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# TRENDS IN GOVERNMENT EXPENDITURE FOR HEALTH AND EDUCATION IN ASSAM

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This paper makes an attempt to study the social sector expenditures by the State Government of Assam and the overall trend over the years. The analysis is based on expenditure data of the state government compiled from the budget documents of various years. Although expenditures on social sector includes rural development expenditures, however the present paper focuses on expenditures on two sectors only viz. education and health as these two sectors are the two crucial determinants of human development. The expenditures on education have been desegregated for elementary and secondary education to capture the trend and pattern of government expenditure for each of the categories. The expenditures in health reflect the overall priority of the State government in provisioning of health care facilities in the state and ensuring healthy life. The efficacy of the expenditure has been captured by analysing the expenditures in each sector and relating them with priority key output indicators.

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## Trends in Government Expenditure for Health and Education in Assam<sup>#</sup>

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## Trends in Government Expenditure for Health and Education in Assam

### Introduction

Public expenditures on social sectors like education and health contributes to improvement in quality of human resources. Within the social sector, health and education are the two vital sectors. The government may be viewed as a producer engaged in producing different services, e.g. set up schools, recruit teachers and pay them salaries, provide books to the students with the primary objective to reduce illiteracy and improve the level of school education, likewise in health and medical, hospitals and primary health centres are set up and health personnel are engaged to reduce mortality and increase the life expectancy of its population. Therefore the quantum of expenditure and the outcomes so derived indicate the level of government's efficiency in spending for these social sector services.

The Constitution of India ensures social justice and economic welfare and among the social objectives, compulsory school education and access to basic health care are the two fundamental objectives of the State. Significantly, education which had been a State subject was brought under the concurrent list by a constitutional amendment in 1976. Within the health sector, family planning and family welfare is under concurrent list while public health and sanitation, hospitals and dispensaries, and water are in the hands of the states. The central government therefore has a strong influence on state government expenditures via its fiscal transfers which fall into the following categories:

- (a) Statutory transfers carried out by the Finance Commission, a constitutional body which every five year recommends the allocation of taxes and exercises from the central government to the states along with grants-in-aid to states that need additional assistance,
- (b) Regulatory transfers for financing five year plans by the Planning Commission based on the Gadgil-Mookherjee formula, and
- (c) Discretionary transfers carried out by central government ministries.

The regulatory transfer of resources for states in India is based on categorization of the states into two groups: non special category and special category states based on criterion like harsh terrains, international boundaries and social problems that impair the economic growth of the states. This classification was done to channelize funds for development keeping in mind the regional and interstate differences. The states of northeast India apart from Himachal Pradesh, Jammu and Kashmir, Chattisgarh and Jharkhand are Special Category States with 90 percent assistance from the Central government by way of grant and 10 percent as loan.

### **Focus of the Paper**

This paper makes an attempt to study the social sector expenditures by the State Government of Assam and the overall trend over the years. The analysis is based on expenditure data of the state government compiled from the budget documents of various years. Although expenditures on social sector includes rural development expenditures, however the present paper focuses on expenditures on two sectors only viz. education and health as these two sectors are the two crucial determinants of human development. The expenditures on education have been desegregated for elementary and secondary education to capture the trend and pattern of government expenditure for each of the categories. The expenditures in health reflect the overall priority of the State government in provisioning of health care facilities in the state and ensuring healthy life. The efficacy of the expenditure has been captured by analysing the expenditures in each sector and relating them with priority key output indicators.

### **An analytical assessment**

#### ***Approach towards social sector expenditure in India***

The changes in economic policies in India since the beginning of the 1990's has been successful in creating a favourable environment for rapid economic growth, but at the same time there has been critique of the policy arguing that adequate attention has not been paid to development of social sector- like basic education and health care etc. Endogenous growth theories state that apart from physical capital and labour, human capital (health and education) is another important input for production growth. The underlying implication of the endogenous growth theory is that if the firm which invests in capital also employs educated and skilled workers who are also healthy, then not only will the labour be productive but it will also be able to use the capital and technology more efficiently. The focus on human development rather than on income

growth have brought into a sharp focus the indispensable role played by the components of social sector in economic development. The East Asian countries\* and Sri Lanka in South Asia experienced high growth rate and were successful in eradicating poverty and ensure better social development e.g. higher literacy and education attainment, lower child and maternal mortality. Contrary to this the South Asian countries† experienced growth in Gross Domestic Product but the social sector development lagged behind. The World Development report (1992) stated that the governments in developing countries spend about 26 percent of expenditure on goods and services. India with its diverse regional differences in both social and economic spheres followed a planned mixed economic model wherein the state was assigned a larger role in economic development of the country. Hence provision of social sector services rests primarily with the government. However, WHR 2005, per capita health expenditure in India (Rs. 96) is much lower than that of others countries like China, US (Rs. 261 and Rs. 5274 respectively) and others‡.

The discretionary transfers such as central sector schemes (central government projects carried out in the states) and centrally sponsored schemes (project finances by the central government but carried out by the states) are purpose-specific. In the post reforms period, anti-poverty programmes, family planning, education, caste problems and rural public employment have been given priority in these latter transfers and are important components of social service expenditures (Kaneko: 1994)§ and has been one of the reasons for the increase in social sector expenditure. During the years 1990-91 external assistance to social sectors was only 4.3 percent of total aid; this increased over the 1990s to 25.9 percent in 1999-2000. Tilak (2000) \*\*found that 30 percent of plan expenditures on primary education by the central government were financed by external aid and 21.1 percent of the central government's health budget was financed by the World Bank in 1999-2000. From 1971 to 1990, India received only 3.5 percent of the

\* Korea, Taiwan, Malaysia, Indonesia, Thailand, Philippines.

† Pakistan, India, Nepal, and Bangladesh.

‡ World Health Report, 2005, World Bank.

§ Kaneko, Masaru. 1993. "India's Deficit Reduction Policy and its Impact." OECF Research Quarterly, no.79.

\*\* Tilak J.B.G, (2000) "Education" in Alternative Economic Survey Group ed. Alternative Economic Survey 1998-2000, Rainbow Publishers.

World Bank's project loans for social sector (Guhan: 1995)<sup>††</sup>. In the post reforms period an important component of fiscal policy in India had been bringing down the size of the fiscal deficits for both Central and State governments. Consequently, the expenditures of the government, which were hitherto financed by way of budget deficits, have been scaled down or they increase at a declining rate (Panchamukhi: 2000)<sup>‡‡</sup>. The social sector spending of the union government has been hovering around less than two percent of the GDP. The social sector expenditure (SSE) as proportion of gross state domestic product (GSDP) had been declining since the mid eighties across the country. The cuts in the social sector outlays by the government have had their effect on the outcome variables of the sub-sectors.

External aid to state governments for social services became important in social service expenditures as the overall trend in fiscal transfers from the central government diminished. But, external aid was not disbursed directly to the state governments, it was passed to the concerned states as additional central government assistance (OKDISCD: 2010). Compared to the non-special category States, most of the special category States spent higher proportion of their State's revenue for the social sectors which came from central transfers. The impact of the central transfers on the Special Category states has been much more than that in the non-special category states. Until 1990, Assam though a Special category state received assistance like the non-special category States-30 percent as grants and 70 percent as loan (OKDISCD: 2010)<sup>§§</sup>. It was only since 1990 that the fund dispensation has been as per the norms of the Special Category State. The State's dependence on Central grants has been increasing over the years while at the same time the tax and non-tax revenue sources of the State government have been declining. Significantly, the share of Centrally Sponsored Schemes (CSS) has been increasing in the Central grants compared to the plan grants. With 50 percent of the revenue for Assam comprising of Central grants, of which nearly 30 percent is CSS, it is therefore obvious that expenditure on social sectors will be more dependent on central transfers rather than State's own resources (OKDISCD: 2010).

<sup>††</sup> Guhan, S. (1995) The World Bank's lending in South Asia, Brookings Occasional Papers, Washington D.C: The Brookings Institution

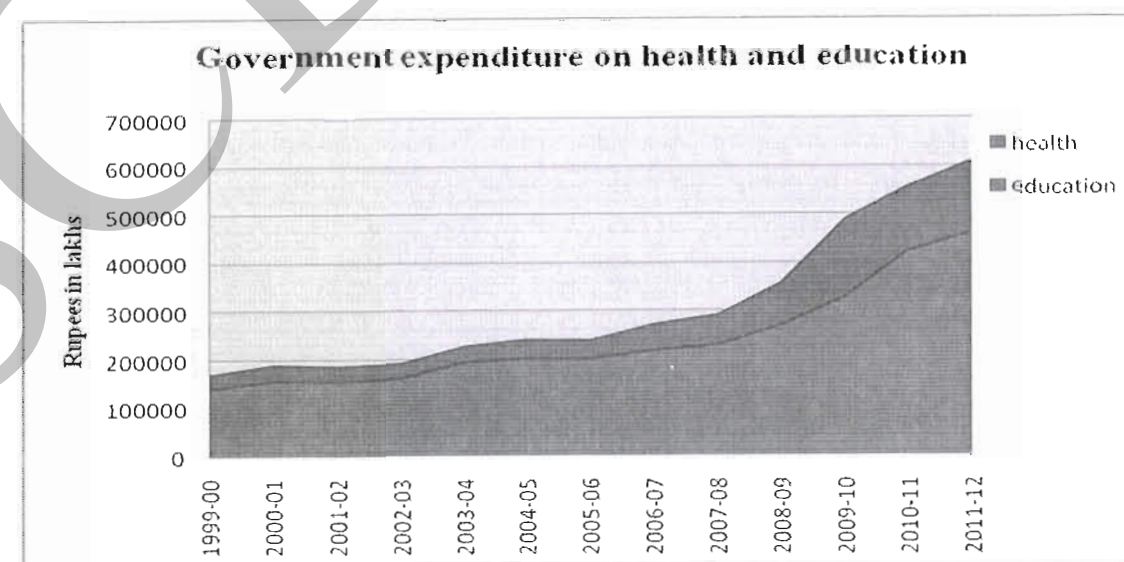
<sup>‡‡</sup> Panchamukhi, P. R. (2000): "Social Impact of Economic Reforms in India: A Critical Appraisal." Economic and Political Weekly, 4 March, pp.836-847.

<sup>§§</sup> Study on State Investment on Education, OKDISCD, 2010

### Expenditure on education and health

Education matters, not only for the personal development, health status, social inclusion and labour market prospects of individual learners, but also for the broader economic performance of countries (OECD/UIS, 2003; 2006). The combined expenditure on education (elementary and secondary) and health by Assam during the period 1990-2000 to 2009-10 had been approximately 5 percent of the GSDP.

Figure 1 Expenditure on health and education, Govt. of Assam



The combined plan expenditure of the state government in the health and education has declined while the non-plan component which is the recurring revenue expenditure has increased. At the same time there is a gradual increase in the share of CSS expenditures for health and education.

Table: 1 Percentages of expenditure on education (elementary and secondary) and health to GSDP Assam

Year	Expenditure* (Rs. in lakhs)	T.E/GSDP	Plan/GSDP	Non-Plan/GSDP	CSS (Plan)/GSDP
1999-00	169107.33	4.85	1.49	3.37	0.12
2000-01	189260.20	5.14	1.42	3.72	0.20
2001-02	186157.55	4.86	1.31	3.55	0.07
2002-03	191471.30	4.41	1.11	3.30	0.05
2003-04	226491.32	4.79	0.88	3.91	0.09

2004-05	240647.94	4.51	0.60	3.91	0.05
2005-06	238709.59	4.32	0.59	3.73	0.09
2006-07	271700.47	4.70	0.30	4.40	0.03
2007-08	290782.75	4.80	0.27	4.53	0.42
2008-09	356410.04	5.51	0.56	4.95	0.36
2009-10	488596.62	6.99	0.96	6.03	0.12
2010-11	556022.94	7.41	1.37	6.03	0.86

Source: Various budget documents, Govt. of Assam.

Note: \* Total Plan and Non-plan expenditure excluding CSS.

Figure 2 Expenditure on education, Govt. of Assam

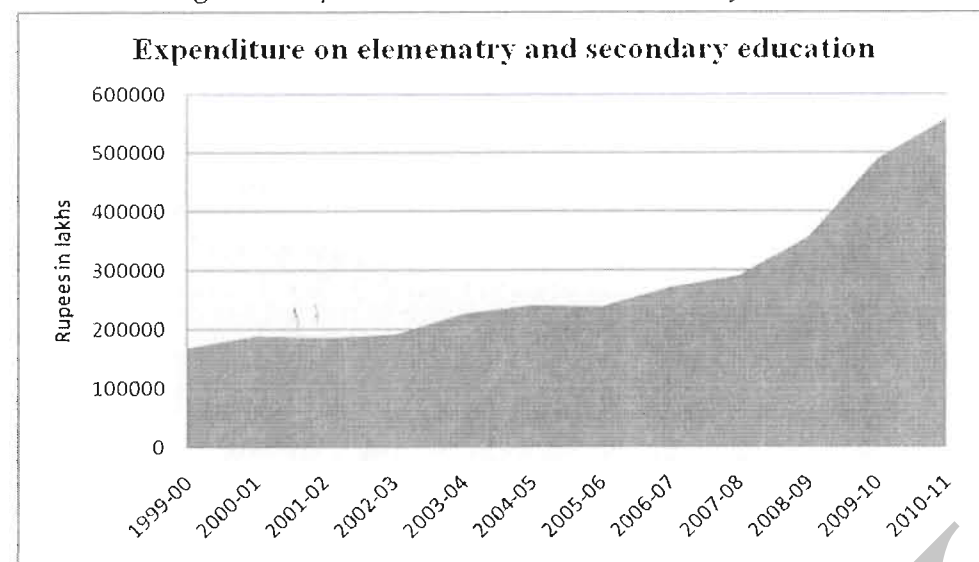
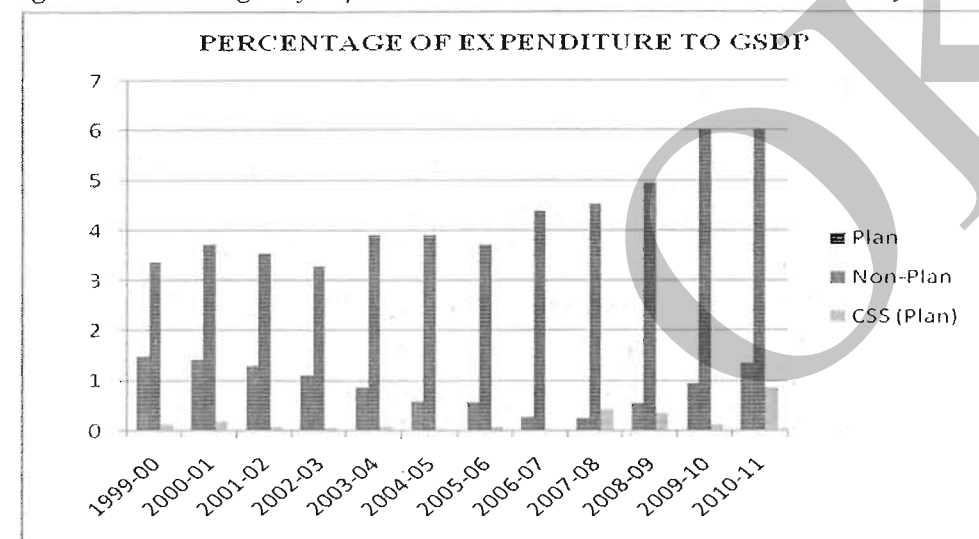


Figure 3 Percentages of expenditure in health and education, Govt. of Assam



The increase in CSS in social sectors has been fallout of the post reforms period. This is largely due to the accompanying PRSP (Poverty Reduction Strategy Programme) with the Structural Adjustment Programme (SAP) which targets at reducing the poverty level by targeting universalization of elementary education and rural health care under a mission approach. The combined plan (CSS and State Plan) expenditure of the government of Assam shows an increase over the State Plan expenditure and the proportion of total expenditure to GSDP is also higher. It is pertinent to note that since the year 2008-09, with the increase in the State Plan and CSS expenditures, the total expenditure for health and education has increased over the previous years. The compound growth rate of the plan expenditure during the period 1999-2000 to 2010-11 had been 5.91 percent while the same for CSS had been 4.40. The compound growth rate of the non plan expenditure was 11.91 percent and the CGR of total expenditure for both health and education was approximately 10.29 percent. The high growth in non plan expenditure indicates that the government's committed liability in these sectors has been increasing. The dependence of the State on Central grants has been increasing over the years while at the same time the tax and non tax revenue sources of the State government have been declining. Significantly, the share of Centrally Sponsored Schemes (CSS) has been increasing in the Central grants compared to the plan grants.

Table: 2: Sources of revenue for the State of Assam

Year	TR	CT	CG	OTR	ONTR
2007-08	1532492.00	32.09	32.06	21.92	13.93
2008-09	2330720.00	24.85	48.19	17.33	9.64
2009-10	2306363.00	24.05	49.62	17.47	8.86

Source: A study on State Investment in School Education (OKDISCD: 2010).

The increasing share of CSS in the Central Grants clearly shows that schematic target oriented transfers to the State under different programmers in the post reforms period is a notable feature of the fiscal transfers of the Indian government.

Table: 3: P.C. of expenditures of Assam for health and education

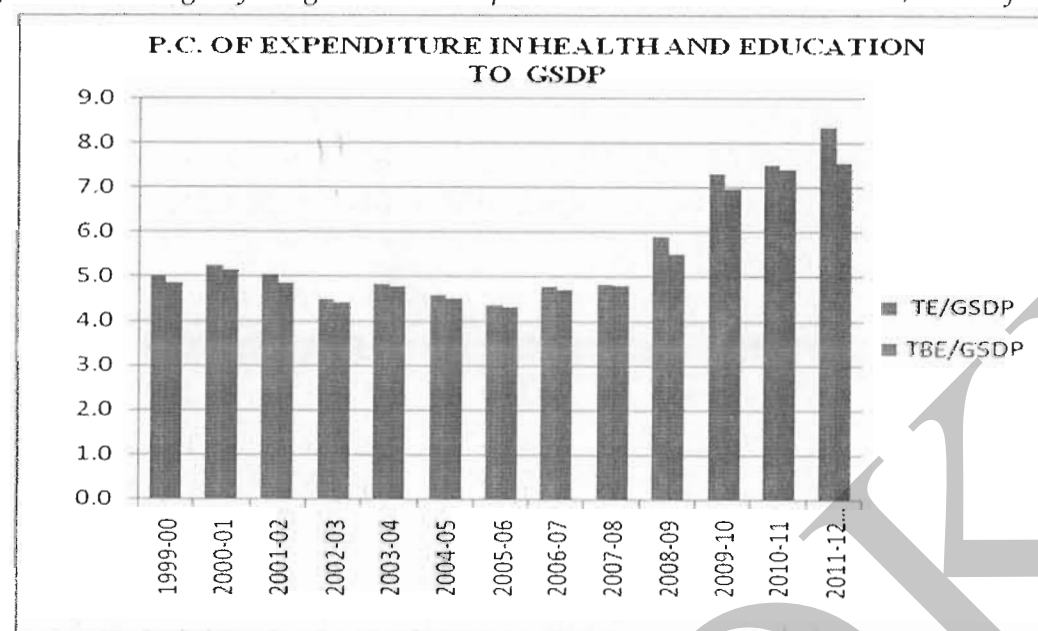
YEAR	PE/T.E	NPE/T.E	PE/GSDP	NPE/GSDP	TE/GSDP
1999-00	32.67	67.33	1.63	3.37	5.0
2000-01	29.14	70.86	1.53	3.72	5.3
2001-02	29.67	70.33	1.50	3.55	5.0

2002-03	26.24	73.76	1.17	3.30	4.5
2003-04	19.13	80.87	0.93	3.91	4.8
2004-05	14.87	85.13	0.68	3.91	4.6
2005-06	14.73	85.27	0.64	3.73	4.4
2006-07	8.20	91.80	0.39	4.40	4.8
2007-08	6.18	93.82	0.30	4.53	4.8
2008-09	16.22	83.78	0.96	4.95	5.9
2009-10	17.60	82.40	1.29	6.03	7.3
2010-11	19.79	80.21	1.49	6.03	7.5
2011-12	27.15	72.85	2.27	6.10	8.4

Source: Various budget documents, Govt. of Assam

Note: PE=Plan Expenditure including CSS, NPE=Non Plan Expenditure, TE=Total expenditure including CSS, GSDP= Gross State Domestic Product.

Figure 4 Percentages of budget and total expenditure in health and education, Govt. of Assam



#### Expenditure on elementary education

The Government of India had formulated the National Education Policy in the year 1986 and Right to Education Act in 2009 which inter alia mandated Universal Elementary Education (UEE) of good quality for children of the age group of 6-14 years through provision of schools with appropriate infrastructure and within one kilometer distance. An analysis of the expenditure for elementary education in the State shows

that there has been a gradual decline in the proportionate share of plan expenditure in the total elementary education expenditure by Assam.

The impact of this gradual decline can be understood from the fact that target year for achieving the goal of UEE was 2005, but even at the end of March 2011, 1.25 lakh out of 58.86 lakh children remained out of school in Assam. The target of universal retention by 2010 was also not achieved due to fairly high dropouts of 8.3 per cent in LPS and 15.2 per cent in UPS as on March 2011. There were inadequate infrastructural facilities in schools, shortfall in opening new schools as per norms, inadequacy in training of teachers, poor management of Mid-day Meal scheme including other health interventions, absence of effective mechanism of tracking and enrolment of 'out of school children', uneven deployment of teachers, high pupil teacher ratio and irregular supply of free text books.

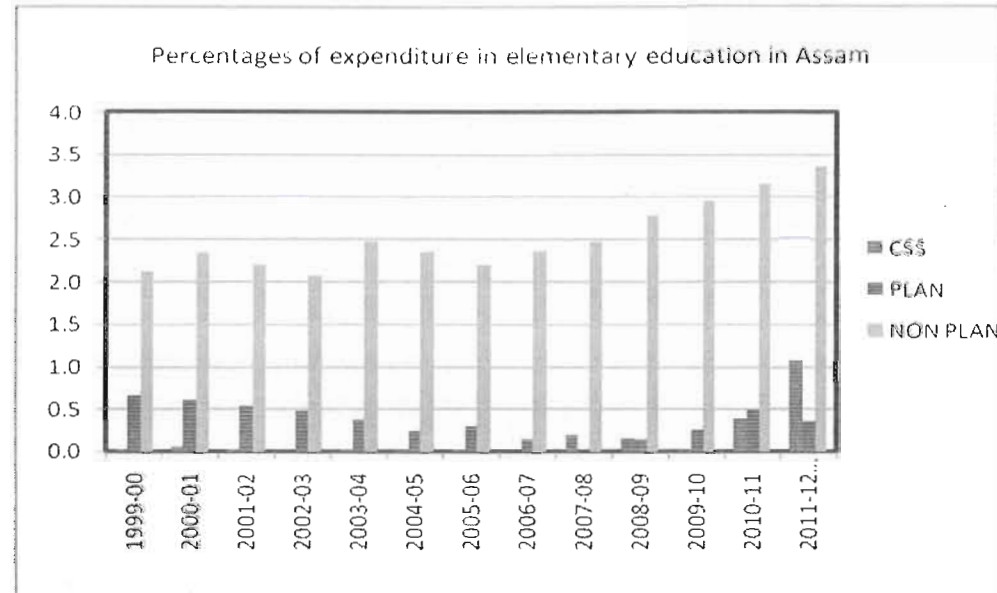
The compound growth of plan expenditure on elementary education during the period 1999-00 had been 4.15 percent while the same for non-plan head had been 10.18 percent which shows that the State government's committed expenditure had been growing at a much faster rate. An important component of non plan expenditure is teachers' training, which is essential for improving the quality of teaching. However in Assam less than one percent of the non plan expenditure is incurred for teachers' training.

Table: 4 Expenditures for elementary education in Assam as percentage of GSDP

YEAR	CSS	PLAN	NON PLAN	TOTAL EXPENDITURE
1999-00	0.03	0.66	2.12	2.80
2000-01	0.06	0.61	2.34	3.01
2001-02	0.03	0.55	2.19	2.77
2002-03	0.01	0.49	2.07	2.57
2003-04	0.03	0.38	2.46	2.88
2004-05	0.02	0.25	2.35	2.62
2005-06	0.03	0.31	2.20	2.54
2006-07	0.01	0.15	2.36	2.52
2007-08	0.20	0.01	2.46	2.67
2008-09	0.17	0.15	2.78	3.10
2009-10	0.02	0.27	2.95	3.24
2010-11	0.40	0.50	3.15	4.05
2011-12 (BE)	1.08	0.37	3.35	4.80

Source: Various budget documents, Govt. of Assam

Figure 5 Percentages of budget expenditure in elementary education, Govt. of Assam



It is pertinent to mention here that in Assam 83.2 percent schools are under government management and 17 percent schools are under private management. Of the total school teachers in the state only 36 percent of the teachers are trained, while the national average for the same is 78 percent. In respect of government schools, only 30 percent teachers in the state are trained while the average at the national level is 83 percent.

The low expenditures on teachers' training are reflected in the overwhelming majority of untrained teachers in government schools in the state. In private schools the proportion is even lower and only 11 percent teachers are trained. The absence of trained teachers in schools in the state and the low public expenditure on training reflect the negligence in ensuring quality education at the school level in the state. At the same time two percent of the total non-plan expenditure in the elementary education is incurred for inspection. The low prioritization in monitoring and training reflects the absence of a focused approach in ensuring qualitative improvement in school education in Assam. The availability of text books for children in the elementary level is another crucial issue in the State. Since government schools in the state are all vernacular medium schools therefore availability of books in the local vernacular for students is of paramount necessity. Since government is the largest provider of elementary education in the state therefore ensuring supply of textbooks is also a primary responsibility of the state government. However, the state government's non

plan expenditure on text books shows a dismal picture and the non availability of text books in Assam has been a major concern in elementary education in the State.

Table: 5: P.C. of expenditures under different heads for non plan elementary education in Assam

Year	Inspection	Training	Textbook	Scholarship
1997-98	1.47	0.00	0.00	0.02
1998-99	1.65	0.00	0.00	0.02
1999-2000	2.29	0.00	0.68	0.03
2000-01	2.67	0.01	0.00	0.00
2001-02	1.38	0.02	0.00	0.04
2002-03	1.30	0.01	0.00	0.01
2003-04	1.91	0.01	0.00	0.04
2004-05	1.73	0.01	0.00	0.08
2005-06	1.91	0.01	0.00	0.07
2006-07	1.86	0.00	0.00	0.10
2007-08	1.78	0.00	0.00	0.06
2008-09	1.54	0.01	0.94	0.03
2009-10	1.52	0.00	0.00	0.02
2010-11	1.68	0.00	0.00	0.02
2011-12	1.78	0.00	0.00	0.03

Source: Various budget documents, Govt. of Assam

It is only in recent years, after the launch of SSA only, that text book productions in the state have been taken up on a priority basis. An indirect reflection of the impact of low expenditure on training of teachers and textbook production can be captured from the poor learning attainment of the students where the transition rate from primary to upper primary level is only 76 percent and the retention rate at the primary level is 56 percent against the national average of 85 percent and 73 percent respectively as per the DISE 2010-11 statistics. The overall situation of elementary education in the state can be understood from the fact that 61 percent of the students drop out of the school between classes I-VII, in the age group of 6-14 years in the state against the national average of 42 percent. In other words approximately 39 percent students in the age group of 6-14 years in Assam complete elementary education while the corresponding national average is 58 percent. The high drop out rates along with low proportionate expenditure on elementary education in the state therefore indicates the performance status of Assam in achieving universalization of elementary education.

### Expenditure on secondary education

The present structure of the Directorate of Secondary Education has been created in the year 1985 by bi-furcating the erstwhile Directorate of Public Instruction into two Directorates viz. Directorate of Higher Education and Directorate of Secondary Education. At present there are 2138 Government run Secondary, 574 Higher Secondary, 48 junior Colleges in addition to 1537 recognised HS, 186 permitted HSS and 128 Non-Deficit Junior Colleges. The Vocational Stream is continuing in 150 Higher Secondary Schools. However these schools suffer from lack of library facilities, laboratory facilities and other infrastructure gaps. The Annual Plan 2009-10 notes;

'Previously, all those government schools were able to beg efficient results but due to lack of adequate financial resources, most of the old structures are going on decaying day by day and conditions of most of the old structures are become un-useable. Besides, the conditions of the science laboratories and libraries are also pitiable. In view of the situation mentioned above, the parents are not inclined to admit their wards in those schools for which the enrolment in those government schools are going on decreasing to a great extent. Now, the performances of those prestigious government institutions are also deteriorating. In view of the above, it is a high time for initiation of some bold and effective steps to grow each and every government school as the centre for excellence in order to make them competent for achieving outstanding performances in future. We should develop all the existing government schools as the centre for excellence to act as academic leader to cater the academic needs of the talented students and the status of those educational institutions should be above the all other provincialized and non-government educational institutions in the state'.

This observation recorded in the Annual Plan 2009-10 of Government of Assam sums up the pitiable condition of the Government run Secondary schools in the State. Of the total expenditure in education only a quarter of it is spent for secondary education. The plan expenditure in secondary education has decreased over the years. The same Annual Plan also notes,

'Primary education draws its teaching personnel from secondary education; weak secondary education can hardly produce strong and dependable teachers for our primary schools. It is necessary to understand the seminal importance of secondary education as the connecting link in the educational structure. Though expansion of secondary Education has not been on the agenda of policies on education, improvement of its quality

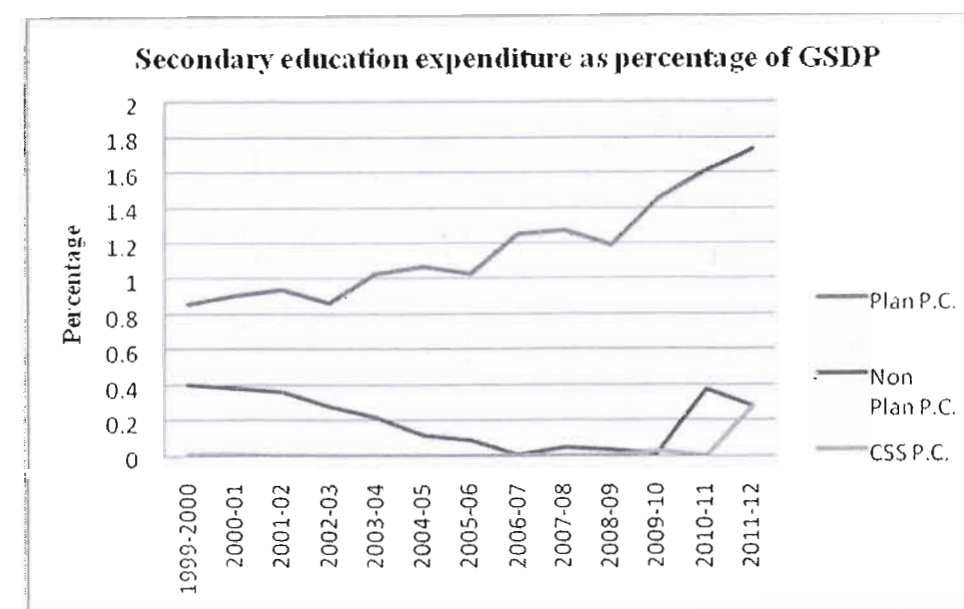
has been recognized as a major concern..... The success of SSA will definitely generate higher demand for secondary education and therefore, it is necessary to undertake planned interventions for expansion and quality improvement of secondary education.'

Table: 6 Expenditures for secondary education in Assam as percentage of GSDP

Year	Plan P.C.	Non Plan P.C.	CSS P.C.	Total. P.C.
1999-2000	0.40	0.86	0.004	1.26
2000-01	0.38	0.91	0.006	1.30
2001-02	0.36	0.94	0.002	1.30
2002-03	0.28	0.87	0.002	1.16
2003-04	0.22	1.03	0.003	1.25
2004-05	0.12	1.07	0.000	1.19
2005-06	0.09	1.03	0.000	1.13
2006-07	0.01	1.25	0.000	1.26
2007-08	0.05	1.27	0.000	1.32
2008-09	0.04	1.19	0.000	1.23
2009-10	0.02	1.45	0.024	1.49
2010-11	0.37	1.61	0.000	1.98
2011-12	0.28	1.73	0.280	2.29

Source: Various budget documents, Govt. of Assam

Figure 6 Percentages of expenditure in secondary education to GSDP of Assam



The compound annual growth of total expenditure for secondary education including CSS is 1.12 during the period had been 1999-2000 to 2011-12. The compound annual growth of non plan expenditure during the same period was 1.12 while the plan expenditure including the CSS had been 1.09. The State plan expenditure excluding the CSS was only 1.04. Decomposition of plan and non plan expenditure for secondary schools according to different activities of the state government shows that teachers training and inspection comprised less than one percent of expenditures. Further, the assistance to non government schools was higher than the assistance to government schools. The expenditures for maintenance of buildings were a meager proportion of 0.001 percent. The apathetic expenditure patterns of the state government has its impact on the overall educational achievement of the state's population; e.g. as per the census 2001 estimates the 17 percent of the population in the state were matriculates and only five percent completed their higher secondary education.

The Seventh All India Education Survey (NCERT, 2006), reveals that in 2002, there were only one-fifth as many secondary schools (those with grade 10 classes) as the number of primary schools. Thus, it seems likely that secondary school enrolment rates are low partly because of the lack of supply of nearby secondary schools. However, despite supply constraints, demand for secondary education has risen and is likely to rise (partly via increase in private schooling) because it is lucrative level of education to acquire (OKDISCD: 2010).

Table: 7 Expenditures for secondary education in Assam as percentage of GSDP

Year	Insp (P)	Insp (NP)	Teachers training (P)	Teachers training (NP)	Govt. Schools (P)	Govt. Schools (NP)	Non Govt. Schools (P)	Non Govt. Schools (NP)
1999-00	1.33	0.90	0.03	0.42	0.46	2.49	87.68	95.33
2000-01	1.45	0.88	0.09	0.76	1.37	5.13	71.92	92.10
2001-02	0.52	0.74	0.04	0.39	1.04	3.55	82.39	94.77
2002-03	0.93	0.84	0.19	0.28	0.71	3.05	80.36	93.60
2003-04	0.86	0.63	0.13	0.50	1.23	4.91	80.51	92.05
2004-05	0.86	0.54	0.17	0.26	1.18	3.40	83.36	94.79
2005-06	0.35	0.72	0.13	0.20	0.82	1.98	84.05	96.15
2006-07	0.20	0.84	0.11	0.16	0.50	2.24	82.85	95.45
2007-08	0.23	0.83	0.15	0.18	0.45	2.17	83.12	96.20
2008-09	1.06	1.17	0.34	0.11	0	2.69	88.16	91.44

2009-10	0	1.67	0.02	0.04	0	3.21	2.53	86.81
2010-11	0.17	1.12	0	0	0.20	3.43	56.11	94.30
2011-12	0.19	0.85	0.20	0	0.00	3.23	14.64	81.35

Source: Various budget documents, Govt. of Assam

The recently launched centrally sponsored scheme for secondary education, Rashtriya Madhyamik Shiksha Abhiyan (RMSA), is expected to improve access and equity; enhance quality, accountability and ability to measure learning outcomes; and promote standardization of curriculum and examinations across states.

The correlation of the outcome indicators on school education with the expenditure of the government reflects the inadequacy of the state education departments to address the issues of school education in the state in their right perspective. While Assam basks in the glory of a high literacy rate, the outcomes for various educational indicators in the state clearly shows that all is not well in the school education system which would affect the quality of employable workforce in the state in the near future.

#### Expenditure on health

Health care services in India fall in the ambit of state, local and central governments. But in terms of service delivery it is more concerned with the state government. The government (state, local or central) provides publicly financed and managed curative and preventive health services from primary to tertiary level, throughout the country and free of cost to the consumer. These account for about 18% of the overall health spending and 0.9% of the GDP. However, a fee-levying private sector that plays a dominant role in the provision of individual curative care and private sector health expenditure account for 4.2 percent of the GDP. The greater reliance on private delivery of health infrastructure and health services indicates that there is possibility of under provision of these services from social point of view by private agents which will ultimately lead to denial of access to the poor. It would be pertinent to mention here that all private expenditures on health care are out of pocket expenses in India. This would be pretty unjustified as because of the large positive externalities associated with health spending, which make health spending a clear merit good. As health and education are two crucial aspects of human capital, under provisioning and inadequate public spending will result in adverse outcomes in terms of social welfare and labour productivity and future growth and development prospects. The primary source of

public financing is the general tax and non-tax revenues. These include grants and loans received from both internal and external agencies.

According to the Report of the National Commission on Macroeconomics and Health, 2005, households paid for nearly three fourths of all the health spending in the country and public spending was only 22 per cent, and all other sources accounted for less than 5 per cent. In Assam the per capita expenditure on health was Rs.1347 and the household share was 80.8 percent while the share of public spending and other sources were 17.8 percent and 1.4 percent respectively.

Figure 7 Percentages of expenditure in health to GSDP of Assam

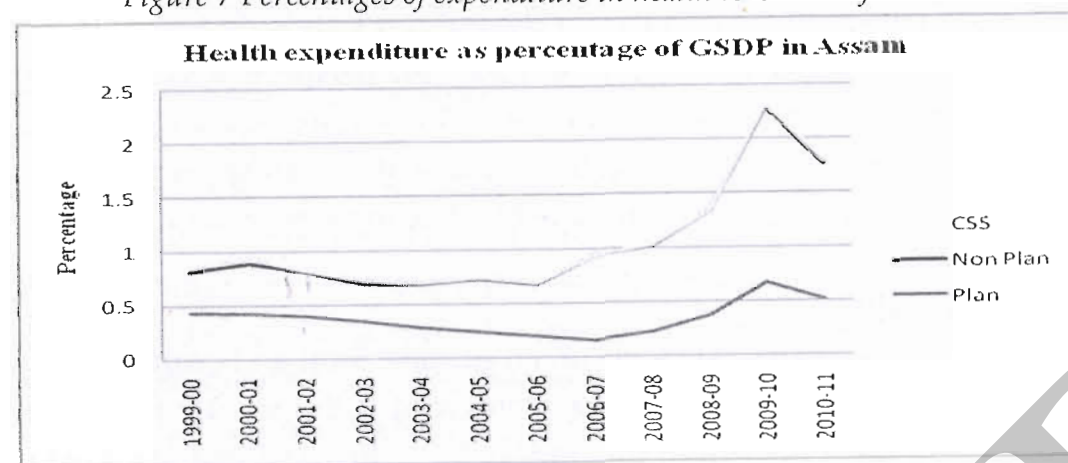


Table: 8 Percentage of expenditures for health in Assam as percentage of GSDP

Year	Plan	Non Plan	CSS	THE (incl. CSS)	BE
1999-00	0.43	0.39	0.042	0.87	0.83
2000-01	0.42	0.47	0.046	0.93	0.89
2001-02	0.40	0.41	0.004	0.82	0.82
2002-03	0.34	0.36	0.023	0.72	0.70
2003-04	0.28	0.41	0.003	0.69	0.69
2004-05	0.24	0.49	0.004	0.73	0.73
2005-06	0.19	0.49	0.001	0.69	0.69
2006-07	0.15	0.79	0.000	0.94	0.94
2007-08	0.22	0.80	0.0001	1.02	1.02
2008-09	0.37	0.97	0.001	1.35	1.35
2009-10	0.67	1.63	0.023	2.32	2.30
2010-11	0.51	1.27	0.025	1.81	1.78

Source: Various budget documents, Govt. of Assam

It is obvious that the public expenditure on health in Assam has been less than one percent in respect of plan heads while the same for non plan has been barely more than one percent since the year 2009-10. The compound annual growth rate of budget expenditure and the total expenditure including the CSS for health sector in Assam had been 1.12 percent. While the CAGR of plan expenditure was 1.02 the same for non plan was 1.16. Beginning with the Bhore Committee Report of 1946, the Government of India has affirmed a number of times its objective of enhancing the average health of its citizens, reducing inequalities in health, and enhancing financial access to health care, particularly for the neediest.

The Articles 38 (2) and 41 of the Indian Constitution stress the need to provide equitable access and assistance to the sick and the underserved, while Article 47 stresses on improving nutrition, the standard of living and public health. Apart from the objective of promoting health, financial risk of indebtedness from health expenditure among the poor households is a major concern in the health policy of the government. This is sought to be achieved by providing subsidized and free health care facilities. Despite the provision of free or heavily subsidized health care, which the poor tend to use more, subsidies to the health sector are not well targeted as often the subsidized health care in public health facilities tend to benefit the rich at higher levels of health care.

Table: 9 Percentage of expenditures for health in Assam as percentage of GSDP

YEAR	M&PH (P)	M&PH (NP)	FW (P)	FW (NP)	WSS (NP)	TE (P)	TE (NP)
1999-00	0.30	0.38	0.13	0.01	0.002	0.43	0.39
2000-01	0.25	0.45	0.17	0.01	0.004	0.42	0.47
2001-02	0.26	0.40	0.15	0.01	0.003	0.40	0.41
2002-03	0.22	0.35	0.12	0.01	0.002	0.34	0.36
2003-04	0.16	0.40	0.11	0.01	0.002	0.28	0.41
2004-05	0.13	0.47	0.11	0.01	0.012	0.24	0.49
2005-06	0.08	0.47	0.11	0.01	0.013	0.19	0.49
2006-07	0.03	0.76	0.11	0.01	0.015	0.15	0.79
2007-08	0.10	0.76	0.12	0.03	0.011	0.22	0.80
2008-09	0.24	0.93	0.13	0.03	0.012	0.37	0.97
2009-10	0.43	1.57	0.23	0.06	0.006	0.67	1.63
2010-11	0.34	1.26	0.17	0.01	0.001	0.51	1.27

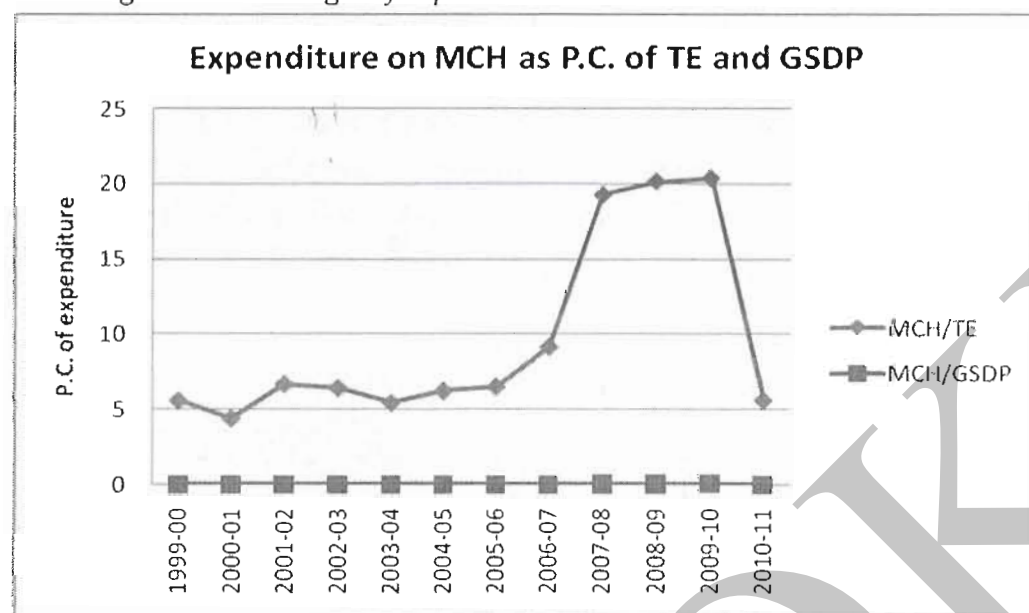
Source: various budget documents of Govt. of Assam.

Table: 10 Percentage of expenditures for health in Assam as percentage of GSDP

YEAR	MCH/TE	MCH/GSDP
1999-00	5.57	0.008
2000-01	4.39	0.008
2001-02	6.67	0.010
2002-03	6.41	0.008
2003-04	5.43	0.007
2004-05	6.22	0.007
2005-06	6.52	0.008
2006-07	9.17	0.012
2007-08	19.29	0.028
2008-09	20.16	0.033
2009-10	20.38	0.060
2010-11	5.61	0.010

Source: various budget documents of Govt. of Assam.

Figure 8 Percentages of expenditure in Maternal and Child Health



The low expenditure on public health therefore reduces the opportunity of availing health care services to the poor. The poor therefore access the private health care which increases the burden of indebtedness. In Assam where 39.9 percent of the rural people and 26.1 percent of the urban people live below poverty line as per the 2009-10 (Tendulkar estimate), the reduction in public expenditure on health will obviously have adverse effect on health and well being of the poor. An indicator of health and well being of the population is the infant mortality rate (IMR), unfortunately Assam has one

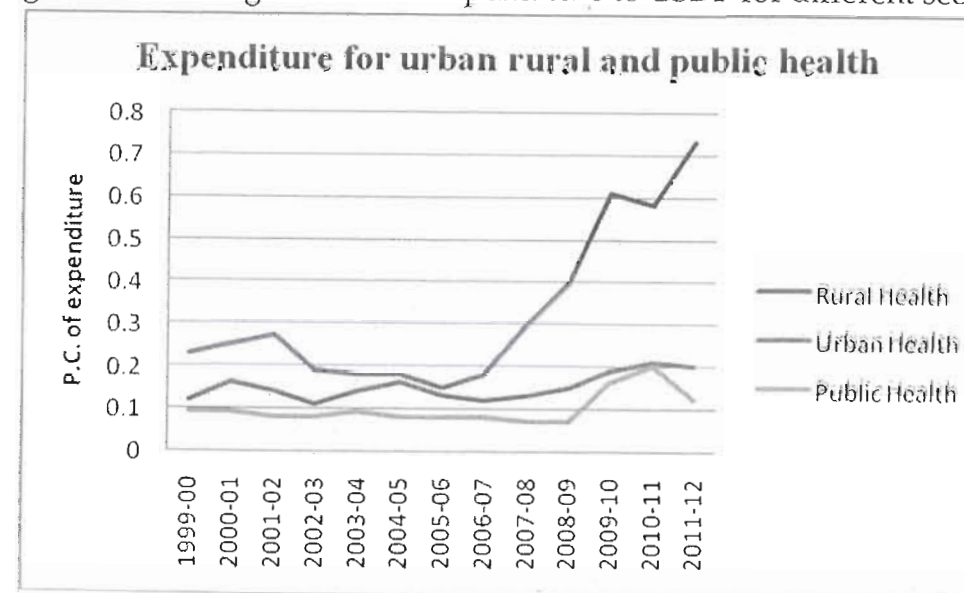
of the highest IMR (58) in the country. The under five mortality rate (87) and maternal mortality ratio (390) are also one of the highest among the states of India.

Table: 11 Percentage of expenditures for health in Assam as percentage of GSDP

YEAR	Urban Health	Rural Health	Medical Education	Public Health
1999-00	0.12	0.23	0.17	0.09
2000-01	0.16	0.25	0.13	0.09
2001-02	0.14	0.27	0.16	0.08
2002-03	0.11	0.19	0.14	0.08
2003-04	0.14	0.18	0.12	0.09
2004-05	0.16	0.18	0.14	0.08
2005-06	0.13	0.15	0.18	0.08
2006-07	0.12	0.18	0.32	0.08
2007-08	0.13	0.30	0.28	0.07
2008-09	0.15	0.40	0.49	0.07
2009-10	0.19	0.61	0.84	0.16
2010-11	0.21	0.58	0.55	0.20
2011-12	0.20	0.73	0.48	0.12

Source: Various budget documents, Govt. of Assam.

Figure 9 Percentages of health expenditure to GSDP for different sectors



The desegregated expenditure of the health sector in Assam (Table:9) shows that expenditures on water supply and sanitation (WSS) and family welfare (FW) as proportion of GSDP had been very minimal. In other words, the investment on provision of services and enabling factors for healthy and quality life through public expenditure out of the total income of the state has a comparatively lower priority than other developmental expenditures in the state. The apathetic expenditure pattern of the state government is further revealed when one looks into the trend of expenditures for maternal and child health. The expenditure on MCH (Table:10) as proportion of GSDP which is less than even 0.5 percent in a state where MMR and IMR are one of the highest in the country leaves no room for explanation.

Of the total expenditure on health family welfare, proportion of expenditure on maternity and child care had been hovering round six percent and increased during the three years from 2007-2010. However, the proportion declined in the next year. At the same time the proportion of expenditure under CSS in family welfare had been almost 94 percent of the total expenditure with corresponding drop during the period 2007-10 and subsequent increase in the next period. The expenditure on rural family welfare had also been erratic. The expenditure pattern of the Government of Assam on urban, rural and public health shows that proportion of expenditure for preventive health (public health) is lowest. While 85 percent of the population of the state lives in rural areas the expenditure on rural health as proportion of GSDP is less than one percent. It is also to be noted that expenditure for rural health began to increase only after 2006-07. In respect of rural health services, the government expenditures (both plan and non plan) have been declining for the PHC, CHC and dispensary services while the same is being supported under the NRHM.

Table: 12 Percentage of expenditures for different activities of rural health as percentage of total rural health expenditure

YEAR	PHC	CHC	Dispensaries
1999-2000	53.3	14.2	20.61
2000-01	58.5	7.6	25.10
2001-02	52.7	4.7	15.93
2002-03	58.3	20.5	15.68
2003-04	54.8	17.3	18.24
2004-05	51.8	13.5	16.29

2005-06	58.3	13.6	22.17
2006-07	58.5	14.5	19.39
2007-08	40.1	9.0	16.90
2008-09	32.9	9.7	10.98
2009-10	31.0	9.2	10.53
2010-11	54.3	8.2	9.28

Source: Various budget documents, Govt. of Assam.

In respect of urban health services, hospitals and dispensaries account for the highest share of health expenditures. However, it needs to be mentioned here that the non plan expenditures for different components of urban health has been increasing over the years while the same for plan expenditures had been declining. Most of the non plan expenditures are on salary and other manpower costs and increase in non plan expenditure in state budget without concomitant increase in revenue generation squeezes the limits of plan expenditures. The expenditure pattern on public health in the state reveals that more than 75 percent of the expenditures are incurred for prevention and control of diseases. The availability of drugs and medicines with the public health facilities is an important requisite for providing equity in health care to the poor and the under privileged.

However, in respect of urban health care services only two percent is spent for district medical stores and less than one percent is spent for departmental drug manufacturing which reflects that availability of generic medicines at the health care Centres in the Assam is under provided. It is therefore obvious that out of pocket expenses on medicines and other health diagnostics comprise a major portion of health expenses for individuals in the state. The absence of insurance coverage for the poor and under privileged makes the access and affordability of health care services in the state inequitable.

Table: 13 Percentage of expenditures for different activities of urban health as percentage of total urban health expenditure

YEAR	DISTT. MED STORE	DEPT. DRUG MANUF	SCHOOL HEALTH	DISPEN-SARY
1999-2000	1.16	0.92	2.43	71.36
2000-01	0.86	0.95	1.79	71.93
2001-02	0.84	0.74	1.80	70.77

2002-03	0.83	0.63	1.82	77.82
2003-04	1.02	0.60	2.51	81.06
2004-05	12.14	0.51	1.20	59.44
2005-06	2.59	0.62	2.06	79.08
2006-07	1.84	0.78	2.22	77.47
2007-08	1.43	0.67	1.92	79.75
2008-09	1.85	0.67	1.80	80.86
2009-10	1.04	0.64	1.92	80.56
2010-11	1.83	0.55	1.72	79.80

Source: Various budget documents of Govt. of Assam.

The overall trends in budget expenditure of the state government show that less than two percent of the GSDP in Assam is spent for health sector. Assam being a high focus state under the NRHM, a total of Rs.5682.07 lakhs was allocated under NRHM for the period 2005-06 to 2012-13, out of which the amount spent was Rs.4420.79 lakhs, i.e. 78 percent of the funds have been utilized by the state government.

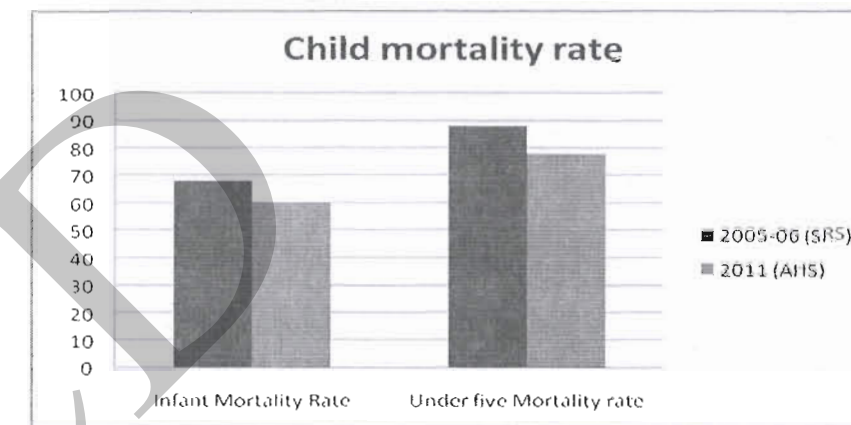
Table: 14 Some key health indicators of Assam

Indicators	2005-06 (SRS)	2011 (AHS)
Crude Birth Rate	25	21.9
Crude Death Rate	8.7	7.2
Infant Mortality Rate	68	60
Under five Mortality rate	88 (2008)	78
Maternal Mortality Ratio	480	381
Total fertility Rate	2.9	2.6
P.C. of mothers received medical attention at live births in hospitals	24.6	80.9
Institutional delivery	149003*	498523*
Janani Suraksha Yojana Beneficiaries (number of women)	17523*	420179*
Immunization (percentage)	46.6 (NFHS-III)	59

Note: \*NRHM data from State wise progress under NRHM, Status as on March 2013 (MHFW, Gol).

The NRHM is a flagship programme of the government that seeks to rejuvenate the health delivery system by improving access, affordability, equity and quality for the rural population.

Figure 10 Percentages of health expenditure to GSDP for different sectors



A major problem of the health care system in India had been the inequalities in access to healthcare facilities between the rural and urban areas especially in the states of northeast India, Uttar Pradesh, Himachal Pradesh, Madhya Pradesh, Kashmir, Uttarakhand, Jharkhand, Bihar, Rajasthan and Orissa. These states which had deficits in major health indicators as well as inequitable health infrastructures were grouped as high focus states for intervention by the NRHM. The NRHM aims at removing infrastructural (both physical and human) bottlenecks that have resulted in unequal access, and therefore the major thrust of the programme had been upgrading the primary health care services with special emphasis on child and maternal health.

It may be mentioned here that NRHM is not a new programme of Govt. of India but is the combination of national programmes, viz. the Reproductive and Child Health II project, (RCH II) the National Disease Control Programmes (NDCP) and the Integrated Disease Surveillance Project (IDSP). Its special emphasis has therefore been on reducing the IMR, MMR and increasing the immunization coverage of the children. There is little doubt that the mission has conferred some benefits on rural areas. The impact of the NRHM has been most noticeable in respect of improving the access and affordability of rural households in terms of institutional delivery and mothers receiving medical attention at hospitals during live births. Of the total deliveries reported in the state in 2006-07, 54 percent were institutional deliveries which had gone up to 78 percent by 2010-11; thanks largely to the JSY scheme. However, the MMR still continues to be high in the state along with IMR in the state. The MDG targets for these indicators is to

reduce MMR to 109 and IMR to 28 by the year 2015, which still continue to be the major challenges before the state.

The public expenditures on health indicate that there is inadequacy in terms of provisioning of services and the required expenditures. The health indicators in the state continue to be worrisome as both maternal and child health remains major challenges. The expenditure on maternal and child health as proportion of the GSDP which is only 0.01 percent indicates the need for stepping up maternal and child care expenditures in the state. While NRHM is an additional support to strengthen the health care delivery in the state, the government's budgetary provisioning for the same need to be increased especially plan expenditure. The gradual decline the plan expenditure of the government on health sector does not augur well for the state as it would adversely affect the quality of healthy life of the population in the long run.

#### **Key findings**

The analysis of expenditures for education and health by the government of Assam reflects that there has been gradual shift in increased dependence on Central funds for meeting the expenditures for two key social sectors. The Central funds are channelized through the national schemes implemented across all states with a fit all size formulae which leaves little room for the state governments to design the state specific priorities and interventions. The government of Assam's expenditure pattern and the outcomes thereof indicate that there are certain areas in the overall expenditure pattern which needs a relook.

- Since the liberalisation of the Indian economy, the programme based expenditure (e.g. DPEP, NRHM, SSA etc) for seducation and health has increased and on a comparative basis the expenditure for CSS had been higher than the plan expenditure during the period 1999-2000 to 2010-11.
- There is a gradual decline in the proportionate share of regular plan expenditure in the total elementary education expenditure for Assam during 1999-00 to 2011-12. The target of universal retention by 2010 was also not achieved due to fairly high dropouts of 8.3 per cent in LPS and 15.2 per cent in UPS as on March 2011.
- The impact of low expenditure level affected the provision of infrastructural facilities in schools, training of teachers, poor management of Mid-day Meal

scheme including other health interventions, absence of effective mechanism of tracking and enrolment of 'out of school children', uneven deployment of teachers, high pupil teacher ratio and irregular supply of free text books.

- Less than one percent of the non plan expenditure is incurred for teachers' training by the state government and only 36 percent of the school teachers in Assam are trained, while the national average for the same is 78 percent.
- In Assam 83.2 percent schools are under government management and 17 percent schools are under private management. However only 30 percent teachers in the government run schools are trained while the average at the national level is 83 percent. In private schools the proportion is even lower with 11 percent trained teachers.
- An indirect reflection of the impact of low expenditure on training of teachers and textbook production can be captured from the poor learning attainment of the students where the transition rate from primary to upper primary level is only 76 percent and the retention rate at the primary level is 56 percent against the national average of 85 percent and 73 percent respectively as per the DISE 2010-11 statistics.
- The apathetic expenditure patterns of the state government has its impact on the overall educational achievement of the state's population; e.g. as per the census 2001 estimates the 17 percent of the population in the state were matriculates and only five percent completed their higher secondary education.

#### **Health**

- According to the Report of the National Commission on Macroeconomics and Health, 2005, the per capita expenditure on health in Assam was Rs.1347 and the household share was 80.8 percent while the share of public spending and other sources were 17.8 percent and 1.4 percent respectively.
- The public expenditure on health in Assam has been less than one percent in respect of plan heads while the same for non plan has been barely more than one percent since the year 2009-10.

- The infant mortality rate (IMR), in Assam is one of the highest IMR (58) in the country. The under five mortality rate (87) and maternal mortality ratio (390) are also highest among the states of India. The expenditure on Maternal and Child Health (MCH) as proportion of GSDP which is less than even 0.5 percent in a state where MMR and IMR are one of the highest in the country suggests for strong interventions. While NRHM is an additional support to strengthen the health care delivery in the state, the government's budgetary provisioning for the same need to be increased especially plan expenditure.
- The MDG targets for reducing MMR to 109 and IMR to 28 by the year 2015 still continue to be the major challenges before the state.
- The desegregated expenditure of the health sector in Assam shows that expenditures on water supply and sanitation (WSS) and family welfare (FW) as proportion of GSDP had been very minimal. In other words, the investment on provision of services and enabling factors for healthy and quality life through public expenditure out of the total income of the state has a comparatively lower priority than other developmental expenditures in the state.
- While 85 percent of the population of the state lives in rural areas the expenditure on rural health as proportion of GSDP is less than one percent. In respect of rural health services, the government expenditures (both plan and non plan) have been declining for the PHC, CHC and dispensary services while the same is being supported under the NRHM.
- In respect of urban health care services only two percent is spent for district medical stores and less than one percent is spent for departmental drug manufacturing which shows that generic medicines at the health care centres in Assam is under provided.

#### Observations

The dependence on programmes based approach like SSA, MDM and NRHM for in respect of social sectors has serious implications on the overall human development of the state. Both education and health being two vital components of 'capability' building

in the human development approach, the lags in these will obviously affect the 'capability' and 'functioning' of the individuals and hence in overall the human development itself. Further as 'capabilities' and their 'functioning' are dependent on *opportunities* therefore any under provisioning of the same is *deprivation* and hence construes as capability deprivation. Therefore provisioning of services in health and education and the expenditures thereof need to be oriented towards the specific areas (for e.g. child and maternal health in the health sector and provision of generic drugs at public health care services centres, provisions for teachers training and school infrastructure and supply of learning materials) is the prime requirement for the health and education sector in the State. The regular plan expenditure of the State government for the health and education sector which has come down following the launching of SSA and NRHM needs to be raised, the reason being that State plan offers more scope for the government to design state specific interventions and also widen the spectrum of innovative services that can be offered. To illustrate, further, the infant mortality rate (IMR) and maternal mortality rate (MMR) is high among the tea garden dominated districts in Assam which indicates that specific targeted interventions need to be made in these districts and areas to address the twin issues of IMR and MMR which can be addressed by the regular annual plan expenditures of the State Government, rather than being left to the care of NRHM.

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