarti & Nath, 2010. 'Village Forums or Development Councils: People's Participation in Decision-Making in Rural West Bengal, India'. *Commonwealth Journal of Local Governance*, March (Special Issue). pp.66-87: Corbridge, Stuard, Williams, Venor & Srivastava, 2003. 'Making Social Science Matter. How the Rural Poor See the State in Bihar, Jharkhand & West Bengal'. *Economic & Political Weekly*, June 14 & 21. pp, 2377-2389 & 2561-2569.: Inbanathan, Ananda, 2009. *Local Governance, Patronage and Accountability in Karnataka and Kerala*. Bangalore; Institution for Social and Economic Change. Working Paper No 224. : Jain, S. P., 2002. *Gram Sabha: A Study of Two States*. Hyderabad : National Institute of Rural Development. Research Report Series no. 44 : Johnson, Craig, 2003. *Decentralisation in India: Poverty, Politics and Panchayati Raj*. Brighton: Overseas Development Institute. Working Paper No. 199; Kumar, Girish, 2006. *Local Democracy in India*. New Delhi: Sage Pub.: Mary, John & Pillai, 2007. 'People's Participation in Kerala's Gram Sabhas; Investigating the Quality'. In Ram Sundar (ed.). *Panchayati Raj and Empowering People*. New Delhi; Kanishka: Moolakkattu, Stephen, John, & Kunhambu, V, 2005. 'People's Participation in Gram Sabha: Evidence from Three Village Panchayats in Malabar (Kerala)'. *Man & Development*, Vol. 27 (2), June.: Peter Ronald deSouza, 2003. 'Struggle for Local Government: Indian Democracy's New Phase'. *Publius*, Vol. 33, 4, pp. 99-118.: Mandal Amal, 2012. *Grassroots Governance: Gram Sabha in West Bengal*. Jaipur; Rawat Publication. For a comparative profile of GS in West Bengal and Kerala see Mandal Amal, 2013. 'Gram Sabha in Kerala and West Bengal; Beyond Rhetoric of Grassroots Democracy'. *The Grassroots Governance Journal*, Vol..XI (I).

11. Sen Committee observed; the corner stone of decentralised democratic governance is people's participation. Genuine participation consists of dialogue and partnership leading to full involvement in decision making in the allocation and utilisation of resources meant for collective good. That constitutes genuine participation. The citizen is seen on the center stage; it is his voice that has to be

listened to; it is his choice that has to be accepted and it is his interest that has to be preserved.

The Committee endeavoured to fashion the legislative framework, which embodies the vision. It favoured strengthening people's institutions like Grama Sabhas, Ward Sabhas and Ward Committees, suggested special purpose vehicles of people's participation in the form of beneficiary committees and social audit groups, and creation of an enabling environment through right to information etc. (*Report of the Committee on Decentralisation of Powers, 1997*. Department of Panchayats, Government of Kerala (popularly known as Sen [Satyabrata] Committee).

12. Activity Mapping of functions, functionaries and finances has been on the National Rural Livelihood Mission (NRLM), Rashtriya Krishi Vikas Yojana, Accelerated Irrigation Benefits Programme and Command Area Development and Water Management, Sarva Shiksha Abhiyan, National Rural Drinking Water Mission (NRDWM) and Total Sanitation Campaign (TSC), National Rural Health Mission, Integrated Child Development Scheme and Special Central Assistance to the Tribal sub-Plan

13. The process of AM is in limbo for many reasons. i) Central Ministries tend to issue blanket instructions for setting up parallel structures and these turn as the convenient alibi for the state departments to withhold powers from panchayats. ii) The state level panchayat departments issue executive order for AM. As these are not legislative fiat, those can easily be modified later on and are not binding on other departments.

14. Balwant Rai Mehta Committee, 1957, *ibid*.

15. Mandal Amal, 2012. *Grassroots Governance: Gram Sabha in West Bengal*. Jaipur; Rawat Publication.

16. *Roadmap for Panchayats in West Bengal; A Vision Document*, 2009. Panchayat and Rural Development Department, Government of West Bengal. The Roadmap envisaged three types of future activity for the Panchayats of the State. I) Few obligatory duties, within the meaning of Article 243G, encompassing the issues relating to socio-economic development with emphasis on human resources development. This would encompass the regulatory functions of the GPs. The complementary functions of the GPs would extend to improving the quality of life of the people, including such activities which should be undertaken by the GP for good governance and for frequent interaction with the people to sensitize them about their rights as also responsibilities and to make them conscious about their stake in the development process. ii) The second type of activities was to be assigned to the Panchayats to perform tasks on behalf of the State primarily as an agent of the government. In implementation of these programmes, the role of Panchayats would transcend mere agency function. Because of nearness to the people, they could select

the right nature of schemes for sustained development and for improvement of quality of life. Also the Panchayats are better positioned to select deserving group of beneficiaries for the related schemes and programmes with special emphasis on the disadvantaged groups of the community. iii) Third types of activities would be of concurrent in nature in as much as they largely require back-up services from the State Government and other institutions. It deserves emphasis that the tenor of the Expert Committee largely resembles with the second type of activities assigned by the Roadmap to the panchayats in West Bengal. Moreover, the Roadmap offers insight about the present status as well as the impending course in the state supposed to be one model worth emulating.

17. *Local Governance; an Inspiring Journey into the Future*, Sixth Report of Second Administrative Reforms Commission (ARC), 2007. Government of India. Given the fact that PRIs had been given symbolic attention and some sprinkling of minor roles, ARC posed the question; what are the goals of decentralisation? Effective service delivery, fair distribution of the fruits of development, accountability, people's involvement in participatory planning or all these?

18. *Committee on Administrative Arrangements for Rural Development and Poverty Alleviation Programmes*, 1985. Department of Rural Development, Ministry of Agriculture. (Chairman: Rao G.V.K.)

Global Environment Vs Food Security

C. R. Diwakar Reddy & S. P. Rajendran

This paper contributes to the discussion by synthesizing the pertinent literature and presenting an innovative framework that may help identifying and designing promising pathways to global environment and food security. It is produced under the auspices of national governments have tended to give high priority to global environment and food security. The issue of food security is pivotal to the sustenance and growth of any economy. Food security is a complex sustainable development issue, linked to health through malnutrition, but also to sustainable economic development, environment, and trade. The continuing evolution of food security as an operational concept in public policy has reflected the wider recognition of the complexities of the technical and policy issues involved. Healthy living environments and sustainable agriculture that ensures food security are immediate priorities, and both can contribute to poverty reduction. Looking towards the future, it is also important to prevent development initiatives from damaging people's health. The natural environment contributes significantly to people's health through the quality of air we breathe, the food we eat and the water we drink. Environmental pollutants and potentially pathogenic organisms can harm people's health through a series of complex transport and exposure pathways.

Introduction

Environment literally means surrounding and everything that affect an organism during its lifetime is collectively known as its environment. The focus of this report is on the environmental problems. Less attention is paid to health burdens that are not clearly linked to environmental problems, and environmental problems that do not contribute appreciably to ill health. Health and the environment are defined relatively narrowly, largely in

physical terms. The 'environment' is taken to mean physical surroundings, and 'environmental problems' generally refer to deficiencies brought about inadvertently by human.

Environment belongs to all the living beings and thus is, important for all. Each and every body of whatever occupation he or she may have is affected by environmental issues like global warming, depletion of ozone layer,

Environment study deals with the analysis of the processes in water, air, land, soil and organisms which leads to pollute or degrade environment. It helps us for establishing standard, for safe, clean and healthy natural ecosystem. It also deals with important issues like safe and clean drinking water, hygienic living conditions and clean and fresh air, fertility of land, healthy food and development. Sustainable environmental law, business administration, environmental protection, management and environmental engineering are immerging as new career opportunities for environment protection and managements.

The Environmental Pollution Control Approach

The environmental consequences of rapid industrialization have resulted in countless incidents of land, air and water resources sites being contaminated with toxic materials and other pollutants, threatening humans and ecosystems with serious health risks. More extensive and intensive use of materials and energy has created cumulative pressures on the quality of local, regional and global ecosystems.

Before there was a concerted effort to restrict the impact of pollution, environmental management extended little beyond laissez-faire tolerance, tempered by disposal of wastes to avoid disruptive local nuisance conceived of in a short-term perspective. The need for remediation was recognized, by exception, in instances where damage was determined to be unacceptable. As the pace of industrial activity intensified and the understanding of cumulative effects grew, a pollution control paradigm became the dominant approach to environmental management. Two specific concepts served as the basis for the control approach: the assimilative capacity concept, which asserts the existence of a specified level of emissions into the environment which does not lead to unacceptable environmental or human health effects the principle of control concept, which assumes that environmental damage can be avoided by controlling the manner, time and rate at which pollutants enter the environment Under the pollution control approach, attempts to protect the environment have especially relied on isolating contaminants from the environment and using end-of-pipe filters and scrubbers. These solutions have tended to focus on media-specific environmental quality objectives or emission limits, and have been primarily directed at point source discharges into specific environmental media (Air, Noise, Water, Pesticides and Radiation Pollution).

Food Security

Food Security is one of the major challenges confronting the world today. Food and safe drinking water are first among the hierarchical needs of human beings. The term food security was originated in international development literature in the 1960s and 1970s. In most developing countries, land-and-water-based occupations consisting of crop husbandry, animal husbandry,

fisheries and forestry are the major sources of employment and income in rural areas. In this context, agriculture assumes a more significant role in the development of national and global food and nutrition security systems than just being the source of food. Therefore, in predominantly agricultural countries, importing food would have the additional consequence of enhancing rural unemployment, when this is done to compensate for inadequate national attention to agricultural development. Thus food security has to be viewed in the contexts of food production, job creation and income generation. An additional issue of overriding importance, if we are to ensure that today's progress is not at the expense of tomorrow's prospects, is that of conservation of the ecological base for sustained agricultural production

Ensuring that food security and nutrition objectives are included in the initial planning stages of agriculture projects has a tremendous potential to improve nutrition and build healthy futures for mothers, children, and other vulnerable groups around the world. If food security or nutrition objectives are not included from the outset, at a minimum, agriculture program designers should conduct a nutritional impact assessment to estimate the project's impacts on the nutritional situation of vulnerable groups and to ensure that no adverse impacts are likely for them.

Hunger Indicators in India

Although India grows enough food (food stock of 50 million tones projected in 2009) and its GDP (Gross Domestic Products) has more than doubled since 1991, it is home to about 25 percent of the world's hungry poor. Forty eight percent of children under the age of five years are malnourished in India, which is over a third of the world's 150 million malnourished under-fives.

Also over half of all women aged between 15 and 49 years are anemic, and 30% of children are born underweight. It is estimated that 3% of GDP is lost by physical impairments caused by malnutrition in Asian countries (Economist 2010a). India ranked a high of 65 in 2009 with a global hunger index of 23.9, which is higher than many countries in sub-Saharan Africa including Sudan. The India State Hunger Index (ISHI) score was calculated for 17 major states and covering over 95 percent of the population (Menon et al 2009)¹. ISHI has been computed using calorie undernourishment cut off of 1,632 kcal per person per day.

Food Supply Determinants Related to Food Security:

- Agricultural & Aquatic Ecosystem Health
- Producer Viability
- Quantity & Quality of Food Products
- Price, Value & Wage
- Processing & Infrastructure
- Diverse & Accessible Retail Options
- Marketing & Advertising

For a community to be food secure, our food system must maintain producer viability. All types of operations must have the opportunity to be sustainable including smaller family farms. A secure food system provides a diversified, open and self-reliant supply of food and maximizes commerce and connections between local customers, producers and processors to keep dollars circulating in the community. The quantity and quality of foods that are produced throughout the food system must also be nutritious, safe, culturally appropriate, personally acceptable and sufficient to meet the needs of the community.

Food used to be called a basic human need along with water, peace, shelter, education and primary health care. It has also been called a prerequisite for health. Food security is now listed among the social determinants of health, dignity, civil society, progress, justice and sustainable development. It is important to have a balanced perspective with respect to hunger in developing and developed countries. Malnutrition is synonymous with hunger in developing countries. Malnutrition is defined as the failure to achieve nutrient requirements, which can impair physical and mental health.

Aim of the Study

This paper aims to know in order to resolve environmental problems that involve human health issues and to enhance food security scenario. The primary objective is to gain a better understanding of how we interact with our natural environment and what the consequences will be for sustainability of environmental goods and human health. This goal requires that we have the necessary multidisciplinary capacity capable of responding in an interdisciplinary way to resolve problems that are intrinsically interfacial in character. We conclude with a discussion of some policy recommendations to enhance the public distribution system in order to improve food security and reduce hunger and malnutrition in India.

Objectives of the Study

- ❖ Environmental pollution is global and long-term.

- ❖ Protection of the environment is the most fundamental step in preventing human illness.
- ❖ To increase production of rice, wheat and pulses through area expansion and productivity enhancement in a sustainable manner in the identified districts of the country

An essential problem of this century is the world pollution. Currently the environment is so much contaminated that urgent measures should be taken. The single individual cannot be blamed for the world pollution; however every person should take care of his or her habitat. There are trivial things that we can do individually to save the environment. In making some small changes in the way we do in daily activities, we can help to protect our environment from being polluted. Environmental Pollution is growing day by day with every second passes, it is like bad dream not only destroying our environment but also ruining our Ecosystem and Life cycle, every single living as well as non living creatures is effected by pollution. Recently we have seen Drastic changes in our Environment due to overgrowing pollution, if this pollution continues to grows like this then there will be no fresh air will left out to breath. However, it should be kept in mind that whatever small changes you can do for the environment is not futile. If each of us acts responsibly and start making changes at our own homes, together we will be able to save our environment that has made life possible on this beautiful planet.

One of the first efforts of the country was to build up a food security system to ensure that the threat of famine no longer stalks the country. Investment in

agriculture and the green revolution have ensured that the food production has kept pace with the population growth and by and large India remained self sufficient in food. When all the food security determinants related to food supply and access are considered, it is clearly an agricultural, environmental, economic, transportation, education and social justice issue. It transcends all governmental departments and boundaries. Some food production, processing and transportation methods are not consistent with a vision of a sustainable food system - producing food that will last into the future and ensure that our children will have the food they need.

There is insufficient focus on the cultivation and marketing of low-cost, locally acceptable green leafy vegetables, vegetables and fruits. It is noticed that these vegetables are not available at affordable cost throughout the year. Health and nutrition education emphasizing the importance of consuming these inexpensive but rich sources of micronutrients will not result in any change in food habits unless the horticultural resource in the county are harnessed and manages effectively to meet the growing needs of the people at an affordable cost. Horticultural products provide higher yields per hectare and sell at higher prices. The processing, storage and transportation of horticultural products in the manner so that there is no glut and distress sale will make their production economically attractive to farmers and improve availability to the consumers. Increased trade and improved market access can be achieved by improving infrastructure and reducing trade barriers. However, this does not imply a completely free market approach, as price regulation and government subsidies are crucial safety nets and investments in production. Increased market access must also incorporate a reduction of

armed conflict and corruption, which has a major impact on trade and food security.

Conclusion

It is conclusion that, it is more profitable to prevent pollution rather than deal with it after it has spread. To stop pollution before it is caused is the best course. Hence continuous modernization is equipment of environment management in also important. Where there is awareness among the people, the pressure on the government to control pollution is more. Even here, it is difficult to change the situation overnight. Every farmer needs to be encouraged to construct a small farm pond in the field to store rainwater and to use it for agriculture. Synthetic chemical pesticides and fertilizers are entering the rivers and lakes and polluting them. These contaminants are entering the food chain. We need to replace synthetic chemical fertilizers and pesticides with organic fertilizers and pesticides to protect our food from contamination.

The important consideration for food security is whether the food production would remain higher than the population growth rate. The food security is an issue of great and growing concern in many countries. Food production in different regions must increase substantially if each region has to meet its requirements. The Food Security mission is to provide innovative and effective scientific contributions to reduce hunger and achieve food security, contributing towards the progress of Millennium Developmental, especially towards the eradication of hunger and malnutrition. Achieving this mission requires careful analysis and science-supported identification of effective and efficient policy, technical and institutional responses, including impact

assessment. The Food Security utilizes a multidisciplinary approach through teaching, conducting research and providing policy advice in cooperation with national and international development organizations and partner Higher Education Institutes in the developing world.

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Chakrabarti, Food Security in Sikkim,
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A Critical Review of Food Security in Sikkim

Anjan Chakrabarti

A close look at the agricultural scenario in the hill state of Sikkim reveals that it has gradually turned out to be a food deficient state from a food surplus state. Its growth of population has outweighed the growth of food grain production. The State has failed to augment agrarian reforms. Public investment in agriculture is on the decline. Limited availability of cultivable land, the unsuitable terrain is making the situation further complicated. Since majority of the people of the State are still relying on agriculture immediate attention has become mandatory to reduce the rural poverty, to attain the food security and to generate income and employment in the agricultural sector.

Introduction

Availability of food and access to food are the two essential determinants of food security. Availability however does not ensure access. It has been observed that even though food may be available globally a considerable difference in distribution or access to food is visible within countries, households within countries or individuals within households.

Food security policies aim specifically at ensuring that households have an adequate dietary intake and that the possibility of food deficiency among the households should get minimised. The reduction of poverty and hunger has been identified as two most important aspects in the development agenda in the new millennium and it was also clearly reaffirmed in the Rome Declaration of the World Food Summit in 1996 as well as in World Food Summit in 2001.

In Indian context, according to Acharya's (1998) observations, the policy package consisting of introduction of high-yielding varieties of wheat and rice, strengthening agricultural research and extension services, measures to

of minimum support prices for major crops, government procurement of cereals to maintain a buffer stocks and to meet food grains demand to sustain public distribution system and the provision of agricultural credit on a priority basis, had raised the rate of growth of productivity in India per hectare of all crops taken together from 2.07 per cent in the decade ending 1985-1986 to 2.51 per cent per annum during the decade ending 1994-1995. Similar evidence of an increase in yields, a partial measure of productivity gains given by output per unit of land area has also been observed.

From last decade or so a reversal of trend has been observed. According to observation of Planning Commission, Government of India (2001) during the 10th Plan, agricultural GDP grew at an annual rate of mere 2.1 percent against the targeted growth rate of 4 percent and this may be resulted from stagnation or decline in productivity during the last decade. Agriculture

Strategy for Eleventh Plan (2007) has categorically mentioned that a particular area of concern is food grains, whose production during 10th plan was less than during 9th plan. Per capita annual production of cereals has declined from 192 kg in 1991/1995 to only 174 kg in 2004/2007 and of pulses from 15 kg to 12 kg.

Since a large section of the rural poor are either subsistence farmers or landless labourers and as they derive their livelihood either by acting as a producer or by selling their human labour, therefore, inadequate food grain production is bound to add misery among these sections of rural populace. In addition to that, urban food insecurity is also on the rise.

Status of Agriculture in Sikkim

In Sikkim, almost 70 per cent of the total working force is engaged in agriculture and allied activities, and they cultivate around 16 per cent of the total land area. Unlike the plain areas, in Sikkim, the agricultural lands are crescent shaped (4.5m to 7.5m long and 2.5m to 3.5m wide) and terraced (Dasgupta, 1992) and have a varied elevation of 300metres to 3000meters. Diversity in ecological condition along with the varied elevation has brought considerable variation in agricultural practices in the State and a vast area has become unsuitable for traditional agricultural practice.

Out of the total land area of 7096km², 44.09 per cent area is under forest; another 40.02 per cent area is under permanent snow or alpine pasture. Thus only 15.69 per cent of total land area is presently under cultivation.

Trend in Agricultural Production, Productivity and Agricultural Growth in Sikkim (1975-2002):

Total food grain production in the State has registered a healthy increase in absolute term and a rising trend is witnessed both in productivity as well as in the area of cultivation, however, since 2000-2001 the production, and from 1990-91 onwards yield and area under cultivation of all the major crops of have started falling (Table-1.1, 1.2 & 1.3). Food grain production has increased from 31.15 thousand tonnes in 1975-76 to 104.81 thousand tonnes in 1997-98 and then declined to 76.9 thousand tonnes in 2001-02 (Table-1.1). Simultaneously, the productivity has gone up from 669kg / hectare (1975-76) to 1423 kg / hectare in 1990-91 and then deceleration started and reduced to 1234.6 kg/hectare in 2001-02 (Table-1.2). Though maize has never been a staple food in Sikkim, its production has steadily increased over the periods, and it contributes half of the food grain production in the State. Maize production in the State has increased from 16.5 thousand tonnes in 1975-76 to 55.71 thousand tonnes in 1997-98. The contribution of agriculture to gross state domestic product (GSDP) has continuously been declining though the dependence on agriculture has not been declined over the periods. The share has declined from 48.7 per cent in 1980-81 to just 18.8 per cent in 2006-07 (Figure: 1). In addition to this, the average compound annual rate of growth of population since 1980s has outweighed the growth of food grain production and the gap got extremely widened since 1990s and onwards (Figure:2). This is bound to create food scarcity within the State. In fact, Sikkim has registered highest per capita PDS purchase (8.6 kg) in the country. The areas where PDS off take were relatively high were not only deficit in terms of cereal production but also tended to be areas of low cereal consumption (Swaminathan, 2003). The work participation rate or the ratio of

labour force to population has also been declining consistently in the State of Sikkim (Table-1.4). Lower work participation rate reflects difficulty of finding work and increased marginalization of workers (Patnaik, 2005). The growth of agricultural sector is further being impaired by very low budgetary allocation in terms of percentage. A rise in allocation was observed in the period 1985 to 1991 and there after it started declining (Table-1.5).

Food Security in Sikkim

It has been observed that Sikkim has made substantial progress in food grain production and productivity, but the question is whether the State has self sufficiency in food grain production or not. Indian Council of Medical Research (ICMR) has prescribed a guideline for the requirement of different food items to improve the quality of health (Table-1.6).

Given the above per capita per day food requirement, yearly food requirement for the entire population of Sikkim for the year 1990-91 and 2001-02 was calculated and it has been observed that Sikkim is gradually moving from food surplus State to food deficient State.

From the tables 1.7 & 1.8, it is evident that in the year 1990-91, Sikkim was having surplus of 38.15 thousand tonnes in cereals and 38.10 thousand tonnes in food grains but within 10 years, the surplus disappeared and the estimation says that in 2001-02, in cereals the deficit stands at 8.32 thousand tonnes and for food grains there is a deficit of 12.49 thousand tonnes. In addition to that Sikkim have never produced surplus amount of pulses, but the deficit in production is slowly mounting. As it is evident from table

below, that 1990-91, the deficit in production of pulses was 0.41 thousand tonnes and in 2001-02 it reached to 4.1 thousand tonnes.

According to data available (for 2001-02) for the production of food items other than food grains, it is estimated that Sikkim is enjoying surplus production of vegetables, potato, fruits and oilseeds but in meat and roots and tubers the state is facing a deficiency.

Now the question arises why this deficiency has occurred, is this because of rising population pressure, or fall in productivity or reduction in cultivable area or are all these factors together affecting the production? It is observed that fall in cultivable land, fall in productivity and indeed rise in population are among the major factors affecting the food grain production adversely (Chakrabarti, 2009). As a matter of fact, in comparison to 1996-97, in 2001-02, area under cultivation for rice, wheat, maize, finger millet have decreased and only marginal rise is visible in case of buck wheat although area under high yielding varieties for rice, wheat and maize have been showing a rising percentage since 1975-76. At the same time compound annual rate of growth of population is also showing a rising trend. In 1981-1991, the population of Sikkim was growing at 2.5 percent per annum and in 1991-2001, the population grew at 2.9 percent per annum and population in urban areas has grown much faster than rural areas (Table-1.9).

Conclusion

It is evident that though no longer monarchic rule exists in Sikkim, the feudal elements still has its root in agrarian system. Land Reforms measures are seem to be inadequate and have failed to ensure distributive justice for its agrarian society. Food grain production, agricultural productivity or yield

and agricultural growth have started decelerating since 2000. Share of agriculture to Gross State Domestic Product has continuously been declining however people depending on agriculture for their livelihood have hardly declined. Growth rate of population has outweighed the growth of food grain production and has transformed Sikkim from food surplus state to a food deficient state. In addition to that plan allocation in agriculture has also started declining. In view of impending food scarcity, the present practice of importing food grains under Public Distribution Scheme will vigorously be persuaded. This will further reduce the public expenditure on agriculture. In addition to that it is bound to increase the incidence of rural poverty, both from nutritional point of view as well as in terms of declining employment opportunities in rural areas. It is indeed true that agriculture is providing sustenance to the majority of the people in the State, but rising demographic pressure on cultivable lands, physical constraints created by the terrain, limitations of terrace farming in terms of productivity, irrigation, cost of production, lack of infrastructural support, declining public expenditure, complete absence of marketable surplus are working as major obstacles for the agricultural sector. Therefore, attention should immediately be given to raise the agricultural productivity and production in the State and to do so institutional changes have become imperative. Serious efforts are to be made to bring more land into cultivation through appropriation of surplus land possessed by big land owners and this will not only increase distributive efficiency but also raise the allocative efficiency¹. As a result, the State will be able to avert impending food scarcity.

Note

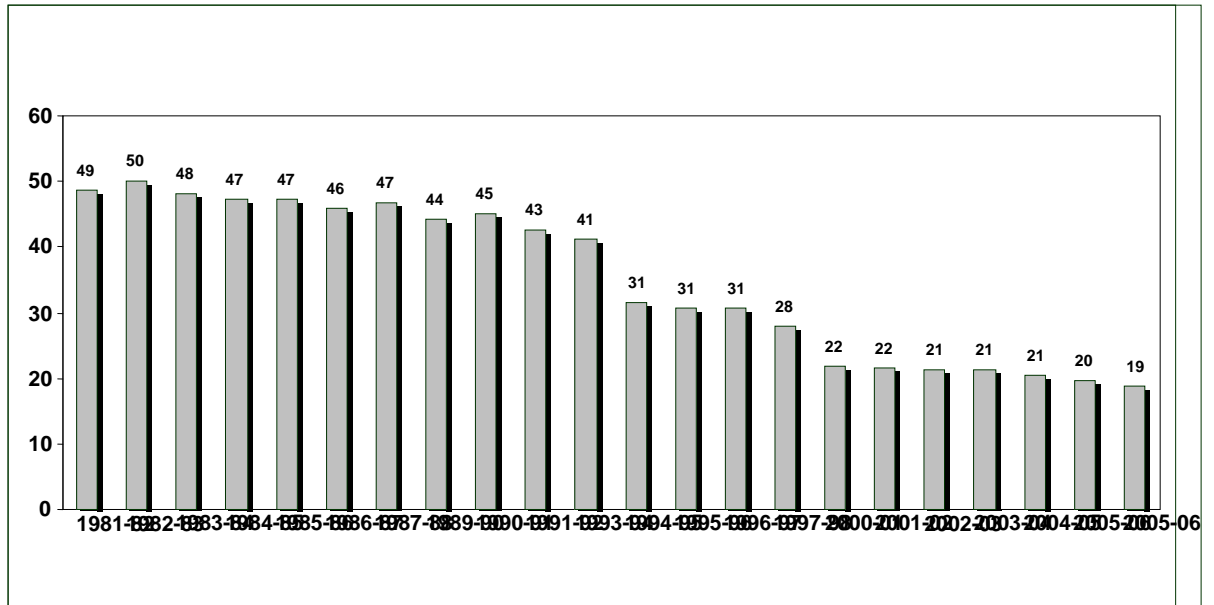
1. By allocative efficiency we mean the ability of a firm to use the inputs (land, labour, capital etc.) in optimal proportions, given their respective prices. The role of successful land reform in enhancing allocative efficiency in the agricultural sector is hardly consciously considered. Allocative inefficiency generally occurs when, given the prices of inputs and outputs, a producer cannot optimally allocate his or her resources to minimize the cost of production and subsequently leads to non-realization of the potential productivity of the inputs used. Such inefficiencies add considerably to the lowering of the capacity of the farmers to generate marketable surplus, thus nullifying the achievement of distributive efficiency. Providing access to land, either through redistribution or through a secure tenancy contract, would have been effective in increasing the productivity of agricultural practices.

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Annexure

Figure: 1- Share of Primary Sector to GSDP (1981-82 to 2005-06)

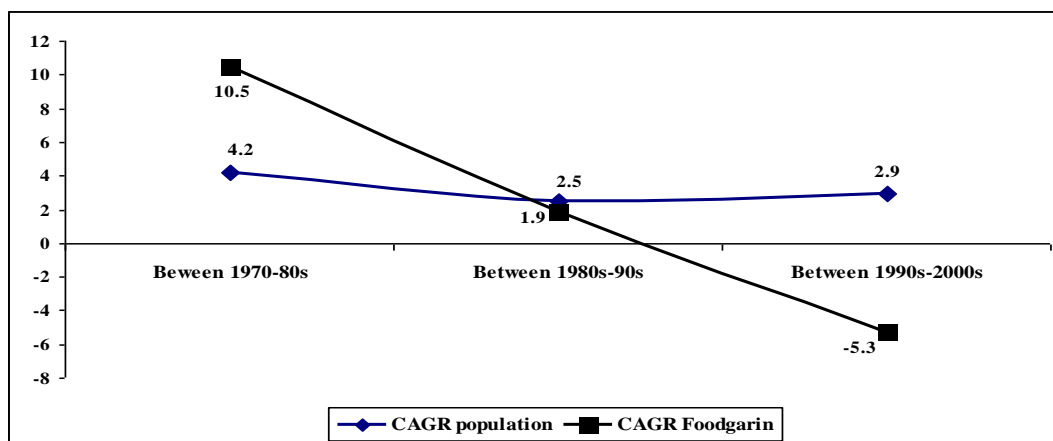


Source: Calculated from GSDP figures at factor cost-State Domestic Product of Sikkim, Directorate of Economics and Statistics, Monitoring and Evaluation Planning and Development Department, Government of Sikkim, Gangtok, 2001 & <http://www.mospi.nic.in>.

* Annual Growth Rates for 1981-82 to 1992-93 were calculated from GSDP at constant prices(base year-1980-81), For 1993-94 to 1998-99 the base year was 1993-94 and for 1999-2000 to 2006-07, the base year was 1999-2000

Figure-2: Compound Annual Rate of Growth (CARG) of Population and Food Grain Production in

Sikkim



Source: CARG of Population calculated from Census Reports of 1971, 1981, 1991 and 2001 and CARG of Food Grains was calculated from data available from Dept. of agriculture, Govt. of Sikkim.

Table -1.1: Food Grain Output (1975-2002) (thousand Tonnes)

Crop	1975-76	1980-81	1985-86	1990-91	1995-96	1999-00	1997-98	2000-01	2001-02
Rice	10	10.63	17.05	22.04	21.68	22.06	21.45	21.35	12.9
Wheat	0.15	10.3	11.22	13.08	15.3	14.81	14.2	10.1	5.52
Maize	16.5	28.93	49.25	57.5	56.56	56.63	55.71	59.61	49.38
Finger-millet	3.2	3.84	4.3	4.62	4.75	4.71	4.73	4.23	2.76
Barley	0.5	0.46	1.3	1.18	1.57	1.56	1.51	1.21	0.97
Buckwheat	0.8	1.38	1.38	1.42	1.74	1.61	1.6	1.53	1.74
Total Cereals	31.15	55.54	84.5	99.84	101.6	101.38	99.2	98.04	73.28
URD	0.6	2.92	2.9	3.05	3.22	3.3	3.3	2.74	1.77
Other Pulses	0.1	0.2	1.7	2.38	2.7	2.69	2.31	2.41	1.83
Total Pulses	0.7	3.12	4.6	5.43	5.92	5.99	5.61	5.15	3.6
Total Food Grains	31.85	58.66	89.1	105.27	107.52	107.37	104.81	103.21	76.9

Source: Department of Agriculture, Government of Sikkim.

Table -1.2: Agricultural Yield (1975-2002) (kilogram/hectare)

<i>Crop</i>	<i>1975-76</i>	<i>1980-81</i>	<i>1985-86</i>	<i>199-91</i>	<i>1995-96</i>	<i>1996-97</i>	<i>2001-02</i>
Rice	891.3	729.8	1117.7	1395.2	1381.9	1405.3	1272.5
Wheat	1016.1	1495.0	1540.6	1699.5	1844.1	1791.4	1266.0
Maize	588.2	973.3	1283.1	1464.2	1439.2	1440.6	1295.8
Finger-millet	677.4	780.3	910.2	958.0	965.2	957.1	741.9
Barley	564.5	805.8	1320.9	1332.2	1477.0	1440.9	1159.5
Buckwheat	541.9	508.0	701.1	838.8	807.3	794.1	796.4
Total Cereals	669.6	935.2	1231.8	1423.0	1422.5	1421.6	1234.6

Calculated by using data on production and area under crops

Table -1.3: Area Under Different Crops (Thousand hectares)

<i>Crop</i>	<i>1975-76</i>	<i>1980-81</i>	<i>1985-86</i>	<i>199-91</i>	<i>1995-96</i>	<i>1996-97</i>	<i>2001-02</i>
Rice	11.4	14.8	15.5	16.05	15.94	15.95	10.30
Wheat	0.15	7.0	7.4	7.82	8.43	8.4	4.43
Maize	28.5	30.2	39	39.9	39.93	39.94	38.72
Finger-millet	4.8	5	4.8	4.9	5	5	3.78
Barley	0.9	0.58	1	0.9	1.08	1.1	0.85
Buckwheat	1.5	2.76	2	1.72	2.19	2.06	2.22
Total Cereals	47.27	60.34	69.7	71.29	72.57	72.46	60.31

Source: Department of Agriculture, Government of Sikkim.

Table -1.4: Work Participation Rate (1971-2001)

<i>Year</i>	<i>Labour Force as a Percentage of Population</i>
2001	39.4
1991	40.4
1981	41.4

1971	53.2
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Source: Calculated from Census Reports of 1971, 1981, 1991 and 2001

Table -1.5: Budgetary Expenditure on Agriculture (in percentage)

Year	Expenditure
1980-81	0.95
1985-86	3.91
1990-91	2.62
1995-96	0.77
1999-2000	1.22

Source: Government of Sikkim, Department of Agriculture

Table 1.6: ICMR's Quantitative Assessment on Required Food for Health

Food Items Cereals & Millets	Requirement Per day(gm.) Per head 420
Pulses & Legumes	40
Total Grains	460
Roots and Tubers	75
Vegetables	125
Fruits	50
Milk	150
Fats & Oil	25
Meat	25

Table 1.7: Food Grains Sufficiency In Sikkim (1990-91 & 2001-02) (in thousand tonnes)

	1990-91			2001-02		
	ICMR Require ment 61.33	Actual Productio n	Surplus/ deficit 38.51	ICMR Requireme nt	Actual Productio n	Surplus/ Deficit -8.32
Cereals						

		99.84		81.60	73.28	
Pulses	5.84	5.43	-0.41	7.77	3.6	-4.17
Food Grains	67.17	105.27	38.10	89.37	76.88	-12.49

Calculated by using ICMR criteria.

Table 1.8: Sufficiency of Food Items (other than Food Grains) (2001-02) (thousand tonnes)

	2001-02		
	<i>ICMR Requirement</i> 24.29	<i>Actual Production</i> 30.17	<i>Surplus/Deficit</i> 5.88
Vegetables			
Potato	14.57	22.67	8.10
Roots and tubes	9.71	1.72	-7.99
Fruits	4.86	9.05	4.19
Oilseeds	5.84	6.38	0.54
Meat	7.77	3	-4.77

Calculated by using ICMR criteria.

Table -1.9: Compound Annual Rate of Growth of Population in Different Census Periods

		<i>Total</i> 2.9	<i>Male</i> 2.9	<i>Female</i> 2.9
1991-2001	Total			
	Rural	2.7	2.7	2.6
	Urban	4.9	4.5	5.5
1971-1981	Total	2.5	2.3	2.8
	Rural	3.4	3.2	3.5
		-3.2	-3.5	-2.8
Kar, PESA & Tribal Welfare, JRCA, Vol. I (I), 2016, pp 99-114		4.2	4.3	4.0
		3.4	3.5	3.3

Calculated from Census Reports, Sikkim, 1971, 1981, 1991 and 2001.

PESA Act and Tribal Welfare: In the Globalization Era in India

Notan Bhusan Kar

The avowed promise of the Panchayat (Extension to Scheduled Areas) Act, 1996, otherwise hailed as historic one, enabling the tribal people to establish their claims over the land-forest-water is turning out to be one letdown eventuality. This paper argues that there is hardly any political will to implement the Act in the letter and spirit. The rich non-Tribals are exploiting the loopholes of the enactment and are colluding with public officials in their bid to deprive the poor brethren. The tribal people are consequently becoming restless and revolting over the forcible and unjust acquisition of their land-forest-water and resultant displacement.

Introduction

The Constitution of India has provided many privileges to the Scheduled Tribes considering their complex problems in terms of geographical isolation, socio-economic backwardness, distinctive culture, poor infrastructure facilities, language and religion, exploitation by various groups etc. Tribal people are the aboriginal inhabitants of India who have been living a life based on the natural environment and have cultural patterns friendly to their physical and social environment.

The introduction of Panchayats Extension Act to the Scheduled Areas popularly known as PESA was enacted by the Indian Parliament on Dec 24, 1996, keeping in view the welfare and socio-economic development of the Tribals in India. The Government had thought that with the enforcement of this law, Tribals would be able to implement their own ideas that would lead to their progress and the development of their habitat by self governance through Gram-Sabha. Moreover, the Government had also thought that this law would bring down the overwhelming Maoist affect on Tribals if it was

enforced honestly. Unfortunately, the Government has failed to implement this law properly. It is now explicitly recognized that these attempts have had only marginal impacts on their socio-economic conditions in spite of various welfare measures and constitutional protection. Besides the administrative lacuna, the impact of globalization is also responsible for the failure of proper implementation of this act. During the globalization era in India, both the Central and the State Governments had undertaken such development programmes which in reality had an adverse affect on the Tribals. In many cases we have seen them being routed out of their native habitats and were forced to give up their livelihoods.

Methodology

Data from both primary and secondary sources are collected for the study. The primary data were collected through the consultation with the Social Activists those who are engaged in the Tribals movement and the secondary data was collected from the Government references.

Brief History of PESA Act

The implementation of the provisions of the PESA Act was a historic movement for the people in the state at large, particularly the Tribals, who are traditionally associated with the democratic form of governance through the *Samabhs* and *Samajs*. The Panchayat (Extension to Scheduled Areas (PESA) Act, 1996 came into force on the 24th December, 1996.

In post independence, the Indian Constituent Assembly appointed a Sub-committee under the Chairmanship of Dr. A.V. Thakkar to formulate provisions to safeguard the interests of the tribal population. The Sub-Committee examined the overall condition of the Tribals and recommended

that it is necessary to provide statutory safeguards to protect the economic life of the Tribals and their traditional customs and institutions.

After a long gap, a high level committee under the Chairmanship of Dileep Singh Bhuria, MP, was constituted in June, 1994, to examine the issues relating to the extension of the provisions of Part IX of the Constitution to the Scheduled Areas. The Committee discussed various issues related to Part IX and examined certain unique characteristics of tribal societies, their own customary laws, traditional practices, community culture, political and administrative systems among others. The Committee submitted its report in January 1995.

Based on the Bhuria Committee Report, the PESA Act was passed by the Parliament and came into effect on 24th December 1996 keeping in view the welfare and socio economic development of the Tribals in India. This Act extended the provisions of panchayats to the tribal areas of nine States, namely, Andhra Pradesh, Chattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Maharashtra, Madhya Pradesh, Orissa and Rajasthan that covers *Fifth Schedule Areas* except other tribal areas of *Sixth Schedule* who have *Tribal Autonomous Council* mostly in north eastern states.

Local Governance & its Functions

The PESA Act gives a radical governance powers to the tribal community and recognizes its traditional community rights over local natural resources. This Act has also made it mandatory for the State having Scheduled Areas to make

specific provisions for giving wide-ranging powers to the tribal on matters relating to decision making and development of their community.

The local governance structure of Gram Sabha or the 'village assembly' is not a new concept in the Indian history. In early days a "*Chaupal*" had always been an integral part of Indian village life, where people, generally elderly, would sit together and discuss current local affairs. All community matters would get decided in these meetings which came to known as village panchayats later. A "Panch" means a prominent local personality and the "Panchayat" refers to the gathering of "Panchas".

The local government i.e. the three tier structure of Panchayat Raj Institutions in India has been established with the authority of the highest legal entity (the Constitution) of the country. The Government had thought that with the enforcement of this law, Tribals would be able to implement their own ideas that would lead to their progress and the development of their habitat by self governance.

It has stated in the PESA Act Under section 4(d) that 'every Gram Sabha shall be competent to safeguard and preserve the traditions and customs of the local people, their cultural identity and community resources. The Gram Sabha is empowered as the competent authority to act the following range of powers:

- the right to be consulted on matters of land acquisition,
- the power to control local plans, and resources for such plans including tribal sub-plans,

- the power to prevent alienation of land in the Scheduled areas and to take appropriate action to restore any unlawfully alienated land of a Scheduled Tribe,
 - the power of prior recommendation in granting prospecting license or mining leases for minor minerals as well as for grant of concessions for the exploitation of minor minerals by auction,
 - the ownership of minor forest produce,
 - the power to enforce prohibition, or to regulate or restrict the sale and consumption of any intoxicant,
 - the power to exercise control over money lending to the Scheduled Areas,
 - the power to exercise control over institutions and functionaries in all social sectors and
 - the power to issue utilization certificates for government works undertaken in their village
- (B) Right to control over natural resources.

The Act has clearly pointed out that procedure should be followed as per PESA Act and consultation shall be made with Gram Sabha before acquisition of land in Scheduled Areas, for relief and rehabilitation (R &R) and sustainable livelihood plan of persons affected as a result of such acquisition :

Land Acquisition

Section 4(i) provides that the Gram Sabha or the Panchayats should be 'consulted' before acquisition of land for any development projects and persons affected by a proposed project should be consulted with Gram Sabha for their rehabilitation and other packages etc. The power envisaged for the Gram Sabha in respect of 'prevention of land alienation as also restoration of illegally alienated land'. In this context, a clear and categorical provision has been added in the Madhya Pradesh land revenue dept. after the enactment of PESA, which empowers the Gram Sabha of the State to restore the unlawfully alienated lands to the tribal landowners. The unique feature of this law is that

if in case the Gram Sabha is unable to restore such lands the Sub-divisional Officer will be empowered in this regard who shall restore the possession within 3 months.

Management of Water Bodies

Under Section 4(j) the power for planning and management of the minor water bodies in the Scheduled Areas has been exclusively vested with Gram Sabha or Panchayats. Hence, any construction in the Scheduled Areas should be consulted at the appropriate level before implementation. In the tribal areas 'Water Body Management' among many tribes is a dimension of village moral economy or the entire community who are involved in it.

Mining Lease

Sections 4(k) & (1) lay down that the recommendations of the Gram Sabha or the Panchayat at the appropriate level are made mandatory prior to grant of license for minor minerals in the Scheduled Areas as well as for their auction.

The PESA is one of the progressive legislations for tribal welfare, providing for self-governance and recognizing the traditional rights of tribal communities over natural resources around them. Recognizing the importance of the Fifth Schedule Areas in nine states, the Act provides the Gram Sabha with powers of Social Audit also.

The second important aspect of PESA is that it spells out a general frame of reference for governance in the Scheduled Areas. It envisages a number of options that may be exercised in each case by the authorities concerned depending on the local situation. It is presumed that the alternative chosen will not violate the general spirit of PESA Act. 'PESA moved from

development delivery to empowerment; from implementation to planning; from circumscribed involvement to conscious participation' (Prabhu, 2004)¹.

The Impact of Globalization on Tribals

The neo-liberal policy which is deeply associated with globalization has brought rapid economic growth in the last two decades in India. The New Economic Policy along with a 'New Mining Policy' was also adopted in 1993. The mining of the public enterprises have been opened up for 100 percent 'foreign direct investment' (FDI). With these process of opening up, the rules for setting up mine-based plants, sponge iron plants, power plants, dams, infrastructural utilizes, etc. have been liberalized further with minimum regulations.

According to 2011 Census, the indigenous/tribal peoples constitute 8 percent of the total Indian population. According to the Ministry of Tribal Affairs, nearly 85 lakh Tribals were displaced until 1990 on account of mega development projects like dams, mining, industries and conservation of forests etc. A large amount of Tribals have been displaced from 1990 onwards due to the so called economic liberalization policies of the Centre. Yet, no proper study has been conducted in regard to displacement and rehabilitation of Tribals.

Prof. Walter Fernandes, noted anthropologist has shown in his research paper : *Indian Tribes after Sixty Years-A Study*² regarding displacement of Tribals that at least 60 million or 6 crore people in India have been displaced for the construction of dams, mines, thermal power plants, corridor projects, etc. Among them, 40 percent displaced people are Tribals and 20 percent are

Dalits, which means that 60 percent of total displaced people are from the marginalized communities, who sacrificed everything for the sake of 'development' but they themselves are being deprived of the developmental benefits. Recently, India has adopted the policy of promoting the Special Economic Zones (SEZs) for faster industrial development.

More than 90 percent of the Tribals depend, to a large extent, on forest and forests resources for their livelihood. The forest laws since the British time have been curtailing the rights and movement of Tribals in forest regions.

Post-independence, use of Minor Forest Produces (MFPs) by Tribals has been significantly reduced. Exploitation by money lenders and contractors, hunger, abysmal poverty and malnutrition have been the perennial problems for them. Now-a-days, land alienation and displacement in the name of 'development' corner them too much. Many tribal groups have virtually reached a state of total extinct or fighting a grim battle for survival.

The Power of PESA as Weapon against Naxals

The post-PESA enactment period has also contributed to a great extent towards the strengthening of the panchayats in the tribal areas in India. Further, express expansion of the government development programmes and their implementations through the Panchayats have also created ample opportunities for the tribal people. The tribal area which is defined under the Article 244(I) and 244(II) of the Indian Constitution spreads among the Central and North-eastern part of the country and it is stipulated that "the state shall take steps for promotion of education and economic interests of weaker sections such as the STs".

The Indian Constitution adopted Panchayat Raj system in the part of “Directive Principle of States Policy” with an objective to decentralise the governance system and development functions to the grassroots. Article 40 added with the Indian Constitution, states that “the state shall take steps to organise village panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of self-government”.

However, the abject failure of this programme led to the formation of a committee under Balawanta Rai Meheta³ in 1957 to examine the underlying causes. The Committee had suggested, inter alia, strengthening of the institutions of democratic decentralisation with vesting them powers and functions, for planning and implementation of the development programs in rural areas. The Committee in the section titled ‘Work in Tribal Areas’ had suggested a number of measures to promote governance and hasten development in these areas. The Report suggested that “the development programme in tribal areas should be based on the prevailing customs, traditions and cultural practices and the community development staff in the tribal areas should work in an atmosphere and in a manner consonant with the tribal traditions”. The Commission in its report had also put importance on the participation of the tribal people in the development works. However, there was no specific focus on the processes and manners to be followed for the democratic decentralisation in tribal areas.

While in the last few years internal conflicts have been intensified in India, the ultra left-wing Naxals/ Maoists has spread their wings across large areas from Nepal border to Tamil Nadu. This region largely includes dense forests and tribal areas and consists of 92,000 sq km. popularly known as ‘Red

Corridor'. The area where the Maoists operate has grown dramatically in last two decades. In the early 1990s only 15 districts in four states were affected by Maoist activities and after that it rose to 55 districts in nine states by the end of 2007 and in 2008 it increased to near about 156 districts in 15 states.

In our country 76 districts are highly infected by the Maoists activities and of these 32 are under PESA districts. The Government had thought if the PESA Act is implemented by the book that would bring down the hold of Maoists on Tribals communities and simultaneously, the Government has adopted some strategies to combat the Maoist movement by implementing this Act. The strategies are;

(1) If the PESA Act is implemented honestly, it would empower the marginalized Tribals so that they can take care of their developmental needs. (2) This would deprive the Naxals of their ground support coming to helpless Tribals. (3) It was assumed that deprived tribal communities would be integrated into the mainstream politics through self governance. (4) And it would help in preservation of forests and local ecology because tribal people know their land and its resources at the best. But it is fact that lack of willpower, honesty and far sightedness of both the Central and State Governments, the implementation of Act has vanished in to the blue. The bureaucratic state machinery has kept intact the self interest with some cosmetic changes about implementation of PESA Act. Hence, the Adivasi people have not received either the real freedom or autonomy from the clutches implementation of PESA Act. Under these circumstances, the Fifth Schedule of the Indian constitution could not safeguard the Adivasi communities of their own rights.

Further, economic liberalization has brought the corporate giants into the region hunting for minerals for their mega sized industrial exploits. Industries are wrecking havoc with the living conditions of the Tribals under the liberalized regime. Their acts force the helpless Tribals to leave the land. Compensation and rehabilitation plans are hardly ever implemented with honesty and dignity. The struggle of Adivasis against their displacement has spread across the States.

About two years ago, the Indian Government launched 'Operation Green Hunt' to root out the Naxals. The security forces of India, comprising hundreds of thousands of paramilitary forces along with scores of police forces are now engaged in a full blown war in the villages of terrains, hills and jungles of Central and Eastern India. Recently passed, 'Forest Rights Act, 2006' (for the rights and protection of forest dwellers) has also been violated by the Government for the interest of big corporate. The Government has been permitting them to procure tribal lands forcefully to set up mining industries, SEZ etc.

Schemes for the Development of Scheduled Tribes

The enactment of the PESA Act in 1996 was a significant step towards promoting governance and socio-economic development in the Scheduled Areas of India. The Act spelt out the role of PRIs (Panchayat Raj Institutions) in general and Gram Sabhas in particular for preparing development plans in the tribal areas, considering the magnitude of poverty, inequality and the nature and extent of underdevelopment of these areas. The Act was enacted with a view to "promote the development of the Scheduled Tribes through respecting their culture, traditions and customs" while vesting the Gram

Sabhas and the Gram Panchayats with a greater role in the planning and implementation of development programs. The Act has granted powers to the Gram Sabhas to approve of plans, programs and projects for social and economic development. The Gram Sabhas and Gram Panchayats are also given the responsibility of identification of the beneficiaries under the poverty alleviation and other programs, providing certificates to the Gram Panchayats for utilisation of funds, ownership over natural resources- especially the minor forest produces and the power to control local plans and the resources for such plans including the Tribal Sub-Plans (TSP).

After independence, the Planning Commission in India started the developmental planning. The planners and policy makers of the Commission had thought that the best way of achieving development for the common people especially the Tribal communities who are marginalized of the country would be brought about by the introduction of Five Year Plan based on both capitalist and socialist model.

The major schemes/programme for the development of Scheduled tribes are: (a) Special Central Assistance (SCA) for Tribal Sub-Plan (TSP) (b) Grants under Article 275(1) of the Constitution.

(a) Special Central Assistance (SCA) for Tribal Sub-Plan

This is a major programme administered by the Ministry and under this grant is provided to the States Governments based on annual allocation made by the Planning Commission. This is treated as an additive to the State Plan, for areas where State Plan provisions are not normally forthcoming to bring about economic development of Tribals.

(b) Grants under Article 275(1) of the Constitution

The objectives of the Scheme include promotion of the welfare of Scheduled Tribes and up-gradation of the levels of administration in Scheduled Areas. The programmes cover all 22 Tribal Sub Plan States and 4 North Eastern tribal majority states of the country.

During 2010-11, the Planning Commission has provided budgetary support of Rs.1046=00 crore for Special Area Programme-Grant under Article 275(1) of the Constitution of India to the Ministry of Tribal Affairs.

<i>Year</i>	<i>Allocation</i>	<i>Grant-in-aid (released) (Rupees in crore)</i>
2005-06	380=00	380=00
2006-07	400=00	400=00
2007-08	400=00	390=28
2008-09	416=00	339=78
2009-10	1000=00	899=10
2010-11	1046=00	733=10(up to 31-12-'10)

(Source : Ministry of Tribal Affairs; *Annual Report-2010-11*)

Conclusion

“PESA Act of 1996 is the most important piece of legislation for the tribal areas in India. Since the 73rd Constitution Amendment, Panchayats have established themselves as a vital constituent of the democratic polity in India. It has transformed the rural political and social set-up much more than ever before. In the process it also transformed India from the least representative democracy to most represented democracy with more than 30 lakh people’s representatives. It also made India the most gender balanced and feminized democratic set-up in the world”(MOPRI) ⁴.

The government regarded the PESA Act as historic and wished that this Act would enable the Adivasi people to establish their claims over the land-forest-water (*jamin-jangal-jal*). But soon the wishes vanished in to the blue.

There is hardly any political will to implement the Act. Besides, vested interests of rich non-Tribals are always ready to exploit the loopholes on the laws and to collaborate with concerned officials and to deprive the poor Tribals their basic rights.

Hence, the Adivasi people are becoming restless over the forcible and unjust acquisition of land-forest-water and displacement by Central/State Governments at the time of economic liberalization in India.

The committee 'Development Challenges in Extremist Affected Areas'⁵ constituted by Planning Commission of India observed in their report; 'only proper implementation of PESA Act can dilute the Maoist activities in the tribal areas'.

Saxena ⁶ has stated in his article, 'Communities in Scheduled Five Areas today are living through intense hardship, conflict, dispossession, and cultural turmoil. Social oppression, discrimination, bias, poverty and neglect faced by...the Tribals have created in large parts of the country's natural, social environment and this history is unknown to most Indians with higher social status and income.

As a matter of fact, this Act may not bring the solution to the whole problem. However, it could have addressed the genuine grievances of the people within parameters of the Constitution of India, particularly in Tribal Areas.

Recommendations

(i) The PESA Act should be implemented sincerely and squarely.

(ii) There is a need for awareness generation among the Tribal community on the provisions of PESA Act. The empowerment of Tribal communities, especially those who are cut off from mainstream development, may be possible through PESA.

(iii) A clear and categorical provision should be made in the Panchayati Raj Act or the Revenue Law through a notification under Para 5(1) of the Fifth Schedule or to empower the Gram Sabha to restore the unlawfully alienated land to its lawful owner.

(iv) All pending cases in any Court of Law in which the land of a tribal is alleged to have been illegally transferred or occupied by any person shall stand transferred immediately to the Gram Sabha in whose jurisdiction the land is situated and the disposal shall be made in accordance with the provisions of Section 4(m) (ii) of PESA.

(v) A regular report from the Governors with respect to the administration of the Scheduled Areas as provided in the Fifth Schedule should be placed in the Parliament for discussion.

(vi) Allocation of Budget for Fifth Scheduled Areas should be increased by Government.

(vii) The Audit report of CAG regarding Fifth & Sixth Scheduled Areas should be submitted every year in the parliament for discussion.

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Eating Disorder Among Elderly Causing Heart Attack: A Study on Impact of Life Style Management in Post Retirement Life

Harasankar Adhikari

In the era of globalization growing elderly faces multifaceted problems regardless of social, economical, cultural as well as religion in their retired life. Among such health problem is a prime concerned. The mental crises among them are a major issue. Thus, thinking about their end of life they usually try to fulfil their many desires like eating. The present study was conducted to explore the relationship of eating disorder with increasing incidents heart attack among elderly. For the purpose of this study, 100 elderly populations of 60-70 years selected regardless of their gender, socio-economy, education, family relation and so forth. They were interviewed in a reputed hospital namely Rabindranath Tagore Institute of Cardiac Sciences of Kolkata Metro City of eastern India where they took admission for their treatment after their heart attack. The data was also collected from medical practitioners and family members of elderly patients. The simple random sampling method was used with case study. From the study, it was revealed that 70% of them was suffering from heart problem after taking heavy fatty foods and of them 40% was diabetic. They used to control their eating habits with strict monitoring of their family members. But they faced heart attacked after taking food from ceremonial party or otherwise. Among them, 22% were experienced for second time. So, the control of eating habits might longer their survival and for this they need counselling and guidance with supervision of their family members or immediate caregivers.

Introduction

The elderly population in India faces a number of problems. These problems range from absence of ensured and sufficient income to support themselves and their dependents, to ill-health, absence of social security, loss of social role and recognition and non-availability of opportunities for creative use of free time. For a developing country like India, the rapid growth in the number of older population presents issues, barely perceived as yet, that must be addressed if social and economic development is to proceed

effectively (Shuva Raju, 2002). Gore (1993) opined that in the developed countries population ageing has resulted in a substantial shift in social programmes. It causes a significant change in the share of social programmes going to older age groups. But in developing society, these transfers will take place informally and will be accompanied by high social and psychological costs by way of intra-familial misunderstanding and strife. Among the problems of elderly, health problems and medical care are the major concern. It is obvious that people become more and more susceptible to chronic diseases, physical disabilities and mental incapacities in their old age. As age advances, due to deteriorating physiological conditions, the body becomes more prone to illness. The illness of the elderly is multiple and chronic in nature. In the later years of life, arthritis, rheumatism, heart problems and high blood pressure are the most prevalent chronic diseases affecting the people (Purahit and Sharma, 1972). Some of the health problems of the elderly can be attributed to social values also. The idea that old age is an age of ailments and physical infirmities is deeply rooted in the Indian mind, and many of the sufferings including physical troubles within curable limitations are accepted as natural and inevitable by the elderly.

The health problems of the elderly vary according to their socio-economic status. Siva Raju (2002) studied while the poor elderly largely attribute their health problems, on the basis of easily identifiable symptoms, like chest pain, shortness of breath, prolonged cough, breathlessness / asthma, eye problems, difficulty in movements, tiredness and teeth problems; the upper class elderly, in view of their greater knowledge of illnesses, mentioned blood pressure, heart attacks, and diabetes which are largely diagnosed through clinical examinations. Through his clinical study of the elderly, Joshi (1971)

opined that both physical and mental health problems depend on environmental and social factors such as diet, type of education, adjustment to family and professional life, and consumption of tobacco and alcohol. At an advanced age, due to restricted physical activity, a majority of elderly changes their living habits, especially their dietary intake and duration of sleep. There is a general perception in the community that since the old leads a sedentary life, they should eat less food, have more rest and develop more religious interest to occupy themselves. Several factors like lack of physical movement, absence of a work routine, ill-health, etc. are observed to be responsible for irregularity in the sleeping schedule of the elderly (Joshi, 1997). The allocation of less time to sleep among the lower strata of the elderly probably indicates the compulsions for them to work. Besides, inadequate facilities in the household go against resting or sleeping during the day.

Coronary heart disease (CHD) is the most common cause of mortality and morbidity in the elderly. In western countries, it accounts for 80 – 85 percent of all cardiac deaths in older people. When a person ages, his or her cardiovascular system will undergo some normal and expected changes (Rosamo¹, et al., 2007). These can be age-associated changes in cardiac anatomy; age-associated changes in cardiovascular physiology; and age-associated changes in pharmacokinetics and pharmacodynamics. Various conventional risk factors for CHD among younger people such as smoking, hypertension, hyperlipidemia and diabetes mellitus remain important factors for elderly (Jessup and Brozena, 2007). Furthermore, age is a powerful and independent risk factor for CHD. The risk increases when men reach 55 years old and above and women reach 65 years old and above. Symptoms such as

breathlessness, giddiness or palpitation are quite common for the CHD in the elderly. Sometimes, musculoskeletal problem in the elderly may prevent the patient from complaining of exercise related angina. Instead of complaining of chest pain during a heart attack, an elderly patient may develop difficulty in breathing or symptom of stroke. Silent heart attack is also common. As reported in the Cardiovascular Health Study and the Framingham Heart Study, some 40 percent of unrecognized heart attack was found in those aged between 75 and 84 years (Kenchiah, Narula and Vasan, 2004).

The different dietary habits of various communities, lack of medical personnel in rural areas, selective admissions of cardiac patients to hospitals, inadequacy of necropsy data (mostly through religious prejudices), lack of uniformity of methods of certification and classification of diseases, socio-economic discrepancies, and variations of climate in the different provinces or states are but a few of the many obstacles that beset the worker interested in the compilation of statistical data in India. Despite these drawbacks, several careful studies on the incidence of heart disease in India have been published by Sanjivi (1946), Vakil (1948-1954), Malhotra (1951), Samani (1956, 1959), Padmavati (1958), and Mathur (1960). The great majority of these studies are based on low income groups or hospital populations.

Very few studies have been made on the incidence of coronary heart disease in high and middle income groups, encountered in private or consulting practice (Vakil, 1948 and Mathur, 1960).

So from the above studies, we find that the heart attack among elderly is a common aged phenomenon. Like various responsible factors, dietary

intake/food intake is one. The objective of the present study was to explore the dietary habits among elderly and how it was a responsible factor of increasing incidents of heart attack.

Methods

There were 100 elderly populations of 60-70 years of age selected through purposive sampling. All of them were admitted in a private reputed super specialty heart hospital namely Rabindranath Tagore Institute of Cardiac Sciences at Kolkata, India due to their sudden heart attack within 6 months of the study period during last half of 2012.

For collecting data, a structures interview schedule was used. The patients were interviewed on average 1-2 days after their admission and the interview session was lasted for 20-30 minutes. The researcher was assigned informally to interact with the patients and physician and para-professional to the hospital assisted researcher to know about his/her lifestyle and dietary habits. The family members were also well-informed and asked to participate. Physician and para-professional staff were supplied information relating to the particular patient and his/her family. In this situation, participation was cent percent. Basic demographic information (age, gender, religion, nature of inhabitants, educational background, occupation, marital status and family size, etc) was collected from patients and their family members. Researcher also collected data on their lifestyle habits i.e. smoking history, consumption of alcohol, diseases- history hypertension, diabetics, family history, cardiovascular diseases, dietary intake, etc. The emphasis was given particularly on regular dietary intake/food intake just before their sudden heart attack. Qualitative data on their regular dietary intake in

relation to their physical activity that focused on occupational and other non-leisure-time activities in addition to leisure time activities. The information was collected on their self realization of aging and the views of their family members/care givers on aging were also recorded.

Results

Demography of the Selected Elderly Population

Table 1 tells that 83% of the elderly population in this study was male and 45% of them was 60-65 years of old. They were dominated by Hindu (25%). Rest of them was within the age bracket of 66-70 years and they mostly belonged to Hindu. Seventy four percent was living in urban area and among them 32% was graduate. On the other hand, 17% of them were female and of them 13% was 66-70 years of age. Of them 2% lived in urban area and 5% of them completed Matriculation so far as education background was concerned. Only 3 of them were graduates.

The marital status shows in table 2 that 23% of them lived in urban area was married and they were living their nuclear family with their off-spring. Similarly, 8% of them were widow(er). In case of rural respondents, it was 8% and 4% respectively. The second category of elderly population in this study was living in a nuclear family under care of their maidservants/relatives. Among them, 6% was single in urban area, 24% of them were married and 14% of them were widow(er). In rural setting, 2% of them were single, 5% of them were married and 7% of them were widow(er).

Table 1 : Social, Religious and Educational Status of Elderly According to Their Age

Educational status according to their nature and inhabitant	Religion												Total
	Hindu				Muslim				Christen				
	60-65 yrs		66-70 yrs		60-65 yrs		66-70 yrs		60-65 yrs		66-70 yrs		
	M	F	M	F	M	F	M	F	M	F	M	F	
Urban													
Lettered	2(2%)	-	2(2%)	-	3(3%)	-	2(2%)	4(4%)	-	-	-	-	13(13%)
Matriculate	6(6%)	2(2%)	6(6%)	3(3%)	4(4%)	-	2(2%)	-	4(4%)	-	-	2(2%)	29(29%)
Graduate & above	13(13%)	1(1%)	4(4%)	2(2%)	4(4%)	-	2(2%)	-	4(4%)	-	2(2%)	-	32(32%)
Rural													
Lettered	-	-	1(1%)	1(1%)	2(2%)	1(1%)	2(2%)	-	-	-	-	-	7(7%)
Matriculate	4(4%)	-	4(4%)	-	2(2%)	-	1(1%)	-	2(2%)	-	-	-	13(13%)
Graduate & above	-	-	2(2%)	1(1%)	1(1%)	-	1(1%)	-	-	-	1(1%)	-	6(6%)
Total	25(25%)	3(3%)	19(19%)	7(7%)	16(16%)	1(1%)	10(10%)	4(4%)	10(10%)	-	3(3%)	2(2%)	100(100%)

Table 2 : Marital Status and Living Status Including Family Size

Nature of Inhabitant	Family size						Total
	Nuclear family living with off-springs			Nuclear family looking after by maids/relatives			
	Singl e	Marrie d	Widow(er)	Singl e	Marrie d	Widow(er)	
Urban	-	22(22%)	8(8%)	6(6%)	24(24%)	14(14%)	74(74%)
Rural	-	8(8%)	4(4%)	2(2%)	5(5%)	7(7%)	26(26%)
Total	-	30(30%)	12(12%)	8(8%)	29(29%)	21(21%)	100(100%)

Table 3 : Economic Status of Elderly

Educational status to their nature of inhabitant	Occupation						Total
	Service(public/private sectors)		Business		Others including household management		
	M	F	M	F	M	F	
Urban							
Lettered	-	-	4(4%)	-	5(5%)	4(4%)	13(13%)
Matriculate	8(8%)	2(2%)	7(7%)	1(6%)	7(7%)	4(4%)	29(29%)
Graduate & above	15(15%)	1(1%)	8(8%)	-	6(6%)	2(2%)	32(32%)
Rural							
Lettered	-	-	1(1%)	-	4(4%)	2(2%)	7(7%)
Matriculate	4(4%)	-	6(6%)	-	3(3%)	-	13(13%)
Graduate & above	5(5%)	1(1%)	-	-	-	-	6(6%)
Total	32(32%)	4(4%)	26(26%)	1(1%)	25(25%)	12(12%)	100(100%)

The occupational status in respect of their educational background (table 3) reveals that 32% of them (male) was employed in public/private sectors. It was 23% more than the elderly from rural area. Only 4% of them were female. Altogether 22% of them were graduate. On the other hand, 27% (including 1% female) used to operate their business and 8% of them were graduate. Thirdly, 37% of them were engaged in their household management and out of which, 12% of them was female.

Table 4 describes their engagement pattern at their post retirement life. Among them, 57% (including 15% female) was in domestic work. Of them 15% was in some official works and it was one forth in rural area. There was no such engagement of 10% respondents and out of which, 2% was female.

Table 4 : Regular Activities Performed by the Elderly

Nature of inhabitant	Regular activities						Total
	Domestic		Officials		No such		
	M	F	M	F	M	F	
Urban	42(42%)	12(12%)	12(12%)	-	6(6%)	2(2%)	74(74%)
Rural	18(18%)	3(3%)	3(3%)	-	2(2%)	-	26(26%)
Total	60(60%)	15(15%)	15(15%)	-	8(8%)	2(2%)	100(100%)

Description on their Lifestyle Habits and Diseases

Their life style habits (table 5) states that only male population had smoking habits (70, out of 83) and 23(out of 83) was alcoholic. Their history of illness shows that 22 males (out of 83) had chronic illness and in case of female it was 7 (out of 17). Among male, 65(out of 83) was diabetic and 12 female (out of 17) had same problem. Fifty five (out of 83) was in hyper cholestoralnomia and in case of female; it was 15(out of 17). Out of 83 male, 42 had heart problem and it was 15(out of 17) in case female. Fifty two males (out of 83) were suffering from hyper tension/high blood pressure and it was 15 (out of 17) in case of female.

Table 5 : Records of Habits and Diseases

Habits	Male		Female		Total
	Yes	No	Yes	No	
Smoking	70(70%)	13(13%)	-	17(17%)	100(100%)
Alcohol consumption	23(23%)	60(60%)	-	17(17%)	100(100%)
Diseases/ Chronic illness	22(22%)	61(61%)	7(7%)	10(10%)	100(100%)
Diabetic	65(65%)	18(18%)	12(12%)	5(5%)	100(100%)
Hyper Cholestoralnomia	55(55%)	28(28%)	15(15%)	2(2%)	100(100%)
Heart problem	42(42%)	41(41%)	7(7%)	10(10%)	100(100%)
Hyper tension/high blood pressure	52(52%)	21(21%)	15(15%)	2(2%)	100(100%)

Frequency of Heart Attack among Elderly

From the study, we recorded information of second time attack or more than that. The records state that 22% of them were second time and out of which 2% was female. According to their age, it was found that 18% of them were within the age bracket of 66-70 years. A little percent (3%) faced third time attacked and all of them were male of 66-70 years of age.

Heart Attacked in Relation to Dietary Intake

From this study, it reveals that there was a relation of heart attacked in relation to their dietary intake. The age related chronic illness restricted their dietary intake. They used to follow a regular routine of diets. It was their routine of life. It was informed that they did not allow the food according to their choice and the amount of food intake was also regulated. But among them, 70% was joined in some celebration/family occasion and they had broken their restriction particularly in terms of consumption of foods. It facilitated their heart attack.

Discussion

Self-opinion of Elderly on Ageing

In their own opinion, what was shared by elderly respondents, they had reached to less valued, non-functional heads from valued and functional heads of their family. They were burden to the family as well as in the society. After reaching to their post retirement life, they conceived that it was a time to counting the days of death only. The transcended 'God' is their most reliable director to replace them in the heavenly world. All of them desired a peaceful death. In their working life, they had struggled a lot for maintaining their family's liabilities and responsibilities as functional head. Their some willingness was unfulfilled and among various desires, the food was their

most favourite one. It was uncontrollable, in spite of; self aware disadvantages might push them into some physiological deformities. Nonetheless, they reminded that their intake capability of food from childhood to young hood did not create any complication. But at present, the age bar made them unhappy with restriction everywhere. They also shared that they were feeling loneliness and unfortunate in the present state of life.

Views of the Younger Off-spring in Their Family/Caregivers of Elderly

The younger off-spring of their family/caregivers of elderly opined that they used to manage their hectic working life with stress and strain matching with their job demand including a rigorous competition. They were very self-centred regarding their career and earning. So, they did not get much time for the care of elderly. And the caregivers rather than family members were only performing their routine paid job to assist the elderly. Moreover, they shared that the elderly had adjustment problem with their growing age. They used to be very rigid and demanding. They used to feel insecure and used to create scene many times to bring attention of other. They did not follow restriction that was advised by their physician. They felt that the elderly should not act according to their wish considering to their successful aging. The perception towards aging should be rebuilt for their happiness.

Food intake/dietary habits of elderly - Myth and Reality

At postretirement life, elderly used to consider it as the flag end of their life. They were workless and they had nothing to do for betterment of society. They had to suffer from isolation in general. They were well informed about their physical and physiological strength and weakness. But they did not agree to adjust this mentally. They had to pass their life with various restriction and these were justified for the sake of their rest life. But in reality, they thought that they were walled by boundary of their younger. In their

rest life, they used to consume various foods and the myth was enjoyed food because they would be died any day.

Conclusion

The growing population in India is in a critical situation. Socio-psychological problems are the giant factors of their unhappiness. Social structure and cultural myth on aging had been isolated and pushed them to loneliness. The post retirement was an indication in relation to their official retirement from their jobs. The globalization influenced towards a truncated family relation because their attachment to their off-spring was thinner. In this study, the elderly population was economically secured. In their post retirement life, they were unable to use their time and experience for fruitful purpose. They were submerged with a myth that they would die any day any moment. As a consequence of this, they used to change in their life style management causing life style diseases like heart attack.

Overall familial situation had changed their mindset. That's why, they had to suffer from various physical and psychological problems. Their realization had been turned to omnipresent world. Their self-cultivated notion was that before expiry they should meet their desired need of foods. Their complication and restriction were not being sensitized them as they felt as valueless. This type of mental state used to create more complication in their elderly life. Here, we found that 70% of them were suddenly faced heart attack only to break their restriction in food intake. It had been insulted by their off-spring and their situation had become worse.

So, there is a need of proper supervision and sincere care for elderly. They would be sensitized with proper attention by their younger/care-givers. The

family members should be closely being associated with them for their mental strength. Perhaps, it would show a light of happy survival and last of all, they would lead a happy death.

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Ethnic People and Culture: A Perspective from the Khamti Community of Assam with Special Reference to the Western Part of Lakhimpur District

Dikshita Bhuyan

This paper focuses on and narrates the socio-economic life as well as changing facets of Khatmi people, numerically small yet culturally different from other major tribes, living in Lakhimpur district of Assam.

Introduction

Culture refers to the cumulative deposit of knowledge accumulated in time. It is the totality of a person's experience which is socially transmitted. Culture consists of patterns, explicit or implicit, acquired and transmitted by symbols, constituting the distinctive achievement of human groups, including their embodiments in artifacts. The essential core of culture consists of traditional ideas and especially their attached values. People even belonging to the same culture carry several layers of mental programming within themselves. Culture exists in different levels. For example, the national level is associated with the nation as a whole; the regional level is associated with ethnic, linguistic and religious differences that exist within a nation. In this context, it can be said that Assam is the central state of the north eastern region of India where different ethnic groups of varied cultures live. The culture of Assam speaks volumes about the cultural diversity of the state owing to multiple ethnic and non-ethnic communities living therein, practicing their own language, religion, customs and traditions. Among the diversified population

of Assam, a significant portion comprises of the tribal people, the aboriginal inhabitants of the primeval land. Assam has been the hub of multi-coloured tribes like Boro, Mishing, Karbi, Rabha, Dimasa, Tiwa , Garo ,Deuri , Khamti, Sonowal kachari etc, the specialty of which lies in their customs, cultures, language and in particular in the basic ethos that taught them to live in harmony with nature. They have their own festivals and celebrations. Tribal people generally cling firmly to their identity, despite external influences that threatened their identity after the post independence chaotic period. Culture of these tribes, their traditions and practices interpenetrate almost all the aspects of Assamese composite culture and civilization. Keeping this view in mind, the present paper attempts to highlight the distinctive cultural traits of *Khamti* community of Assam especially of those residing in Lakhimpur district.

Significance of the Study

The Khamtis are a numerically small tribe of plains who are residing in Lakhimpur, Dhemaji and Sadiya of Upper Assam. A major chunk of this tribe is found in Arunachal Pradesh. Anthropologically, they belong to the Tai race and ethnologically they are akin to the Ahoms of Assam. The Khamtis stand out singularly from the other tribes of Assam in respect of religion, language, literature, culture and civilization. However the variegated cultural heritages of this tribal community have not been viewed in the right perspective may be due to geographical isolation, insulation, lack of due initiative taken by the government and general apathy on the part of media to focus tribal development, tribal information infrastructure and special information need in tribal areas. Regrettably enough, the Khamti population is decreasing alarmingly in the state in recent times and their language and culture seem to

have become endangered in the context of Assam. Thus, by focusing their cultural perspective and language it becomes possible to enrich the community at large. Here lies the significance of the study.

Objectives of the Study

The proposed study aims at giving a re-look at the present status of the Khamti community in relation to their ethnic identity as expressed in the thoughtful works of contemporary academicians and researchers as well on the basis of focus group discussions with the public of the respective community. Culture and language are the hallmark of one's identity. So an effort is made to highlight the socio-cultural life of the Khamti people in detail with giving emphasis on their language.

Study Area

The study area is confined to the district of Lakhimpur in Assam, specifically four villages -Borkhamti, Gosaibari, Borpathar and Sribhuyan at Kherajkhat Mouza in Narayanpur of Lakhimpur district of Assam.

Methodology

The paper is based on both the primary and secondary sources. The secondary data have been collected from the books, journals, articles etc where as the primary sources are the information collected from the villagers especially of Borkhamti.

Discussion

Location of the Study Area

Lakhimpur district is situated on the North-East corner of Assam. The district lies between 26°48' and 27°53' northern latitude and 93°42' and 94°20' east longitude (approx). It is bounded on the north by Siang and Papumpare

district of Arunachal Pradesh and on the east by Dhemaji District and Subansiri river. Majuli division of Jorhat District stands on the southern side and Gohpur sub-division of Sonitpur district is on the west. It has two sub-divisions- North Lakhimpur and Dhakuakhana. Numerous tribes inhabit the area. The most important of these tribes are the Miris, Deuris, Khamtis and Sonowal Kachari etc. Lakhimpur figures largely in the annals of Assam as the region where successive invaders from the east first reached the Brahmaputra.

The Khamti Tribe: Its Historical Development

The word Khamti means a land full of gold - "Kham" means gold and "Ti" means place. The Tai Khamti, a tribe of rich and glorious heritage, belonging to the great Tai race, occupy tract of locality in the north-eastern Burma, Arunachal Pradesh and Assam. The Khampti whose name is also spelled as Hkampti by the Burmese and Khamti by the Assamese is a Shan clan, and originally immigrants from Bor- Khamti, the mountainous region which interposes between the eastern extremity of Assam and the valley of the Irrawaddy. The Khamtis are very akin to the Ahoms of Assam who immigrated into Assam in 1750-1850 following one another horde when Alomphra, King of Burma, caused the final dismemberment of the Shan Empire of Pong. When they first came to Assam, they settled on Tengapani, with due permission of the ruling Ahom authorities. But in 1794, during the troubled reign of Raja Gaurinath Singha, they took forcible possessions of Sadiya, ejecting the Ahom Sadiyakhwa Gohain. The Khamti chief Chow Munang usurped his title and dignity and reduced the Assamese to a position of subservience. They were so strong and powerful that even the Ahoms and Britishers acknowledged their courage and the Sadiya tract was found entirely under khamti management.

The Traditional Tale of Migration to Dikrong, Narayanpur

In 1835, a clash took place between the Khamtis and the Matakis in regard to an area of land at Saikhowa. The Khamti chief Chau-Rang-Pha took forcible possession of the area flying the order of the officer in charge of Sadiya. So the British officer removed him from Sadiya Khowaship. But during 1835-36, when the Singphows attacked the British troop, the help of the khamtis was needed and being satisfied with the khamtis, the British released Chau-Rang-Pha and allowed him to return to Sadiya without returning his former political status. To take revenge, in 1839, the Khamtis rebelled against the British and succeed in surprising the British Garrison at Sadiya and killing colonel White, the officer -in -command at Sadiya. They were however defeated and as a result, scattered about the state and in the following year, many of them returned to Borkhamti. Those who stayed on were divided into four groups and settled in different parts of the then undivided Lakhimpur district namely Chunpura, Saikhowa Ghat, Dhemaji and Narayanpur. In 1844, the position of the Khamtis in Assam was as follows-

- i. One group had been settled at Chunpura above Sadiya under Captain Gohain.
- ii. The few Moon glary Khamtis located on the Tengapani basin were located near Saikhowa Ghat.
- iii. A third party under Chowtang Gohain was settled at Dhemaji.
- iv. Fourth group was placed under Bhodia, son of the late Sadiya Khowa Gohain at Narayanpur in the west side of Lakhimpur district.

At present Narayanpur is the second biggest area of Khamti community in Assam. Though in earlier days, Tipling, Tunijan, and Deotala were recognized as Khamti villages, presently only a few numbers of households inhabit in these areas. So these places cannot be classified as a Khamti village.

The Khamti Society

Sociologically speaking, patrilocal Khamti society is divided into various classes, each signifying distinct status in the social hierarchy. The chiefs occupy the highest position followed by the priests who yield considerable influence over all ranks. Among the Khamtis, they have no social bar and untouchability. They have no caste system even though they have some sub-clans namely Man-pong, Man-ci, Man-long, Kha- Lang, Lung-Kan, My-cha, Man-lai, Man-tao, Man-chai, Man-hai etc. However many of the sub-clans are now intermixed. The priests or Buddhist monks are of great importance and their influence is greater even than that of the chiefs. No undertaking is commended without first consulting them. One cannot think of a Khamti village without the presence of Buddhist monk. He has to administer to the spiritual needs of the people and guide them in religious festivals. He, in fact controls the social life of the villagers. The Priest has shaven head and amber coloured garment and rosaries. The office is not hereditary. It is the responsibility of the villagers to provide food to the monks, who may also receive gifts of the barest necessities, and accept invitations to meals. The priests have a great responsibility other than his strictly religious ones. In fact, they are also the schoolmasters, every freeborn Khamti youth being compelled to read and write own language, and often Burmese, using the Burmese written characters for both the languages". There are Buddhist monasteries in Bor khamti village at Narayanpur which are known as *Buddha Vihars* or *Bapuchangs*. The monastery is an integral part of Khamti socio-religious life. The temples are elaborately carved. On a high pedestal are placed a number of images of Lord Buddha, pictures of scenes from Jatakas and Vimanavathu and Petavatthu also adorn the inside of monasteries. There is a beautiful arrangement of Tan -Khabar or hanging flag given by Khamti

women in front of sacrificial alter. Generally these monasteries stand in east direction as it is regarded as something sacred. The monk resides in the north direction of *Buddha Vihar*. After all, the Buddhist monks are friend, philosopher and guide in the Khamti society.

Religion

In the tribal areas, religions play a significant role in social, political, cultural and economic life of people as it is deep-rooted. In this respect, the Tai-Khamti of Narayanpur follows the same tradition. They are strong believers of Theravada or Hinyana schools of Buddhism, but they do not abstain from meat. Theravada is one of the Nikaya schools that are formed early in the history of Buddhism. This cult developed in India during the century subsequent to the death of the Lord Buddha. The name Theravada means "Teachings of the Elders." Being one of the most conservative schools of Buddhism, it has attempted to conserve the original teaching of Lord Buddha. In this reference, it deserves mention that, the Khamtis of Narayanpur had faced difficulty in their initial stage of establishment because they brought no Buddhist monk with them. So at first they took *Vaishanava* ordination from the Auniati and Dakhin pat *Sattr*a of Majuli. Maniram Gohain , the Royal inheritor of Khamti offered valuable gifts to the Vaishnava pontiffs .But as soon as their relations with their kinsmen near Sadiya and original Borkhamti of Burma was relinked. They returned back to their Buddhist faith.

Costumes

The general dress of Khamtis is simple and neat. The women are skilled in embroidery and weaving. Their ceremonial dresses produced in their looms are colourful and remarkably beautiful. The Khamti-embroidered bags are very attractive, beautiful and costly. Their traditional attire helps to distinguish the marital status of men and women. A bachelor generally wears

a Lungi (Fa-noy), a jacket, or full sleeved shirt (Sui khow). The married men generally wear a turban of thin white cloth. But among the new generation of khamti people, the practice of wearing of turban is diminishing. Women use “mekhela” (chienu) a long sleeve jacket or “chyu” and a “riha”. The old ladies wear a white thin turban. They wear only their traditional dress each and every social and religious occasion.

Khamti Life Style and Customs

Traditional houses of the Khamtis are built on raised floors with thatched roofs. The roofs are constructed so low that the walls remain concealed. Bamboo splices are used for flooring and the walls are made of bamboo splices. However, these types of conventional houses have been gradually substituted by concrete house in these villages.

Khamtis are peace-loving people. They are neat and clean in their daily life. They are skillful agriculturalists. In ancient time, elephant hunting was one of their favourite pastimes. Now-a-days this practice is however prohibited. Their staple food is rice, usually supplemented by vegetables, meat and fish. Smoking and drinking are also not strictly forbidden. But generally old people and the monks do not touch intoxicating food or drinks. Khamti women are a good cook. Their *khaolam*, a kind of rice boiled in the young bamboo tube, *pa-sao*, a kind of fish curry, *Pa-sa*, a kind of indigenous sauce, *topolabhat*, a kind of rice boiled and packed in the leaf of a locally available tree name *Kaupat* are very much tasteful.

Language & Literature

Since Khamti is a recognized language having affinities with the language of the Shan of Burma, Tai-Khamti adopted a script of Shan origin, known as Lik-

Tai for their language. In the Bor Khamti village in Narayanpur , there are different literary works- Buddhist works, chyatue or chronicle, penal code etc. All of them are in the Tai and Pali language. In Khamti society, the tradition of *Pothidan* is considered as an act of piety. In fact, the Vihara or monastery of Borkhamti village at Narayanpur is a storehouse of Khamti Buddhist literature. Of the different works in the Khamti language available in the monastery of Borkhamti Village are a gist of the whole Tripitaka, given in three volumes of Petakat-sala,(the major part),Petakat-khao-tang-chang and Petakat-akeo, a catalogue of all Buddhist texts,the Ramayana, the Mahabharata, Dharamapada, historical works, handbooks on different tenets and the principles of the faith like *Panchranta*, the tales of Jataks, drama, etc , the translated version of Tripitaka , books on Mantras, historical works etc. Two works of great importance as reflecting the sociological conditions of the Tai people are *Loka-samukthi* and *Thammasat*(Darmasattva).The first treatise has been preserved in the monastery of Narayanpur. It contains ninety-nine different sections of rules in relations to the disposal of dead bodies according to the standing of the deceased and the nature of the death. On the other hand, the *Thammasat* consists of a set of judicial rules, and has been preserved in the family of Gohains who put these rules into practice in their domain. In this context, it can be said that a good number of books have been published dealing with the Khamti myth, legend and folk tales, yet majority of them are yet to be explored.

Festival

There are several festivals of Khamti people going round the year. Among them Sangken is the most important and eagerly awaited. It comes at the juncture of the months of April every year. The holy bath of Lord Buddha is the centre of attraction of this festival. The village youths make preparations

by setting up a temporary temple for the image of the Lord Buddha with an indigenous mechanism to pour water. The celebration takes place for three consecutive days and finally the priests or monks give the last wash to the idols and puts back them to the monastery or *Vihara*. Poi Lang is another significant religious festival. It was observed to mourn the death of monk of monastery. In this festival, the villagers form two groups and draw a chariot to pay homage to the departed soul. So it is also known as chariot drawn festival. In this context, it deserves mention at this point that this festival was celebrated in the bank of Dikrong in 1969 to observe the death of Buddhist monk Lu-Kasi, who died in the bapuchang of Borkhamti village. Apart from these, some other festivals are Poi-Pee-Mau, Lung-Konmon, Tu-Patesa, Lu-Mohing etc.

Conclusion

From this above discussion, it can be said that the Khamtis, of all the tribes of Assam are far advanced in knowledge, literature, arts, culture and civilization. Change is the constant of culture. It cannot be denied that the wind of transformation too has recorded significant changes in the different aspects of the Khamti society. However, these changes are proportional to the needs of the society, rather than embracing something blindly without caring for tradition, cultural values and society specific needs. The Khamtis immigrated into Assam with rich heritage and culture and who are still living in the plains of Lakhimpur District maintaining most of their traditional characteristics though they too are incorporating items of modern living into their cultural milieu. This Buddhist Ethnic group has maintained its language although Assamese is widely used as a contact language. Their peculiar socio-cultural adjustment with the rest of Assamese society helps us

understand the urgency of Assamese complete tradition of acculturation and assimilation.

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A Study to Assess the Effectiveness of Janani Suraksha Yojana in Rural Community of West Bengal

Sidhartha Sankar Laha

Janani Suraksha Yojana (JSY) is one latest 'safe motherhood' intervention under the National Rural Health Mission (NRHM) being implemented all over India with the objective of reducing maternal and neonatal mortality by promoting institutional delivery among the poor pregnant rural women. JSY is the largest conditional cash transfer programme in terms of the number of women beneficiaries, and represents a major Indian health programme.

The Indian government seeks to provide maternal health services through a network in rural areas. However, the quality of services actually made available to women in rural areas depends largely on the technical capability of health workers.

The main objectives of the study are; to assess the social profile, knowledge, attitude and utilization pattern of JSY stakeholders. This paper is based on the outreach in general and its aim in particular is to examine the advantages of JSY as perceived by beneficiaries as measured through the public demand for health services in rural Dakshin Dinajpur District of West Bengal. Beneficiaries were selected randomly on the basis of snowball sampling through probability proportionate to sample size (PPS). Using multiple regression analysis method, the results indicate that JSY beneficiaries are perceived to have less access to health services from JSY.

The major findings emphasis the following: unavailability and inaccessibility of health facilities, poverty, exorbitant user charges and associated costs, and poor services offered at the local health facilities in the study area. The study suggests that the involvement of private health care groups in this scheme had increased the significance of private sector capital and management capabilities and positioned private investment as crucial component of JSY. It has also been found that the Public Private Partnership (PPP) health care financing is necessary for achieving the goals of NRHM.

Background

The use of maternal health care services remains low throughout most South Asian countries despite continued efforts to strengthen the infrastructure, drug supply and human resource capabilities. While these improvements are

important to deliver services, they do not address many of the access barriers faced by the poor. Demand-side financing initiatives are specifically intended to reduce cost related access barriers for vulnerable groups by giving them purchasing power to use a designated service. The concept involves funneling government or donor funds directly to a selected group. There are various approaches, one of them being a conditional cash transfer (CCT). A traditional CCT bestows a financial incentive directly to the beneficiary if the recipient complies with a certain set of prerequisites.

Varying degrees of success have been reported from similar CCT programs in South Asia; Nepal, India, and Bangladesh. All of the programs have experienced increased utilization of maternal health care services, however barriers reported from Bangladesh and Nepal include issues pertaining to the timely reimbursement of the cash incentive for beneficiaries and providers and difficulties for the most poor women to gain access to the programs.

Beginning in 2005, India launched a national CCT program to promote institutional delivery, Janani Suraksha Yojana (JSY or 'Safe Motherhood Program'). The JSY program is fully funded by the Government of India and operates under the National Rural Health Mission (NRHM). The program has attracted considerable interest across the globe due to its size, scope and investment received. Functional nationwide, it is the largest cash transfer program in the world. In 2008-2009, \$275 million was allocated to the program and 8.43 million women benefited from it, representing nearly a third of all women who deliver in the country annually. The eligibility criteria for the program differ depending on the province. Women delivering in non-high focus provinces (provinces with a relatively better in-facility birth

proportion) are only eligible for the cash benefit for their first two live births, and if they have a government issued below the poverty line card or belong to a scheduled caste or tribe. The program deviates from the traditional CCT model in high focus provinces, those with a low in-facility birth proportion, as it does not include a conditionality component. All women who deliver in a public facility receive the cash incentive. In Madhya Pradesh, a high focus province, rural women receive \$28 (1400 INR) whereas urban women receive \$20 (1000 INR) upon delivery in a public facility. All services provided in the public health sector are free of charge to the end user. The program is supported in the community through the selection of accredited social health activists (ASHA). The ASHA is a female resident of the village who is incentivized to motivate women to deliver at public facilities under the program.

To date, there have been few research reports on this large scale demand-side financing program for maternal health. Previous assessments have been descriptive, process oriented in selected states, or based on secondary data collection. Little has been documented on factors that influence how beneficiaries and non-beneficiaries interact with the services provided. This paper studies the extent of program uptake, reasons for participation/non participation and factors associated with not participating in the cash transfer program in one district in India. It also studies the timeliness of receipt of the cash incentive by mothers and the role of the ASHA in the delivery.

There are several factors that affect the utilisation of maternal health care services. The quality of services received by women in rural areas depends largely on the technical capability of health workers. In addition, their

accessibility to clients, timing of household visit, availability of drugs, prioritisation or targeting of services, the rapport they develop with the community, the process of community's acceptance of their services, and the type of field monitoring by the supervisors are also important.

Studies conducted in this direction have identified the involvement of health personnel, particularly female health worker, as one of the major determinants of demand for maternal health services (Satia and Giridhar, 1991). Poor working conditions and inadequate facilities in rural areas have resulted in dissatisfaction among health functionaries, which have adversely affected their involvement (Jagdish, 1991). Bruce (1990) has suggested that the assessment of quality of maternal health services should be based on the recipient's perceptions of services received rather than on the provider's perceptions of services rendered.

This study investigated the role of JSY/government assistance, and other health care sector and household factors in predicting poor, rural women's utilization of maternal health services.

Status of institutional and Safe Delivery in West Bengal

The District Level Household and Facility Survey (DLHS-3) (2007-2008) data reveal that 49.1 percent of deliveries were conducted in the health institutions. The difference in institutional deliveries as per different variables like status of residence, caste and religion, some sharp differences are visible:

- (i) While in the urban areas more than 80 percent of the deliveries were conducted in the health institutions, in rural areas it was about 43 percent.

- (ii) As per the religion variable, Muslims were at the lowest end as only one third of the Muslim women had institutional delivery. Christians were also below the state average.
- (iii) As per the caste variable, SC and ST are below the state average. Among ST women, only 30.5 percentages had institutional delivery.

DLHS 3 (2007-2008) data (Table-1) also show that the status of institutional delivery in different districts of West Bengal, Uttar Dinajpur (27.6 Percent) has the lowest rate of the institutional delivery and Kolkata (87.6 Percent) has the highest rate of in the state, among the home deliveries, only 2.4 percent of the deliveries were attended by the skilled birth attendant. In total, only 51.6 percent of the deliveries within the state were safe deliveries.

Table 1: Status of Institutional and Safe Delivery

	<i>Percentage of women who had institutional delivery</i>	<i>Percentage of women who had delivery at home</i>	<i>Home delivery assisted by skilled person</i>	<i>Percentage of safe delivery</i>
Darjeeling	72.5	27.0	1.4	73.9
Jalpaiguri	48.4	52.3	0.8	47.2
Koch Bihar	46.4	52.5	0.8	47.2
Uttar Dinajpur	27.6	72.3	2.7	30.3
Dakshin Dinajpur	40.4	56.4	2.0	42.4
Maldah	28.5	71.2	1.3	29.8
Murshidabad	41.6	58.2	2.1	43.7
Birbhum	48.7	50.0	1.8	50.3
Bardhaman	57.9	50.0	0.4	58.5
Nadia	70.0	30.2	0.6	70.6
North 24 Parganas	62.8	37.7	3.0	65.8
Hugli	80.2	19.0	4.7	84.9

Bankura	61.4	38.5	3.0	64.4
Puruliya	39.9	59.1	7.0	46.9
Pachim Medinipur	45.1	51.7	4.5	49.6
Haora	65.8	33.0	4.0	69.8
Kolkata	87.6	10.1	2.3	89.9
South 24 Parganas	36.4	63.3	0.3	36.7
Purab Medinipur	40.8	57.9	4.2	45.0
West Bengal	49.2	50.0	2.4	51.6

Source: DLHS 3 (2007-2008), Ministry of Health & Family Welfare (Statistical Division), GoI

Rationale of the Study

The Janani Suraksha Yojana (JSY) is aimed to reduce maternal morbidity and mortality; and to improve number of institutional deliveries. The initial stage monetary cash incentive and eligibility criteria were removed and all women delivered at health institutions have been provided monetary incentives in the Low Performing States (LPS). The JSY has completed more than six years in 2011. Present proposed study is an effort in this direction to see actual effectiveness, achievement, access to community and examine at what guideline followed in respect to JSY implementation status in Dakshin Dinajpur district in West Bengal. There are several constraints faced by the poor and people living in remote rural areas in receiving public health services, which are normally provided free of cost. Lack of awareness and information related to service offered, problem of access including cost of accessing the services and out of pocket expenditure due to inadequate provision or inefficiency in the system as well as health seeking behaviour etc are the important causes behind failure of services reaching the poor and those living in remote areas. The Panchayats may be strengthen the process of reaching services to the community by raising awareness of the people, proper deployment of the ASHA and involving SHGs and other community

level organizations as well as in mobilizing people to actual come forward and access various services.

Objective of the Study

This paper briefly explores the extent to which the JSY has succeeded in achieving its goal or promoting positive family health behaviours that have a significant bearing on maternal and neonatal mortality. More specifically, it examines:

1. To study awareness about JSY in rural communities.
2. To examine the views of primary stakeholders regarding benefits of this innovative effort.
3. To verify the facts in the light of JSY outline given by the Government of India.
4. To analyze social and demographic background of beneficiaries and stakeholders of JSY.

Methodology

A community based cross sectional study was conducted from randomly selected samples of 160 women. Structured questionnaires were used to collect the quantitative data. Focus Group Discussions and in-depth interviews were used to supplement the quantitative data. The data from the qualitative methods were analyzed by using the thematic framework analysis. Independent variables affecting Antenatal care service utilization were determined using multiple logistic regressions.

Study Area

The present study was conducted in the Dakshin Dinajpur District of West Bengal. The focused blocks were Hili, Tapan and Kumarganj. Dakshin Dinajpur is one of the relatively backward districts in the state. The villages located at around 45-60 km from the district town. The villages of block are

chosen because they have intensive agricultural based economies which involve women peasants and nature of population is mixed categories.

Data Source

This study is based on secondary as well as primary data. Secondary data were collected from sources like Statistical Handbook of West Bengal, Economic Survey of West Bengal, Census Report, various research articles and papers, district website, NGOs concerned with the promotion of JSY beneficiaries and internet. Primary data were collected by conducting a field survey in three blocks of Dakshin Dinajpur district. The assessment of JSY was based on a blended methodology and included application of quantitative and qualitative techniques. This study uses a snow ball sampling method, with the first sample selected randomly, and the next sample determined by the first sample, the third sample determine b the second sample, and so forth. The size of sample was 160 JSY beneficiaries who received health care facilities. Data are directly collected from JSY beneficiaries through informal interviews, carried out by local enumerators.

Model of Analysis

A demand function for health services is estimated using a multiple regression method to examine the relationship between dependent and independent variables. The demand function for health services is modelled as constant-elasticity functional forms. Technically, the demand function for health services is expressed as:

$$\ln Q_H = \alpha + \beta \ln(\pi_1) + \mu \ln (\pi_2) + \Omega \ln (\pi_3) ++e$$

Where

Q_H : overall health services of women

Π_i (i= 1,2,3.....) are the independent variables

\ln : logarithmic operation

e : error terms.

The demand function for health services is estimated using field survey data on JSY beneficiaries. The demand elasticity and structural demand function represent the influence of primary stakeholder's health services in rural areas.

Key Findings

The profile of women interviewed in the formative study is given in Table 2. As the table indicates, 88 percent were Hindus, 36 percent were scheduled castes/tribes, the mean age of women was 25.3 years and 17.2 percent had started cohabitating before their fifteenth birthday. Almost twenty five percent are non-literate and the average of children ever born was 2.8 years. Most of the respondents are in the age group 20-29 years, majority are illiterate or just literate and most of them are housewives by occupation. The age of marriage is 16-18 years showing an early marriage trend. Around 54 percent are BPL cardholders, who are availing of JSY services; there is a special need to propagate the scheme amongst the non-users where still big parts (46.3 percent) are BPL mothers, who are deprived of JSY services.

Table 2: Distribution of Women by Selected Background Characteristics of Dakshin Dinajpur

<i>Variable</i>	<i>Category</i>	<i>Percentage</i>
Religion	Hindu	88.2
	Muslim	10.1
	Others	1.7
Caste	SC/ST	36.4
	OBC	48.9
	General Caste	14.7
Age	15-19	9.5
	20-24	44.8
	25-29	34.9
	30-34	10.8
	Mean	25.3
	S.D	4.3

Education	No education	24.3
	Primary	56.4
	Secondary	11.9
	Higher	7.4
Age at Cohabitation	<=15	23.1
	16-17	29.6
	18-19	31.2
	>=20	16.1
	Mean	17.2
	S.D	2.3
Children ever born	Mean	2.8
	S.D	0.9
Work Status	Yes	23.9
	No	76.1
BPL Card Holder	Yes	53.7
	No	46.3
Exposure to mass media	No exposure	75.9
	Any exposure	24.1

Source: Field Survey

JSY beneficiaries were getting benefits through this scheme. In the present investigation beneficiaries perceived some beneficial factors that have been evaluated in term of advantages.

The data pertaining to this aspect has been presented in Table 3 and the advantages have been ranked on the basis of their mean scores. The mean score varied from 1.06 to 2.93.

Table 3: Advantages of JSY as Perceived by the Beneficiaries (N = 160)

Advantages	Extent of intensity			MS	Rank
	Very Important	Important	Less Important		
Safe delivery at PHCs and CHCs.	132	22	06	2.93	I
Reduce the Infant mortality rate (IMR) and maternal mortality rate (MMR).	85	45	30	2.62	VI
Helpful in population control.	45	45	70	2.01	XVI

Payment of Rs. 1400/- to the mother (in rural area) after delivery.	125	25	10	2.87	III
Payment of Rs. 500/- to delivered ladies of below poverty line at the time of home delivery.	105	25	30	2.82	IV
Provision of free medicines, delivery-services, routine checkups and immunization.	75	50	35	2.20	XI
Availability of trained ANMs, GNMs and Doctors.	45	85	30	2.01	XVI
Provide transport facilities.	85	35	40	2.12	XII
Utilization of money for personal care.	55	40	65	1.92	XXI
Improve economic condition.	50	50	60	1.06	XXII
ASHA visits door to door to give them advice regarding mother and child health care (weaning, supplementary feeding and mother's diet).	95	40	25	2.36	VIII
Hygienic environment in health centres.	110	45	05	2.63	V
If pregnant lady is hospitalized in general ward then she may get cheque of JSY without registration.	125	25	10	2.89	II
Provision of blood, urine tests at PHCs and CHCs	100	45	15	2.56	VII
Full protection after delivery.	45	45	70	1.99	XVIII
Release from mental stress because of ASHA.	95	30	35	2.31	IX
Availability of water, bed and electricity etc. at PHC	70	50	40	2.02	XV
Contraceptive pills given by ASHA at home.	80	40	40	2.11	XIV
Provision of medical checkup of malnourished child.	45	52	63	1.93	XX
Measure the weight of pregnant lady for prenatal care	97	33	30	2.56	VII
Provision of immunization card for proper immunization.	43	50	67	1.98	XIX
Testing of salt sample for	85	37	38	2.15	XII

protection.					
Time of getting JSY card	42	23	95	1.99	XVIII
Involvement of local NGOs	75	50	35	2.23	X
Local politics is affecting ASHA selection	64	50	46	2.00	XVII

Source: Field Survey

JSY beneficiaries were getting benefits through this scheme. In the present investigation beneficiaries perceived some beneficial factors that have been evaluated in term of advantages. The data pertaining to this aspect has been presented in Table 2 and the advantages have been ranked on the basis of their mean scores. The mean score varied from 1.06 to 2.93. Table 3 reveals that the some essential advantages were perceived by beneficiaries i.e. Safe delivery at PHCs and CHCs (R-I), Helpful in population control(R-XVI), Payment of Rs. 1400/- to the mother (in rural areas) after delivery(R-III), full protection after delivery(R-VII), provide transport facilities(R-XII) and reduce the infant mortality rate (IMR) and maternal mortality rate (MMR)(R-VI), with 2.93, 2.01, 2.87, 1.99, 2.12 and 2.62 mean scores, respectively. In addition, beneficiaries also perceived, payment of Rs. 500/- to delivered ladies of below poverty line at the time of home delivery, provision of free medicines, delivery-services, routine checkups and immunization, ASHA visits door to door to give them advice regarding mother child health care (weaning, supplementary feeding and mother's diet), If pregnant lady was hospitalized in general ward then she may get cheque of JSY without registration, Availability of trained ANMs, GNMs and doctors, Hygienic environment in health centres, as important advantages according to their mean scores i.e. 2.82, 2.20, 2.36, 1.99, 2.01 and 2.63 respectively. In the same way, beneficiaries perceived relatively less important advantages i.e. provision of immunization card for proper immunization, provision of blood, urine testes at PHCs and

CHCs, contraceptive pills given by ASHA at home, measure the weight of pregnant lady for prenatal care, provision of medical checkup of malnourished child with 1.98, 2.56, 2.11, 2.56 and 1.93 mean scores and rank wise distribution were XIX, VII, XIV, VII and XX respectively. Last but not least advantages, expressed by the beneficiaries were, improve economic condition, involvement of local NGOs, testing of salt sample for protection from gulgund, availability of water, bed and electricity etc. at PHC, local politics is affecting ASHA selection and provision of medical checkup of malnourished child with 1.06 (XXII), 2.23 (X), 2.15 (XII), 2.02 (XV), 2.00 (XVII) and 1.93 (XX) mean scores and ranks respectively. The findings of this study indicate that demand side barriers such as transport and cost of maternal health services are a major challenge affecting utilization. Interventions to improve the attitude of health workers and ensure abolition of informal fees may be helpful in improving utilization of formal services. It was believed that a project to provide free transport for accessing maternal health services would greatly improve the health of women in the region.

Estimation of demand function for health services from low level mean score advantages (from table-3) using ordinary least square, Breusch- Pagan-test for heteroskedasticity, Chow-test for no different elasticity and Hausman-test for no structural difference in demand for health services are carried out using an econometric approach.

Table 4 shows the estimated demand functions for health services with data of all samples. *F*-test shows that the demand function for health services is significantly estimated. Coefficient determination is around 0.40 indicating that 40 per cent of total variations in health services are explainable with all

variables included in the model of demand. The Breusch-Pagan (B-P) test for heteroskedasticity shows that heteroskedasticity problem is absent. This means that standard error of each coefficient is correctly estimated; implying that significance of each independent variable is not misleading (Greene, 2003).

The coefficient of getting JSY card distribution and awareness generation among the rural women are negative and significant. This is in line with a demand theory, that is, demand will fall as the price of goods and services increases (Nicholson, 2003). When the distribution of JSY card increases by one per cent, the facilities of health services falls by 0.08 per cent. This indicates that demand for health services is inelastic, meaning that health services are important goods.

Table 4: Demand Function for JSY Health Service in Dakshin Dinajpur District

<i>Independent Variable</i>	<i>Coefficient</i>	<i>S.E</i>	<i>t-test</i>	<i>P>t</i>
Constant	2.9201	0.5206	5.61	0.0000
Distribution of JSY Card	-0.0750	0.0298	-2.52	0.0130
Awareness Generation	-0.0562	0.0328	-2.41	0.0127
Provision of immunization card for proper immunization	0.3642	0.0454	8.03	0.0000
Economic Condition	0.0945	0.0124	0.19	0.0069
Payment of Rs. 1400/- to the mother (in rural area) after delivery.	0.0142	0.0056	0.12	0.1336

Transport Facilities.	0.0121	0.0012	0.05	0.1125
Full protection after delivery	0.0053	0.0056	0.07	0.0458
Provision of medical checkup of malnourished child	0.0093	0.0015	0.01	0.0325
R Square	0.40			
F-Test	15.46			
B-P Test	0.85			
Samples	160			

The provision of immunization card for proper immunization significantly affects the health services of Janani Suraksha Yojana (JSY). An increase in proper immunization facility by 1 per cent leads to an increase in health services by 0.36 per cent. This indicates that health services are normal goods, that is, the facilities of health services increases as proper immunization increases.

Similarly, the elasticity of economic condition of JSY beneficiaries' family is positive but very small. This result indicates that the structural demand for women health is significantly depends on economic condition.

The other factors slightly affect the health services. This is because the variations of such variables are small. This is a common phenomenon that JSY facilities provide by service provider in rural areas of Dakshin Dinajpur District do not enough to capture the present problems properly.

Conclusion

Although Majority of respondents knew about the scheme regarding monitory benefit for institutional delivery, the name of the scheme is known to a very small proportion. This point towards the fact the JSY has not been able to create a “brand image” in the mind of people like other programs like Directly observed Therapy (Short term)-DOTS for tuberculosis control. This needs to be rectified by social marketing of the JSY. It is a known fact that knowing a “product” by name increases it chances of more acceptance and utilization. Extensive information, Education and Communication (IEC) strategy is needed via various channels including print, electronic, traditional, personal communication etc. Social franchising i.e. a network of service providers use a shared brand name guaranteeing a certain quality of a package of health services with a fixed price line could be initiated. Experience could be gained from the 'Janani program' that was started in Bihar (India) and has now spread to other states used the 'Surya clinics' and 'Titli centres' to offer reproductive health services including contraception and safe abortion. Some families are not being able to arrange vehicle at the time of delivery because of lack of money and also it is very difficult to arrange vehicles at the odd hours. The role of Panchayati raj institutions should be introduced for the arrangement of vehicle for institutional deliveries. The sub centres which caters to a population of around 5000, are rarely equipped for delivery services and if these services were present, lot of burden on higher health centres will decrease dramatically and the families would be saved from travelling long distances, wasting crucial times and huge expenditure for these services. The concept of “maternity huts” by Haryana (India) could be further explored. ASHA/ANM should be

encouraged to accompany the pregnant women for delivery as the presence of these workers supports in proper administrative and financial paper work and ease in getting the services. The decision of spending money received in the scheme by the husband is very big challenge. Most of the time, this money is spent for other purpose rather than for mother. Some in built mechanism like pre-paid vouchers could be introduced for ensuring that the basic purpose of the amount provided must be used for the purpose intended. In India, the Government of Gujarat introduced voucher schemes under Chiranjeevi Yojana-CY (meaning long life) to increase the access of poor women to antenatal, obstetric and neonatal health care. It is based on a Public-Private Partnership (PPP) model in which poorer people can go to empanelled private nursing homes for delivery, and the cost will be borne by the state. There is a need to encourage networking among community development associations and to consciously enhance their managerial capacity through training and exchange of ideas. In this respect, informal education organised for the leadership of the community development associations will be an advantage.

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Outsourcing Babies: A Discourse on Surrogacy and The Attitude of Today's Youth In India

Sreyashi Ghosh & Bhola Nath Ghosh

In India, where children are manifested as 'gifts of God', where a guaranteed tactic of acceptance for a bride in her in-law's house is by giving birth, infertility is definitely responsible for broken marriages and sometimes leads to social opprobrium. With a greater number of women joining the work-force and are equally competing with men and challenging their traditional gender roles, surrogacy seems to be a perfect option for them as they can continue to work without taking resort to maternity leave and without facing the health hazards that come with pregnancy. Therefore, the practice of surrogacy results in the separation of 'biological' motherhood from 'social' motherhood which eventually is the separation of child bearing and child rearing that is linked together by the carefully constructed social thread.

In this paper, we are interested in looking into, whether the 'Advanced Reproductive Techniques' are pro-women and play an important role in empowering them both directly and indirectly. The paper also tries to examine the attitude of today's youth towards such techniques which counter the traditional image of women as barer of their 'own' child and the reaction of youth towards commercialization of a role which at one point of time was believed to define and justify the institution of marriage.

Discourse on Surrogacy

According to the Oxford Dictionary, the term 'surrogate' refers to a substitute, especially a person deputizing for another in a specific role or office. In the universe of reproductive practice and infertility the same word refers to the practice of renting womb by a woman to a commissioning couple to bear their child both for altruistic and commercial purpose. The advent of surrogacy as an alternative method of reproduction dates back to 1980's when the first surrogate child Baby M took her first breath in this world. Since then, the practice of surrogacy was discussed in various platforms both from a polemic and positive points of view. Notable among them is the empirical

study done by Gregory L. Weiss under the title “Public Attitudes about the Surrogate Motherhood” which was published in Michigan Sociological Review, No.6, Fall 1992. This is an article, where the author has collected data from a ‘politically moderate-to- conservative’ medium sized community of Roanoke Valley, Virginia in U.S (sample size: 400, sampling method: probability-proportional to size multistage cluster sampling). The approval or disapproval of surrogate motherhood which has been clubbed under the title of ‘position on surrogate motherhood’ index contained four circumstances i.e, wife unable to bear a child, pregnancy a significant risk to wife’s health, wife afraid to bear a child and birth defects likely due to wife’s genetic make-up. The article found a correlation between age and the difference in opinion among the respondents.

A sudden acceleration in the number of couples maimed by ‘infertility’ has resulted not only in sprouting of infertility clinics providing specialized services, but also to a number of researches and discourses on ARTs of which ‘surrogacy’ is a major part. Though surrogacy is quite a common practice but it has also attracted significant controversies as it involves the process of separation of ‘biological’ mother from a ‘social’ mother. Apart from that, the practice has also commercialized the process of child bearing which is believed to be a natural corollary of marital relationship. The discourse on surrogacy can be divided into- theoretical, empirical and philosophical points of view. The theme which is recurrent from the authors’ survey of available literature on surrogacy is that the practice is in consonance with the rapidly progressing post-modern world which is characterized by impersonality and waning of emotions, resulting in the inclusion of child bearing within the purview of economy by attaching a money value to it. The empirical work of

Gregory L. Weiss (1992), highlighted a strong correlation between age and people's opinion with regard to surrogacy. Needless to say that the younger generation is probably more open and tolerant towards this new practice, while the opinion of the older generation is more coloured by traditional ideas and reflects a familial and religious biases to it as they still see childbearing and childrearing as connected by the biological and social cords. Relinquishing a baby, according to them, tantamount to 'selling babies' or selling a 'mother's right' to her child which is equivalent to running the gauntlet of the traditional notion of family. Moreover, the possible negative effects of this practice on children should also be taken into consideration.

The above view has been corroborated in another article by M.M Tieu (2009) titled "Altruistic surrogacy: The necessary objectification of surrogate mothers", where the author argued, grounded in 'empirical evidence', that the process of relinquishing a child goes a long way to objectify the surrogate mother and in turn commercializes the whole experience. The article is successful in categorizing and separating altruistic and commercial surrogacy, painting the latter as more exploitative than the former. The article claims that the altruistic surrogacy stems from the guilt of having prior abortion or giving a baby up for adoption or when the surrogate mothers are 'more independent thinkers and are less bound by the traditional moral values'. The rationale for the readiness of a woman to lend her womb, according to the article, cannot be just reduced to pure altruistic factor but factors like money, guilt, redemption all come into play to motivate a woman to tread the path of surrogacy. Adducing the case of Baby M and Evelyn, M.M Tieu argued that the whole surrogacy setup is shattered when the mother goes against the contract and refuses to relinquish her child. What

follow, thus, is the custody battle and other undesirable litigations at the cost of the child's welfare. Commendable effort on the part of the author is the separation of surrogacy and adoption as the latter also involves the process of giving up a child. The first difference lies in the fact that in surrogacy, both the parties enter into a contract, prior to the conception whereas in adoption, the mother is compelled to sell her rights, keeping in view the welfare of the child after the birth has taken place. Secondly, in surrogacy the welfare of the child is sometimes relegated to the background as monetary concern and the desire of the childless couples are always under the spotlight. The emotional crisis that the surrogate mother faces after taking decision of relinquishing her child can be dealt with by depersonalizing the process of pregnancy and the childbirth and seeing or making the surrogate mother see herself as nothing but a 'womb for rent'- this reconfirms the article's claim that surrogacy objectifies the mother. 'Cognitive dissonance reduction strategies' or therapies employed by the various surrogate agencies to mitigate the psychic upheaval in the mothers when the time arrives to sever both the umbilical cord and inter-subjective relation with her infant. Cognitive Dissonance Reduction strategy involves the process of making the mother see herself as a 'human incubator' and the baby as a 'product', thus equating child birth with any other production involving monetary transaction. To put it differently, cognitive dissonance reduction therapy strategically reduces the contrite feeling that can grip the surrogate mother after relinquishing her baby and implicitly results in the objectification of the surrogate.

Despite the criticisms shrouding the practice of surrogacy, there are advocates of this practice as well. Liezl Van Zyl and Anton Van Niekerk in their paper on "Interpretations, perspectives and intentions in Surrogate

Motherhood”, claimed that ‘to restrict or ban surrogacy contracts would be to prohibit women from making other interpretations of their pregnancies they may wish to make, requiring them to live up to a culturally constituted image of ideal motherhood”. Dealt with more or less from liberalist point of view, the paper also upholds a condition when women seek pregnancy as an end in itself i.e., it refers to a section of women who enjoy pregnancy but are not keen to rear their children. Therefore, the paper hints at the crumbling of an age old belief in the phenomena of child bearing and rearing as conjoined and sees surrogacy as an effort on the part of the modern women to transcend the identification with nature. The paper goes to the extent of purging surrogacy of the criticism that it progressively dehumanizes and commodifies both the surrogate mother and the child on the ground that women are rational agents of their action. The author goes on to reason that when a woman consciously enters into an agreement with the commissioning couple then it can be expected that the terms of contracted will be respected by her and she will interpret her pregnancy accordingly. To reinforce this idea that women are guided by reasoning faculty and not by mere emotions while entering into surrogacy contract, the paper also highlights the cognitive dissonance therapy that the surrogate mothers willingly undergo. As discussed above, the therapy makes the woman realize that she is acting like a ‘hotel’ (Helene Ragone’) and the fetus is seen as a ‘product’ who has acquired a right, by the virtue of the contract to occupy the body of the surrogate mother. The contract also upholds the right of the commissioning couple to control and monitor the surrogate pregnancy. The paper also ventures into the rocky terrain where the surrogacy contracts can be breached thus acknowledging the fact that the relation between the gestational mother and the child cannot always be governed by a piece of paper. If this aspect is taken into

cognizance, then the practice of surrogacy is embedded in ambiguity. Separation of bearing and rearing of a child is again harped on along with the fact that surrogacy is nothing but 'self-deception' which can result in life-long laceration in the surrogate mother. One possible solution to this can be to include the surrogate mother to witness the growing years of the child or the other method can be to convince the surrogate mother that the contract is in the best interest of the child. It is not difficult to conclude that the paper is progressive enough to deal with surrogacy from the realistic point of view and claimed that one cannot expect to run the family along the same line when somebody is embracing such a non-traditional mean of attaining parenthood. If parenthood is undergoing reinterpretation, then family should also be reinterpreted and casted in a new mould.

But such affirmative conclusion is not corroborated in the paper "Surrogate Mothers: Not so Novel after all" by John A. Robertson, where he hinted at surrogacy being a triadic relationship can result in some confusion in family lineage and personal identity. While surrogacy is a recent phenomenon, but the practice has been unsuccessful to cross the legal hurdle in many countries, where agency adoption is still considered a stamped way to have baby for the childless couple. The paper vacillates between the pros and cons of surrogacy. There is no denying the fact that surrogacy can come as a boon for those couple who are tired of waiting for agency adoption and can be an economical viable option for the surrogate themselves, but the paper again adumbrates the exploitation and the resultant confusion that can stem from the surrogacy arrangements. The paper also goes on to the extent of raising a few questions that need to be answered by both the parties involved to get into a contract. In addition to the psychological harm done to the surrogate

mother, when she relinquishes her child, the paper draws the readers' attention to the harm done to the child so conceived. The child may be harmed in the following ways;

Discovery of the fact that he/she has separate gestational and rearing mothers, can create a sense of instability in the child and alienates the child from the immediate family.

There is a high possibility of the child coming under stress if the contractual parents are not good care takers.

The lineage and the total family structure are confused because of the surrogacy arrangements.

The confusion can deepen if the family re-establishes contact with the surrogate family which can create a 'blended family'.

The paper also informs us about the guidelines for the physicians given by the American College of Obstetricians and Gynaecologists on the Ethical Issues in Surrogate Motherhood which deals with the potential damage that can be caused by the 'depersonalization of reproduction'. The paper hackneys the views of the preceding papers regarding the motives of surrogacy and the challenges faced by both the parties when the child is born with certain disabilities. In such a case it is easier for the commissioning couple to renounce the responsibility of accepting the baby which equates surrogacy to any kind of market transaction where the consumer refuses to buy the product with defects. In talking about the state's stand in bringing surrogacy under the legal surveillance, the paper points out that preventing childless couple to take resort to collaborative reproductive techniques is one way of encroaching on their rights-"moral distaste alone does not justify interference with a fundamental right". The state's role in this juncture is to mitigate exploitation of the surrogate mothers by setting a minimum standard for

surrogate brokers, maintain a surrogate database and ensuring that the contract is not based on coercion.

Another glittering contribution in the discourse on surrogacy has been the empirical fieldwork done by Helena Ragone' in her paper "Chasing the blood ties: Surrogate mothers, Adoptive mothers and fathers". The paper has categorically stipulated three shifts in the conceptualization of the 'categories of conception, reproduction and parenthood'. The first major change occurred with the issue of divorcing intercourse from reproduction with the advent of birth control measures. The second shift happened with the ARTs making its foray into the reproductive scene where sexual intercourse was no longer necessary to precede pregnancy and the third shift refers to the further development in reproductive medicine that questioned the 'organic unity of the foetus and the mother'. The paper, while dealing with the motivations behind acting as a surrogate, claimed that monetary gain does not always feature as the major motive. On the contrary, the surrogates are convinced that they are contributing to the greater good and this rationalization is enough for them to endure any medical or physical complications. Surrogacy has sometimes been equated with any part time job. It is very interesting to note that on surrogates' claim that it is a 'gift giving' practice, the author rightly pointed out that it is gift giving indeed, but this is not based on reciprocity, rather it creates kinship. Considering the recent times, where monetary transactions are always in the spotlight, the paper has successfully highlighted the 'altruism vs. remuneration' debate that shrouds surrogacy. Surrogacy for commercial purpose has always faced the cultural resistance on the ground, that women demanding a money value for the affective action like childbirth does not conform to the norm of a 'normal family'. Private

motherhood that surrogacy creates is the antithesis of the private motherhood. The paper also brings to the forefront that surrogacy service is basically provided by the women from the working class background whose entry into the other services is socially barred. Therefore, surrogacy is the tool they use to validate their social existence and they are rewarded for their reproductive work. While unfolding the father-surrogate relationship, the author observed a strange initial awkwardness because of the fact that the father's relation with the surrogate is strictly non-coital. One way of mitigating this feeling of awkwardness is by downplaying the father's role and establishing a healthy adoptive- surrogate mother relationship. As regard to the adoptive mothers, they experience a pseudo pregnancy or emotional pregnancy which makes it easier for them to accept a child. Deemphasizing the biological link with the child and attaching more importance to 'nurture' rather than biological nature are the two tactics employed by both the surrogate and the adoptive mother. On the basis of the empirical work with few surrogate mothers and adoptive fathers and mothers, the Ragone reasoned "the decision on the part of the surrogate not to nurture the child nullifies the value of biological motherhood, while the adoptive mother's choice to nurture activates or fully brings forth motherhood". Surrogacy is premised on the fact that parenthood is a social construct and this goes on to ascertain the roles of adoptive father, mother and surrogate in a triadic relationship.

Surrogacy, essentially a commercial practice has been well documented in the paper *For Love and Money: The political economy of Commercial Surrogacy* by Debora L. Spar. The author has made the distinction between traditional surrogacy, gestational surrogacy and the surrogacy practice resorted to by the

homosexual couples. Traditional surrogacy refers to a situation where the woman is unable to carry a child because of certain medical complications whereas the gestational surrogacy is a setting where the sperm of the adoptive father and the egg of the adoptive mother are implanted in 'biologically unrelated womb'. The paper goes on to explain the practice whose popularity and usability are dictated by the market condition. Commencing from Biblical references to the practice of wet nursing up to the modern age commercial surrogacy, the paper traced the emergence of this practice. The reasons pinned for the surrogacy to become an alternative method to become mother are the development of technology, commercial enterprise, shifting of moral values and the possibility of impregnation sans physical proximity. The author successfully blended the feminist debates on surrogacy- right to contract for labour vs stereotypical gender roles and touched upon the rising popularity of IVF to bear child as an antithesis to surrogacy. The observation that immediately envelops the readers' mind is the claim that since surrogacy practice is opted by the wealthy therefore there is often a class bias to it as most of the time surrogate mothers are from the blue collar background. This hints both at the possibility of economic exploitation of the surrogates and the underlying assumption that they are sometimes forced into such a practice. Nevertheless the paper chronicles the practice becoming a global affair. Banning surrogacy or the sale of babies in one country is no longer a deterring factor for the couples who are seeking help from the other countries, especially from the country where the cost is reasonable. The author promotes surrogacy in an economically downcast country where women are themselves involved in demeaning jobs and gives birth to populate the 'lower ranks of the international labour market'. There is no denying the fact that 'labour of birth' is logical and at the same time

economically empowering. Having dealt with the advantages of the practice, the paper goes on to point out the disadvantages and the economic exploitation of the surrogate mothers as they are never in a bargaining position in the international labour market. The author dwells upon the complexities stemming from cross country surrogacy transaction and upholds the importance of governmental control. If the government can regulate contraception, then it has the responsibility towards surrogacy as well as regulation is better suited than prohibition. Initial reaction towards contraception is similar to what surrogacy is facing in modern world, but the conclusion drawn by the paper guarantees the spread of surrogacy service despite criticisms.

Newspaper Reports on Surrogacy

Rising popularity of the surrogacy practice in Kolkata, India has been reported in the article 'Mummy for a fair price' published in Times Of India on 15th January, 2012 by Zinia Sen and Dibyajyoti Choudhuri. According to the report, surrogacy is resorted to when either the woman has a non-functional uterus or medical complications in the ovary. The 'grey areas' reported, which can act as a deterrent to the infertile couple to opt for surrogacy are the legal complications in adopting the baby conceived by a woman other than the legally married wife of the man and the inclination of the common people to equate surrogate motherhood with flesh trade. The financial constraint can also debar the couples as surrogacy is an expensive procedure. As far as the criteria for the surrogate motherhood is concerned, the woman should be under 35yrs, without any communicable diseases and preferably having a child of her own.

Another report published by TOI on 13th August, 2013 title 'Kolkata turning into a global fertility hub' by Somdatta Basu and Prithvijit Mitra, claimed that low cost and high success rates are acting as two pull factors which are attracting both NRIs and foreign couples to Kolkata. Surrogacy costs around \$15,000 in Kolkata according to the international market which is more economically viable than spending \$80,000 for the same practice in U.S. The survey done in various infertility clinics across the city reveals an exponential rise in the number of foreign couples seeking surrogacy solution to their problem of infertility.

The Telegraph, Kolkata reported on 31st October, 2013 that with Kolkata and especially India turning into a Mecca for foreign infertile couple to find a surrogate for their unborn child, the government is planning to put certain checks to prevent the exploitation of the practice and bring it under governmental surveillance. The first proposal made by India's home ministry is to make tourist visa redundant to seek surrogacy service by the foreign couples and making it mandatory for them to apply for medical visa from November 1, 2013. The ministry also raised the issues of banning the same sex couples from seeking surrogacy services while making it compulsory for the heterosexual couples to be married for at least 2 yrs to opt for the service. The couple can seek surrogacy services only through clinics registered with the Indian Council of Medical Research. Indian health ministry has also drafted a bill to regulate the 'womb for rent' and according to the proposed bill, surrogate mothers cannot have more than 3 births including their own children and maintaining an interval of 2yrs between deliveries to ensure good health of both the mother and the child.

India, in general and Kolkata in particular are making their presence felt in the world map as a potential destination to seek surrogacy service, has been reiterated in the report by the Bengali vernacular newspaper Anandabazar Patrika on 20th November, 2013. According to the report published, hostels are being set up in various parts of Kolkata to assist the surrogate mothers after being inseminated. The hostels are designed to take special care of the mother for the following 9 months and at the same time cater to the needs of the commission couples. The report published, confirms the growing popularity of the surrogacy service provided in India. The interesting trend to be highlighted in this respect is that the surrogacy service in India has attracted the foreign and NRI couples more than the indigenous people. Another growing trend noted by the reporters, is the opting for surrogacy service not only by the infertile women but also by the women who are reluctant to conceive. But the gynaecologists are not amused by this growing trend fearing that if making babies become commercialized to this extent then most women with requisite monetary support will always opt for this service. Given our socio-economic conditions, many doctors are in favour of adoption than surrogacy. But India is definitely turning into a 'go to' destination when it comes to surrogacy service.

Surrogacy and Its Acceptance in the Indian Context- Concluding Discussion

With the rising instances of infertility among the Indian couples (according to the report 'Infertility: A growing concern' published by the Indian Express on June 27, 2012, nearly 60-70 million couples are suffering from infertility globally every year, between 15-20 million are in India alone), surrogacy can

be regarded as a radical remedy to this problem. Though surrogacy is becoming popular as a practice and the last resort in case of some infertile couples, but it is not fully purged of the evils which can play a role in mitigating the benefits coming from it. On one hand surrogacy can be seen as a mechanism that enhances the reproductive freedom of the modern women making them realize that 'biology is not destiny', but on the other hand the practice can also invite the possibility of commercialization and exploitation of the surrogate mothers whether they do it for altruistic reason or commercial purpose. Infertility is a menace which is still believed to be largely a woman's problem, though in actuality 1 in every 5 men has been reported to be infertile. Therefore, the very concept of infertility has always been treated with an inherent gender bias. Inability to carry a baby, if the problem is related to a woman is still regarded with a certain contempt which is enough to make a woman feel humiliated and disempowered as in our Indian culture babies are the guaranteed way to receive acceptance in the society. Creation of progeny has always been illuminated as the major rationale behind getting married for both men and women. If we take a closer look at our esteemed religious texts, then it can be found that an Indian male is entitled to 4 Ashramas in his life- Brahmacharya, Grihastha, Vanaprastha and Sanyasa whereas an Indian woman's existence is only tied up with her husband in the Grihastha ashrama. It will not be a misplaced claim that a woman in our society has always been portrayed as nothing but a functional womb. Thus, failure to give birth can have a tremendous negative social and psychological impact on both the woman and her immediate and distant kin. In such a juncture, ARTs, especially surrogacy comes with a hope for this very woman to claim back her rightful position with a little assistance from her husband. The practice of surrogacy eventually creates two categories of

women- one initially disempowered and later empowered with the advent of surrogate mother in the scenario and the second category of women, who acts as a surrogate is initially empowered (monetarily or otherwise) and later disempowered as she will be dictated by the surrogacy contract. While the surrogate assists the commissioning mother to enjoy the feeling of 'being a mother' without any sabbatical but simultaneously depriving herself of the joy and opportunity of raising her own child. In this context, surrogacy can be interpreted as a practice where the whole gamut of mother-child relationship and the corollary relations are all getting reduced to a piece of paper i.e, The Contract, deviating from which can result in litigations thus jeopardizing the welfare of the child born (the famous Baby M case can be adduced where the surrogate mother refused to acknowledge the terms of contract and hand over the baby). Breach of the terms of the contract, as discussed by almost all the papers is a major source of confusion and worry when it comes to surrogacy. The contract can be violated by the either parties without the proper estimation of the consequential harm. If the surrogacy contract, for example, mentions the birth of only one child, then twin or multiple births or birth of the child with physical defects clearly indicate the breach of the contract and there lies a probability that the commissioning couple may refuse to acknowledge the 'extra' baby. Pregnancy comes with its own bunch of medical complications which can compel the surrogate mother to abort her foetus which also qualifies as the breach of contract and can be sued in law courts. In both the cases, it is the surrogate who is otherwise is at disadvantaged legally, physically or psychologically.

Much of discussion has already been done on the potential psychological harm to the surrogate mother. The philanthropic gesture of handing over the

child is easier said than done. Bearing the child for 9 months in the womb automatically seals an emotional bond between the mother and the child which can never be adequately monitored by a mere piece of paper. Some medical discourses on surrogacy confirmed that many surrogate mothers suffer from contrite feeling after handing over the baby. Negative impacts of this practice can also psychologically harm the child when he/she comes to know that the social mother is not the actual birth mother. Though it is just an assumption, but such a chance discovery can meddle with the child's psychic development. Many researches bear testimony to the fact that problematic mother child relationship can even hamper the child's ability to enter into a long term relationship later on in life. Therefore, the practice of surrogacy makes the whole family structure complicated. Upholding this opinion, many critics of surrogacy have questioned in favour of adoption where the child has already been relinquished and thus, the issues like psychological harm to the mother and the child can be avoided.

On the basis of a survey done with the help of a subjective sample of few youths in their mid and late 20s, an interesting trend was noticed. When inquired about their openness regarding the practice of surrogacy most of the female respondents seemed indifferent towards the practice in general and passed their opinions in favour of adoption while the male respondents were a bit flexible in their consideration of surrogacy as an alternative method of reproduction. The reason for the female respondents for favouring adoption to surrogacy has got lot to do with the traditional outlook and moral values that they have internalized since birth. Being empathetic by nature, a woman can feel how remorse can be gripping after the child is relinquished. Some female respondents even radically protested against their love child being

borne by another woman. Barring few, most men made certain discounts in considering surrogacy as an option because of the possibility of having a genetically related child. But they never denied the confusion and the contradictions that can stem from such arrangements. Traditional outlook, family values and concern about the huge number of parentless children being thrown into orphanage every year, seemed to play an important role in steering the opinion of the youth today. Almost all the respondents unanimously, consciously or unconsciously hinted at the family's decision and reaction as strong guiding forces to choose the alternative method of reproduction in case of infertility. This confession definitely helps us to infer that in India holism or holistic decision making is still prevalent and has not been replaced by individualistic attitude which is so discernible in the west. Another noticeable fact is the incapacity on the part of the respondents to accept the reluctance of women to give birth. Respondents, irrespective of gender, could not acknowledge or understand that giving birth can also be a 'choice' for women. Childbirth is still regarded as the natural course of event after marriage and it cannot be deviated or tampered with. In India, child birth is still tied up with religious and moral values, though it cannot be denied that the people are opening up to infertility which was once treated with silence and shame, but still the idea that childbirth can be a 'choice' for women has always been sceptically dealt with.

Surrogacy as a practice blatantly deviates from the certain traditional beliefs associated with child birth, family and women's position in the society. If we take into consideration post modernistic ideas, characterized by waning of emotions and mechanization of life, then surrogacy fits in as a post modern technique from the cultural point of view. A mother giving birth with the

purpose of relinquishing the baby for commissioning couple objectifies not only the mother but also the baby which can be made and appropriated by different individuals like a product. If surrogacy practice is thriving today it is because of the possibility of getting genetically related offspring coupled with the separation of 'sex' from pregnancy by the virtue of artificial insemination, the growing belief among the surrogate mother that they are engaged in a feminine work and contributing to greater good. Surrogacy also provides the opportunity to the commissioning mother to remain in close proximity to the surrogate and monitor and participate in every stage of pregnancy, thus psychologically feeling pregnant (Ragoné).

Discourse on surrogacy remains incomplete if the feminist debates are not taken into consideration. The practice of surrogacy has found immediate acceptance among the feminists subscribing to liberal viewpoint. Revolution in the reproductive technologies has been whole heartedly supported by the liberal feminists as they equated it with woman emancipation. As the paper Public Attitudes about the Surrogate Motherhood categorically explained that a couple's choice to have a baby non-coitally should be accepted and this right should also be extended to the surrogate mothers who enter into a contract as informed and competent individuals. Banning surrogacy is therefore interpreted by the liberal feminists as an infringement of individual rights. Radical feminists, on the other hand are not amused with the liberal feminists' claim of the connection between the reproductive techniques and women liberation. They reasoned that the whole patriarchal backdrop will definitely mould this revolution to their advantage and may even go to the extent of using it as a new tool of exploitation. Tighter grip of the surrogacy contract on the birth mother and the universal assumption of the male wish

to prevail in case of decision making, are the two premises from which the radical feminists tried to criticize the practice. They are also of the opinion that popularity of the surrogacy as a prospective solution to the problem of infertility reaffirms the stereotype of women as mothers. It reinforces the image of women as nothing but functional wombs.

The ideas or technologies that revolutionize such aspects of our existence that we could never anticipate are expected to bring with them both pros and cons. Focusing on the negative part of it will reveal a grim picture of exploitation of the surrogate mothers or the commissioning couple by the surrogate mothers by their refusal to acknowledge the terms of contract. Resurfacing of the surrogate mother even after relinquishing the baby can be a fetter in couple's decision to opt for surrogacy, but this risk cannot be refuted in case of adoption as well. Keeping the negative side apart, surrogacy has its own edges. If knowledge begets power, discussed by Michel Foucault, then growing revolution in the field of procreation will definitely empower not only women but men as well. Infertility, once believed to be predestined misfortune, has come under medical purview and is being treated with such precision and certainty with the coming of IVF and surrogacy practice. There is no denying the fact that with the advent of surrogacy women are empowered. It is no longer necessary for the reluctant women to give birth and take a sabbatical which can increase their bargaining power in the primary labour market. Childbirth is a blessing only women are entitled to experience. Therefore, it will be a sensible conclusion to let the woman decide how to utilize their womb- either for themselves or for someone else. Though debatable, there is perhaps no harm if the woman decides to turn this child bearing capability into a profitable practice. If we, as rational

individuals can accept sperm donation as a profit making practice, then the authors see no reason why we will not be flexible when it comes to surrogacy. The tendency to burden women to confirm to the stereotype of being 'ideal', with oodles of sympathy, empathy and emotions is one way of preventing them to think from an objective point of view. It is, therefore, advisable to let woman take their own decisions without being dictated and should be given the right to interpret their existence in the way they want.

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