CHAPTER I: MINISTRY OF HEALTH AND FAMILY WELFARE

Department of Health

National Disease Control Programme

The National Disease Control Programme in respect of Blindness and Tuberculosis has met with limited success. Programmes assisted by multilateral agencies and bilateral donors achieved comparatively better success due to sustained funding and better monitoring. The Government Sector programme in non-project states/districts suffered due to lack of co-ordination at the grassroot level. The reach of the programme left out a sizable population from its scope. There was room for improvement in implementation by the States as well as for more efficient use of resources allocated. The activities under the programmes were not conducted efficiently due to lack of infrastructural facilities, drugs, equipments, laboratories and testing devices. Between the two diseases, a greater degree of community involvement was generated by the National Programme for Control of Blindness (NPCB). The District Blindness Control Societies and District Tuberculosis Control Societies, which were intended to perform as community focal points, remained trapped in the governmental machinery. Success of voluntarism in NPCB could not be repeated in the case of National Tuberculosis Control Programme apparently because social perception towards these diseases is oriented differently. Though TB is still considered a stigma and the message that it is fully curable is yet to percolate to the grassroot level, no separate information and education campaign was launched for the control of TB. No baseline or bench-mark surveys were carried out in both cases and monitoring of programme implementation was inadequate.

Highlights

National Programme for Control of Blindness

The reach of the programme left more than 70 lakh prospective beneficiaries untargeted. In terms of delivery, the programme relied more on private sector for its success as only 21 to 26 *per cent* in project states and 11 to 28 *per cent* catops in non-project states were performed by the Government sector. The poor reach of the programme was also evident from the fact that shortfall in surgeries performed by Government doctors ranged between 19 to 98 *per cent* and underutilisation of ophthalmic beds was between 8 to 90 *per cent*. The programme failed to succeed in mobilizing the base hospital approach and greater reliance was placed on camp approach.

To bring down the rate of prevalence of blindness from 1.4 *per cent* to 0.3 *per cent* by 2000, target fixed at 600 catops per lakh population per year could not be achieved except in Delhi, Gujarat and Pondicherry. In 8 programme States/UTs, the Cataract Surgery Rate was less than 100 per lakh population

per year. The rate of success/failure of the cataract operations was not measurable as no record was available with the states.

Distribution of Vitamin A solution, which is crucial to the success of the programme, was not ensured by the District Blindness Control Societies (DBCS). Village wise blind registers were not maintained in test checked districts and Information, Education and Communication activities were negligible.

Shortfall in the deployment of Mobile Units ranged between 9 and 45 *per cent* in project states while shortfall in surgeries performed in Mobile Units ranged between 24 and 100 *per cent*. Rehabilitation of the incurably blind was almost completely neglected as only 34 incurably blind persons were rehabilitated in 13 states.

Training activities were not given adequate attention.

No new eye banks were opened. Utilisation of eyes for keratoplasty was very limited. Only 55 and 45 *per cent* of eyes collected by Government and voluntary sector respectively were utilised.

Non-formation of Programme Implementation Committees and absence of any evaluation of returns received from DBCS/NGOs deprived the State Government of concurrent feed back on the execution of the programme.

During 1996-2001, funds utilised in non-project states were 63 *per cent* of allotment, whereas in project states expenditure exceeded the funds released. While unspent grant of Rs 30.89 crore was lying with DBCS, 106 annual statements of accounts and 129 UCs were pending receipt relating to grants released up to 1999-2000.

By the end of 2001, project states had utilised only Rs 297.66 crore against Rs 554 crore available during the project period of seven years. Funds to the tune of Rs 8.55 crore released for renovation and furnishing were not utilised in nine states.

National Tuberculosis Control Programme

The reach of the programme was inadequate. The performance of NTP states was poor whereas under RNTCP the cure rate was below the stipulated rate and the defaulter rate could not be minimised.

The programme failed to make use of the available resources, which adversely affected its implementation. Programme activities suffered in as much as the grants released to District Tuberculosis Control Societies were utilised only to the extent of 13 to 27 *per cent* during 1996-97 to 2000-01. 142 utilisation certificates involving grants of Rs 32.52 crore were pending with DTCS. Grants to DTCS for assistance to NGOs and IEC activities could only be utilised to the extent of 12 *per cent* and 40 *per cent* respectively.

Due to non-establishment of DTCS as per norms and non-observance of parameters in regard to their staffing, the services contemplated under the scheme could not be provided. However, under the RNTCP, TUs and MCs were established as per norms with marginal deficiency of 4 *per cent*. Around 10 *per cent* of the monocular and binocular microscopes and x-ray machines were not in working order. Shortages in manpower at the crucial levels of Laboratory Technicians, Treatment Organisers, Medical Officers, Pharmacists, Lady Health Visitors and TB Health Visitors exceeded 10 *per cent*. Anganwadi workers and staff nurses were found to be the least trained, and the shortage ranged between 55 and 59 *per cent*.

The conversion of sputum positive cases to sputum negative at 2/3 months was very low in many states. In some states, these tests had not been carried out in many cases.

Management of drugs at MSDs/States was not efficient. Expired anti TB drugs worth Rs 1.87 crore were lying with MSDs/DTCs. Substandard drugs worth Rs 34.33 lakh had been purchased by different States/MSDs. Excess payments for drugs and irregular purchase of drugs were also noticed.

Only 70 to 88 *per cent* quarterly reports were received from DTCs by NTI Bangalore for analysis. Shortfall in supervisory visits undertaken by states ranged between 3 to 100 *per cent*. No evaluation of the programme was done at state level.

World Bank aid to RNTCP increased from Rs 37.07 crore to 71.01 crore over the five years under review, while the Government's commitment level to the programme was limited to about 24 *per cent* of the expenditure in the same period.

Poor performance is also attributed to poor management of financial resources. After completion of four years of the total project period of 5 years, only 20 *per cent* of the aid from World Bank had been utilised.

48 Utilisation certificates involving cash grant of Rs 52.53 crore for purchase of anti TB drugs for sputum negative cases were pending receipt. Out of these grants, Rs 4.52 crore were utilised for purchase of anti TB drugs other than those prescribed in the regimen.

Background

There is no single framework of "National Disease Control Programme" as such. It is a cluster of programmes encompassing a wide range of major diseases which have commenced at different periods of time and with different methodologies and approaches. All such programmes contribute eventually to the efforts of the Government to treat, prevent and control major diseases like Cataract Blindness, Tuberculosis, Leprosy and Acquired Immune Deficiency Syndrome (AIDS) in the country. Schemes relating to two of these major diseases, namely Blindness and Tuberculosis were selected in audit for review,

mainly because these diseases are geographically more wide-spread, the programmes have been in operation for a long period, using large sums of resources and have undergone significant policy changes over time. Section I deals with National Programme for Control of Blindness and Section II deals with National Tuberculosis Control Programme.

Section-I

National Programme for Control of Blindness

1. Introduction

The first organized national effort to control blindness in India was the National Programme for Trachoma launched in 1963. Twelve years later, the programme underwent extensive modification with the identification of cataract as the major cause of blindness in India. The programme nomenclature was changed to cover visual impairment and control of blindness. The new strategy focused on disseminating information about eye care through mass communication, expanding mobile health care through eye camp approach and establishing the permanent infrastructure of community oriented eye health care. In 1976, the National Programme for Control of Blindness (NPCB) was formally launched and incorporated in the Prime Minister's 20-Point Development Programme. In December 1993, the Ministry of Health and Family Welfare, the nodal Ministry for the programme conceded that despite impressive improvement in the number of cataract operations under the NPCB, the backlog and the annual incidence would continue to overtake the number of cataract operations performed. Citing the survey conducted by the World Health Organisation (WHO) for the NPCB during 1986-89, the Ministry opined that special measures were required to handle the severity of the problem in seven states (Andhra Pradesh, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu and Uttar Pradesh) with high prevalence levels. Special measures were proposed to be taken with an assistance of Rs 554.36 crore from the World Bank, spread over a period of seven years starting from 1993-94. The other states were to continue under the Central Government funded programme of NPCB. Some specific project assistance was also provided by the Danish International Development Agency (DANIDA) in phases that commenced in 1979. The first phase of Danish assistance covering the period 1979-87 focused on supply of equipment and the second phase, covering the period 1989-96, focused on manpower development. The third phase of Danish assistance that commenced in 1998 and projected to continue up to 2002 adopted **Karnataka** as the pilot state for exclusive attention. Thus, the National Programme for Control of Blindness is operated on a project format in seven high prevalence states with the assistance of the World Bank, on a pilot basis in **Karnataka** through Danish assistance and on a Central Government assisted programme basis in the rest of the Sates and the Union Territories of India.

2. Goal

The programme goal, despite the changes in the format and emphasis remains, fixed as projected in 1976 at the commencement of the programme. The goal was to reduce blindness from a prevalence rate of 1.4 to 0.3 *per cent* by 2000 A.D

3. Strategy

The programme strategies have evolved over a period of time based on the need for tackling the widespread prevalence of blindness, with a community focus. The principal strategies have been:

- Identifying high prevalence states for special attention
- Upgradation of facilities and skills
- Involving the private sector including NGOs
- Giving the programme the character of a movement, through the establishment of partnership institutions in the form of societies committed to the goal of the programme.

4. Activities

The unifocal character of the programme and the strategy of intervention, involving both public and private sectors, envisage the following principal activities:

- Setting up of Regional Institutes of Ophthalmology
- Upgradation of the Medical Colleges, District Hospitals and block level Primary Health Centres
- Development of eye banks
- Establishment of District Blindness Control Societies
- Development of Mobile Units
- Recruitment of required ophthalmic manpower in eye care units

These are the institutional foci of the programme expected to lead the upgradation of health and management skill for eye care and improvement of services delivery for preventive, curative, rehabilitative and comprehensive eye care.

5. Organisational Structure

At the national level, the programme is handled by the Directorate General of Health Services through its National Programme Management Cell which has technical and administrative divisions. The technical division is headed by Deputy Director General (DDG) who is the programme officer responsible for NPCB at the national level. The administrative division is headed by the

Additional/Joint Secretary. At the regional level, the Regional Institutes of Ophthalmology are responsible for the development of appropriate technology for the development and provision of specialized tertiary eye care and services.

At the State level, the NPCB is directly implemented by the State Programme Officer (SPO), who is an officer of a Joint/Deputy Director rank. He is responsible for implementation and monitoring of the programme in all the districts of the state. The central mobile units attached to the Ophthalmology department of the Medical Colleges report to the Director of Medical Education at the state level. At the district level, the programme is implemented by the District Blindness Control Society (DBCS), which receives the funds directly from the Government and funding agencies. District Programme Manager (DPM) is the chief executive authority who works in co-ordination with the Medical Superintendent (MS) of the District Hospital and Chief Medical Officer (CMO) and is responsible for the organisation and implementation of NPCB at the district level. The overall accountability for the performance of the NPCB and the use of funds placed at the disposal of DBCS is that of the District Collector, District Ophthalmic Surgeon and the DPM. The District Collector is the chairman and the Chief Medical Officer is the vice-chairman of DBCS. The DBCS plans and co-ordinates eye care services through eye camps. It is responsible for ensuring technical supervision of all eye camps and mobilization of resources for all camps. At the block level, Ophthalmic Assistant is posted at the PHC/CHC. Further implementation at the village level is carried out through other PHCs/sub centres/NGOs. The organogram of NPCB is given in **Annex. I**.

6. Scope and Objective of review

The programme was reviewed earlier and was included as paragraph 19 of Report No. 1 of 1988 of the Comptroller & Auditor General of India. The main observations related to non-utilisation of grants, non-achievement of targets in the upgradation of existing health infrastructure and lack of monitoring arrangement. The present review of the scheme, conducted during February 2001 to October 2001, found similar deficiencies in the implementation of the programme. More importantly, the review seeks to highlight the response of the institutional arrangements to the changes initiated through the extension of coverage and development of strategic partnerships. Audit reviewed the implementation of the programme on the basis of test check of records encompassing the period 1996-97 to 2000-01 and on the basis of certain performance indicators arising out of the structure and the operational specifications of the programme. These broad indicators are (i) whether the programme succeeded in reaching the targeted areas and whether the target themselves were fixed in line with the population affliction ratio, (ii) whether the programme components were efficiently networked and delivered, (iii) whether the treatment involving surgical interventions were

successful, (iv) whether the quality of infra-structure was adequate and appropriate, (v) whether the ultimate goal of the programme aiming at a reduction in the rate of prevalence was in the process of being met through a reversal of the trend. Details of the sample selected for test audit are given in **Annex. II**.

6.1 Arrangement of review results:

In terms of funding arrangements, the programme is implemented in both project and non-project formats. While seven states (**Andhra Pradesh, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamil Nadu and Uttar Pradesh**) are funded by the World Bank Project under the title Cataract Blindness Control Project (CBCP), the rest of the states are under conventional non-project programme mode of National Blindness Control Programme (NBCP). The distinction between the project and non-project format is that the seven project states receive higher allocations by way of World Bank assistance and are subjected to all the monitoring parameters applicable to World Bank Projects. The programme states follow the normal programme parameters using budgetary resources in the normal course. In presenting audit observations, the project states and the programme states have not been treated separately as the intention of audit is to assess comprehensively if the programme goal has been attained. Wherever required, specific comments relating to Project States have been made.

7 Programme Implementation

The NPCB, which commenced in 1976, has used during the period 1996-97 to 2000-01, Rs 383.27 crore comprising both budgetary and extra budgetary resources on the programme. In terms of application of resources, the thrust was aimed primarily on the removal of blindness through cataract operations. As per the records of the Government of India, the success of the programme appears to have been based on the performance of cataract surgery without reference to other parameters and the follow up action. The macro picture thus gives a lopsided view of the programme performance. As per the details of catops performed, 1,62,03,834 catops were performed during 1996-97 to 2000-01 against the target of 1,62,23,052 during the same period. This shows an achievement of 99.8 *per cent*. But this is not sufficient to indicate the correct achievement of the programme. It is also due to this reason that audit evaluation of the programme relies on a host of indicators like reach, efficiency, quality of infrastructure, success of treatment and trend reversal. The results of audit review are detailed below.

7.1 Reach

Achievement of the goal of reduction of the rate of prevalence of blindness implies that the services contemplated under the programme reach the potential beneficiaries. The strategy adopted for this is to first fix viable

targets to cover the beneficiary population within the timeframe and to organize services in a way that would be accessible by potential beneficiaries. Reach of the programme will indicate the extent to which services are available to the largest segment of the afflicted population.

7.1.1 Target Setting

The goal of the programme was to bring down the rate of prevalence of blindness from 1.4 to 0.3 *per cent* by 2000A.D. This goal was based on the assumption that it was achievable by clearing the cataract backlog and annual incidences through surgical intervention. Consequently, targets of the programme relate only to cataract operations. No targets have been fixed in respect of other components of the programme. The mid term review carried out in 1997-98 found that the targets were set arbitrarily without taking into account the prevalence of blindness in the districts, incidence of cataract performance of surgery in bilaterally blind persons, surgery in unilateral cases, second eyes operated and successful outcome of surgery. It was also admitted that it was due to arbitrary target setting that despite increase in absolute number of cataract surgeries, there was no corresponding decrease in prevalence of blindness. Taking these factors into account, the targets were re-fixed at 600 catops per one lakh population per year. Going by this criterion, audit estimated the targets required to be set for comparing it with the actual target set so as to be able to assess the level of achievement. The following two tables present the position:

Project States (including Chattisgarh & Uttaranchal)

Year	Estimated Population(in lakh)	Target to be set	Target allocated	Short-fall in target setting	Achievement
1996-97	--	--	16,55,000	--	17,09,805
1997-98	--	--	18,53,600	--	19,21,168
1998-99	5497.70	32,98,800	20,39,050	12,59,750	21,34,362
1999-00	5594.15	33,56,400	21,00,000	12,56,400	21,62,104
2000-01	5690.60	34,14,000	22,35,000	11,79,000	23,10,325
				36,95,150	

Non-Project states

Year	Estimated population (in lakh)	Target to be set	Target allocated	Achievement	Short fall	
					Against target allocated	In target setting
1996-97	--	--	10,39,600	10,12,731	26869	--
1997-98	--	--	11,64,352	11,13,449	50903	--
1998-99	4150.09	24,90,000	12,81,280	11,85,943	95337	12,08,720
1999-00	4222.89	25,33,800	14,00,000	13,37,961	62039	11,33,800
2000-01	4295.70	25,77,600	14,55,170	13,15,986	139184	11,22,430
					374332	34,64,950

36.95 lakh in project states and 34.65 lakh catops in non-project states remained un-targeted.

It will be seen from the tables that in the project states there was a shortfall of 36.95 lakh catops with reference to targets set. In respect of non-project states, similarly 34.65 lakh catops remained untargeted. In both cases, the midterm review guidelines did not result in any significant revision upwards. The nominal increase of 1 to 1.5 lakh during the last two years should be seen in the context of the fact that the total blind population was 90 and 50 lakh in project and non-project states respectively. Evidence is also available to suggest that the figures of achievement reported by states which are invariably more than hundred *per cent* of the target allocated might not be reliable. Trail checks conducted by audit in **Rajasthan** pointed out that the District Managers inflated the achievement by 19 to 370 *per cent* more than the actuals.

District Manager in Rajasthan inflated achievement by 19 to 370 *per cent*

7.1.2 Cataract Operation Performance

Cataract operations are performed by Government doctors in Government Hospitals, by NGOs and Private practitioners in clinics and eye camps. The following table gives the picture of cataract operations performed in Government sector, and Private clinics in respect of project and non-project states separately.

Statement of workload in Government and NGO/Private Sector during 1996-01

	Performance of catops in Government Sector		Performance of catops in N.G.O		Performance of catops by private practitioners & others		Total catops
	Number*	Percentage	Number	Percentage	Number	Percentage	
Project states							
1996-97	3,09,498	21	6,74,352	45	5,18,953	34	15,02,803
1997-98	3,88,679	24	7,21,211	44	5,19,402	32	16,29,292
1998-99	4,14,966	23	7,19,028	39	6,92,411	38	18,26,405
1999-00	3,91,832	24	5,87,098	35	6,68,348	41	16,47,278
2000-01	4,29,267	26	6,17,205	37	6,01,059	37	16,47,531
Non-project States							
1996-97	48271	28	23872	14	102750	58	174893
1997-98	142870	16	331110	38	394837	46	868817
1998-99	153507	17	357163	40	389107	43	899777
1999-00	144483	11	300636	23	838229	66	1283348
2000-01	202818	24	354347	41	297220	35	854385

**** both fixed facilities & mobile camp***

Only 21 to 26 *per cent* catops were performed by Government sector in project states

In the project states, most cataract operations have been performed through NGOs who account for 35 *per cent* to 45 *per cent* of the total number followed by private practitioners who account for 32 *per cent* to 41 *per cent*. The least operations were performed in the Government Sector ranging from 21 *per cent* to 26 *per cent*. The distribution of workload between private and public sectors was expected to be in the ratio of 1:1. While the NGOs and private sector had exceeded the 50 *per cent* mark, the Government Sector, failed

Only 11 to 28 *per cent* catops were performed by Government sector in non-project states

logging barely 21 to 26 *per cent*. Even in non-project states, NGOs and Private Practitioners together carried out more than 50 *per cent* of operations, while cataract operations in the Government Sector ranged between 11 *per cent* and 28 *per cent*. 25 *per cent* to 100 *per cent* operations were carried out through eye camps. The programme contemplated cataract operations performed in eye camps to be in the range of 20 *per cent* as it was felt that greater reliance on camp methodology could be counterproductive. The following table gives the detail of catops performed in 11 states through the camp approach.

Sl. No.	State	1998-99			1999-2000			2000-2001		
		No. of catops performed		%age	No. of catops performed		%age	No. of catops performed		%age
		Total	In camps		Total	In camps		Total	In camp	
1	Punjab	1,44,885	51,740	36	1,32,626	52,281	40	1,40,735	35,870	25
2	Rajasthan	1,76,955	73,942	42	1,88,417	71,762	38	1,85,036	72,354	39
3	Meghalaya	1,053	1,053	100	617	617	100	915	915	100
4	Haryana	87,757	87,757	100	92,692	92,692	100	91,515	65,508	72
5	Andhra Pradesh	3,43,680	85,383	25	3,37,980	86,634	26	3,58,799	67,112	19
6	Tamilnadu	2,82,516	2,22,445	79	2,95,949	2,27,510	77	2,57,844	1,94,763	76
7	Kerala	65,637	22,025	34	79,446	26,853	34	72,169	26,057	36
8	Jammu & Kashmir	10,646	5,308	49	8,314	3,482	42	10,092	3,505	35
9	Nagaland	324	99	30	224	74	33	300	59	20

NB: - (i) In Hamirpur and Sirmour districts of Himachal Pradesh out of 9251 catops, 4880 catops were performed in eye camps which constituted 53 per cent against maximum permissible limit of 20 per cent.

(ii) In ten test checked districts of Bihar, 71,000 (43%) catops out of 1,66,000 catops were conducted in camps during 1996-97 to 2000-01.

Shortfall in surgeries performed by Government doctors ranged between 19 to 98 *per cent* indicating diminishing reach of the Government

Performance of cataract operations in camps was far in excess of the norm and to that extent performance of the Government sector continues to remain unsatisfactory. Shortfall in surgeries performed by Government doctors ranged between 53 *per cent* and 95 *per cent* **(Annex-III)**. In the non-project states, the shortfall ranged between 43 to 94 *per cent.* In Medical Colleges, the shortfall ranged between 19 to 98 *per cent*. This implies that the reach of the Government is reducing and the programme is relying more on private sector for its success. Private sector performance continues to remain predominantly camp based. In the case of operations in eye camps, data regarding the rate of success and follow up was absent. Hence, no worthwhile evaluation of the success of the programme can be attempted. Evidently, the intention of the programme, at least after the mid-term review to re-emphasise the base hospital approach has not been successful. Though, the eye camps attracted more beneficiaries, it was absolutely essential to keep systematic record of rate of success of operations in eye camps since there was generally lack of controlled conditions of operation theatres in base hospitals. It could not be verified in audit as to why the camp approach proliferated i.e. whether

it was due to the failure of the Government system not being able to reach the beneficiaries or whether the people were not willing to come to Government hospitals on account of factors like the location as well as the quality of service rendered by these hospitals. It is interesting to observe that the camp approach has been favoured in infrastructurally deficient states. In **Meghalaya, Haryana** and **Tamil Nadu**, 100, 72 and 76 *per cent* of cataract operations were performed in camps. The programme had not succeeded in mobilising the base hospital approach in reaching the beneficiaries.

Under utilisation of ophthalmic beds was 8 to 90 *per cent*

The lack of reach of district hospitals and medical colleges is also suggested by the fact that ophthalmic beds in these institutions continue to remain under-utilised. Test check of records of five project states, seven non-project states and thirteen Medical colleges revealed underutilisation of ophthalmic beds., which was 59 to 85 *per cent* in non-project states, 39 to 73 *per cent* in project states and 8 to 90 *per cent* in Medical Colleges as per details given in **Annex IV**.

*The review disclosed that 36.95 lakh catops in project states and 34.65 lakh catops in non-project states remained untargeted. The reach of the Government reduced and the programme relied increasingly on private sector for its success as only 21 to 26 per cent catops in project states and 11 to 28 per cent catops in non-project states were performed by Government sector. The diminishing reach of the Government was also evident from the fact that shortfall in surgeries performed by Government doctors ranged between 19 to 98 per cent and under utilisation of ophthalmic beds was 8 to 90 per cent of the norms. The programme has not succeeded in mobilizing the base hospital approach and greater reliance on camps methodology was favoured for infrastructurally deficient states. In **Meghalaya, Haryana** and **Tamil Nadu** 100, 72 and 76 per cent of catops were performed in camps.*

7.2 Efficiency

Efficiency of the programme is measurable in terms of Cataract Surgery Rate (CSR), performance of catops by District Mobile Units, distribution of Vitamin 'A' solution, rehabilitation of incurably blind, success in mobilisation, identification and motivation of the beneficiary.

7.2.1 Cataract Surgery Rate

The Cataract Surgery Rate (cataract operations performed per lakh population per year) in project and non-project states during 1996-97 to 2000-01 is as under:

Year	Cataract Surgery Rate (per lakh population) in	
	Project States	Non-Project States
1996-97	322	253
1997-98	356	273
1998-99	388	286
1999-00	386	317
2000-01	406	306

Over all CSR ranged between 253 to 406 as against stipulated rate of 600 catops per lakh population

The overall CSR in project states and in other states during 1996-97 to 2000-2001 ranged between 322 to 406 catops and 253 to 317 catops per lakh population respectively. None of the states **(**except **Delhi, Gujarat** and **Pondicherry)** had reached the desired level of CSR of about 600 catops per lakh population. In 8 programme states/UTs (viz **Arunachal Pradesh, Assam, Bihar, Manipur, Meghalaya, Mizoram, Nagaland and Lakshadweep**), the CSR ranged between 28 to 90 catops per lakh population.

7.2.2 District Mobile Units. (DMUs)

Shortfall in deployment of mobile units ranged between 9 to 45 *per cent* in project and programme states

Mobile Ophthalmic Units were established to provide eye care services including cataract surgery in rural areas. Each DMU was required to conduct 1500 cataract operations each year. Mobile units required to be deployed as of March 2001 in World Bank assisted states and programme states were 279 and 283. Of these, only 254 and 155 respectively were actually deployed. The shortfall was 9 and 45 *per cent* respectively. A test check of records in some states further revealed that the shortfall in surgeries required to be performed and surgeries actually performed by DMUs ranged between 24 *per cent* and 100 *per cent*, as detailed in **Annex-V**:

7.2.3 Role of District Blindness Control Societies

The scheme of setting up District Blindness Control Society (DBCS) in each district was launched in the year 1994-95 to decentralize the implementation of the programme with a single authority at district level. The District Collector / Magistrate is the chairman of the DBCS, and the Chief Medical Officer (CMO) is the vice chairman. The DBCS is required to meet once a quarter. Guidelines were issued on utilisation of funds released to the DBCS in an effective and efficient manner. The DBCS was expected to enhance the coverage and improve the quality of eye care services in the district.

7.2.4 Release of funds to DBCS

Funds are to be released by the Ministry based on the District action plans prepared by the DBCS and submitted through the state Government. For release of funds, the DBCS is to submit the documents pertaining to the previous financial year by 30th June of the current financial year: (i) Statement on performance and expenditure (Form C); (ii) Audited statement of accounts;

(iii) Utilization certificate; (iv) District action plan for the current financial year.

7.2.5 Position of grants released to and expenditure reported by the DBCS

The position of grants released and expenditure reported by the DBCS during 1996-2001 is given below:.

(Rs in crore)

Year	Total grant released	Expenditure reported
1996-97	14.23	15.47
1997-98	31.32	24.50
1998-99	36.30	31.67
1999-2000	36.12	30.39
2000-01	38.45	23.49
Total	**156.42**	**125.52**

Against 562 districts in the country only 483 DBCS were set up

Against 562 districts in the country only 483 DBCS were set up as of March 2001 in project as well as in non-project states.

The grant-in-aid of Rs 156.42 crore was released to DBCS of project and non-project states during 1996-97 to 2000-01 against which expenditure of Rs 125.52 crore was reported. Grants in aid of Rs 30.90 crore remained unutilised with the DBCS as of March 2001.

7.2.6 Non-distribution of prophylactic Vitamin 'A' Solution

One of the important functions of the DBCS was to ensure distribution of prophylactic Vitamin "A" to prevent blindness arising from Vitamin "A" deficiency among children (in the age group of 1-6 years) as part of Child Survival and Safe Motherhood Programme through the health functionaries of the district. Diseases like Xerophthalmia and Keratomalacia often lead to blindness due to Vitamin "A" deficiency which was largely limited to the children in the age group of 1-6 years. For this purpose, Vitamin "A" prophylaxis was introduced under National Family Welfare Programme.

In **Tripura,** against the total number of children (1-6 years) ranging from 1,97,340 (1997-98) to 2,14,500 (2000-2001), the number of children administered Vitamin "A" solution ranged between 96784 and 80220 indicating a coverage of 37 to 49 *per cent*.

Distribution of Vitamin "A" solution to children was not ensured by any of the test checked DBCS in the state of **Andhra Pradesh**

No information in respect of distribution of Vitamin 'A' solution was available either at district or state level in **Bihar**, indicating absence of any activity in this regard.

7.2.7 Rehabilitation of Incurably Blind

One of the important components of the programme envisaged rehabilitation of the incurably blind persons. DBCS were required to prepare annual action plan for rehabilitation of incurably blind persons. Test check of records of 13 States/UTs (*viz.* **Gujarat, Punjab, Kerala, Andhra Pradesh, Uttar Pradesh, Orissa, Meghalaya, Himachal Pradesh, West Bengal, Nagaland**, **Karnataka, Bihar and Daman & Diu**) revealed the following.

Only 34 incurably blind persons were rehabilitated in 13 states

(a) In 5 states (*viz.* **Gujarat, West Bengal, Punjab, Kerala and Meghalaya**) 6610 incurably blind persons were identified, of which only 10 blind persons in **Kerala** and 24 in **Gujarat** were rehabilitated.

(b) In other test-checked states/UT (*viz.* **Andhra Pradesh, Uttar Pradesh, Nagaland, Orissa, Karnataka, Himachal Pradesh and Daman & Diu**), there was no activity regarding identification and rehabilitation of incurably blind person. No survey was conducted in **Bihar** for identification and rehabilitation of incurably blind person.

7.2.8 Scheme for preparation of Village-wise Blind Registers

Identification of curable blind persons through active screening and setting up a mechanism to restore sight in such persons was part of the programme strategy. This activity was being carried out in most districts in project states. The State Government in non-project states would identify such districts and initiate the process. This would include, identification of personnel to undertake screening of population adopting a broad-based approach, involving grassroot workers such as anganwadi workers, teachers, panchayat members health workers, volunteers etc., printing of village wise blind registers, filling of blind register (village wise) and a situation analysis of magnitude of the problem, number of identified blind persons and target setting in the district action plan. Test check of records of two project states *viz.* **Rajasthan** and **Uttar Pradesh** revealed the following.

Village wise blind registers were not maintained in Rajasthan and Uttar Pradesh

In three districts (Ajmer, Jaipur and Jodhpur) out of five test-checked districts of **Rajasthan,** village wise registers were not maintained. In two districts (Kota and Udaipur) though these registers were maintained yet they were not updated after March/April 1999. In **Uttar Pradesh**, a test-check of 69 District Blindness Control Societies revealed that as of March 2001, 10 DBCS had completed the register, 24 DBCS had under-taken the work and 35 were yet to start.

7.2.9 Information, Education and Communication (IEC)

IEC activities include identification and motivation of potential beneficiaries, information through media, educating voluntary groups and teachers and other

relevant persons. Inter-personal communication is the most effective method for motivation of target population. The DBCS was to organise orientation of 3-4 persons from village having a population of more than one thousand, located in low performing areas and backward districts for identification and motivation of blind persons in the village. The persons identified for orientation course include Anganwadi Workers, Panchayat Members, Teachers, Members of Youth clubs or Mahila Mandals.

IEC activities were negligible almost in all states

The IEC activities under NPCB are required to be integrated with National Health and Family Welfare Programmes being implemented at various levels in the states. Programme Implementation Committee (PIC) was to be formed under the chairmanship of State Health Secretary with Director of Health Services and other concerned officers as members. State Programme Officer (SPO) incharge of NPCB would be the Member Secretary/ Convener of this Committee. The District Programme Manager (DPM) is required to send the quarterly report at the state level to the centre

However, test check of records of the Director, Health Services of various states for the year 1996-97 to 2000-01 under the programme revealed as under:

Audit findings	States
Non-preparation of action plan	Madhya Pradesh, Assam, Andhra Pradesh, Gujarat, Rajasthan, Nagaland, Himachal Pradesh and Haryana.
Non-formation of Programme Implementation Committee	Assam, Gujarat, Himachal Pradesh, Nagaland, Jammu & Kashmir, Haryana, Meghalaya, Pondicherry, Chandigarh, Karnataka and Andaman & Nicobar Island.
No IEC activity noticed in test checked districts	Madhya Pradesh, Gujarat, Orissa, Haryana and Jammu & Kashmir.
Group meetings at various levels and cultural programmes at state, district and block levels not organised	Madhya Pradesh, Assam, Rajasthan, Himachal Pradesh and Sikkim.
NGOs not involved in IEC activities	Assam, Rajasthan and Andaman & Nicobar Island
The posts of Health Educator cum Health Assistants and counsellor were lying vacant in District Mobile Units	Rajasthan
Funds allocated for IEC activities not fully utilised	Tamil Nadu (only 32% was utilised) Himachal Pradesh (only 30% was utilised)
No IEC activity was undertaken by the state due to diversion of funds towards payment of salaries to staff	Jammu & Kashmir
Monitoring of IEC activity was not done by State Programme Officer either at his level or in collaboration with Director (IEC)	Rajasthan, Assam, Himachal Pradesh and Andaman & Nicobar Island.

7.2.10 Refractive Error and Distribution of Spectacles

Test-check of records of DBCS/States for the period 1996-97 to 2000-01 revealed as under:

State	Audit findings
Delhi	The programme envisaged training of teachers in Government and Government aided schools, for screening refractive error among students of class VI to VIII. As against a total number of 1219 such schools in Delhi, only 394 teachers were trained. Thus coverage of schools itself was 30%. The number of free spectacles issued do not correspond to the students having refractive error in any year under review. 9700 spectacles in excess of students detected for refractive error were issued during 1996-98.
Bihar	In ten test-checked districts of Bihar, only 16% students having refractive error were provided with glasses.
Arunachal Pradesh	Out of 42,900 school children, 2741 were screened of which 219 suffered from refractive error. Only 78 school children were provided free spectacles.
Assam, Uttar Pradesh, Jammu & Kashmir	Information on camps organised, screening for refractive errors, provisions for spectacles could not be furnished due to non-receipt of information/record from DBCS indicating failure of reporting system and lack of initiative at state level to enforce regular submission of report.

*Thus, the target fixed at 600 catops per lakh population per year could not be achieved except in **Delhi, Gujarat** and **Pondicherry**. In 8 programme States/UTs, the CSR was less than 100 catops per lakh population per year. As against 562 districts in the country, only 483 DBCS were set up. Distribution of Vitamin A solution was not ensured by DBCS, village wise blind registers were not maintained in test checked districts and IEC activities were negligible. Shortfall in deployment of MUs ranged between 9 to 45 per cent in project and programme states while shortfall in surgeries performed in MUs ranged between 24 to 100 per cent. Only 34 incurably blind persons were rehabilitated in 13 states.*

7.3 Quality of Infrastructure

7.3.1 Construction of Eye Wards with OT/Dark Rooms

In order to provide permanent infrastructure for eye health care at the District Hospitals and PHCs, Government of India provided funds for the construction of 10/20 bedded Eye Wards with Operation Theatres and Dark Rooms at various places in the states.

Against the estimated cost of Rs 766.20 lakh for creating such infrastructure in project states, Rs 784.21 lakh was released as of 31st March 2001. Of this, only Rs 714.76 lakh could be utilised/spent during this period, leaving an unspent balance of Rs 69.45 lakh.

According to the instructions, all works were to be completed by March 2001 and the states were to furnish details of those units for which funds were made available. These units would become functional with appointment of requisite

personnel and supply of equipments, thereby increasing the institutional capacity of the states.

The position of construction work of World Bank assisted project states as of March 2001 was as under:

Sl. No.	Facility	Units finally approved by NPCB	Completed	Shortfall	Percentage
1	Eye wards	285	232	53	19
2	Operation Theatres	293	240	53	18
3	Dark Rooms	1843	1685	158	9
4	Single OTs	63	52	11	17
5	New Beds	5039	4138	901	18

9 to *19 per cent* infrastructure facilities could not be completed

It is evident that nine to nineteen *per cent* of facilities such as Eye Wards, Operation Theatres, Dark Rooms, Single OT and New could not be completed as of March 2001 thereby adversely affecting the performance of the project.

Test check of records relating to civil works of **Madhya Pradesh** revealed that the works handed over were not put to use due to paucity of staff thus depriving the public of the use of the facilities created.

Test check of records in **Orissa** revealed the following:

(a) The referral Eye Hospital at Cuttack scheduled to be completed by March 2001 was completed only up to first floor as of May 2001.

(b) 13 of 20 bedded eye wards and 7 of 10 bedded eye wards were yet to be given power connection (May 2001).

(c) 4 out of 21 of 20-bedded eye wards and 3 out of 18, 10 bedded eye wards were handed over (May 2001) without power connection.

(d) 7 of 20 bedded and 7 of 10 bedded eye wards though completed/ constructed were not handed over (May 2001).

7.3.2 Renovation and Furnishing

Funds released for renovation and furnishing of operation theatres and eye wards were not utilised by various state Governments

Ministry of Health and Family Welfare provides funds to the states for renovation and furnishing of operation theatre and eye wards towards improvement of quality service in medical colleges and district hospitals. The funds were to be utilised for the purpose of (a) minor repairs of roof, walls and floor (b) white washing and painting (c) repair of woodwork (d) partition and false ceiling (e) air-conditioning (f) repair of OT lights & furniture.

The position of funds released, expenditure incurred and unspent balance for renovation and furnishing as of March 2001 in respect of existing units (state wise) was as under:

Rs in lakh

State	Funds released	Expenditure incurred	Unspent Balance
Andhra Pradesh	70.00	Nil	70.00
Madhya Pradesh	166.50	Nil	166.50
Maharashtra	70.00	Nil	70.00
Orissa	100.00	Nil	100.00
Rajasthan	100.00	Nil	100.00
Tamil Nadu	145.40	Nil	145.40
Uttar Pradesh	175.00	Nil	175.00
Assam*	18.00	Nil	18.00
Himachal Pradesh	22.59	7.85	14.74
Haryana	10.00	Nil	10.00

**Released during 1998-99 & 2000-01 (Rs 8.00 & 10.00 lakh respectively)*

There has been no utilisation of funds provided for renovation and furnishing of existing units except in **Himachal Pradesh**.

7.3.3 Training

Training activities of trainers and ophthalmic surgeons were not given due care

Training of trainers and district eye surgeons in IOL surgery is organised by the National Programme Management Cell under, DGHS, and Ministry of Health and Family Welfare. Training of district teams in eye care Management is a central activity. Trainees would be selected by National Programme Management Cell of DGHS.

The position of training of manpower undertaken at central level during the project period 1994 –2001 is as under:

Categories of personnel for various training courses	Target	Achievement	Percentage trained
Training of trainers in IOL	102	100	98
District Ophthalmic Surgeons			
Project states	817	632	77
Non-project states	462	108	23
Ophthalmic Nursing	513	31	6

Training activity within the district is to be arranged for Health Workers, Para Medical Ophthalmic Assistants (PMOA), Medical Officers of Primary Health Centres (PHCs), Nurses, Operation Theatre Assistants and School Teachers. Test check of records of selected districts of the states revealed the following:

(a) No targets were fixed for imparting training in the states of **Madhya Pradesh, Assam, Gujarat, Arunachal Pradesh, Chandigarh, Rajasthan, Meghalaya Goa and Haryana**.

(b) Information was not compiled by the Director Health Services in the state of **Assam**

(c) No training was imparted during the years 1996-97 to 2000-01 in **Delhi, Chandigarh** and two test checked districts of **Andhra Pradesh.**

(d) 6 trained surgeons in IOL surgery trained only 21 ophthalmic surgeons during 1996-2001 in the state of **Rajasthan**.

(e) In three test checked districts of **Himachal Pradesh** against 2227 officials required to be trained during 1996-97 to 2000-01 only 1340 were trained resulting in a shortfall of 39 *per cent.* Only 19 and 2 ophthalmic surgeons in IOL surgery against target of 112 and 91 could be trained in the states of **Uttar Pradesh** and **Andhra Pradesh** respectively during 1996-97 to 2000-01.

7.3.4 Eye Banks

No eye bank developed by NPCB during last five years

Development of eye banks is an important activity to address corneal blindness. In order to support eye banks in Government sector as well as in voluntary sector, non-recurring grant is given for consumables, preservation material, media transportation/ travel cost, Petrol, Oil & Lubricants (POL) and contingencies. As of March 2001, there were only 166 eye banks in the country including the voluntary sector. It was noticed that no eye bank was developed by NPCB (except four eye banks in voluntary sector) during 1996-2001. Eye Banks could not be developed in the State of **Arunachal Pradesh, Meghalaya, Orissa, Himachal Pradesh and Jammu & Kashmir** either due to lack of funds or non- response of NGOs.

The performance of eye banks in Government and voluntary sector during the years 1996-97 to 2000-2001 was as under:

Government Sector

Year	No. of eyes						Percentage rendered unfit/used for research
	Opening balance	Donated	Utilised	Transferred to other Banks	Rendered unfit/used for research	Closing balance	
1996-97	NIL	8893	4665	84	4144	NIL	47
1997-98	NIL	9031	4695	108	4228	NIL	47
1998-99	NIL	9799	4980	138	4586	95	47
99-2000	95	10407	5959	63	4380	100	42
2000-01	100	3905	2519	54	1432	NIL	37
Total		42035	22818	447	18770		45

Voluntary Sector

Year	No of eyes				Percentage of eyes	
	Total collected	Eyes used for K.P.	Sent to other Banks	Used for research/ rendered unfit	Utilised	Rendered unfit/ used for research
1995-96	2156	1171	366	619	54.31	28.71
1996-97	2454	1274	308	872	51.91	35.53
1997-98	2690	1226	441	1023	45.58	38.03
1998-99	3387	1553	414	1420	45.85	41.92
1999-2000	3599	1630	372	1597	45.29	44.37
2000-01	2201	696	283	1222	31.62	55.52
Total	16487	7550	2184	6753	45.79	40.95

55 and 46 *per cent* of eyes collected in Government Sector and Voluntary Sector respectively were utilised for keratoplasty

The information of performance of eye banks in Government sector was compiled on the basis of figures reported by 10 states/UTs (**Madhya Pradesh, Assam, Gujarat, Punjab, Kerala, Rajasthan, Chandigarh, Tamil Nadu, Delhi** and **West Bengal**). The percentage of eyes rendered unfit for Keratoplasty/used for research ranged between 37 to 47 *per cent*. Utilisation of eyes for Keratoplasty was 32 *per cent* and 54 *per cent* during 2000-01 and 1995-96 indicating a downward trend. It was observed that 6753 eyes were rendered unfit for Keratoplasty (KP) /used for research in voluntary sector out of 16487 eyes collected during 1995-96 to 2000-01.

7.3.5 Creation and filling up of posts

Under the World Bank assisted Cataract Blindness Control Project, following manpower was required to be recruited by the state Government of **Rajasthan** during the project period: -

Sl. No.	Name of post	No. of posts as per W.B. project	Additional posts created during project period	Posts not created
1.	Official in State Cell	4	--	4
2.	Ophthalmic Surgeons	11	25	-
3.	District Coordinator	27	--	27
4.	Staff Nurses	91	--	91
5.	O.T. Nurses/Tech.	95	--	95
6.	Theatre Assistant.	90	--	90
7.	Camp Coordinators (Health Educator)	7	--	7
8.	Para Medical Ophthalmic Assistant (PMOA)	40	41	-
9.	Drivers	19	4	15
10.	Ward Boy/Sweeper	114	-	114
Total		498	70	443

80 *per cent* posts remained unfilled in Rajasthan

Out of 443 vacant posts, 31 District Coordinators-cum-District Programme Managers and 15 drivers were employed on contractual basis by the DBCS, leaving 397 posts (80 *per cent*) unfilled. Non-creation of posts in a time bound programme/project adversely affected the implementation of the programme.

7.3.6 Upgradation of facilities

Shortfall in upgradation of facilities in Rajasthan

The programme was to provide equipments to five medical colleges (Rs15 lakh each) 11 district hospitals (Rs 7.20 lakh each), 60 CHC/Sub-district hospitals, 3 mobile units (Rs1.20 lakh each) and 236 PHCs (Rs 0.10 lakh each) in the state of Rajasthan for their upgradation. The targets and the achievements by the state Government during 1994-95 to 2000-01 are indicated below:-

Facility	Project targets	Targets allocated	Achievement	Shortfall with reference to project target
District Hospital	11	07	06	05
CHC/SDH	60	06	04	56
PHCs	236	71	67	169

Five District Hospitals, 56 CHC/SDH and 169 PHCs were not upgraded though the project report envisaged provision of equipments worth Rs.253.40 lakh

7.3.7 Equipment Status

Deficiencies of operating equipments limited the utilisation of trained surgeons

Equipments required for diagnosis and treatment of cases with IOL surgery should have been available in all such hospitals where trained surgeons were posted. Evaluation of equipment status conducted by NPCB, DGHS, Ministry of Health and Family Welfare during July-October 1999 and September-November 2000 revealed that shortfalls ranged from 14 operating microscopes to 50 yag laser units in 66 hospitals and 3 operating microscopes to 33 yag lasers out of 38 surgeons covered respectively. The details are given below:

	None		One		2 or more	
Equipment	1999	2000	1999	2000	1999	2000
Operating Microscope	14	03	24	27	28	08
A-Scan	18	03	30	33	18	02
Yag Lasers	50	33	08	05	08	00
Indirect Ophthalmoscope	18	05	25	17	23	16
Slit lamp	20	06	18	22	28	10
Keratometer	28	07	24	26	14	05
Anterior Virec. Unit	42	06	18	30	06	02
Tonometer	14	--	15	--	37	--
Ophthalmoscope	13	--	13	--	40	--
Retinoscope Streak	23	--	23	--	20	--
Gonioscope	33	--	18	--	15	--
Cryonnits	21	--	12	--	33	--

Thus, the lack of equipment limited the utilisation of services of trained surgeons.

Nine to 19 per cent of infrastructure facilities such as eye wards, OTs, darkrooms etc were not completed, while funds of Rs 8.55 crore released for renovation and furnishing could not be utilised in 9 states. Training activities were not given due care. No new eye bank was developed. Utilisation of eyes for keratoplasty was very poor, only 55 and 46 per cent of eyes collected in Government and voluntary sector respectively were utilised. Heavy shortfalls in creation and filling of posts and upgradation of facilities were noticed in Rajasthan. Deficiencies of operating equipments limited the utilisation of trained surgeons.

7.4 Success of Treatment

7.4.1 Monitoring and Evaluation

State Level

No effective monitoring or evaluation of programme at state level was carried out

The State Programme Management Cell/ Programme Implementation Committee (PIC) under the chairmanship of the State Health Secretary with Directorate General of Health Services as member was responsible for monitoring the programme at state level through (a) perusal of annual district plans; (b) perusal of the minutes of meetings of DBCS of the districts; (c) visits to the districts at least once a year in a large state. A group of experts /consultants could be engaged to assist the State Programme Officer for undertaking field visits and monitoring; and (d) progress reports submitted by the districts. However, scrutiny of records of State Health Secretary of States/UTs revealed that in eleven states/UTs **(Jammu & Kashmir, Haryana, Himachal Pradesh, Meghalaya, Nagaland, Assam, Karnataka, Gujarat Pondicherry, Chandigarh, Andaman & Nicobar Islands**) Programme Implementation Committee was not formed as of March 2001. In states where PIC was in place, the records of number of meetings held, details of field inspection visits undertaken by officers/committee/experts was not available. The performance of the programme on the basis of returns received from DBCS/NGOs was never evaluated during 1996-2001 in almost all the states, either by the state or by any independent agency. Thus, there was no effective monitoring or evaluation of the programme at the state level.

7.4.2 Successful/complication and failure rate

The record relating to successful/complicated and failure cases was not available with the states. However, Government of India identified (March 2000) Ajmer and Udaipur Medical Colleges for establishing Sentinel Surveillance Unit (SSU). The report sent (April 2001) to GOI by the SSU Udaipur mentioned the success rate of 84.56 *per cent* and failure rate as 15.44 *per cent* against national average rate of 8.29 *per cent* (1997).

7.5 Trend Reversal

No nation wide survey was conducted to assess prevalence rate of blindness

The goal was to reduce the prevalence of blindness from 1.4 *per cent* to 0.3 *per cent* by 2000 AD. No exhaustive survey was conducted to assess the reduction of prevalence rate of blindness. However, **Andhra Pradesh, Gujarat, Tamil Nadu and Pondicherry** intimated the prevalence rate ranging between 0.5 *per cent* and 1.44 *per cent* as against targeted rate of 0.3 *per cent*.

7.6 Funding of the Programme

The pattern of assistance for the programme is a mix of budgetary and extra-budgetary resources. However, initial budget allocation by the Government provides for the entire resources. Subsequently reimbursement is sought from extra budgetary support namely the World Bank and Danish International Development Agency (DANIDA). The budget allocation and funds released during the five years under review is furnished below:

(Rs in crore)

Year	Budget Estimates	Revised Estimates	Expenditure
1996-97	75.00	75.00	58.58
1997-98	70.00	70.00	58.38
1998-99	75.00	75.00	72.74
1999-2000	85.00	84.00	83.87
2000-01	110.00	110.00	109.70
Total	**415.00**	**414.00**	**383.27**

68 to 85 *per cent* grants released to implementing agencies/ states and 15 to 32 *per cent* retained by Project Director.

It would be seen that the entire funds allocated in the budget had not been released in any of the years. Analysis of the component of funds released shows that during these five years, 68 *per cent* to 85 *per cent* resources were released to the implementing states/agencies and 15 *per cent* to 32 *per cent* resources were retained by the Project Director at the centre (including commodity grant).

The following table shows allocation and expenditure for project and non-project states during the relevant five years.

Year	Estimated Blind Population (in lakh)		Allocation of funds (Rs in lakh)		Expenditure incurred (Rs in lakh)		Per capita availability (In Rs)	
	Project States	Non-Project States	Project States	Non-Project States	Project States	Non-Project States	Project States	Non-Project States
1996-97	95.69	41.06	6684	816	5066	792	53	19
1997-98	97.43	41.81	5800	1200	4959	879	51	21
1998-99	99.17	42.56	5800	1700	5643	1631	57	38
1999-00	100.91	43.30	6500	1900	6487	1900	64	44
2000-01	102.65	44.05	7500	3500	7487	3483	73	79

While the allocation for other states has increased, augmented funds from funding agencies for the project states resulted in higher per capita availability of resources to these states. Per capita availability of resources in project states increased from Rs 53 annually to Rs. 73, while per capita availability of resources in non-project states has increased from Rs 19 to Rs 79 annually.

Only 63 *per cent* funds were utilised in non-project states while in project states expenditure exceeded the funds released

A smaller part of the Programme funds are disbursed to the implementing state Governments through budgetary allocation but the larger part is released directly to the District Blindness Control Societies (DBCS) for both project and non-project states. The funds released were utilised in non project states up to 63 *per cent*, while in the project states, expenditure exceeded the funds released, as shown below:-

Cash grant to Project and Non-Project States

Rs in lakh

Year	NPCB (Non-Project States)		CBCP (Project States)	
	Release	Expenditure	Release	Expenditure
1996-97	197.35	340.08	1539.62	1974.56
1997-98	133.60	331.00	1383.56	1937.17
1998-99	602.00	332.72	1869.00	1879.18
1999-00	1182.25	680.41	1767.75	3063.34
2000-01	1505.00	593.89	2535.00	4065.90
Total	3620.20	2278.10	9094.93	12920.15

Unspent balance of Rs 30.89 crore lying with DBCS, while 106 Annual Statement of Accounts and 129 UCs still pending receipt

While funds released to the DBCS constitute major part of the release, expenditure fell short of release by 20 *per cent*. Funds released to DBCS are not routed through state Government and there is hardly any financial control mechanism with the Government to regulate the flow of expenditure at the society level. Failure to report expenditure by the DBCS is particularly significant in the light of the fact that unspent grant of Rs 30.89 crore was lying with the societies, as of July 2001. While 106 annual statement of accounts and 129 utilisation certificates relating to grant released up to 1999-2000 are still pending receipt, as shown below:

Grant-in-aid to District Blindness Control Societies (Project and Non-Project States)

Rs in lakh

Year	Total Grant released	Expenditure Reported	No. of pending annual statement of Accounts	Pending utilisation certificates
1996-97	1423.00	1547.19	8	13
1997-98	3131.50	2449.98	15	20
1998-99	3630.05	3166.57	25	31
1999-00	3612.13	3039.22	58	65
2000-01	3844.57	2348.89	Not due	-
Total	15641.25	12551.85	106	129

Programme Directorate utilised Rs 297.66 crore against Rs 554 crore available for project period

Poor utilisation of resources by project states was a notable feature. By the end of 2000-01, these states had used 297.66 crore (out of which 226.52 crore was reimbursed by the World Bank) against Rs 554 crore available during the project period of seven years. Even though the project has been extended up to 2002, it is unlikely that the remaining 46 *per cent* of resources can be effectively utilised during the span of only one year. Inability to use resources available was a major failure of the programme and indicates both non-availability of infrastructure to receive and use the fund and poor management of flow of funds by the programme Directorate.

Section-II

National Tuberculosis Control Programme

8. Introduction

The National Tuberculosis Control Programme (NTP) was initiated in 1962 in the background of pervasive endemicity and fatality due to lack of treatment. The thrust of the programme rested on early diagnosis and efficient treatment. Strategically, the programme was sought to be integrated with the network of provisioning of health services. But the programme failed to make a significant impact largely due to its failure to forge constructive linkages with the existing health delivery system and lack of financial and manpower resources. Further, failure in the efficacy of the conventional drug regimen combined with lack of quality control in radiological investigation and laboratory standards resulted in militating against the very thrust of the programme. It is in this context that an evaluation of the programme was undertaken in 1992 by the Government of India with the support of World Health Organisation (WHO) and Swedish International Development Agency (SIDA). The results of evaluation, while exposing the weaknesses of the programme recommended parameters for revising the programme in line with new diagnostic needs, therapeutic requirements, and monitoring systems required to tackle the proliferation of the disease. The Revised National Tuberculosis Control Programme (RNTCP) thus took shape and phase I pilot was initiated in 1993 to demonstrate the technical feasibility of RNTCP in India with the support of SIDA and WHO. Phase II pilot was initiated in 1994, with the support of World Bank, for testing the managerial feasibility of implementation. The pre-appraisal mission of the World Bank, after reviewing the implementation of phases I and II in February 1996, endorsed the project and phase III of the programme commenced in May 1997 with the main objective of facilitating the transition of NTP to RNTCP in a project format. A time span of 8 to 12 years was visualized for the establishment of RNTCP in India of which the project period of five years i.e.1997-2002 was visualized as the stage of transition, during which institutional and managerial infrastructure could be set up. This transitional phase is currently in progress. Audit review of the National Tuberculosis Control Programme therefore consists of two elements:

i) A scrutiny of the implementation of the RNTP in World Bank project format in selected districts of 18 states and

ii) Quality of implementation of the NTP in rest of the states and districts not covered by the World Bank project.

Derived from this, the audit strategy consists principally of two separate lines of investigation: One line examines the activities under the World Bank project and the other line examines the activities under the conventional pre revised programme. The results are either depicted separately or fused together depending on the nature of the material contained in the review. The complexity of the review arises from the fusion of two separate lines of investigation. But then, it is expected that a review of the World Bank Project in the penultimate years combined with the progress of the programme in the conventional regime would show the degree of success of the project intervention and the workability of the conventional programme.

8.1 Confluence of global support

As brought out, bilateral and multilateral funding agencies have been involved in the implementation of the Tuberculosis Control Programme since 1993. Phase I pilot was assisted by SIDA and WHO, Phase II pilot was assisted principally by the World Bank and gaps in regard to staffing, equipments and facilities were met by British assistance through Department for International Development (DFID). The Danish International Development Assistance (DANIDA) stepped in to support phase III of the programme, concentrating on the tribal districts of Orissa and DFID was assisting in the implementation of the programme in the tribal districts of Andhra Pradesh.

9. Goal

The main objectives of NTP are to diagnose as a large number of cases as possible and provide efficient treatment, giving priority to Smear-Positive patients and implement these activities as an integral part of general health services. The main goal of RNTCP is to reduce mortality, morbidity and disability by curing TB, thereby reducing the annual risk of infection. Under RNTCP, active case finding is not recommended. Hence no targets are set. But it has been estimated by the Ministry that, on an average, there would be approximately one TB chest symptomatic person for every 50 new general OPD patients. There would be approximately 85 new smear positive patients per one lakh population of which 50 per lakh smear positive patients will seek treatment from Government Health facilities. Annual case detection rate is 135 per lakh population out of which 50 cases would be sputum positive, 50 cases would be sputum negative, 25 cases would be relapse cases and 10 cases would be extra pulmonary. The optimum level of cure rate was expected to be 85 *per cent* or above for new cases and relapses. Proportion of defaulters would be less than 5 *per cent* and sputum conversion for new smear positive cases at 3 months should be 85 *per cent*.

10. Strategy

Programme strategies were evolved on the need for containing the spread of TB and curing the disease. The principal strategies of RNTCP have been

- Focus on infectious smear-positive patients and diagnosis based on sputum analysis, rather than x-ray.
- Consolidation of diagnostic capacity at selected sites and decentralization of treatment to the periphery to facilitate access.
- Provision of drugs in blister packs or combination pills.
- Modified organizational structure at all levels.
- New training policies.
- New approach to drug procurement, inventory and distribution to enable uninterrupted drug supply.
- Rigorous Monitoring.

11. Activities

To meet the programme objectives three main activities have been adopted.

a) Improving the quality, access to and outcome of TB treatment by introducing

(i) Directly Observed Treatment with Short-Course Chemotherapy (DOTS).

(ii) Covering more districts under Standard Short course Chemotherapy (SCC).

(iii) In non SCC districts, provision of conventional or Long Course Chemotherapy (LCC) drugs to smear-positive patients.

(iv) Providing conventional drugs to smear negative patients.

(v) Involvement of NGO and private sector in service delivery.

b) Developing Institutional and Research capacity and enhancing technical, managerial and interpersonal skills by

(i) Strengthening the management unit at Central and State levels.

(ii) Strengthening the district level management by formation of District Tuberculosis Control Societies (DTCS), changing the role of District Tuberculosis Centres (DTCs) from being a service provider to one involving programme management, training, drug distribution, supervision, monitoring etc. and by setting up Tuberculosis Units (TUs) and Microscopy Centres (MCs).

(iii) Strengthening Central Training Institutes.

(iv) Strengthening State level training by setting up State Demonstration and training centres.

(v) Strengthening monitoring and evaluation by regular supervisory visits at all levels, by developing management information system for data analysis at all levels, by setting clear performance indicators.

c) Developing information, education and communication and promoting outreach activities and community development

12. Organisational Structure

At the national level, the TB Division is headed by a Deputy Director General (TB) who is the National Programme Director and it is assisted by collaborating Central Institutes such as National Tuberculosis Institute, Bangalore, Tuberculosis Research Centre (TRC), Chennai, Lala Ram Sarup Institute of Tuberculosis and Allied Sciences (LRS) Delhi and other institutions of repute.

At the state level, the state TB Officer (STO) monitors the activities. State TB Training and Demonstration Centres in major States of the country provide training, guidance, supervision, co-ordination, monitoring and technical assessment of the programme in the respective areas.

At the District level, the Chief District Health Officer is the Principal Health functionary in the District and is responsible for all medical and public health activities including control of TB. The District Tuberculosis Centre (DTC) is the nodal point for TB control activities in the district and also functions as a specialised referral centre. The District TB Officer is specifically responsible for the organization of TB activities in the district.

In the Sub-Divisional level, a supervisory and managerial team at the peripheral level act as a Tuberculosis unit. This unit covers a population of about 5,00,000. The functions at sub-district level are implementation, monitoring and supervision of TB control activities in the designated geographical area. The organogram of the NTCP is given in **Annex VI**.

13. Scope and Objective of Review

This review of the National Tuberculosis Control Programme covers the time frame from 1996-97 to 2000-01. During the period the World Bank Project for the establishment of RNTCP was in progress, the bilateral donor assistance (DFID, DANIDA) were in operation with area specific concerns and the conventional NTP parameters were under implementation in the non-project states and districts. The time segment under review does not coincide with the end of the project period, nor does it mark the completion of any aspect of the programme. Therefore, this is not an end programme evaluation but more in the nature of an evaluation of the ongoing programme. It intends to evaluate the stage of completion of various activities undertaken by multiple agencies including the government with a view to indicate the manner in which the ultimate goal is being approached. Details of samples selected for test audit are given in **Annex VII**.

The programme was reviewed earlier and the audit findings were included in paragraph 20 of Report No.1 of 1988 of Comptroller and Auditor General of India. The main observations related to non-utilisation of grants, non-achievement of targets, non-establishment of TB Centres, non-filling up of the posts of medical and paramedical staff and non-evaluation of the programme. The present review of the scheme conducted during February 2001 to October 2001 has found that similar deficiencies continue in the implementation of the programme.

14. Implementation of the Programme

The thrust areas of NTP and the RNTCP were differentiated by the degree of emphasis on case detection, drug regimen and cure rate. While the NTP emphasised case detection and conversion of sputum positive cases to sputum negative cases through long term conventional therapy, the RNTCP emphasised directly observed short term treatment with multi drug therapy. Qualitatively, the differentiation came as a consequence of the technological breakthrough which brought in short term therapy under direct observation. This, however, implied availability of greater trained manpower which could be provided only under the projectised format of RNTCP, while the rest of the non-projectised NTP states/districts have to continue with the long term conventional therapy in a phased manner of gradual switchover to short term therapy. It was observed that, in terms of outcome, the projectised states/districts under RNTCP performed better by way of achieving higher cure rates in the range of 77.9 to 84 *per cent* against the stipulated rate of 85 *per cent*. In the NTP states/districts however the cure rate was low, at 43 *per cent*. This showed the comparative advantage of RNTCP over the NTP. But a closer scrutiny of achievement recorded under RNTCP also showed that there were states/districts where the cure rate was even lower (2 to 41 *per cent*) than the cure rate achieved under NTP. Cure rate could not possibly be the sole indicator for evaluating the success of the programme. Achievement in the detection of TB cases is also not an acceptable indicator because the RNTCP missed this altogether. In this context, audit review of the programme sought to locate the programme deficiencies from the perspective of the beneficiary. The audit objective was to review the implementation of the programme under certain broad indicators arising out of structure and operational specificities of the programme namely (i) the reach of the programme i.e. whether the programme has succeeded in reaching the target areas (ii) efficiency i.e. whether resource and facilities of the programme were used efficiently and decentralised set up functioned effectively (iii) the quality of infrastructure i.e. whether the necessary facilities were created and quality inputs administered and (iv) success of treatment i.e. whether the desired cure rate was achieved.

14.1 Reach

Reach of the programme is critical to its success. Under the conventional programme mode, reach of the NTP has been estimated by audit on the basis of the achievement of targets in respect of TB cases detected, sputum

examination and detection of new sputum positive cases. Under the RNTCP, the reach of the programme has been estimated by audit with reference to the number of TB patients registered, number of patients evaluated and number of cases where patients have been cured or treatment has been completed. The achievements claimed have been compared with the trends indicated by the results of test check.

14.1.1 Targets and Achievements under National Tuberculosis Control Programme (NTP)

Performance of Assam, Bihar and West Bengal was very poor since 1996-97 to 2000-01

Annex VIII gives the details of targets and achievements of NTP during the period 1996-97 to 2000-01. It can be seen from the Annex that in 1996-97 only two targets in respect of i) case detection and ii) sputum examination were set. In 1997-98, one more target on detection of new sputum positive cases was added. From 1998-99 only two targets – for sputum examination and detection of new sputum positives were set. In 1996-97, it is seen that in respect of **Himachal Pradesh, Karnataka, Meghalaya, West Bengal, Chandigarh** and **Dadra & Nagar Haveli** achievement in TB case detection was above 100 *per cent*. In sharp contrast, achievement in sputum examination was low ranging between 13.21 *per cent* and 54.40 *per cent*. In 1997-98 and 1998-99, new sputum positive case detection was nil in Union Territories **Daman and Diu** and **Lakshadweep**. The performance of **Assam, Bihar** and **West Bengal** was very poor during the five year period.

The targets fixed were not evaluated/reviewed keeping in view the rate of achievement

Cases where the achievements were far beyond the target were examined with reference to targets set. It was observed that the targets were not reviewed keeping in view the rate of achievements. States with low achievement continued to perform poorly without any corrective measures being taken. There was a decline in achievements on all fronts from the high point achieved in the first year of the programme. Test check of records in the states brought out certain interesting facts

Performance of sputum examination and conversion of sputum positive to negative was poor in Madhya Pradesh

a) In seven test checked districts of **Madhya Pradesh** the average percentage of sputum positive cases found in sputum smear examination was only six *per cent* during 1996-97 to 2000-01 against 10 *per cent* stipulated as normal in the programme. In Guna District, the conversion percentage of positive to negative was low at 14. In 2 Districts, Jabalpur and Satna it was found that sputum was examined only once where as 3 smear examinations were stipulated for a single case. The reasons were attributed to shortage of laboratory technicians.

b) In 4 test-checked districts of **West Bengal** (Burdwar, Birbhum, Darjeeling and Malda) shortfall in sputum examination and identification of new sputum positive cases ranged between 55 and 40 *per cent* during 1996-2001.

Conversion of sputum positive to negative was low in Maharashtra

c) In 3 test-checked districts of **Maharashtra** Beed, Buldhana and Nasik the percentage of conversion from positive to negative was around 50 only during 1996-97 to 2000-01.

Sputum examination not conducted in 10 PHIs in Andhra Pradesh

d) In **Andhra Pradesh**, the targets for sputum examination and detection of sputum positive cases were fixed at 500 cases per one lakh population and at 50 cases per one lakh population respectively. In the test-checked districts the shortfall in sputum examination was very high ranging between 32 and 85 *per cent*.

In East Godavari District, in 10 of the 72 PHIs sputum examination was not conducted continuously for periods ranging from 27 to 57 months, during January 1996 to September 2000, despite regular flow of patients.

e) In respect of 20 PHIs of West Tripura District in **Tripura,** target for sputum examination was fixed as 59500 but 28706 cases were examined leaving a short fall of 52 *per cent*. In addition, it was seen that the sputum positive cases required to be detected in the District as per norm of 50 chest symptomatic patients per 1 lakh population works out to 7942 cases whereas only 3312 cases of sputum positive had been detected.

Detection of sputum positive cases was very low in Bihar

f) In nine test-checked districts of **Bihar** detection of sputum positive cases was much less than the norm of 50 chest symptomatic patients per lakh population. The shortfall ranged between 86 *per cent* and 91 *per cent* during 1996-97 to 2000-01. During 1996-97 to 2000-01, in respect of 717 and 2183 cases sputum tests of new sputum positive patients was not done at intervals of two months and three months. Number of relapse cases and default cases increased during 1996-97 to 1998-99.

14.1.2 Targets and Achievements - Revised National Tuberculosis Control Programme (RNTCP)

Goa, Sikkim, Nagaland, Meghalaya, Tripura, Mizoram and all UTs are not covered under RNTCP

RNTCP was introduced by Government of India in various districts since 1995-96. Till March 2001, 170 districts in 18 states were covered involving a total population of 3548 lakh. Many States like **Goa, Sikkim, Nagaland, Meghalaya**, **Tripura, Mizoram** and all Union Territories are not covered under this Programme. While 19 districts in **Sikkim, Nagaland** and **Manipur** were planned to be covered under RNTCP, only one district in **Manipur** was covered during the period. Under RNTCP, sputum microscopy is the main method of diagnosis. The programme envisaged setting up of Tuberculosis Units (TUs) for every five lakh population and Microscopy Centres (MCs) for every one lakh population. Out of 755 TUs and 3618 MCs planned, 752 TUs and 3474 MCs are operational in 18 RNTCP States.

Cure rate ranged between 77.9 to 84 *per cent*

The specific objective of the programme is to achieve 85 *per cent* cure rate in the RNTCP Districts for newly diagnosed smear positive cases. The reporting formats used in the programme give details of cases registered, results of treatment of new sputum positive patient, new sputum negative patients, treatment of extra-pulmonary patients and treatment of relapse patients (**Annex IX**). It would be seen that the overall cure rate ranged between 77.9 and 84 *per cent* during 1996-2000, which was below the stipulated rate of 85 *per cent*. The death cases ranged between 3.4 and 4.3 *per cent* while defaulter rate ranged between 8.5 and 11.6 *per cent* against the stipulated rate of 5 *per*

cent. With introduction of DOTS, the follow up of defaulters rests with the health workers. The defaulter rate can be minimized through proper follow up action. Failure of treatment is related to drug résistance and irregular drug intake.

14.1.3 Interesting cases noticed in test check are detailed below:

(a) Shortfall in case detection

In **Karnataka** cases detected during 1998-99, 1999-2000, and 2000-01 were 820, 2629 and 8816 respectively, which were much lower than the estimated cases of 6345, 6345 and 19170 calculated at the rate of 135 cases per lakh population.

(b) Short fall in sputum examination

Required minimum percentage of OPD patients not covered for sputum examination in Tamil Nadu and Kerala

Efforts are needed to improve diagnosis of TB among patients attending health facilities as atleast two *per cent* of adult outpatients are estimated to be chest symptomatic. These patients should be asked about the presence of cough and their sputum samples, if necessary, should be collected. In **Tamil Nadu** shortfall in sputum examination ranged from 1 to 100 *per cent* in 68 PHIs covered by test check. In **Kerala**, the shortfall was 39 to 64 *per cent* in 5 test-checked districts. The shortfall was mainly due to not covering of the required minimum percentage of OPD patients attending the health units for sputum examination.

(c) Shortfall in detection of new Sputum Positive cases

Smear positive detection rate was low in Kerala

As per norms, out of one lakh population 50 new smear positive patients would seek treatment from government health facilities. In **Kerala**, in 5 test-checked districts, the shortfall was between 30 and 52 *per cent* during 1999-2000 and 2000-2001. Such shortfall in detection defeats the objective of controlling the disease. In **Gujarat,** during the calendar years 1997 to 2001 the rate of new smear positive detection ranged between 9 and 44 per lakh population.

Thus, the reach of the programme has met with limited success. The performance of NTP states was very poor whereas under RNTCP the cure rate was below the stipulated rate and defaulter rate could not be minimised.

14.2 Efficiency

14.2.1 Treatment - RNTCP

Administration of Drugs

Medicine boxes provided by DOTS provider in some districts of Kerala and Tamil Nadu

a) Under RNTCP, the medicines are to be administered by the DOTS provider in the places accessible and acceptable to the patient. The medicine box was not to be given to the patient as the medicines were to be taken in the presence of DOTS provider. In **Kerala**, in Microscopy centre Pattambi of

Palakkad District medicine boxes for intensive and continuation phases were issued to 58 patients for self-administration, which was incorrect resulting in non-follow-up of patients.

b) DOTS was implemented only from December 2000 in Government hospital of Thoracic Medicine, Tambaram Chennai in **Tamil Nadu**. Although the specified drug regimen was followed, the drugs were given to patients once in a fortnight for self-administration because of insufficient number of health workers. In five institutions in 2 districts, Kancheepuram and Salem, TB drugs were given in advance to the patients during the intensive phase.

c) DOTS did not commence in Central Prisons at Cuddalore and Vellore of **Tamil Nadu** although the strategy was already under implemention in those districts.

Proper treatment regimen were not followed

d) Mahatma Gandhi Memorial TB Sanatorium at Sengipatti in **Tamil Nadu** is run by a Trust receiving an annual maintenance grant of Rs 3 lakh from the State Government. Anti TB drugs were purchased by the sanatorium from Public Sector Companies and sold to the patients on cost basis. The sanatorium did not follow the regimen prescribed under RNTCP. DTO Thanjavur did not direct the hospital to follow standard RNTCP regimen.

e) In five selected districts of **Rajasthan**, 60 new positive cases were shown converted into negative though nil to 20 doses were given as against complete treatment of 24 doses.

f) Sputum (positive) patients having 1 to 9 living acid fast bacilli (AFB) are to be treated under category I or II drug regimen. But in respect of 8 cases in 4 MCs in **Rajasthan**, these patients were treated under category III regimen meant for sputum negative patients.

14.2.2 Poor maintenance of Treatment cards, Lab Register, TB Register etc.

109 patients were given excess dose of drugs in J&K

(a) Patients who are treated at the diagnostic health facility PHC/CHC/DTC receive the first dose of medication on the day the treatment card is prepared. Prescribed drug regimen is to be entered in the treatment card. Test check of 716 treatment cards in DTCs/PHCs of Jammu and Kashmir revealed that the cards were not authenticated. Treatment in all 300 smear positive eases was started only after one sputum smear test. Second and third sputum tests during follow up were done only in 137 and 46 cases respectively. Moreover, prescribed drug regimen had not been recorded in 160 cases. More than one regimen was prescribed in 34 cases. Excess dose of drugs were given to patients in 109 cases. Reasons for not following the prescribed drug regimen were attributed by DTO Udhampur to negligence on the part of staff maintaining treatment cards.

In 18 cases sputum examination were shown as conducted even after death, in Rajasthan.

(b) In **Rajasthan**, 15 cases shown as positive in Lab Register were taken as negative in TB Register and 7 positive cases were shown as negative in TB register, without any details in Lab Register. In 15 cases, treatment was shown as continued and in 18 cases sputum examination was shown as conducted even after the death of patients.

In 79 cases, the same laboratory examination number was depicted twice in TB Register and in 68 cases the same lab number was shown against different patients. This incorrect maintenance of records casts doubts on the accuracy of the results of treatment.

14.2.3 Contacts of Smear Positive Cases

Any person with productive cough and who is in contact with smear positive patient should have 3 sputum examinations. If the results are negative and the symptom persists even after treatment, the patient should have a chest X-ray and undergo examination by a M.O. If the results are doubtful, then the patient should be followed up 3 months later. Scrutiny of treatment cards in 6 districts of **Tamil Nadu** disclosed no evidence of treatment of persons in contact with positive cases. It could not be ensured that the contacts of smear positives were duly examined. Such non-examination would result in spreading of the disease.

14.2.4 District/State Tuberculosis Control Societies (DTCS/STCS)

For greater decentralisation, the District has been designed as the unit for implementing various developmental programmes. The DTCS is accountable to the Central/State authorities for all programme related activities. They are registered under the Societies Registration Act. The objectives of the DTCS are:

(i) To achieve more than 85 *per cent* cure rate among the new sputum smear positive TB cases registered.

(ii) To detect at least 70 *per cent* of the estimated new sputum smear positive cases.

(iii) To provide short course chemotherapy (SCC) to all TB diagnosed patients for the recommended duration of treatment to ensure that they are cured.

(iv) To ensure the implementation of Directly Observed Treatment- Short course (DOTS) for treatment of all TB cases registered in the RNTCP.

The DTCS will plan, implement, monitor and supervise all tuberculosis control activities in the District in co-ordination with the District TB Centre (DTC) under the overall guidance of the State and Central Government. Under RNTCP, funds are directly issued by the Central TB Division to DTCS. The funds are to be utilized for (a) payment of district staff and honoraria for those who conduct DOTS (b) IEC activities (c) active involvement of private and non-government organizations (NGO) in the RNTCP (d) running and

maintenance of project vehicles, minor civil works, purchase of Xerox copiers, computers and other miscellaneous expenses.

142 UCs involving grant of Rs 35.52 crore as of March 2000 were pending receipt and accumulated unspent balance with DTCS was Rs 61.67 crore

Accounts of the DTCS are to be audited every year by a Chartered Accountant. The annual report of audited accounts are to be submitted to the Central TB Division along with Utilisation Certificate of the grant received from the Central Government.

(a) Year wise position of grants released and expenditure reported by societies

(Rs. in lakh)

Year	No. of Districts to whom grants released	Amount of grants released	Expenditure reported	Percentage of grants utilised	Unspent balance	No. of UCs awaited	Amount of grants involved in r/o pending UCs
1996-97	*	539.00	*	*	*	*	*
1997-98	39	1125.56	169.57	15	956	21	553.25
1998-99	108	2598.82	454.71	13	3100.11(x)	74	1898.00
1999-00	127	2399.74	996.31	18	4503.54(x)	47	1100.65
2000-01	239	4000.99	2337.38	27	6167.15(x)	180	2898.79

* *Information in respect of 1996-97 not furnished by central TB Division*

(x) Unspent balance includes balance from previous year.

DTCS/STCS of 8 to 14 states failed to utilise any amount during 1997-98 to 2000-01

The DTCS in states have not entirely utilised the grants released to them. The range of percentage of utilisation of grants in states is given in the following table.

Year	No. of States						
	To whom grants released	Utilisation of grants					
		0 *per cent*	1 to 10 *per cent*	11 to 30 *per cent*	31 to 50 *per cent*	51 to 75 *per cent*	Above 75 *per cent*
1997-98	15	Nil	5	6	2	1	1
1998-99	29	14	5	8	2	-	-
1999-00	29	13	3	11	2	-	-
2000-01	29	8	6	8	5	1	1

The details of utilisation of Government of India grants by DTCS/STCS specifically in 7 states are given in **Annex-X**.

(b) Assistance to Non Government Voluntary Organizations (NGOs)

Only 12 *per cent* of grant released for NGOs support were utilized by DTCS

Grants are given to DTCS for involvement of voluntary organizations in the Programme. Grants amounting to Rs. 165.02 lakh had been granted to District

Tuberculosis societies during 1997-98 to 2000-2001. Of this, only Rs. 19.28 lakh (12 *per cent*) had been spent by DTCS. There is not much involvement of NGOs in the programme.

(c) IEC Activities

Only 40 *per cent* of funds released for IEC activities were utilised by the DTCS

It is imperative that dissemination of knowledge and awareness about different aspects of TB, its curability and control measures to providers, users and the community at large would influence the success of the programme and remove the social stigma attached to the disease. This is possible only when the IEC activities are carried out by District Tuberculosis Societies. Grants released to various societies for this component during 1997-98 to 2000-01 amounted to Rs. 651.94 lakh. Expenditure reported from these grants was Rs. 259.86 lakh. Thus, only 40 *per cent* of funds have been utilised for these activities.

In **Tamil Nadu** in Chennai City the post of IEC Officer was not filled since 1997. Out of grants of Rs. 11.83 lakh provided during September 1995 to March 2000 for IEC activities in Chennai, Rs. 10.69 lakh remained unutilised till March 2001.

In **Himachal Pradesh** the IEC officer had not been appointed and no IEC activities were undertaken since the formation of State Tuberculosis Control Society in July 1997.

The programme failed to make use of the available resources which adversely affected its implementation of the programme. Programme activities suffered in as much as the grants released to DTCS were utilised only to the extent of 13 to 27 per cent during 1996-97 to 2000-01. Grants to DTCS for assistance to NGOs and IEC activities could only be utilised to the extent of 12 per cent and 40 per cent respectively.

14.3 Quality of Infrastructure

14.3.1 Establishment of District Tuberculosis Centres (DTCs)

Successful implementation of the TB Control Programme depends upon the establishment of requisite number of TB Control Centres at district and sub-district level. One DTC has to be established for an average population of 19 lakh. In 7 out of 13 districts of **Arunachal Pradesh**, DTCs had not been established. The State TB Training and Demonstration Centre established at a cost of Rs. 8.71 lakh in Nahar Lagun in November 1997 conducted only 2 day refresher courses on two occasions during 1997-2001. The centre is being used for other purposes.

In **Tamil Nadu**, no DTC was formed in Chennai District though its population was 44.81 lakh and the Health Department of the Corporation of Chennai was implementing RNTCP in the city. Though Coimbatore District had a population of 38.87 lakh, only one DTC was functioning in the District. 12 DTCs in the State did not have the full strength of staff essential for the proper

implementation of RNTCP. DTCs were not established in the four new districts of the State.

In **Rajasthan**, against the norms of 80 *per cent* of staff to be trained under RNTCP before the start of service delivery in DTCs, it was noticed that in Alwar 35 *per cent* of laboratory technicians, in Dausa 39 *per cent* of medical officers and 75 *per cent* of laboratory technicians were not trained. In Jodhpur district, while Microscopes were not made available in 16 MCs, Laboratory Technicians were not posted in 11 MCs in desert area since their inception (September 2000). Resultantly, sputum tests were not conducted and patients had to cover a distance of about 15 to 50 Km to other MCs for this test.

In **J & K**, DTCs had been established only in 10 out of 14 districts.

In five newly created districts of **Punjab**, no DTC had been established.

14.3.2 Non-Utilisation of TB wards

In Tripura, two 20 bedded wards were not handed over to TB Officer

In **Tripura**, two 20-bedded TB wards were constructed in 1986 at a total cost of Rs 15 lakh at Udaipur and Kailashahar but the buildings were utilised by the Health Department for other purposes and not handed over to the State TB Officer.

14.3.3 Establishment of Tuberculosis Units (TUs) and Microscopy Centres (MCs)

As per norms, at the sub-district level one TU with a senior TB Laboratory Supervisor (STLs) and a senior treatment supervisor (STS) trained in RNTCP would be created for about five lakh population. The diagnostic component i.e. Microscopy Centre (MC) would be located in the C.H.C./P.H.C. or Taluk Hospital based on workload limited to maximum of one per lakh population. The status of establishment of TUs and MCs in respect of RNTCP as given by the Central T.B. Division Government of India is given below:-

Sl. No.	State	Population covered by RNTCP Districts (in lakh)	No. of TU		No. of Microscopy centres	
			Planned	Operational	Planned	Operational
1.	Andhra Pradesh	189.92	38	38	158	145
2.	Assam	12.00	2	2	12	12
3.	Bihar	108.32	20	20	91	58
4.	Delhi	142.20	26	26	102	92
5.	Gujarat	380.05	85	84	399	398
6.	Himachal Pradesh	168.52	24	24	106	98
7.	Haryana	49.09	10	10	38	35
8.	Jharkhand	44.15	9	9	46	44
9.	Karnataka	197.32	39	39	198	198

Sl. No.	State	Population covered by RNTCP Districts (in lakh)	No. of TU		No. of Microscopy centres	
			Planned	Operational	Planned	Operational
10.	Kerala	319.15	65	63	327	323
11.	Maharashtra	367.67	81	81	379	375
12.	Manipur	10.00	2	2	13	13
13.	Madhya Pradesh	39.63	8	8	41	41
14.	Orissa	68.55	17	17	109	108
15.	Rajasthan	534.88	136	136	757	750
16.	Tamil Nadu	329.05	71	71	310	310
17.	Uttar Pradesh	190.99	38	38	153	152
18.	West Bengal	396.61	84	84	379	322
TOTAL		**3548.10**	**755**	**752**	**3618**	**3474**

There was shortage of 4 *per cent* of MCs in all the states and in Kerala 3 out of 4 MCs were not functioning as posts were not filled up

The shortage of MCs was limited to four *per cent*.

In **Kerala** out of four centres sanctioned in tribal areas in Palakkad, three centres had not started functioning as three posts of Lab Technician were yet to be filled.

14.3.4 Equipment and Vehicles

From the quarterly reports of RNTCP received in Central TB Division, from various states regarding equipments, vehicles and their position as on 31 December 2000, it was seen that many equipments and vehicles were not in working condition which affected the implementation of the programme. The details are as under:

Equipments not in working condition affected the implementation of programme in Orissa, Tamil Nadu and Punjab

Name of equipment	Total No.	In working condition	Not in working condition
Monocular Microscope	2896	2500	396
Binocular Microscope	3166	3014	152
X-ray machine	536	476	60
Photocopier	61	56	5
Computer	38	36	2
Air Conditioners	3	2	1
Jeep	130	118	12

In **Orissa** 30 microscopes out of 59 received from GOI in June 1999 were lying undistributed as of March 2001. X-ray machines lying out of order include 2 machines in 2 DTCs of **Orissa** (since 1996 and 1998) and one in **Tamil Nadu** (since 1999). In **Rajasthan**, 5 X-ray machines costing Rs. 6.67 lakh were lying idle for periods of 3 to 55 months in MCs/TUs. In TB Hospital Sangrur, **Punjab** X-ray machine had been out of order since 1995.

14.3.5 Manpower

The records of Central TB Division in respect of 167 RNTCP Districts as of March 2001 revealed that 9 districts had no District TB Officer (DTO), 56 had no Statistical Assistant (SA), 35 had no Treatment Organiser and 2 had no Lab Technician (LT). Percentage of shortage in other posts was as below:

Name of the Post	Percentage of Shortage
Medical Officer of the TB Unit	2
Senior Treatment Supervisor	2
Senior TB Lab Supervisor	5
Lab Technician	17
Treatment Organiser	14
Medical Officer (BPHC/CHC)	10
Pharmacist	13
Lady Health Visitor	14
Staff Nurse	8
Health Assistant	8
Multipurpose Health Worker	10
TB Health Visitor	13
Anganwadi Worker	7

Test check in states revealed the following:

In **Gujarat** against 24 posts of District Tuberculosis Officers and Treatment Organizer only 8 posts and 19 posts respectively were filled.

Acute shortage of key personnel in Gujarat, Pondicherry, Tamil Nadu, Tripura, Bihar & Karnataka adversely affected the implementation of programme

In Yanam of UT **Pondicherry**, there was no TB specialist.

In **Meghalaya**, there was shortage of one post of District TB Officer, 2 posts of Medical and Health Officer and 1 post of TB Health Visitor.

In TB Hospital Hermitage, Sangrur in **Punjab** the staff strength consisted of one medical superintendent, two Chief Pharmacists, one Pharmacist. eight Ward Attendants, one Radiographer and one X-ray Assistant. During 1998-2001, only 791 patients were admitted i.e. an average of 22 patients per month. To attend to these patients one pharmacist and three ward assistants were sufficient. Thus posts of two Chief Pharmacists and 5 Ward Attendants were rendered excess. In addition, X-ray machine was also out of order since 1995. One Radiographer and one X-ray assistant remained idle resulting in wasteful expenditure of Rs.29.44 lakh on their pay and allowances.

The Central TB Division recommended in July 1997 that the TB Headquarters unit in Chennai Corporation in **Tamil Nadu** be strengthened with additional manpower of one Data Entry Operator, Driver, IEC Officer, Medical Officer

and Secretarial Assistant each. However, except the post of Driver, no other - posts were filled (May 2001).

Test check of records in 3 DTCs of **Tripura** revealed shortage of key personnel (2 Second Medical Officers, 4 Treatment Organisers, 3 Laboratory Technicians, 3 Statistical Assistants).

In **Bihar** under NTP, 72 *per cent* posts were vacant as on 31st March 2001.

In **Karnataka** under NTP 39 *per cent* posts of lab technician and 31 *per cent* posts of x-ray technicians were vacant.

The shortage of personnel adversely affected the functioning of the programme.

14.3.6 Training

State and District Level Officers, working under NTCP/RNTCP were to be trained at National TB Institute Bangalore, TRC Chennai and LRS Institute Delhi. Other categories of Medical and paramedical staff were to be imparted training within the State.

From the quarterly reports received from Districts in Central TB Division the overall position of Trained Officials in RNTCP Districts is given below:

55 per cent of staff nurses and 59 per cent of Anganwadi workers not trained

Sl. No	Post Held	Manpower	Trained
1.	T.B. Officers	151	141
2.	Statistical Assistants	102	86
3.	Medical Officers	242	222
TB Unit			
4.	Medical Officers	704	690
5.	Senior Treatment Supervisor	727	710
6.	Lab Technician	5536	4969
7.	Staff Nurse	13299	5925
8.	Anganwadi Workers	106557	43379
9.	Trained Dai	32187	5121
10.	Multi Purpose Health Worker	63519	58410

The training programmes are to be given priority as many medical/ paramedical staff have not yet been trained in RNTCP activities. The slow pace of training affects the achievement of the programme.

Thus it was seen that due to non-establishment of DTCs as per norms and non-observance of parameters in regard to their staffing, the services contemplated under the scheme could not be provided. However under the

RNTCP, TUs and MCs were established as per norms with marginal deficiency of 4 per cent. Around 10 per cent of the monocular and binocular microscopes and x-ray machines were not in working order. Shortages in manpower at the crucial levels of Laboratory Technicians, Treatment Organisers, Medical Officers, Pharmacists, Lady Health Visitors and TB Health Visitors exceeded 10 per cent. Anganwadi workers and staff nurses were found be the least trained, ranging between 55 to 59 per cent.

14.4 Success of Treatment

14.4.1 Treatment outcome (NTP)

From the reports compiled by NTI Bangalore for the calendar years 1999 and 2000 in respect of 17 and 24 states respectively, it is seen that the percentage of cured cases in 1999 and 2000 remained at 38 and 43 *per cent* and defaulted cases (cases where patients discontinued treatment) remained at 29 and 31 *per cent* respectively as given below:

Year	Cases treated				Percentage		
	Under Regimen A	Under Regimen B	Total	Cured	Died	Defaulted	Failure
1999	46656	9073	55729	38	1.2	29	1
2000	45317	3761	49078	43	1.35	31.16	1.35

These figures reflect the poor performance by all the NTP states.

7.4.2 Analysis of Treatment Outcome in Various States

In **Karnataka** details of death as well as failure cases were not available in the records of test-checked districts. The percentage of defaulters ranged between 25 and 34 during 1996-97 to 2000-01.

Number of patients who discontinued treatment was on the rise in Karnataka, Madhya Pradesh and Andhra Pradesh indicating non-reduction of incidence and spread of TB

No records of death cases were maintained in two of the test-checked districts of **Arunachal Pradesh.**

In test checked districts of **Madhya Pradesh,** the number of patients who could not be brought under treatment ranged between 7 and 20 *per cent* of new TB patients during 1996-97 to 1998-99. The percentage of patients who completed treatment was very low ranging between 22 *per cent* and 27 *per cent* during the five year period whereas patients who migrated/defaulted was very high, ranging between 72 and 77 *per cent*

In **Andhra Pradesh** number of patients not brought under treatment increased from 2282 in 1996-97 to 6014 in 2000-01. DTCS attributed the initial defaults to the patients not reporting for second and subsequent sputum tests/X-ray examination. But no step had been taken to motivate the defaulters to stick to the treatment regimen.

Similarly, in six test checked districts of **Andhra Pradesh** number of patients who discontinued treatment constituted 12 *per cent* of the total number of cases placed under treatment.. Discontinuance of treatment adversely affected the objective of reducing the incidence and spread of TB cases.

14.4.3 Non-achievement of Cure rate (RNTCP)

The table below shows that the cure rate achieved by states was lower than the stipulated rate which is 85 *per cent*:

Sl. No.	State	Period	Cure Rate *(in per cent)*	Remarks
1.	Assam	1998-99 to 2000-01	2 to 83	In respect of whole state
2.	Orissa	1997-98 to 2000-01	43 to 51	In respect of whole state
3.	Madhya Pradesh	1999-00 and 2000-01	44 and 41	In respect of three test checked districts only
4.	Gujarat	1999 & 1997	69 and 81	In respect of 5 test checked districts only
5.	Andhra Pradesh	1996-97 to 1999-00	69 to 84	In respect of 2 districts
6.	Tamil Nadu	1999-2000	74 to 75	2 districts
7.	Manipur	1998-99 and 1999-00	65.9	In respect of one district
8.	West Bengal	1999-2000	71.9 & 73	In respect of two districts

In Orissa and Madhya Pradesh, the cure rate ranged between 41 and 51 *per cent*

In **Bihar** during 1996-97 to 2000-01 only 43 *per cent* of new cases registered were evaluated. Of these, 33 *per cent* of cases evaluated were cured. Low cure rates in **Assam, Orissa and Madhya Pradesh** have not been investigated, which is a cause of concern.

14.4.4 Sputum test after 2/3 months treatment

In respect of new sputum positive cases, smear examination is to be done at the end of second month of treatment. The percentage of conversion of new smear positive to smear negative should be more than 80 *per cent* which should increase to 90 *per cent* after three months. Similarly, sputum tests are to be conducted at intervals of 2/3 months in respect of retreatment cases also.

In **Karnataka** the percentage of conversion of sputum positive to negative at 2/3 months in respect of new cases, relapsed cases and failure cases are given in the following table:

Percentage of conversion

Year	New cases		Relapse cases		Failure cases
	At 2 months	At 3 months	At 2 months	At 3 months	At 3 months
1998-99	72	52	--	87	--
1999-00	70	68	7	59	58
2000-01	78	68	13	72	56

It is seen that stipulated conversion rate of 80 *per cent* and 90 *per cent* had not been achieved in the State.

Tests of conversion of sputum positive to negative at 2/3 month either not carried out or when carried out the achievement found below desired level of 80/90 per cent

In **Bihar**, sputum test at 2 months in respect of 282 sputum positive cases and sputum test at 3 months in respect of 160 cases were not carried out during 1996-97 to 2000-01.

In four test-checked districts of **Tamil Nadu**, the sputum conversion rate at 2/3 months was not achieved. The range of sputum conversion during 1996-97 to 2000-01 is given in the following table.

Range of percentage

New cases after 2 months treatment	New cases after 3 months treatment	Relapse cases after 3 months treatment	Failure cases after 3 months treatment
12 to 66	12 to 69	4 to 69	0 to 100

In **Andhra Pradesh** in Hyderabad (Urban) and Medak districts sputum test after 2 months was not done in 9 percent and 17 *per cent* of cases. Sputum test after 3 months was not done in 49 and 36 *per cent* of cases respectively.

14.4.5 Discontinuance of Treatment

9 to 12 per cent TB patients discontinued treatment

Against 242725 evaluated cases (cases brought under treatment) discontinued treatment worked out to 24443 and the defaulter rate ranged between 8.5 and 11.6 *per cent* during 1996-97 to 2000-01, well above the stipulated rate.

The position of patients who discontinued treatment over the five year period is given below:

State	Year	Percentage of patients who discontinued treatment	Remarks
Tamil Nadu	1996-97 to 2000-01	9 to 80	Data in respect of 6 test checked districts
Andhra Pradesh	1996-97 to 1999-00	7 to 19	Data in respect of 2 test checked districts
Assam	1996-97 to 2000-01	16 to 29	Data in respect of all RNTCP districts
West Bengal	1999 and 2000	18 & 19	Data in respect of 2 test checked districts
Karnataka	1998-99 to 2000-01	6 to 12	Data in respect of all RNTCP districts

14.4.6 Drugs

(a) Expired Drugs

Life expired TB drugs worth Rs 1.87 crore were lying with MSDs and DTCs

Scrutiny of monthly reports of Medical Stores Depots (MSD) of Hyderabad, Guwahati, Mumbai, Calcutta and Chennai to Central TB Division revealed that a substantial quantity of expired TB drugs was lying in stock. The list of these medicines is given in **Annex XI**. The value of these medicines worked out to approximately Rs 1.12 crore.

In addition, various District Tuberculosis Centres in some states had expired medicines worth Rs.75.38 lakh lying in stock as per the details given below.

State	Value of expired medicines/ X-ray films
1. Jammu & Kashmir	25.98 lakh
2. Haryana	3.07 lakh
3. Orissa	Value not available
4. Tamil Nadu	24.51 lakh
5. Assam	6.42 lakh
6 Madhya Pradesh	13.48 lakh
7. Andhra Pradesh	Value not available
8. West Bengal	1.92 lakh

(b) Purchase of Substandard Drugs

Substandard drugs valuing Rs 34.33 lakh were purchased by different states/MSDs as detailed below:

Substandard drugs valuing Rs 34.33 lakh purchased by states/MSDs

State / MSDs	Name of drug and quantity	Value of drugs *(Rs in lakh)*
Orissa	3,00,000 tab. Ethambutol 400 mg.	1.96
J & K	4,55,000 tab. Ethambutol 400/800 mg.	5.92
MSD, Chennai	17,92,000 tab. Ethambutol 800 mg.	26.45
Total		**34.33**

In addition 0.37 lakh tablets of Pyrazinamide (500 mg.) supplied in 1999 to DTC Dindigul were declared substandard. By the time this was intimated in January 2001 the tablets had been distributed.

(c) Excessive consumption of drugs

In Andhra Pradesh extra expenditure of Rs 50.84 lakh due to excess issue of drugs against requirement were noticed

As per the drug regimen, New Sputum positive cases should be put on treatment either on Short Course Chemotherapy with 4 drugs or standard regimen- R1 treatment with streptomycin injections during the intensive phase of two months. In all the test-checked districts of **Andhra Pradesh**, the number of streptomycin injections administered was more than that required for patients put on R 1 regimen. Against the requirement of 3.1 lakh vials of the injections in respect of 5186 patients put on R1 regimen and RB regimen (Relapsed and Retreatment cases) during 1996-97 to 2000-01, 9.86 lakh vials were used. The excess utilization of 6.78 lakh vials involved an extra expenditure of Rs 50.84 lakh.

West Bengal

(i) In Asansol district, Rifampicin capsule and Pyrazinamide tablet worth Rs. 4.55 lakh were issued during 1996-2001 in the sub-divisional hospital where sputum examination was never done.

Drugs worth Rs 27.50 lakh not required for treatment were shown as issued in two districts of West Bengal

(ii) In Bolpur Sub Divisional Hospital where no treatment Card/T.B. Patient Register was maintained, 428 TB cases (3 positive and 425 negative) were detected during 1996-2001. For 3 sputum positive cases the required number of Rifampicin capsule and Pyrazinamide tablet to be issued under SCC Regimen worked out to 180 capsules and 540 tablets respectively whereas 487327 capsules and 55996 tablets respectively were shown as issued. In addition 91110 Streptomycin injections, though not admissible under the above Regimen were shown as issued. The issue of excess medicine valuing Rs. 22.95 lakh appears to be fictitious and needs to be investigated.

(d) Non availability of anti TB drugs

Due to non-availability of stock of anti TB drugs such as streptomycin Injection (0.75 gm), Rifampicin capsules and Ethambutol, Pyrazinamide and Isoniazid tablets treatment could not be administered to 346 patients in 11 institutions of 3 districts of Tamil Nadu.

Similarly, two districts of Haryana and 7 districts of Orissa were also affected by short supply.

(e) Diversion of ANTI TB Drugs Rs. 25.21 lakh

Anti TB drugs worth Rs 25.21 lakh were issued to different hospitals not connected to TB in violation of guidelines

In Burdwan district of **West Bengal** Rifampicin capsules worth Rs. 2.47 lakh meant for Tuberculosis Control Programme were issued to the Modified Leprosy Control Unit, Katwa during 1996-97 and 1998-2000 for treatment of Leprosy patients. Anti TB drugs valued at Rs. 6.17 lakh in Malda and Rs. 15.44 lakh in Darjeeling and 1.13 lakh in Birbhum were issued to the Indoor Department of different hospitals in violation of guidelines.

(f) Excess payment for Drugs

Excess payment of Rs 15.36 lakh due to purchases at higher rates

One firm had supplied 3 consignments of anti TB drugs to DTCs of Andhra Pradesh in September 2000 and December 2000. Scrutiny of invoices in two test checked districts revealed that the rates charged for combi pack RA regimen and RB regimen were Rs 81.38 and 58.45 per strip respectively in September 2000, Rs 83.88 and Rs 60.23 per strip in October 2000 and Rs 12.18 and 7.44 per strip in December 2000. The excess payments made to the firm on account of varying rates amounted to Rs 15.36 lakh in these two districts alone. As the procurement of medicines is arranged centrally, Central TB Division was asked to furnish the reasons for variation in rates from and whether the rates of supplies were in accordance with the clauses of contract and also to furnish the details of supplies to various DTCs and MSDs during 2000-01 in October 2001. No reply was received as of November 2001.

(g) Non Accountal of Anti TB Drugs

In Darjeeling district of **West Bengal** a large difference between the quantity of drugs issued by the CMS and received by 3 units namely District Reserve Stores, District Tuberculosis centre and the Deputy Assistant Director of Health (E&S) Siliguri valuing Rs 20.26 lakh was noticed. The details are as under:

	1996-97	1998-99	1998-99	1999-2000	1999-2000	1999-2000	1999-2000
	Cap. Rifampicin (400mg)	Tab. Pyrazinamide	Tab. Ethambutol	Tab INH	Tab Ethambutal	Cap. Rifampicin (450 mg)	Tab. Pyrazinamide
Qty issued by CMS	53090	67100	38400	930000	857600	1005000	786000
Qty. received by the District	50000	25000	25000	600000	527600	675000	456000
Difference	3090	42100	13400	330000	330000	330000	330000
Value (Rs in lakh)	0.11	0.70	0.12	0.63	2.71	11.55	5.44
Total							21.26

Besides, the anti-TB drugs valuing 3.33 lakh were not found recorded in the Stock ledgers of District Tuberculosis centres:

(h) Irregular purchase of S.C.C. drugs

Irregular purchase of anti TB drugs worth Rs 2.34 crore

In **West Bengal** in 25 cases Deputy Director of Health Services (Equipment and Stores) of Central Medical Store, Kolkata procured SCC Drugs like Rifampicin capsule and Pyrazinamide tablet valued at Rs. 2.34 crore during 1998-2000. Since cash grants from Government of India were to be utilised only for procurement of anti TB drugs for sputum negative cases these purchases were not regular.

Further, Chief Medical Officer of Health, Birbhum also purchased SCC drugs for Rs. 0.76 crore during 1996-2001 irregularly since the district was a non-

SCC one and was not authorised to render treatment with the drugs like Rifampicin and Pyrazinamide. SCC drugs valued Rs. 1.12 crore were also stated to have been consumed in these non-SCC districts.

14.4.7 Monitoring and Evaluation

National Tuberculosis Programme covers the entire country through 440 DTCs located in the district Headquarters. NTI Bangalore monitors the performance of NTP through periodic reports from the DTCs and supervisory visits to DTCs and PHIs. DOTS is provided in 149 districts under RNTCP in 2000-01. RNTCP performance of these districts is monitored by Central TB Division, New Delhi. These districts are required to report non-DOTS cases to NTI Bangalore.

The statistical details relating to the reports received and analysed by NTI are as under:

Year	Total Districts	Functioning DTCs	Reports		
			Due	Received	Analysed
1996-97	499	395	1480	1283 87 *per cent*	1263 98 *per cent*
1997-98	501	440	1760	1232 70 *per cent*	1232 100 *per cent*
1998-99	501	441	1764	1234/ 70 *per cent*	1234 100 *per cent*
1999-00	501	440	1760	1492 85 *per cent*	1492 100 *per cent*
2000-01	576	440	1760	1551 *88 per cent*	1551 100 *per cent*

As per the annual report for the year 1999-2000 of NTI Bangalore, the reporting efficiency of 15 states was more than 90 *per cent*, while there was need to improve it in respect of other states.

NTI had also observed that the ratio of Bacillary cases to X-ray suspects should be 1:1.2. But there was still a tendency of relying primarily on X-ray for diagnosis of pulmonary TB indicating improper development and utilisation of laboratory facilities. The ratio of Bacillary cases to X-ray suspects during 1998 to 2000 is given in the table below:

Year	Bacillary Cases	X-ray suspect	Ratio
1998	282105	769610	1:2.7
1999	291939	734190	1:2.5
2000	254362	574744	1:2.3

Over reliance on X-ray and improper use of lab facilities for detection of pulmonary TB cases

In **Nagaland**, from a feedback report of NTI Bangalore, it was seen that for 1999-2000 only 6 quarterly reports were sent by 2 DTOs against 28 reports accepted in respect of 7 DTOs. STO had no records to show that all reports from DTOs were received and closely monitored.

Shortfall in visits by supervisory staff ranged between 3 to 100 per cent

It was seen that in many states/UTs viz. **Haryana, Orissa, Chandigarh, Assam** and **Madhya Pradesh** there was no feedback to the districts either from NTI Bangalore or Central TB Division on the district progress reports. There was heavy shortfall in the required number of visits by the supervisory staff in many of the States *viz*. **Himachal Pradesh, Tamil Nadu, Andhra Pradesh and Gujarat** ranging between 3 to 100 *per cent*.

In states like **Orissa, Uttar Pradesh** and UT **Pondicherry** there was shortage in periodical meetings of the supervisory staff/DTCs. In **Himachal Pradesh** and **Uttar Pradesh** there was no periodical review on procurement of anti TB drugs and its utilization.

As per guidelines of RNTCP, District Tuberculosis Control Officer (DTCO) and Joint Director (JD) were to visit each district unit respectively once in a quarter. In **Andhra Pradesh**, the Microscopy centres at Hyderabad were visited by the DTCO once in six months. In **Bihar**, the State TB Officer who had to carry out 52 inspections of the RNTCP districts during 1996-97 to 2000-01 conducted only 11 inspections.

In **Karnataka** shortfall in State TB Officer's visit to Microscopy Centres was between 50 to 75 *per cent* and District TB Officer's visit to PHIs was between 3 and 50 *per cent* during 1998-99 to 2000-01. It was noticed by NTI that many District TB Officers did not visit PHI even once in a quarter.

Under NTP, District TB Officer was required to carry out quarterly visits of Peripheral Health Institutes (PHIs). In **Gujarat** shortfall in visit of DTOs ranged between 31 *per cent* in 1999-2000 to 45 *per cent* in 1996-97. In Tripura in test-checked districts, against required 244 visits to 61 PHIs per year, visits actually made were 77 in 1999-2000 and 101 in 2000-01. In **Arunachal Pradesh**, no supervision of PHIs were done in test-checked districts. In **Pondicherry** shortfall in visits to PHIs ranged between 25 *per cent* and 62 *per cent* during 1996-97 to 2000-01.

The governing Council of the State and DTCs were to hold six-monthly meetings. In 6 test-checked DTCs in **Rajasthan**, only 17 such meetings were held during 1996-2000 when 36 meetings were due.

Review of the RNTCP programme was done by a joint team of Government of India and WHO in February 2000 covering 6 states, although no formal document was issued in this respect. No evaluation by any other independent agency had been carried out. No evaluation had been done by the states. In **Bihar** review of the programme was done in June 2000 by World Health Organisation.

It was noticed that non-observance of the various parameters of the programme, viz. poor conversion rate of sputum positive cases to sputum negative in many states, non-conducting of sputum tests in respect of treatment cases at stipulated intervals, non-ensuring of uninterrupted treatment, purchase of poor quality drugs, allowing excessive consumption of drugs and

non provisioning of anti TB drugs etc. resulted in poor cure rate in 1999 and 2000 at 38 and 43 per cent under NTP. Poor supervision of the programme in implementing States was evidenced from the analysis of data conducted by NTI Bangalore which showed that shortfall in supervisory visit in certain cases was as low as 68 per cent. Further only 70 to 88 per cent quarterly reports were received by NTI from the States during the period of review.

14.5 Funding of the Programme

14.5.1 Allocation and Expenditure

Component wise budget allocation (Revised Estimates) and expenditure under National Tuberculosis Control programme during 1996-97 to 2000-01 were as follows.

(Rs in crore)

Component	1996-97		1997-98		1998-99		1999-00		2000-01	
	A	E	A	E	A	E	A	E	A	E
1. Central Government funds	15.00	7.77	22.00	21.30	25.00	23.99	25.00	25.82	9.99	9.43
2. Externally aided component										
a) World Bank aid (i)Grants-in-aid to T.B.Societies	13.47	5.39	12.00	10.23	28.00	26.00	24.00	24.00	40.01	40.01
(ii) TB Cell at HQ	4.40	0.47	4.00	0.47	1.00	1.00	1.00	1.00	2.50	2.50
(iii) Commodity grant for drugs and microscopes	19.20	-	42.00	-	18.00	17.42	45.00	36.52	28.50	28.40
b) DANIDA Assistance *	-	-	-	-	-	-	-	-	10.00	8.40
c) DFID Assistance *	-	-	-	-	-	-	-	-	19.00	19.80
Total	52.07	13.63	80.00	32.00	72.00	68.41	95.00	87.34	110.00	108.54

A – Allocation *E-Expenditure*

* *Direct assistance of Rs 46.94 crore and Rs 11.74 crore provided by DFID and DANIDA to Andhra Pradesh and Orissa respectively during 1997-98 to 1999-2000 have not been included in the allocation/expenditure of Central TB Division. Only from 2000-01 appropriate budget heads have been provided in the accounts.*

Commodity grant of Rs 61.20 crore surrendered due to disagreement between World Bank and GOI on procurement procedure

The table would show that the commitment of Central Government in the funding of the programme was limited to about 24 *per cent* of the expenditure over the five years under review. The Central Government's commitment level was the lowest in the year 2000-01 at Rs 9.99 crore. In the same period, World Bank aid increased from 37.07 crore to 71.01 crore. The implication of reduction in government funding support was that the non-project states/districts were deprived of the means of running the programme. An important component of World Bank aid of Rs 61.20 crore, commodity grants for drugs and microscopes was surrendered due to disagreement between the World Bank and Government of India on the procurement procedure during the years 1996-97 and 1997-98. While during the five years Rs 12.90 crore was allocated for creation of TB cell, only Rs 5.44 crore were spent until 2000-01. During the first two years, while the World Bank had made the largest allocation against which expenditure incurred was only negligible.

Only 20 per cent of WB aid claimed as reimbursement

Audit examination revealed that actual expenditure for which the central and state governments could claim reimbursement from World Bank up to March 2001 worked out to only Rs 121.6 crore against expenditure of Rs 139.86 crore claimed as spent which constitutes only 20 *per cent* of aid of Rs 604 crore.

14.5.2 Utilisation of Central Funds

48 UCs involving grant of Rs 52.53 crore were pending receipt

Central Government Funds amounting to Rs 80.54 crore was released to the states exclusively for the purchase of anti TB drugs for sputum negative cases under NTP. No details were available for 1996-97 but the position of receipt of utilization certificates released to various states from 1997-98 to 2000-01 is given below

(Rs in crore)

Year	No of States/UTs to whom grants released	Amount of grants released	No of UCs awaited	Amount of grants in UCs awaited
1997-98	32	21.30	24	17.93
1998-99	32	23.99	5	21.77
1999-00	27	25.82	6	9.69
2000-01	25	9.43	13	3.14
Total		**80.54**	**48**	**52.53**

No expenditure was incurred in **Gujarat** on this account even though Rs 1.86 crore was released to the State for this purpose. A table indicating the highest and lowest utilisation is given below:

(Rs in lakh)

State	Years of grant	Amount released	Amount utilised	Amount unutilised	Utilisation percentage
Assam	1997-98 to 2000-01	258.84	196.55	62.29	76
Gujarat	1997-98 to 2000-01	185.81	Nil	185.81	0
Manipur	1997-98 to 2000-01	19.45	11.36	8.09	58
Madhya Pradesh	1997-98 to 2000-01	576.93	201.30	375.63	35
Haryana	1997-98 to 2000-01	218.13	100.49	117.64	46
Punjab	1997-98 to 2000-01	117.24	99.63	17.61	85

During 1997-98 and 1998-99, almost the entire grant was released in the last quarter of the financial year. Further details of UCs showed that in **Tamil Nadu, Assam, Andhra Pradesh, Andaman & Nicobar Island, Lakshadweep, Dadra & Nagar Haveli, Karnataka, Sikkim and Nagaland** drugs other than those prescribed in the regimen valuing Rs 4.52 crore had been purchased (**Annex XII**). Out of Rs 5.58 crore released during 1997-98 to 1998-99 to **Bihar** for purchase of anti TB drugs for sputum negative cases Rs 4.89 crore was distributed in cash to District Tuberculosis Centres (DTCs) instead of the Government purchasing the medicines for distribution to DTCs.

14.6 Other points of Interest

14.6.1 Avoidable payment of custom duty of Rs 3.26 crore

Failure to obtain custom exemption certificate for importing microscopes resulting in avoidable payment of Rs 3.76 crore

It was noticed that 160 and 2734 binocular microscopes were imported by the Central TB Division, Government of India from Japan and Singapore respectively. Due to delay in obtaining custom exemption certificates, the custom duties amounting to Rs 21 lakh and Rs 3.55 crore in October 1996 and November 1998 respectively were initially paid under protest to avoid payment of demurrage charges. Subsequently the certificates were to be sent for claiming refund. No further action was taken by the TB Division to obtain the customs exemption certificate for claiming refund.

14.6.2 Non-availability of sputum cups

For the collection and examination of each sample of sputum, new sputum cup was to be provided in T.B unit. Review of records in 10 MCs of 6 TUS in **Rajasthan** revealed that 27380 smear examinations were done during October 1999 to March 2000 although only 14615 cups were used. It was stated by the Medical Officers that under NTCP paper cups were utilized. But the evidence of paper cups were not available in stock registers.

14.6.3 Poor quality of sputum tests

Out of 317 cases in 5 test-checked districts of **Rajasthan,** 96 positive cases were converted into negative but cross checking by STLS showed 218 negative cases. Thus the quality of Microscopy at the centres was doubtful.

14.6.4 Wrong Reporting of data

Inflated figures of achievement reported by Deputy Director Orissa

The table below shows that information on identification of new cases, new sputum examination cases, total T.B patients treated and new sputum positive cases reported by the Deputy Director (TB) of **Orissa** State to Government of India in respect of 6 selected districts (Cuttack, Kalahandi, Koraput, Puri, Sambalpur, and Mayurbhanj) varied from the figures reported by the District Tuberculosis Centre in respect of 1997-98 to 2000-01:

Category of cases reported	Figures reported by districts	Figures reported by Dy. Director
Identification of cases	40213	51471
New sputum examination	198353	208327
Total TB patients treated	59472	164053
New Sputum positive cases	14989	16127

In **Rajasthan,** in respect of 5 test-checked districts 13250 patients were shown discharged during 1996 to March 2000 on quarterly progress reports whereas as per records the total number works out to 12942.

In respect of **Nagaland,** the data collected from the State in respect of sputum examination and detection of new sputum positive cases varied from the data furnished by Central T.B Division and collected from the States. Moreover the State Tuberculosis offices had also furnished two different sets of figures to audit. The details are given below:

	Year		
	1997-98	**1998-99**	**1999-2000**
(a) Sputum Examination			
As *per cent*ral T.B Division	1707	2963	2253
As per State Report I dated 16.10.2000	1581	2513	2189
As per State Report II dated August 2001	-	-	New 2306 Old 1616
(b) Sputum positive cases			
As *per cent*ral T.B Division	168	528	643
As per State Report I dated 16.10.2000	151	498	628
As per State Report II dated August 2001	NA	NA	868

In respect of **Haryana** out of 7.21 lakh cases examined for sputum smear 0.51 lakh were found positive. The State Directorate had stated that all the cases were converted into negative. But in test checked districts out of 0.40 lakh positive cases only 0.18 lakh cases were converted into negative. Reporting systems in the State were inadequate.

Similarly in respect of information on TUs and MCs of **Andhra Pradesh** under RNTCP variation was noticed between the data collected from Central TB Division (RNTCP) and data collected from **Andhra Pradesh** as brought out in the table below:

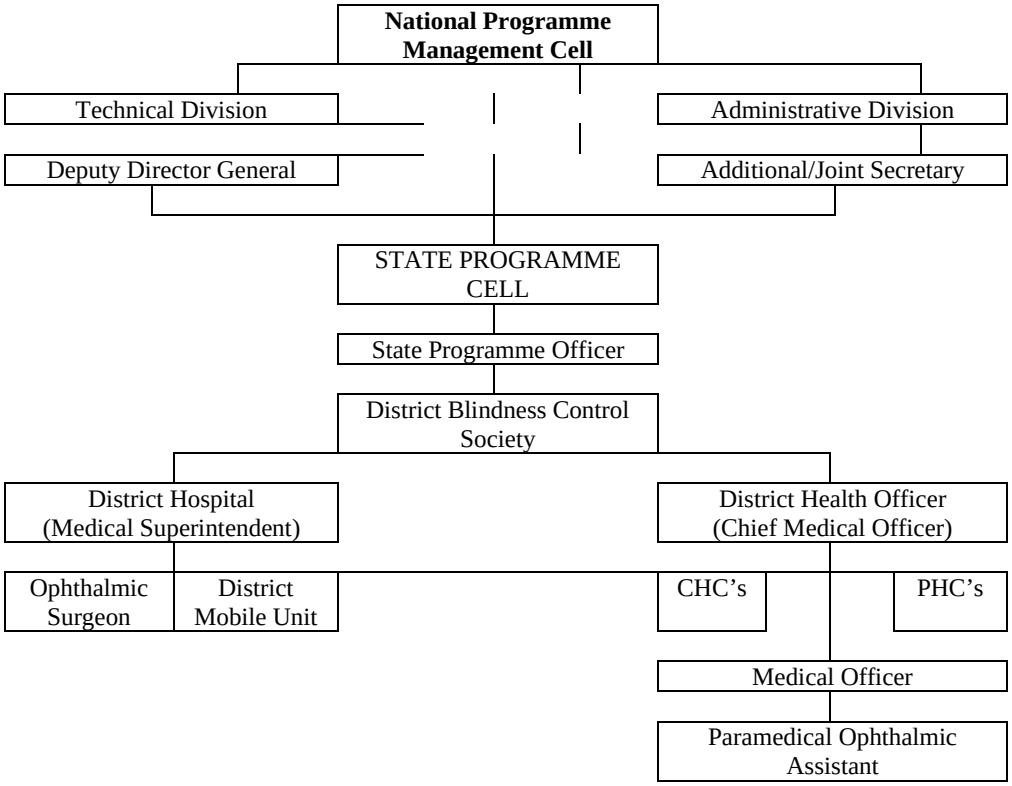
	No. of TUs		**No. of MCs**	
	Planned	**Operational**	**Planned**	**Operational**
As *per cent*ral TB Division	38	38	158	145
As per State reports	14	13	60	35

The matter was referred to the Ministry in November 2001; their reply was awaited as of January 2002.

Annex-I

(Refers to Paragraph 5)

National Programme for Control of Blindness
An Organogram



Annex- II

(Refers to Paragraph 6)

Details of Sample Chosen

Sl. No.	State	Total No. of Distt	No. of DBCS selected	Other Institutions	Name of DBCS/ Other Institutions
Project States					
1.	Andhra Pradesh	23	7	-	Anantpur, East Godawari, Guntur, Hyderabad, Mehboobnagar, Nizamabad, & West Godawari
2.	Madhya Pradesh (including Chattisgarh)	61	8	-	Bhopal, Gunna, Indore, Jabalpur, Mansaur, Satna, Bilaspur, Jadgalpur
3.	Maharashtra	31	-	-	-
4.	Orissa	30	6	SCB Medical College Cuttack 2 NGOs	Kalahandi, Puri, Koraput, Cuttack, Sambalpur, Mayurbhanj,
5.	Rajasthan	32	5	5 Medical Colleges	Ajmer, Jaipur, Jodhpur, Kota, Udaipur,
6.	Tamil Nadu	29	6	5 Distt. Hospitals 2 Medical Colleges 18 NGOs	Tiruvannmelai, Villipuram, Madurai, Cuddalore, Coimbtore,
7.	Uttar Pradesh	73	15	-	Aligarh, Bahraich, Basti, Faizabad, Ghaziabad, Ghazipur, Gonda, Kanpur, Lucknow, Mirzopur, Muzaffer Nagar, Pilibhit, Shahjahanpur, Murabadabad, Allahabad.
Non project States					
8.	Arunachal Pradesh	11	3	-	Pasighat, Along, Bomdila,
9.	Assam	23	7	Regional institute of Ophthalmology, Guwahati	Kamrup, Nagaon, Barpeta, Cachar, Golaghat, Karbi, Anglong,
10.	Bihar (including Jharkhand)	55	10	-	Bhojpur, Dharbhanga, Khagaria, Nalanda, Samastipur, Saran, Veshalli, Dhanbad, Dumka and Ranchi
11.	Delhi	07	7	-	-
12.	Goa	02	-	2 Distt Hospitals 6PHCs 1 CHC	-
13.	Gujarat	20	-	5 Distt Hospitals	Ahmedabad, Rajkot, Surat, Vadodara & Valsad

Sl. No.	State	Total No. of Distt	No. of DBCS selected	Other Institutions	Name of DBCS/ Other Institutions
14.	Haryana	18	8	-	Ambala, Bhiwani, Faridabad, Hissar, Kurkshetra, Rohtak, Sonipat, Yamunanagar,
15.	Himachal Pradesh	12	3	-	Hammirpur, Kangra, Sirmaur
16.	Jammu & Kashmir	14	4	-	Srinagar, Jammu, Udhampur, Kathua
17.	Karnataka	27	6	2 District Hospitals, 2 Medical Colleges, 4 PHCs, 6 NGOs	Mandya, Gulbarga, Bellary, Belgaum, Kolar and Banglore rural.
18.	Kerala	14	5	-	Thiruvanthapuram, Kannur, Malappuram, Palakkad, Urnakulam
19.	Manipur	08	4	-	Imphal, Bishnupur, Churachandpur, Thoubal,
20.	Meghalaya	06	3	3 DMU/CMU	East Khassihills, West Garohills, Ribhoi
21.	Mizoram	04	-	-	Not given
22.	Nagaland	07	2	4 distt hospitals	Kohima, Mokokchung
23.	Punjab	17	10	Regional Institute of Ophthalmology	Fathehpur sahib, Firozpur, Jalandhar, Ludhiana, Moga, Patiala, Ropar, Sangrur.
24.	Sikkim	04	01	-	DBCS North
25.	Tripura	04	-	-	Not given
26.	West Bengal	19	04	-	Bankura, Bardhman, Purulia, Uttardinajpur
27.	Andaman & Nicobar Island	02	02	-	Andaman Nicobar Island
28.	Chandigarh	01	1	-	Chandigarh
29.	Dadar & Nagar Haveli	01	1	-	Silvassa
30.	Lakshadweep	01	-	-	-
31.	Daman & Diu	02	2	-	-
32.	Pondicherry	04	1	-	Pondicherry
Grand Total		**562**	**131**		

Annex- III

(Refers to Paragraph 7.1.2)

Performance of Ophthalmic Surgeons in World Bank Assisted states/ Non-project states/ Medical Colleges

Sl. No.	State	Period	No. of		No. of Catops		Shortfall	Shortfall in %
			District	Ophthalmic Surgeons	As per norms	Actually performed		
A. Project States								
1.	Madhya Pradesh	1996-97	8	18	12600	1861	10739	85
		1997-98	9	21	14700	2225	12475	85
		1998-99	9	21	14700	2874	11826	80
		1999-2000	9	21	14700	4333	10367	71
		2000-2001	8	20	14000	4283	9717	69
					70700	**15576**	**55124**	**78**
2.	Maharashtra	1996-97	5	6	4200	1457	2743	65
		1997-98	4	5	3500	1182	2318	66
		1998-99	3	4	2800	885	1915	68
		1999-2000	4	6	4200	2361	1839	44
		2000-2001	1	2	1400	690	710	51
					16100	**6575**	**9525**	**59**
3.	Orissa	1997-98	4	4	2800	114	2686	96
		1998-99	5	7	4900	199	4701	96
		1999-2000	7	9	6300	415	5885	93
		2000-2001	4	6	4200	169	4031	96
					18200	**897**	**17303**	**95**
4.	Uttar Pradesh	1996-97	16	28	19600	4705	14895	76
		1997-98	16	30	21000	5417	15583	74
		1998-99	16	31	21700	6678	15022	69
		1999-2000	16	29	20300	6257	14043	69
		2000-2001	14	27	18900	5216	13684	72
					101500	**28273**	**73227**	**72**
5.	Rajasthan	1996-97	5	21	14700	3553	11147	76
		1997-98	5	21	14700	3729	10971	75
		1998-99	5	21	14700	4111	10589	72
		1999-2000	5	21	14700	2170	12530	85
		2000-2001	5	21	14700	1650	13050	89
					73500	**15213**	**58287**	**79**
6.	Tamil Nadu	1994-2001	-	86	**297000**	**139984**	**157016**	**53**

Sl. No.	State	Period	No. of		No. of Catops		Shortfall	Shortfall in %
			District	Ophthalmic Surgeons	As per norms	Actually performed		
B. Non project States								
1.	Assam	1996-97	5	09	6300	650	5650	90
		1997-98	5	09	6300	381	5919	94
		1998-99	6	11	7700	415	7285	95
		1999-2000	5	10	7000	355	6645	95
		2000-2001	4	09	6300	293	6007	95
					33600	**2094**	**31506**	**94**
2.	Bihar	1996-97	7	11	7700	756	6944	90
		1997-98	12	17	11900	1331	10569	89
		1998-99	11	16	11200	403	10797	96
		1999-2000	11	16	11200	609	10591	94
		2000-2001	9	12	8400	469	7931	94
					50400	**3568**	**46832**	**93**
3.	Gujarat	1996-97	5	05	3500	1154	2346	67
		1997-98	5	05	3500	1125	2375	68
		1998-99	3	03	2100	837	1263	60
		1999-2000	4	04	2800	2045	755	27
		2000-2001	3	03	2100	1297	803	38
					14000	**6458**	**7542**	**54**
4.	Haryana	1996-97	1	01	700	28	672	96
		1997-98	3	03	2100	380	1720	82
		1998-99	3	03	2100	354	1746	83
		1999-2000	3	03	2100	428	1672	80
		2000-2001	3	03	2100	378	1722	82
					9100	**1568**	**7532**	**83**
5.	Jammu & Kashmir	1996-97	1	01	700	73	627	89
		1997-98	2	04	2800	309	2491	89
		1998-99	2	04	2800	289	2511	90
		1999-2000	2	04	2800	323	2477	88
		2000-2001	1	03	2100	159	1941	92
					11200	**1153**	**10047**	**90**
6.	West Bengal	1996-97	1	02	1400	81	1319	94
		1997-98	5	12	8400	2332	6068	72
		1998-99	5	13	9100	2222	6878	75
		1999-2000	5	13	9100	2474	6626	73
		2000-2001	4	10	7000	360	6640	95
					35000	**7469**	**27531**	**79**
7.	Karnataka	1996-97 to 2000-01	4	8	**28000**	**9151**	**18849**	**67**
8.	Kerala	1999-2000	5	59	**41300**	**8412**	**32888**	**80**
9.	Himachal Pradesh	1996-97 to 2000-01	3	10	**35000**	**19915**	**15085**	**43**

C. Medical Colleges

Sl. No.	State/District	Period	No. of Ophthalmic Surgeons	No. of Catops		Shortfall	Shortfall in %
				As per norms	Actually performed		
1.	Uttar Pradesh Allahabad	1996-97	05	3500	2845	655	19
		1997-98 to 2000-2001	17	47600	17387	30213	63
2.	Gorakhpur	1996-97	05	3500	50	3450	98
		1997-98 to 2000-2001	04	11200	3030	8170	73
3.	Madhya Pradesh Gwalior	1996-97 to 2000-2001	02	7000	2939	4062	58
4.	Maharashtra Latur	1999-2000	04	2800	2232	568	20
5.	Beed	1996-97	02	1400	526	874	62
6.	Gujarat Ahmedabad	1996-97 to 2000-2001	22	77000	18553	58447	76
7.	Vadodra	1996-97 to 2000-2001	08	28000	3033	24967	89
8.	Jammu & Kashmir Jammu	1999-2000 to 2000-2001	09	12600	2252	10348	82
9.	Rajasthan Ajmer	1996-97 to 2000-2001	07	24500	10895	13605	56
10.	Jodhpur	1996-97 to 2000-2001	05	17500	8586	8914	51
11.	Kota	1996-97	04	2800	1632		
		1997-98 to 1999-2000	03	6300		8402	80
		2000-2001	02	1400	466		
12.	Udaipur	1996-97 & 1998-99	05				
		1997-98, 99-2000 & 2000-2001	04	15400	4713	10687	69
13.	Jaipur	1996-97 to 2000-2001	11	38500	15136	23364	61

Annex- IV

(Refers to Paragraph 7.1.2)

Utilisation of Ophthalmic Beds in Project States/Non-Project States and Medical Colleges

State	No. of Distt.	Period	No. of ophthalmic Beds	Catops as per norms	Catops actually performed	Shortfall	Shortfall in %
A. Project States							
Madhya Pradesh	7	1996-97	105	5250	1835	3415	65
	7	1997-98	105	5250	1485	3765	72
	8	1998-99	135	6750	2400	4350	64
	7	1999-2000	115	5750	2545	3205	56
	6	2000-2001	100	5000	2232	2768	55
				28000	**10497**	**17503**	**63**
Maharashtra	5	1996-97	51	2550	1457	1093	43
	5	19997-98	51	2550	1586	964	38
	3	1998-99	36	1800	1051	749	42
	2	1999-2000	30	1500	917	583	39
	4	2000-2001	20	1000	690	310	31
				9400	**5701**	**3699**	**39**
Orissa	2	1997-98	12	600	114	486	81
	2	1998-99	12	600	179	421	70
	2	1999-2000	12	600	181	419	70
				1800	**474**	**1326**	**73**
U.P.	8	1996-97	78	3900	2013	1887	48
	8	1997-98	78	3900	1779	2121	54
	8	1998-99	78	3900	1649	2251	57
	8	1999-2000	78	3900	2525	1375	35
	6	2000-2001	62	3100	1349	1751	56
				18700	**9315**	**9385**	**50**
Rajasthan	5	1996-97	118	5900	1407	4493	76
	5	1997-98	118	5900	1640	4260	72
	5	1998-99	118	5900	1854	4046	69
	5	1999-2000	118	5900	1673	4227	72
	5	2000-2001	118	5900	1415	4485	76
				29500	**7989**	**21511**	**73**

State	No. of Distt.	Period	No. of ophthalmic Beds	Catops as per norms	Catops actually performed	Shortfall	Shortfall in %
B. Non-Project States							
Assam	3	1996-97	26	1300	576	724	56
	3	1997-98	26	1300	362	938	72
	5	1998-99	35	1750	406	1344	77
	4	1999-2000	25	1250	355	895	72
	3	2000-2001	19	950	292	658	69
				6550	**1991**	**4559**	**70**
Bihar	4	1996-97	38	1900	307	1593	84
	4	1997-98	56	2800	495	2305	82
	7	1998-99	56	2800	252	2548	91
	7	1999-2000	56	2800	530	2270	81
	6	2000-2001	48	2400	358	2042	85
				12700	**1942**	**10758**	**85**
Gujarat	4	1996-97	70	3500	485	3015	86
	4	1997-98	70	3500	693	2807	80
	4	1998-99	70	3500	2090	1410	40
	3	1999-2000	50	2500	1400	1100	44
	3	2000-2001	50	2500	1633	867	35
				15500	**6301**	**9199**	**59**
Haryana	2	1996-97	19	950	28	922	97
	3	19997-98	29	1450	269	1181	81
	3	1998-99	29	1450	194	1256	87
	3	1999-2000	29	1450	268	1182	81
	3	2000-2001	29	1450	418	1032	71
				6750	**1177**	**5573**	**82**
J & K	1	1996-97	10	500	73	427	85
	2	19997-98	20	1000	309	691	69
	2	1998-99	20	1000	289	711	71
	2	1999-2000	20	1000	323	677	68
	2	2000-2001	10	500	159	341	68
				4000	**1153**	**2847**	**71**
West Bengal	2	1996-97	15	750	81	669	89
	4	1997-98	47	2350	734	1616	69
	4	1998-99	47	2350	717	1633	69
	4	1999-2000	47	2350	852	1498	64
	4	2000-2001	47	2350	460	1890	80
Purulia District Hospital		1996-97 to 2000-2001	16	4000	672	3328	83
Uttar Dinajpur District Hospital		1996-97 to 2000-2001	8	2000	359	1641	82
				16150	**3879**	**12279**	**76**
Karnataka	5	1996-97 to 2000-01	174	**43500**	**11480**	**32020**	**74**

C. Medical Colleges

State/District	Period	No. of ophth. Beds	Catops as per norms	Actually performed	Shortfall	Shortfall in %
Uttar Pradesh						
Allahabad	1996-97 to 200-2001	88	22000	20232	1768	8
Gorakhpur	-do-	24	6000	3080	2920	49
Madhya Pradesh						79
Gwalior	- do -	55	13750	2939	10811	
Maharashtra						
Beed	- do -	30	7500	3892	3608	48
Gujarat						
Ahmedabad	1996-97 to 2000-2001	250	62500	18553	43947	70
Vadodra	- do -	72	18000	3033	14967	83
Rajasthan						
Ajmer	1996-97	42	2100	597	1503	72
	1997-98 to 1998-99	30	3000	2010	990	33
Jodhpur	1996-97 to 2000-2001	75	18750	5655	13095	70
Kota	1996-97 to 1999-2000	16	3200	1351	1849	58
	2000-2001	30	1500	281	1219	75
Jaipur	1996-97 to 2000-2001	101	25250	15136	10114	40
Udaipur	1996-97 to 1999-2000	66	13200	1911	11289	86
	2000-2001	60	3000	589	2411	90
West Bengal						
Burdwan Medical College	1996-97 to 2001	60	15000	3467	11533	77
Bankura Sammilani Medical College	1996-97 to 2001	44	4000	2058	8042	81

Annex-V

(Refers to Paragraph 7.2.2)

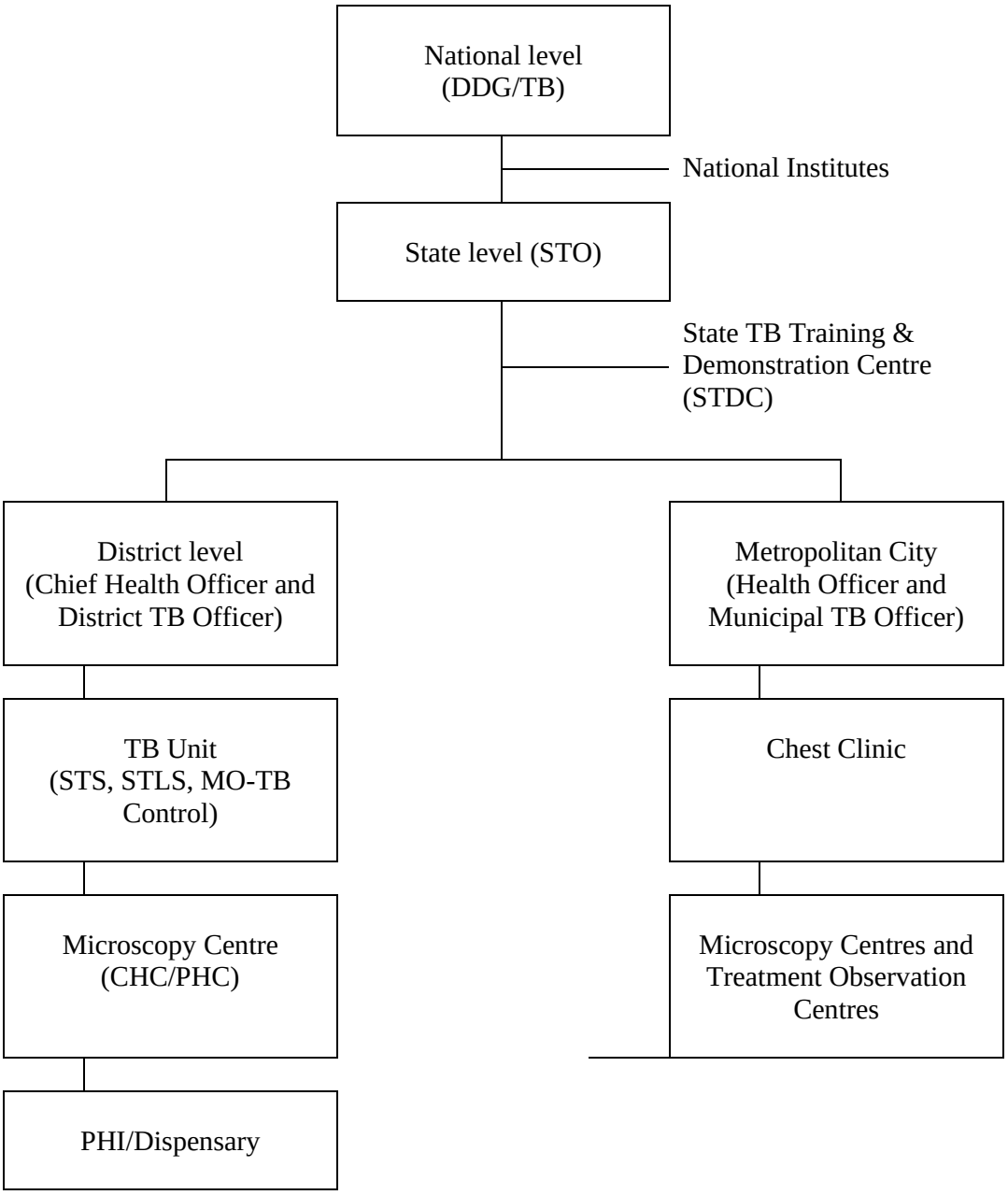
Performance of mobile units

State	No. of DMUs test checked	Period	Surgeries required to be performed	Surgeries actually performed	Short fall	% age shortfall.
Tripura	4	1996-97 to 2000-01	30000	13723	16277	54
Rajasthan	5	1996-97 to 2000-01	37500	28360	9140	24
Goa	1	1996-97 to 2000-01	7500	Was out of order since 1996		100
Gujarat	2	1996-97 to 1999-2000	12000	7046	4954	41
Tamil Nadu	2	1997-98 to 1999-2000	9000	1436	7564	84
Uttar Pradesh	11	1996-97 to 2000-2001	82500	38014	44486	54
	1	1997-98 to 2000-2001	6000	3244	2756	46
	1	1996-97 to 1999-2000	6000	3034	2966	49
	1	1999-2000	1500	546	954	64
Bihar	9	1996-97 to 2000-2001	67500	13980	53520	79
	1	1996-97 to 2000-2001	7500	1086	6414	85
Madhya Pradesh	2	19996-97 to 2000-2001	15000	4524	10476	70
	1	1996-97 to 1999-2000	6000	830	5170	86
Nagaland	3	1998-99 to 2000-2001	13500	6	13494	100
Karnataka	22 7	1996-97 to 2000.2001 1999-2000 to 2001	165000 21000	110479	75521	41

Annex VI

(Refers to Paragraph 12)

Technical Organization of the Tuberculosis Programme



Annex – VII

(Refers to Paragraph 13)

Sample selected by audit

Sl. No.	Names of States/UTs	No. of Distt.	No. of DTCs/ DTCS chosen	Other Institution Chosen	Names of selected Districts/DTCs
1.	Andhra Pradesh	23	6		Chittor, Cuddaph, East Godavari, Karim Nagar.,Srikakulam, Warangal
2.	Arunachal Pradesh	11	2	3 (DTOs)	East Siang, West Kameng, West Siang, DTCs – Bomdila, Along
3.	Assam	23	7 (DTCs/ Chest clinic)		(Kamrup, Barpeta, Nagaon, Karbi Anglong, Cchar, Golaghat)
4.	Bihar	50	10 (5 Bihar, 5 Jharkhand)		Bhojpur, Muzzafarpur, Patna, Samastipur, Vaishali, Dhanbad, Hazarbag, Lohardaga, Palamu, Ranchi.
5.	Delhi	7		14 (DTUs)	
6.	Goa	2		7 (PHCS 6 and Chest clinic 1)	CHC – Ponda PHE – Chinchinim, Cortalim, Betki, Corlim, Candolim, Bicholim
7.	Gujarat	19	5	2 (Voluntary Hostital and TBDTC)	Ahmedabad, Rajkot, Surat, Vadodra, Valsad
8.	Haryana	16	8		Ambala, Bhiwani, Faridabad, Hissar, Kurukshetra, Rohtak, Sonipat, Yamuna Nagar
9.	Himachal Pradesh	12	3	1 (TB Sanatorium)	Hamirpur, Kangda, Sirmom
10.	Jammu & Kashmir	14	4		DTCs – Jammu, Udhampur Kathua, Srinagar PHCS/SDHs – Bishnah, Akhnoor Hira Nagar, Parole, Katra
11.	Karnataka	20	7		Kolar, Gulbarga, Kolar, Gulbarga,Mysore, Bellary, Bijapur, Bangalore urban, Bangalore Mahanagar Palike
12.	Kerala	14	14	5 (DTC/DTCS/ TUs)	Pathnamthitta, Kannur, Malaphuram, Palakkad, Ernakulam
13.	Madhya Pradesh (including Chattisgarh)	45			Bhopal, Bilaspur, Guna, Indoor, Jabalpur Jagdalpur, Mandsaur, Satna
14.	Maharashtra	30	6		Amravati, Beed, Buldona, Dhule, Nasik and Thane

Sl. No.	Names of States/UTs	No. of Distt.	No. of DTCs/ DTCS chosen	Other Institution Chosen	Names of selected Districts/DTCs
15.	Manipur	8	4		Imphal
16.	Meghalaya	6	3		Shillong, Nangpoh and Tura
17.	Mizoram	4	3	3 (CMO)	CMO – Aizwal, Aizwal West and Lunglei
18.	Nagaland	7	3	2 Hospitals	Kohima, Makokchung and Mon
19.	Orissa	30	6	2	Kalahandi, Puri, Karaput, Cuttack, Sambalpur, Mayur Bhanj
20.	Punjab	15	10 (Civil Surgeon)	1	Amritsar, Bathinda, Ferozepur, Fatehgarh Sahib, Jalandhar, Ludhiana, Moga, Patiala, Ropar, Sangrur TB hospital – Sangrur
21.	Rajasthan	31	6		Ajmer, Alwar, Dausa, Jaipur, Jodhpur
22.	Sikkim	4	4	1	
23.	Tamil Nadu	29	5	12	Cuddalore, Dindigul, Kancheepuram, Salem, Thanjavur
24.	Tripura	4	3	11 (PHCs) 4 (SDHs)	PHCs - Narsingarh, Bamutia Mohanpur, Bisramganj, Madhupur, Kakarban, Manu, Panisagar, Santirbazar, Fatikroy, Kadamtala SDHs - Bishalgrh, Melagha, Dharma Nagar, Belonia
25.	Uttar Pradesh	83	12		Allahbad, Aligarh, Basti, Bahraich, Gonda, Ghaziabad, Ghazipur, Lucknow, Muzaffar Nagar, Pilibhit, Shahjahanpur, Saharanpur
26.	West Bengal	17	4		Burdwen, Birbhum, Darjeeling, Howrah, Malda
27.	Andaman Nicobar	2	1	21 (PHC/CHC)	
28.	Chandigarh	1	1		
29.	Dadra & Nagar Haveli	1	1	1 (PHC)	
30.	Daman & Diu	2	1	1 (DTB)	
31.	Lakshadweep	1	-	-	-
32.	Pondicherry	1	1	15 (PHIs)	
		532	**140**	**106**	

Annex-VIII

(Refers to Paragraph 14.1.1)

Targets and Achievements of NTP -1996-97

Sl. No.	State/Union Territory	1996-97					
		TB Case Detection			Sputum Examination		
		Target	Achievement		Target	Achievement	
			No.	%		No.	%
1.	Andhra Pradesh	78620	65660	83.52	235900	242264	102.70
2.	Arunachal Pradesh	1500	2880	192.00	9000	8825	98.06
3.	Assam	23500	20106	85.56	70500	7280	10.33
4.	Bihar	153000	12710	8.31	460000	78000	16.96
5.	Goa	2000	2974	148.70	15300	10040	65.62
6.	Gujarat	133900	116158	86.75	401700	344110	85.66
7.	Haryana	29000	35267	121.61	90000	66428	73.81
8.	Himachal Pradesh	9000	12084	134.27	53000	7000	13.21
9.	Jammu & Kashmir	6240	11014	176.51	18900	20899	110.58
10.	Karnataka	68370	71776	104.98	228000	96964	42.53
11.	Kerala	33800	36829	108.96	101400	128333	126.56
12.	Madhya Pradesh	87220	90858	104.17	230000	135050	58.72
13.	Maharashtra	140000	190630	136.16	420000	320000	76.19
14.	Manipur	2700	6645	246.11	8000	7647	95.59
15.	Meghalaya	2560	4618	180.39	7600	3070	40.39
16.	Mizoram	1000	1223	122.30	4500	3284	72.98
17.	Nagaland	1250	1350	108.00	3800	2400	63.16
18.	Orissa	36860	40850	110.82	124000	93033	75.03
19.	Punjab	41900	48260	115.18	125700	156659	124.63
20.	Rajasthan	45000	69344	154.10	135000	70662	52.34
21.	Sikkim	1000	2800	280.00	3700	1608	43.46
22.	Tamil Nadu	99000	104823	105.88	297000	460252	154.97
23.	Tripura	2880	2528	87.78	8700	9884	113.61
24.	Uttar Pradesh	247000	279789	113.27	740000	843780	114.02
25.	West Bengal	69000	74352	107.76	205000	84005	40.98
26.	A&N Islands	500	635	127.00	2500	1969	78.76
27.	Chandigarh	1000	1711	171.10	3000	1632	54.40
28.	Dadra & Nagar Haveli	250	300	120.00	700	285	40.71
29.	Daman & Diu	150	244	162.67	1150	1380	120.00
30.	Delhi	42000	42951	102.26	126000	140000	111.11
31.	Lakshadweep	100	180	180.00	1151	800	69.50
32.	Pondicherry	3200	3401	106.28	9600	13000	135.42
Total NTCP		**1363500**	**1354950**	**99.37**	**4140801**	**3360543**	**81.2**

Till 1996-97 only two targets-detection of TB cases and sputum examination were allotted

Annex-VIII continued

Targets and Achievements of NTP 1997-98

Sl. No.	State/Union Territory	1997-98								
		TB Case Detection			Sputum Examination			Detection of new Sputum Positive		
		Target	Achievement		Target	Achievement		Target	Achievement	
			No.	%		No.	%		No.	%
1.	Andhra Pradesh	98495	74137	75.27	1094400	259165	23.68	36480	23278	63.81
2.	Arunachal Pradesh	1374	3801	276.64	15270	9367	61.34	509	495	97.25
3.	Assam	33952	18625	54.86	377250	4850	1.29	12575	114	0.91
4.	Bihar	127805	11133	8.71	1420050	35731	2.52	47335	3732	7.88
5.	Goa	1844	2610	141.54	20490	14069	68.66	683	1315	192.53
6.	Gujarat	62369	104635	167.77	692985	346153	49.95	23100	44421	192.30
7.	Haryana	25530	37668	147.54	283665	52380	18.47	9456	1793	18.96
8.	Himachal Pradesh	7893	5347	67.74	87705	26964	30.74	2924	2499	85.47
9.	Jammu & Kashmir	11734	26993	230.04	130380	22356	17.15	4346	1056	24.30
10.	Karnataka	67582	78883	116.72	750900	224618	29.91	25030	19834	79.24
11.	Kerala	42314	19711	46.58	470160	105439	22.43	15672	10279	65.59
12.	Madhya Pradesh	101487	77045	75.92	1137190	478021	42.04	37773	26433	69.98
13.	Maharashtra	118639	202299	170.52	1318215	1021653	77.50	43941	82875	188.61
14.	Manipur	2908	3469	119.29	32310	3233	10.01	1077	714	66.30
15.	Meghalaya	2809	3080	109.65	31215	286	0.92	1041	41	3.94
16.	Mizoram	1098	1332	121.31	12195	4707	38.60	407	134	32.92
17.	Nagaland	1934	1626	84.07	21495	1707	7.94	717	168	23.43
18.	Orissa	47014	24912	52.99	522375	75103	14.38	17413	2678	15.38
19.	Punjab	30652	42121	137.42	340575	126258	37.07	11353	11861	104.47
20.	Rajasthan	68475	46071	67.28	760830	73018	9.60	25361	6319	24.92
21.	Sikkim	645	1861	288.53	7170	11787	164.39	239	559	233.89
22.	Tamil Nadu	81128	114065	140.60	901425	531204	58.93	30048	27513	91.56
23.	Tripura	4366	2601	59.57	48510	10477	21.60	1617	531	32.84
24.	Uttar Pradesh	215478	289431	134.32	2394195	848148	35.43	79807	59222	74.21
25.	West Bengal	102287	65018	63.56	1136520	72046	6.34	37884	8858	23.38
26.	A&N Islands	1023	1819	177.81	4950	3213	64.91	165	267	161.82
27.	Chandigarh	220	506	230.00	11370	777	6.83	379	574	151.45
28.	Dadra & Nagar Haveli	161	0	0	2443	1849	75.69	82	0	0
29.	Daman & Diu	1281	417	32.55	1785	0	0	60	0	0
30.	Delhi	13500	43313	320.84	150000	128993	86.00	5000	13160	263.20
31.	Lakshadweep	82	145	176.83	915	363	39.67	31	0	0
32.	Pondicherry	446	711	159.42	14235	24132	169.53	475	1198	252.21
Total NTCP		**1276525**	**1305385**	**102.26**	**14193173**	**4518067**	**31.83**	**472980**	**351921**	**74.41**

In the year 1997-98 a third target for detection of sputum positive cases was added

Annex-VIII continue

Targets and Achievements of NTP 1998-99

Sl. No.	State/ Union Territory	1998-99					
		Sputum Examination			Detection of new Sputum Positives		
		Target	Achievement		Target	Achievement	
			No.	%		No.	%
1.	Andhra Pradesh	1094400	253239	23.14	36480	24799	67.98
2.	Arunachal Pradesh	15270	6372	41.73	509	415	81.53
3.	Assam	377250	13908	3.69	12575	1966	15.63
4.	Bihar	1420050	32290	2.27	47335	2334	4.93
5.	Goa	20490	16134	78.74	683	316	46.27
6.	Gujarat	692985	323010	46.61	23100	59814	258.94
7.	Haryana	283665	77038	27.16	9456	5674	60.00
8.	Himachal Pradesh	87705	8602	9.81	2924	302	10.33
9.	Jammu & Kashmir	130380	49092	37.65	4346	1769	40.70
10.	Karnataka	750900	284750	27.92	25030	20511	81.95
11.	Kerala	470160	39242	8.35	15672	3084	19.68
12.	Madhya Pradesh	1133190	252446	22.28	37773	16782	44.43
13.	Maharashtra	1318215	606748	46.03	43941	52220	118.84
14.	Manipur	32310	2344	7.25	1077	1150	106.78
15.	Meghalaya	31215	1024	3.28	1041	340	32.66
16.	Mizoram	12195	3975	32.60	407	226	55.53
17.	Nagaland	21495	2963	13.78	717	528	73.64
18.	Orissa	522375	94950	18.18	17413	6526	37.48
19.	Punjab	340575	231337	67.93	11353	10817	95.28
20.	Rajasthan	760830	115262	15.15	25361	14934	58.89
21.	Sikkim	7170	7362	102.68	239	336	140.59
22.	Tamil Nadu	901425	544747	60.43	30048	29971	99.74
23.	Tripura	48510	15437	31.82	1617	616	38.10
24.	Uttar Pradesh	2394195	812232	33.93	79807	57347	71.86
25.	West Bengal	1136520	6048	5.81	37884	6964	18.38
26.	A&N Islands	4950	3635	73.43	165	251	152.12
27.	Chandigarh	11370	3952	34.76	379	130	34.30
28.	Dadra & Nagar Haveli	2445	0	0	82	0	0
29.	Daman & Diu	1785	0	0	60	0	0
30.	Delhi	150000	0	0	5000	0	0
31.	Lakshadweep	915	0	0	31	0	0
32.	Pondicherry	14235	25074	176.14	475	1798	378.53
Total NTCP		**14189175**	**3833213**	**27.01**	**472980**	**321920**	**68.03**

From 1998-99 onwards only two targets-for sputum examination and detection sputum positive cases were allotted

Annex-VIII continued

Targets and Achievements of NTP 1999-2000

Sl. No.	State/ Union Territory	1999-2000					
		Sputum Examination			Detection of new Sputum Positives		
		Target	Achievement		Target	Achievement	
			No.	%		No.	%
1.	Andhra Pradesh	373090	296603	79.50	37310	24892	66.72
2.	Arunachal Pradesh	5240	7836	149.54	520	414	79.62
3.	Assam	129390	3770	2.91	12940	209	1.62
4.	Bihar	490610	55024	11.22	49060	6980	14.23
5.	Goa	7020	14063	200.33	700	515	73.57
6.	Gujarat	237760	261754	110.09	23780	34911	146.81
7.	Haryana	97730	111359	113.95	9770	9226	94.43
8.	Himachal Pradesh	29690	5064	17.06	2970	512	17.24
9.	Jammu & Kashmir	44050	25016	56.79	4400	533	12.11
10.	Karnataka	257180	208135	80.93	25720	20244	78.71
11.	Kerala	159910	0	0	15990	0	0
12.	Madhya Pradesh	391730	364475	93.04	39170	23683	60.46
13.	Maharashtra	450600	738075	163.80	45060	64966	144.18
14.	Manipur	11070	8741	78.96	1110	1012	91.17
15.	Meghalaya	10700	4108	38.39	1070	508	47.48
16.	Mizoram	4190	3615	86.28	420	299	71.19
17.	Nagaland	7400	2253	30.45	740	643	86.89
18.	Orissa	177680	110063	61.94	17770	12106	68.13
19.	Punjab	116380	168534	144.81	11640	9783	84.05
20.	Rajasthan	263200	67254	25.55	26320	22953	87.21
21.	Sikkim	2460	7190	292.28	250	417	166.80
22.	Tamil Nadu	306280	464963	151.81	30630	25756	84.09
23.	Tripura	16630	15306	92.04	1660	981	59.10
24.	Uttar Pradesh	831820	872173	104.85	83180	65596	78.86
25.	West Bengal	389860	85068	21.82	38990	15595	40.00
26.	A&N Islands	1700	4519	265.82	170	210	123.53
27.	Chandigarh	3910	612	15.65	390	23	5.90
28.	Dadra & Nagar Haveli	840	947	112.74	80	187	233.75
29.	Daman & Diu	620	1297	209.19	60	153	255.00
30.	Delhi	60910	80227	131.71	6090	26911	441.89
31.	Lakshadweep	310	177	57.10	30	0	0
32.	Pondicherry	4880	21506	440.70	490	1303	265.92
Total NTCP		**4884840**	**4009727**	**82.09**	**488480**	**371521**	**76.06**

Till 1998-99 target for sputum examination included number of samples whereas from 1999-2000 onwards target for sputum examination includes number of persons undergoing sputum (3 samples of each chest symptomatic) examination for diagnosis.

Annex-VIII continued

Targets and Achievements of NTP 2000-01

Sl. No.	State/ Union Territory	2000-01					
		Sputum Examination			Detection of new sputum positive		
		Target	Achievement		Target	Achievement	
			No.	%		No.	%
1.	Andhra Pradesh	377340	313427	83.06	37730	28562	75.70
2.	Arunachal Pradesh	5960	5770	96.81	600	410	68.33
3.	Assam	130990	20390	15.57	13100	2059	15.72
4.	Bihar	499580	0	0	49960	0	0
5.	Goa	7980	14211	178.08	800	485	60.63
6.	Gujarat	241190	203219	84.26	24120	30981	128.45
7.	Haryana	99180	80568	81.23	9920	7761	78.24
8.	Himachal Pradesh	33560	54685	162.95	3360	0	0
9.	Jammu & Kashmir	49730	40493	81.43	4970	830	16.70
10.	Karnataka	260460	222210	85.31	26050	26133	100.32
11.	Kerala	161310	12630	7.83	16130	704	4.36
12.	Madhya Pradesh	398840	328658	82.40	39880	25037	62.78
13.	Maharashtra	455580	740760	162.60	45560	63797	140.03
14.	Manipur	12590	8401	66.73	1260	1385	109.92
15.	Meghalaya	12170	4421	36.33	1220	665	54.51
16.	Mizoram	4760	3473	72.96	480	336	70.00
17.	Nagaland	8420	1950	23.16	840	314	37.38
18.	Orissa	179290	46648	26.02	17930	4480	24.99
19.	Punjab	118970	124089	104.30	11900	10670	89.66
20.	Rajasthan	267800	167306	62.47	26780	23584	88.07
21.	Sikkim	2800	6484	231.57	280	409	146.07
22.	Tamil Nadu	308880	384506	124.48	30890	24533	79.42
23.	Tripura	18910	13762	72.78	1890	5555	293.92
24.	Uttar Pradesh	850630	685541	80.59	85060	62802	73.83
25.	West Bengal	395040	35820	9.07	39500	3721	9.42
26.	A&N Islands	1930	3880	201.04	190	265	139.47
27.	Chandigarh	4440	227	5.11	440	14	3.18
28.	Dadra & Nagar Haveli	950	1270	133.68	100	182	182.00
29.	Daman & Diu	700	1573	224.71	70	170	242.86
30.	Delhi	69820	50294	72.03	6980	10413	149.18
31.	Lakshadweep	360	230	63.89	40	5	-
32.	Pondicherry	5560	19885	357.64	560	1436	256.43
Total NTCP		**4985720**	**3596781**	**72.14**	**498590**	**337698**	**67.73**

Annex IX

(Refers to Paragraph 14.1.2)

Result of Treatment as on 31st March 2001 (RNTCP)

Year	TB Patient registered	No of cases Evaluated	Cured +Treatment completed	Died	Failure	Defaulter	Trans-ferred out	Cure rate	Death rate	Failure rate	Defaulter rate
1996	16442	14466	11272	499	510	1684	500	77.9	3.4	3.5	11.6
1997	20716	20526	16762	764	574	2017	456	81.7	3.7	2.8	9.8
1998	33367	33023	27741	1370	828	2794	364	84.00	4.1	2.5	8.5
1999	137050	134949	111041	5782	3428	13855	1130	82.3	4.3	2.5	10.2
2000*	40077	39761	32738	1671	1043	4093	271	81.9	4.2	2.6	10.3
	247652	242725	199554	10086	6383	24443	2721	82.2	4.1	2.6	10.1

* *Upto first quarter of 2000 only*

Annex-X

(Refers to Paragraph 14.2.4 (a)

Utilisation of grants by DTCS and STCS

Sl. No.	Name of State	Period of grant	Amount of grant (Rs. in lakh)	Amount utilised (Rs. in lakh)	Remarks
1.	Pondicherry	1998-99 to 2000-01	14.05	1.43	
2.	Manipur	1997-98 to 2000-01	153.12	108.42	
3.	West Bengal	1997-98 to 2000-01	361.00	112.00	Grants pertain to 5 test checked DTCS and STCS
4.	Kerala	1997-98 to 2000-01	590.35	276.69	Grants allocated to 14 DTCS and 1 STCS
5.	Uttar Pradesh	1996-97 to 1999-2000	291.89	98.91	Grants released to STCS and 2 DTCS
6.	Karnataka	1996-97 to 2000-01	217.75	166.05	Grants released to 4 DTCS
7.	Himachal Pradesh	1998-99	9.29	Nil	Grants released to STCS

Annex XI

(Refers to Paragraph 14.4.6(a)

Expired Drugs

Sl No	Medical Stores Depot	Name of Medicine	Quantity	Date of Mfg.	Date of Expiry	Value (in Rs)	Remarks
1.	MSD, Chennai	Inj. Streptomycin Sulphate 0.75 gm	8,90,200 @ Rs. 4.58	1994	2/97 to 11/97	40,77,116	
		Inj. Streptomycin 1 gm	400	1994	9/98	Not given	
		Cap. Rifampicin 150 mg	1,400	1996	7/98	Not given	
		Tab. INH 100 mg	30,09,950 @ Rs. 0.05	1994 & 1995	9/99 & 1/2000	1,50,498	
		Tab. Ethambutol 800 mg	24,000 @ Rs. 1.19	3/97	2/99	28,560	
		Cap. Rifampicin 400 mg	4,14,300 capsules	2/94 & 3/94	1/96 & 2/96	Not given	
		Tab. TZN 37.5 mg + INH 75 mg	15,250 @ Rs. 0.12	3/83 & 7/92	2/88 & 6/97	1,830	
		Tab. TZN 75 mg + INH 150 mg	51,42,727 @ Rs. 0.13	9/94 & 11/94	8/99 & 10/99	6,68,555	
		Tab. TZN 50 mg	1,61,880	2/86 & 3/93	1/91 & 2/98	Not given	
		Tab. TZN 150 mg	4,419	10/90	9/95	Not given	
		Tab. Ethambutol 800mg-strips	2,24,770 @ Rs 11.95	7/98 & 1/99	6/2000 & 12/2000	26,86,002	
Total						**76,12,561**	
2.	MSD Mumbai	Inj. Streptomycin Sulphate 0.75 gm	79,000 @ Rs. 4.58	1/96	7/98	3,61,820	
		Tab. Ethumbutol 800mg	9,700 @ Rs. 1.19	1/98	10/2000	11,543	
		Tab. INH 100 mg	14,78,000@ Rs. 0.05	10/99	9/99	73,900	
		Tab. Ethambutol 800mg	5,83,000 @ Rs. 1.19	-	-	6,93,770	Stores lying at DTC, Patiala as in formed by MSD, Mumbai in letter No. IN/AntiTB/9219 dt. 28.2.2001
		Tab. Ethambutol 800mg	8,57,950 @ Rs. 1.19		12/2000	10,20,961	These were issued to TUs in 10/2000 & some were returned to the MSD. As to whether the remaining tablets were utilised by TUs returned, no reply was given.
Total						**21,61,994**	

Sl No	Medical Stores Depot	Name of Medicine	Quantity	Date of Mfg.	Date of Expiry	Value (in Rs)	Remarks
3.	MSD Guwahati	Tab. Pyrazinamide	950	-	2/2000	970	
Total						**970**	
4.	MSD Hyderabad	INH Tab. 100mg	1,80,000 4,45,000 @ Rs. 0.05	3/94 10/94	2/99 9/99	31,250	
		Inj. Streptomycin 0.75gm	2,50,000 @ Rs. 4.58	8/95	7/98	11,45,000	
		Tab. Combination drugs INH 150 mg+ 75mg	3,25,000 @ Rs. 0.12	6/94 & 10/94	5/99 & 10/99	39,000	Stores was found unfit for issue.
Total						**12,15,250**	
5.	MSD Calcutta	Cap. Rifampicin 450mg	65,000	-	10/96	Not given	
		Tab. INH-300mg (WHO)	13,90,000 @ Rs. 0.15	-	-	2,08,500	
Total						**2,08,500**	
Grand Total						**1,11,99,275**	

Annex –XII

(Refers to Paragraph 14.5.2)

List of anti-TB drugs procured from cash grants for Sputum Negative cases

Sl. No	State	Year	Name of drugs purchased	Quantity	Amount
1	Tamil Nadu	1998-99	Streptomycin	15434	62574.00
			Rifampicin (cap.150 mg)	2582388	3251226.50
			Rifampicin (450 gm)	1765033	5842323.70
			Pyrazinamide	3322854	5133161.90
					14289286.10
2	Assam	1998-99	Rifampicin (cap 450 gm)	1000000	571378.00
			Inj.Streptomycin	2300 vials	190164.00
			Pyrazinamide (500 mg)	637900	1187514.00
			Streptomycin Sulpahte 1 gm	49800 vials	41333.00
					1990389.00
		1999-2000	Tab Pyrazinamide 500 mg	100000 nos	209222.00
			Cap Rifampicin 150 mg	50000 nos	107143.00
			Cap Rifampicin 450 mg	100000 nos	593178.00
			Cap Rifampicin 450 mg	100000 nos	596540.00
			Inj Streptomycin 0.75 gm	110680 vials	869432.00
			Inj Streptomycin sulphate 0.75	50000 vials	350784.00
			Cap Rifampicin 450 mg	100000 cap	522934.00
			Cap Rifampicin 450 mg	100000 caps	573475.00
			Tab Pyrazinamide 500 mg	200000 tab	373752.00
			Cap Rifampicin	100000 cap	206000.00
					4409370
3	Andhra Pradesh	1998-99	Rifampicin (cap 450 gm)	300000	1582020.00
			Rifampicin (cap150 mg)	50000	89760.00
			Pyrazinamide tab (750 mg)	500000	1352010.00
					3023790.00
		1997-98	Rifampicin 450 mg	400000	2182400.00
			Cap Rifampicin 450 mg	225000	1227600.00
			Cap Rifampicin 450 mg	565000	3082640.00
			Cap Rifampicin 450 mg	45000	83160.00
			Pyrazinamide 750 mg	900000	2039400.00
			Rifampicin 450 mg	431500	2354264.00
			Pyrazinamide 750 mg	400000	906400.00
					11875864
4	Andaman & Nicobar	1997-98 1998-99	Streptomycin. Inj 0.75 gm	15000 vials	78750.00
					78750.00

Sl. No	State	Year	Name of drugs purchased	Quantity	Amount
5	Lakshadweep	1997-98	Cap Rifampicin 150 mg	9000	20970
			Cap Rifampicin 300 mg	10000	42300
			Cap Rifampicin 450 mg	7500	44775
			Sy.Rifampicin 200 ml	130 bottle	8730
			Tab Pyrazinamide 500 mg	3000	11340
			Inj Streptomycin 1 gm	2100 vials	21483
					149598
6	Dadra Nagar Haveli	1997-98	Cap Rifampicin 150 mg	20000	Value not given
			Cap Rifampicin 300 mg	5500	
			Cap Rifampicin 450 mg	77850	
			Tab PYZ 500 mg	6380	
			Tab PYZ 750 mg	590	
			Inj Streptomycin 75 gm	18664 vials	
7	Karnataka	1997-98	Cap Rifampicin 150 mg	400000cap	638920.00
			Cap Rifampicin 450 mg	990000 cap	4393917.00
			Pyrazinamide 500 mg tab	700000 tab	1535100.00
			Pyrazinamide 750 mg tab	697300	2239590.00
					8807527.00
8	Sikkim	1997-98	Inj Streptomycin	5000 vials	33750.00
			Cap Rifampicin	4000 cap	21880.00
			Tab Pyrazinamide	2300 no	6417.00
			Sy. Ritacept	302 bottle	20536.00
					82583.00
9	Nagaland	1998-99 & 1999-2000	A.K (AKTG) (15X2) Pkts	70 pkt	40320.00
			Cap R Conex	148 pkt	77108.00
			Tab PZA 750 mg	70 pkt	44110.00
			Tab Combutol	58 pkt	48430.00
			Tab R. Conex	70p.kt	22400.00
			Tab R. Conex (kid)	69 pkt	12282.00
			Cap Retakem	2337 strips	161255.00
			Cap R. Conex	40 box	20840.00
			Tab Pyzinamide	40 box	21320.00
			Tab PZA (Pyrazinamide)	20box	7200.00
			Tab Refa	18 box	5750.00
			Tab Refa (KID)	20 box	3520.00
			Cap Mox bro (250 mg)	5 box	8750.00
			Cap Mox bro (250 mg)	5 box	4375.00
			Tab Anaflam	50 pkt	4500.00
					482160.00
Grand Total					**45189317.00**

Rounded to Rs 4.52 crore