CHAPTER III

PERFORMANCE AUDIT

Agriculture Department

3.1 Working of Chaudhary Charan Singh Haryana Agricultural University, Hisar

Highlights

A Performance Audit of the activities of the University brought out significant weaknesses in financial management, academic, research and extension activities, management of estate and other allied activities. There were cases of non-preparation of balance sheet, huge outstanding temporary advances, inadequate provision for pension fund, etc. There were deficiencies in the performance of academic activities such as shortage of teachers, upgradation of posts without the approval of ICAR, shortfall in enrolment of students, high dropout rate, etc. Research activities were also not encouraging as there was decrease in production per acre in respect of major crops and seed production, inordinate delay in development of a new seed farm, losses due to sale of seed as grain, etc. Besides, there were cases of expenditure on establishment of Works Wing far in excess of norms, running of University press in losses, non-utilisation of fallow land for seed production, etc.

- **The University did not prepare its balance sheet since its inception i.e. 1970 as a result of which the exact state of assets and liabilities was not known.**

(Paragraph 3.1.6.2)

- **University failed to recover the temporary advances to the tune of Rs 5.87 crore within prescribed time period.**

(Paragraph 3.1.6.4)

- **Against the sanctioned strength of 1,218 teachers, only 851 were in position as on 31 March 2007.**

(Paragraph 3.1.7.1)

- **In four constituent colleges in respect of six courses, shortfall in enrolment of students ranged between 11 and 74 *per cent.***

(Paragraph 3.1.7.2)

- **The University failed to increase the productivity of various crops through improved varieties/hybrids as the average production decreased during 2002-06.**

(Paragraph 3.1.8.1)

- **Seed of various varieties was sold as grain at lower rates, causing loss of Rs 42.02 lakh to the University.**

(Paragraph 3.1.8.8)

- **Establishment expenditure on construction wing was far in excess of norms. Rupees 14.20 crore were spent on establishment in excess of envisaged norm of 25 *per cent* of works expenditure.**

(Paragraph 3.1.10.2)

3.1.1 Introduction

The Haryana Agricultural University was established in February 1970 at Hisar under the Haryana and Punjab Agricultural Universities Act, 1970 after bifurcation of the erstwhile Punjab Agricultural University and renamed as Chaudhary Charan Singh Haryana Agricultural University, Hisar (the University) with effect from 31 October 1991. The campus of the University is spread over an area of 2,918 hectares at Hisar and over 544 hectares at other stations in the State. The University has 11 Regional Research Stations (RRS), 20 Krishi Vigyan Kendras (KVKs) spread through out the State and six Constituent Colleges (CCs) in the main campus at Hisar and one at Kaul (Kaithal). The University has 2,620 hectares of farm-land for quality seed production and furtherance of agricultural interests of the State and 298 hectares under buildings and roads. The main objectives of the University are to impart education in different fields of study, particularly in agricultural, veterinary and animal sciences; agricultural engineering, home science and other allied sciences; advancement of learning and prosecution of research; and to undertake the extension of such sciences to the rural people in the State.

3.1.2 Organisational set up

The Governor of the State is the Chancellor of the University and also the Honorary Chairman of the Board of Management (BOM). The Vice-Chancellor is the principal executive and academic officer, who exercises control over the affairs of the University. He is responsible to the BOM through a Finance Committee for presentation of annual budget and statement of accounts and also maintains close coordination among teaching, research and extension activities.

3.1.3 Audit objectives

The objectives of the Audit were to see whether:

- The management of financial resources was done efficiently and effectively;
- The academic functions were carried out efficiently and effectively;
- There was adequate strength of teaching staff and infrastructure created was fully utilised; and
- Agricultural research carried out by the University resulted in increased agricultural productivity.

3.1.4 Audit criteria

To achieve the audit objectives, following audit criteria were adopted:

- Co-relation of sanctions accorded with funds released;
- Detailed Project Reports and their guidelines;
- Norms fixed by Academic Council;
- Norms and targets of research work fixed in detailed project reports; and
- Procurement Systems evolved by the University.

3.1.5 Scope of audit and methodology

The review covered the activities of the University for the period 2002-07 and records of the office of the Comptroller, Registrar, Estate Officer, Librarian, Director, Research, Extension Education, Director Stores and Purchases (S&P),

Transport Officer, Printing Press, Campus Hospital, 12[1] out of 49 departments of CCs, 3[2] of 11 RRS/Sub-stations/Farm and 5[3] of 20 Krishi Vigyan Kendras (KVKs) were test checked during December 2006 to May 2007. An introductory meeting was held in February 2007 with Registrar, Comptroller, all Deans and Directors of the University in which important issues regarding working of the University, audit objectives and audit criteria were discussed.

Audit findings

3.1.6 Financial management

3.1.6.1 The University prepares annual budget on the basis of grants-in-aid received from the State Government, funds received against schemes/projects sponsored by Indian Council of Agricultural Research (ICAR) and other agencies and its anticipated income from various activities taken under ICARs, National Agriculture Technology Project (NATP), etc.

Receipts and expenditure incurred during the last five years (2002-07) were as under:

Year	Opening balance	Receipts					Expenditure	Closing balance
		Grants-in-aid		Other agencies	University income	Total		
		Non-Plan	Plan					
	(Rupees in crore)							
2002-03	(-) 52.37	73.13	5.12	21.04	8.41	107.70	102.53	(-) 47.20
2003-04	(-) 47.20	74.84	6.00	21.25	8.91	111.00	106.26	(-) 42.46
2004-05	(-) 42.46	76.80	6.00	28.17	8.70	119.66	114.88	(-) 37.68
2005-06	(-) 37.68	95.69	8.00	34.76	9.13	147.59	131.03	(-) 21.12
2006-07	(-) 21.12	105.43	8.00	39.26	8.33	161.02	133.84	6.06
Total		**425.89**	**33.12**	**144.48**	**43.48**	**646.97**	**588.54**	

Note: Figures for the year 2006-07 are provisional.

University availed overdraft/loan from banks for meeting its day-to-day expenditure during 1997-2002.

Minus opening balance (April 2002) was mainly due to less receipt of grants than the expenditure from the State Government during 1997-98 and 2001-02. Deficit of income and expenditure was met by taking loans from the banks by pledging fixed deposit receipts (FDR) of Employees Provident Fund (EPF).

[1] College of Agriculture: Agronomy, Entomology, Extension Education, Plant Breeding, Soil Sciences and Vegetable crops; College of Basic Sciences and Humanities: Genetics, Sociology and Food Science & Technology; and College of Home Science: Home and Extension Education, Family Resource Management and Food & Nutrition.

[2] Regional Research Station, Bawal; Cotton Research Centre, Sirsa; and Rice Research Station, Kaul.

[3] Faridabad, Kurukshetra, Kaithal, Ujha (Panipat) and Damla (Yamunanagar).

While the expenditure of the University rose from Rs 102.53 crore in 2002-03 to Rs 133.84 crore in 2006-07, the income of the University remained almost stagnant resulting in increased reliance on grants-in-aid from the State Government and funds from other agencies for meeting the hike in expenditure. The University had not reviewed the fee structure for various courses to match the rise in the expenditure.

3.1.6.2 Non-preparation of Balance Sheet

No balance sheet was prepared since inception.

Section 34(4) of the Haryana and Punjab Agricultural Universities Act, 1970 provides that accounts and balance sheet shall be submitted by Vice-Chancellor to the Government through the Board alongwith Board's comments for laying before the Legislature.

However, the required balance sheet had not been prepared by the University since inception. A mention was also made in the Audit Report (Civil) of Comptroller and Auditor General of India for the year ended 31 March 1997 regarding non-preparation of balance sheet (Paragraph 6.1.7.5). However, no action has been taken by the University so far. Further, accounts prepared every year were mere consolidation of transactions relating to receipts and payments, which neither reflected the assets and liabilities at the end of the financial year nor gave a true picture of developmental expenditure and receipts relating thereto. The University prepared Grants Utilisation Certificates (GUCs) every year and sent the same duly audited by Local Audit Department and on the basis of which the Government released grants.

3.1.6.3 Unauthorised diversion of funds

Rupees 19.50 lakh were spent on purchase of tractors and other farm equipments without prior approval of Council.

Indian Council of Agricultural Research sanctioned Rs 1.70 crore as the fourth instalment for the year 2004-05 under the scheme "Development and Strengthening of State Agricultural Universities" to upgrade the University Level Central Laboratory to the level of Regional Laboratory. The funds were to be utilised towards purchasing only those laboratory equipments which were in the list of items approved by the Council. An amount of Rs 19.50 lakh was spent for the purchase of tractors and other farm implements not included in the list of approved items without the prior approval of the Council.

3.1.6.4 Outstanding temporary advances

Advances amounting to Rs 5.87 crore were outstanding for a long time.

The total temporary advances outstanding as on 31 March 2007 were Rs 5.87 crore[4] against 106 offices/departments of the University. The Comptroller of the University replied (March 2007) that efforts were being made for adjustment of advances. Temporary advances remaining outstanding for more than the prescribed period indicate poor monitoring of advances.

[4] Zero to one year: Rs 494.07 lakh; one to two years: Rs 71.11 lakh; two to six years: Rs 21.59 lakh and six to sixteen years: Rs 0.24 lakh.

3.1.6.5 Non-recovery of miscellaneous advances

As per codal provisions, amount placed under miscellaneous advances against firms/ individual departments is required to be cleared at the earliest.

It was noticed that as on 31 December 2006 an amount of Rs 45.16 lakh was outstanding under miscellaneous advances against firms, departments, individuals, etc., out of which Rs 8.96 lakh[5] had been outstanding since 1966-67. The outstanding advances were not being reviewed at the end of each financial year which indicated breach of established procedures. The Executive Engineer (EE) of the University replied (March 2007) that balances were very old and relevant record was not available and that an agenda item had been placed before an *ad-hoc* committee to write off the outstanding amount.

3.1.6.6 Inadequate provision for pension fund

Pension fund was deficit, but no arrangements were made to make the pension scheme sustainable.

The State Government introduced (January 1992) the pension scheme in the University in January 1992. The BOM in its 143 meeting held in May1992 approved the introduction of the Pension Scheme in the University on self-supporting basis by establishing a Pension Fund out of the proceeds of the employees' Contributory Provident Fund (CPF).

It was noticed that due to revision of pay scales from 1 January 1996, ban on recruitment and increasing number of retiring employees every year, the balance of Pension Fund had decreased considerably. The balance in the Pension Fund as on January 2007 was Rs 41.76 crore. The contribution towards Pension Fund was Rs 41 lakh per month. The average income on account of interest was Rs 27 lakh per month. Thus, total monthly income was Rs 68 lakh and average expenditure was Rs 1.60 crore thereby leaving a deficit of Rs 92 lakh per month. The University had not made any arrangements to meet the rising pension liability and to make the pension scheme sustainable. The Comptroller of the University replied (March 2007) that efforts were being made since December 2003 to get funds from the Government for strengthening the Pension Fund.

3.1.6.7 Non-recovery of expenditure incurred on the schemes

An amount of Rs 1.16 crore spent in excess of funds received were not recovered.

The research schemes/projects are mainly funded by ICAR and after a particular period and on submission of final progress reports, the schemes/projects are closed.

Scrutiny of records showed that an expenditure of Rs 39.24 lakh was incurred in excess of the funds received from ICAR in anticipation on 13 schemes, which were closed between 1986-87 and 2005-06. But the University could not obtain the funds from ICAR.

[5] One to two years: Rs 0.35 lakh; two to six years: Rs 1.04 lakh and six to thirty two years: Rs 7.57 lakh.

Similarly, an amount of Rs 77.06 lakh was outstanding against 54 agencies/ Government Departments due to spending the amounts in excess of grants received during 2002-06. The University had not even claimed the amounts from the agencies concerned.

3.1.7 Academic activities

3.1.7.1 Strength of teachers

Against the sanctioned strength of 1,218 teachers only 851 were in position.

There was a shortfall of 367 posts (30 *per cent*) of teaching staff under different cadres as on 31 March 2007 as detailed below:

Sr. No.	Name of Cadre	Approved posts	In position	Excess (+)/ Shortfall (-)
1.	Professors-cum-Head of the Departments/ Senior Scientists	69	472	(+) 403
2.	Associate Professors/Scientists	241	308	(+) 67
3.	Assistant Professors/Assistant Scientists	908	71	(-) 837
Total		**1,218**	**851**	**(-) 367**

Further, the strength of Assistant Professors and Assistant Scientists, which were the feeding cadres for Professors and Research Scientists, declined from 189 in 2002-03 to 71 in 2006-07.

Against the sanctioned strength of 310 posts of Senior Scientists, Scientists, Professors, Associate Professors, 780 were in position.

The men in position were in excess in the cadres of Senior Scientists, Scientists, Professors and Associate Professors over the sanctioned strength as per details given below:

	2002-03	2003-04	2004-05	2005-06	2006-07
(A) Professors/Senior Scientists					
Sanctioned	74	70	68	65	69
In position	487	492	457	418	472
Excess	413	422	389	353	403
(B) Associate Professors/Scientists					
Sanctioned	263	247	243	241	241
In position	388	357	328	314	308
Excess	125	110	85	73	67

Ninety posts of Scientists, Assistant Professors, etc. were upgraded without the approval of ICAR.

The Vice-Chancellor, in anticipation of approval of the ICAR, upgraded ninety posts of Scientists/Assistant Professors/Assistant Scientists, Agronomists, etc. during 1989-2001. Their cases for approval were sent to ICAR from time to time, but the approval of ICAR had not been received (May 2007). In the absence of approval from the ICAR, upgradation of these posts and payment of salary in the upgraded posts was irregular.

The Registrar of the University attributed (April–May 2007) the shortage of lower cadre of teachers to non-recruitment of teachers, over staffing in higher cadres and promotion of teachers to the posts of Associate Professors and Professors by upgrading the posts. The reply was not tenable as the career advancement scheme permitted granting of next higher scale and not the promotion.

3.1.7.2 Enrolment of students

Shortfall in enrolment of students ranged between 11 and 74 *per cent.*

In four Constituent Colleges of the University, the number of students actually enrolled were far less than the intake capacity in different courses during 2002-07 as detailed below:

Sr. No.	Name of college	Name of course	Period	Intake capacity	Actual enrolment	Shortfall	Percentage of shortfall
1.	Animal Sciences	M. Sc.	2002-07	53	31	22	42
		Ph. D	2002-07	35	16	19	54
		Total		**88**	**47**	**41**	**47**
2.	Home Science	U.G/PG	2002-07	270	228	42	16
3.	Veterinary Sciences	Ph. D	2002-07	76	20	56	74
		PGS	2002-07	214	176	38	18
4.	Agricultural Engineering and Technology	B. Tech.	2002-07	180	161	19	11

As evident from above, less enrolment than intake capacity ranged between 11 and 74 *per cent* during 2002-07. In College of Agriculture, Kaul (Kaithal) the percentage of dropout students of the College ranged between 25 and 42 *per cent* during *2002-06*.

Less enrolments were attributed (March 2007) to shortage of staff, migration of students from one college to another, leaving the colleges midway on their getting jobs, etc. The Dean, College of Agriculture, Kaul (Kaithal) replied (March 2007) that dropouts were due to non-maintenance of Overall Grade Point Average (OGPA), students leaving of their own will to get admission in high value courses i.e. MBBS, BDS, Engineering, etc. The fact remains that no concrete steps have been taken to improve the situation.

3.1.7.3 Delay in procurement of laboratory equipment

Delay in procurement of laboratory equipments led to non-start of courses of M. Sc. (Food Science and Technology).

The Ministry of Food Processing Industries, GOI sanctioned (March 2002) Rs 44.90 lakh to the Centre for Food Science and Technology (CFST) to impart better post-graduate education and training for M.Sc. (Food Science and Technology) classes. Under the project, a laboratory was to be set up by purchasing the equipment to start a course on EDP refresher and skill upgradation. Accordingly, GOI released (March 2002) Rs 24.90 lakh as first instalment and Rs 25.10 lakh in March 2005 as second instalment. The laboratory equipment was procured from the funds received between April 2003 and July 2006.

The University procured the laboratory equipments in a span of four years against the project implementation schedule of one year. Consequently, the course that was scheduled to be started four years back, had not started as of April 2007.

3.1.8 Research activities and seed production

3.1.8.1 Impact of improved varieties/hybrids

Despite the introduction of improved varieties/hybrids yield had fallen, thus, forfeiting the objects of research.

The University released 26 high yielding varieties of different crops like mustard, *kabuli chana*, cotton, wheat, barley, *bajra, guar*, *moong,* maize, *bajra* hybrid, American cotton variety H 1,226, gram $HK_{2,}$ Sun Flower Hybrid, etc. during 2002-03 to 2006-07. The yield of wheat and oilseed crops sown in the University farm decreased as per details given below:

Name of crop	Year	Average yield per hectare (In Kilograms)	Year	Average yield per hectare (In Kilograms)
Wheat	2002-03	3,187	2006-07	2,835
Oilseed	2003-04	863	2006-07	423

It was apparent from the above that in spite of release of high varieties/hybrids, the yield of above crops per hectare had decreased.

3.1.8.2 Decrease in production of seed

University failed in increasing the productivity of various crops through improved varieties.

Development of improved varieties/hybrids is the main research activity of the University. It released various improved varieties of seeds of wheat, rice, barley, cotton, *bajra, mung, guar,* gram and other pulses. Yields of the University farm for the year 2002-03 and 2006-07 are tabulated below:

	2002-03			2006-07		
Crop	Area (*Acre*)	Production (Q)	Yield/*acre*	Area (*Acre*)	Production (Q)	Yield/*acre*
Bajra	5	18	3.6	16	52	3.25
Mung	108	187	1.73	184	160	0.86
Rice	13	259	19.92	27	441	16.33
Guar	24	46	1.91	918	992	1.08

The table shows drop in yield per *acre* over 2002 to 2007 inspite of release of high yield varieties, thus, rendering the claims of the University regarding its improved varieties questionable.

The Director of Research replied (March 2007) that decrease in seed/crop was due to climatic reasons and adherence to regulations on isolation and removal of off-type plants for maintaining purity. The reply was not convincing as all these factors were prevalent in both the years in 2002-03 and 2006-07. Moreover, a large percentage of off type plants in the seed crops renders the quality of the seeds used and produced questionable.

3.1.8.3 Non-approval of projects

The research activities were not encouraging as against the submission of 454 projects, only 140 projects were approved by the ICAR/other agencies.

Research Projects numbering 160 were submitted to the ICAR for approval, of which only 59 were approved. Similarly, 294 projects were submitted to the other agencies for approval, of which 81 were approved. The University replied (May 2007) that less approval of projects by ICAR and other agencies was due to discontinuation of financing *ad hoc* projects from AP Cess Fund, discretion of funding agencies and stiff competition to get funds from ICAR or other financing

agencies. The University needs to carry out a self appraisal regarding high rejection of its projects and take suitable action.

3.1.8.4 Less contribution of developed crop varieties in seed

The main endeavour of the Department of Plant Breeding is research on developing high yielding quality crops of different agri-species. Many new varieties like BH 393 barley; HK R-46, 47; HSD paddy; sonak and WH 711 wheat, etc. have been developed/released during the years 1995-96 to 2004-05 by the University. But as is clear from the data below, contribution of developed crop varieties in seed chain has decreased:

Variety	Year	Percentage of Contribution	Year	Percentage of Contribution
Barley	1995-96	90	2004-05	70
Wheat	1995-96	45	2004-05	28
Paddy	1995-96	12.5	2004-05	7.5
Guar	1996-97	100	2004-05	40
Cotton	1996-97	80	2004-05	15
Gram	1997-98	100	2004-05	70
Green Gram	2003-04	30	2004-05	15

Thus, farmers of the State could not avail of the full benefits of high yielding varieties of crops. The Head of the Department of Plant Breeding stated (March 2007) that less contribution of crop varieties in the seed chain of the State was due to release of new high yielding varieties by other universities, reduction in cultivable crop area and less demand for new varieties by the people of the State. Reply indicated that the varieties developed by the University were not suitable for the State.

3.1.8.5 Failure of crop varieties

The seeds of the varieties of crops developed and released by the University as detailed below failed in germination tests conducted at the Seed Testing Laboratory, Karnal.

Sr. No.	Name of Crop	Variety	Year of release	Failure year	Reason for failure
1.	Cotton	H1117 HHH 287 H1226 HD 123 (F&C)	2002-03 2004-05 2004-05 1999-2000	2005-06 2006-07 2006-07 2006-07	Sub-standard germination.
2.	Wheat	W.H 711	Not released	2005-06	Failed in germination due to development of Karnal Bunt Disease.

This was indicative of inadequate field trials of these varieties before release. Haste in release of seeds of field crop varieties may have adverse consequences on crops and farmers.

3.1.8.6 Production of seed varieties below norms

Crop improvement and quality seed production are key activities of the University. The task of production of quality seeds and seed processing has been assigned by the University to its Krishi Vigyan Kendras (KVKs).

Scrutiny of records of KVKs at Jind, Ujha (Panipat) and Sirsa showed that the seed production of the different crop varieties raised during 2002-03 to 2005-06 was far below the norms fixed by the University. On an average the production of different crops (12 crops) raised ranged between 3.71 and 52.61 *per cent* for KVK, Jind, 19.65 and 61.30 *per cent* (five crops) for KVK, Sirsa and for Ujha (Panipat) between 34.83 and 68.87 *per cent* (three crops). The KVK, Jind and Ujha (Panipat) attributed (February/March 2007) the low production to shortage of irrigation, undulated land and alkaline and saline patches. However, the University is expected to overcome these constraints and to make full use of the land provided and ensure optimum production.

3.1.8.7 Increase in undersize grains

Scrutiny of records of Director, Farm, Hisar showed that percentage of undersized grains in the production of quality seeds of various crops increased over a time from 2002-03 to 2005-06 as detailed below:

2002-03			**2003-04**			**2004-05**			**2005-06**		
Figure of production in quintals											
Total	**Under Size**	**Percentage**	**Total**	**Under Size**	**Percentage**	**Total**	**Under Size**	**Percentage**	**Total**	**Under Size**	**Percentage**
Wheat											
4,413.70	623.17	14.12	4,090.00	789.78	19.31	4,853.80	1,095.65	22.57	6,589.15	1,543.15	23.42
Barley											
324.55	49.05	15.11	1,493.95	275.15	18.42	418.60	90.30	21.57	538.70	176.80	32.82
Bajra											
-	-	-	4.80	0.48	10.00	12.00	1.82	15.17	35.00	8.85	25.29

As a result of increasing production of undersize seeds, even large proportions of seed was being sold as undersize grain, reducing availability of quality seed to the farmers.

The Director, Farm attributed (May 2007) the increase in undersize grain to long dry spell and lack of irrigation facilities. The response was not tenable as the seeds production programme should have been taken up on the selected lands with optimal resources needed for maximising quality seeds production.

3.1.8.8 Loss due to sale of seeds as grain

As per the instructions of the Vice-Chancellor (March 1993) , the surplus seeds in excess of the demand of the Haryana Seeds Development Corporation (HSDC) was to be sold as seed to the farmers/other agencies to avoid loss to the University. The Director, Farm was to frame modalities.

Test-check of records of Regional Research Station, Bawal; Ram Dhan Singh Seeds Farm and Director, Farm of the University showed that after meeting the demand of HSDC, 2,893.39[6] quintals of seeds remained surplus between 2002-06. This was sold as grain at lower rates, causing a loss of Rs 42.02 lakh to the University.

The Director, Farm stated (May 2007) that despite hard efforts, the surplus seeds could not be disposed of as seeds. Further, the crop of wheat variety WH 711 failed due to development of Karnal Bunt disease. The reply was not convincing as sale of seeds as grains had become a regular feature and needed to be looked into.

3.1.8.9 Seeds Farm not fully developed

University failed to develop Dr. Ram Dhan Singh Seeds Farm as model seeds farm as envisaged.

The State Government allotted (May 1998) 4,020 *acres* land on lease to the University for development of Dr. Ram Dhan Singh (RDS) Seeds Farm. The land was to be developed into a model seeds farm for production of quality seeds of major food, fodder, pulses and vegetable crops, production of quality planting materials of horticultural crops and training rural youth for taking up the seed production as an enterprise. The university received Rs 10.74 crore between 2000-01 and 2005-06 for the development of the farm from various sources.

Out of 4,020 *acres* land, an average area of 1,565 *acres* for *kharif* crops and 518 *acres* for *rabi* crops remained under cultivation during 2002-06.

Grant of Rs 16 lakh released to provide training to rural youths from ICAR was diverted to the Department of Seed Science Technology. Training to rural youths interested in taking up seed production as enterprise was also not imparted. As such none of the objectives mentioned in the Project was achieved.

The University replied (May 2007) that the Farm could not be fully developed due to shortage of irrigation water/channels, supervisory and field staff and tractors and machinery. The reply was not acceptable as the Irrigation Department had already sanctioned water in July 2003 but construction of the minor from boundary to the inner area and construction of *pucca* water channels was not completed (May 2007). Further there was no shortage of staff and the university had received adequate funds for purchase of equipments and machinery.

[6] 2002-03: 154.85 quintals; 2003-04: 1,651.08 quintals; 2004-05: 374.80 quintals; and 2005-06: 712.66 quintals.

3.1.9 Extension activities

3.1.9.1 Non-setting up of soil testing laboratories

Scrutiny of records of Krishi Vigyan Kendras (KVKs) under the control of Director, Extension Education revealed that laboratory equipments, chemicals, glassware and plastic wares worth Rs 81.28 lakh were purchased during February/March 2005 and March 2006 by nine KVKs[7] for use in their Soil Testing Laboratories (STLs).

Eleven KVKs[8] drew temporary advances (Rs 3.20 lakh each) of Rs 35.20 lakh during February-April 2005 and deposited the same with the Engineering Unit of the University for setting up STLs in their *Kendras*. No STL had been set up (March 2007). Thus, equipments, chemicals, glass and plastic wares worth Rs 81.28 lakh could not be put to use. Besides, the objectives of getting test reports for conducting experiments and trials in fields could not be achieved.

3.1.9.2 Trainings under extension activity

The purpose of extension education is to disseminate the latest technologies and particularly the new research findings by the University on agricultivation through practical trainings, seminars, melas, radio talks, etc. Therefore, these trainings and the areas needing extension of new technologies are required to be carefully planned centrally after due deliberations and their impact assessed after completion of the programme.

Targets for none of the KVKs were defined and fixed centrally at the University level. Each was left free to decide their annual targets of trainings.

3.1.10 Estate management and other points of interest

3.1.10.1 Estate management

The campus of the University is spread over an area of 2,918 hectares of land at Hisar and over 544 hectares at other stations in the State. The University has been purchasing land for academic, research and extension activities. Audit scrutiny of records of Estate Officer disclosed the following points:

- Land measuring 346 *acres*, 4 *kanal* and 13 *marlas* purchased by the University had not been transferred in the name of the University through mutation. In the absence of title of the land, possession of the land measuring three *kanals* and six *marlas*, valuing Rs 63.93 lakh transferred

[7] Damla (Yamunanagar), Jind, Kaithal, Kurukshetra, Mahendergarh, Rohtak, Sirsa, Sonipat and Ujha (Panipat).

[8] Damla (Yamunanagar), Faridabad, Jind, Kaithal, Kurukshetra, Mahendergarh, Rohtak, Sirsa, Sonipat, Sadalpur and Ujha (Panipat).

by Government Livestock Farm (GLF) in favour of the University in 1971 could not be taken as IOC had set up a petrol pump on the land and the rent was being retained by the GLF.

- Land measuring 141 *kanals* and 13 *marlas* pertaining to the University was encroached upon in 1970 by outside labourers and some class IV officials of the University. These labourers constructed *Kuchhi Jhuggies* and *Pucca* houses on the said land. No efforts were made by the University to evict the labourers from the land.

- The Government had transferred 25 *acres* of land at Rohtak on lease basis for 20 years commencing from 1988-89. As per orders of the State Government, the deed was terminated in September 2002 much before the expiry of the lease period. Though the University had created one Type 9 house, three stores, shed and threshing floor over the leased land in 1988-89 at a cost of Rs 11.20 lakh, it had not claimed any compensation from the Government.

- A lease deed was signed on 24 March 1988 between Deputy Director, Agriculture, Gurgaon and Deputy Estate Officer of the University for acquiring 46 *acres*, 6 *kanals*, 15 *marlas* of land situated at Gurgaon on lease for a period of 99 years commencing from 1971-72. The University established (i) Krishi Vigyan Kendra (KVK), (ii) Research Project, (iii) Horticulture Orchard, (iv) Diseases investigating laboratory (v) Residences, Rest House, store, tubewells, channels, fencing, etc. The land lease deed was terminated on 11 September 2002 by the State Government and the KVK was closed. The University sought (July 2001) compensation of Rs 115.83 crore for establishing new KVK. But no compensation had, however, been paid as of May 2007.

- The building of KVK was let out (November 2002) to Deputy Excise and Taxation Officer, Gurgaon at a monthly rent of Rs 1.04 lakh. Out of total rent of Rs 53.47 lakh for the period from November 2002 to February 2007, Rs 38.14 lakh were in arrears.

- Out of the structures constructed, there were residential houses also for the staff of the KVK. Since most of the staff had been posted on different and far off stations, 11 houses of Type 11 and 14 had been lying vacant (April 2007) since the period between August 2002 and August 2003.

3.1.10.2 Execution of works

The University had a separate Engineering Wing for construction and maintenance works of the University. It also undertakes works of other agencies as Deposit Works. Scrutiny of records disclosed the following points:

- The system of obtaining technical sanction before start of work as envisaged under para 2.89 of PWD Code was not prevalent in any of the divisions.

- Accounts of forty works valuing Rs 95.20 lakh completed between 1972 and 1984, were not closed as required under the codal provisions. As such the works divisions had not ensured the completion of works with their full scope and accounting of material supplied at site.

Rupees 14.20 crore were spent on establishment of construction wing in excess of norms.

- Public Works Department Code provides that unless the Government directs other wise the provision to be made for establishment expenditure should not exceed 25 *per cent* of the works expenditure. Of the total expenditure of Rs 60.30 crore of works divisions during 2002-07, Rs 29.28 crore was on establishment which was 48 *per cent* of the works expenditure instead of envisaged 25 *per cent*. Re-structuring Committee also recommended (2001-02) downsizing the engineering unit by at least 50 *per cent* of its present strength.

- Engineering Wing of the University constructed the buildings of Chaudhary Devi Lal Memorial Engineering College at Panniwala Mota (Sirsa) during 2002-06 at a cost of Rs 13.53 crore. The University levied the departmental charges at the rate of five *per cent* instead of seven *per cent*, as per PWD instructions (May 1972), resulting in less levy of departmental charges amounting to Rs 27.06 lakh.

3.1.10.3 Other activities

- Stock taking/physical verification of the books of departmental libraries at College of Agriculture, Kaul (Kurukshetra) and Regional Research Centre, Bawal (Rewari) was not conducted during 2002-07. In the absence of stock taking, exact number of missing books could not be ascertained. The librarian intimated (March 2007) that though physical verification/stock-taking of the main library was conducted in August 1999 and January-March 2004 but report regarding missing books could not be finalised due to shortage of staff.

- In Nehru Library of the University, journals worth Rs 7.91 lakh had not been received from the agencies concerned as of March 2007, though advance payments were made to suppliers between March 2005 and October 2006.

- In three[9] KVKs and the University farm at Hisar, out of the total cultivable area of 417.05 hectares, fallow land area ranged between 54.49 and 94.69 hectares in respect of *rabi* crops and 60.58 hectares and 126.46 hectares in respect of *kharif* crops during the period 2002-03 to 2006-07. Thus,

[9] Mohindergarh, Padupindara (Jind) and Sonipat.

immediate steps need to be taken to bring the land under cultivation in order to generate income for the University.

The University incurred losses of Rs 98.41 lakh in running the University press.

- The printing press of the University suffered heavy losses (Rs 98.41 lakh) in its functioning and maintenance during 2002-06. The expenditure incurred during these years on contingencies and salaries of the staff deployed for running the press was far in excess of the income. Further, the University spent Rs 7.96 lakh on getting the printing of books done from the market. The Restructuring Committee had already recommended (2001-02) the winding up of the Press.

3.1.11 Conclusions

The University was established in February 1970 with the main objectives to impart education in agricultural, veterinary and animal sciences, prosecution of research and to undertake the extension of such sciences to the rural people in the State. The University failed to prepare the balance sheet which could have given a clear picture of its fixed assets and liabilities. Academic activities fell short of required standards because of shortage of teachers, shortfall in enrolment of students and high dropout rate. The objective of enhancing the productivity was not fully achieved as over all production of main crops had shown a downward trend, besides an increasing trend in undersize grains and decrease in contributions to State seed chain. Non-development of Ram Dhan Singh Seeds Farm fully, non-fixing of targets regarding holding of training at directorate level showed the deficiencies in the area of extension work. Land measuring 346 *acres* 4 *kanal* and 13 *marlas* has not been got transferred in the name of the University through mutation.

3.1.12 Recommendations

Based on the performance review, following recommendations are made:

- The University should take immediate steps to prepare its balance sheet to know the exact status of its assets and liabilities;
- A system should be evolved to watch the adjustment of advances. Recovery should be made from the officials concerned if adjustment vouchers are not submitted within the specific period;
- The staff strength of teachers should be reviewed;
- Research activities need to be geared up to increase the productivity of various crops;

- Good quality seed production needs to be increased by putting all the inputs properly;

- The utilisation of entire land in the possession of the University needs to be re-assessed so as to use the land for cultivation at an optimum level; and

- The strength of construction wing needs to be downsized and University press should be wound up as per recommendation of the Restructuring Committee.

These points were reported to the Government (June 2007); the replies of the University Authorities as endorsed (August 2007) by the Financial Commissioner and Principal Secretary, Government of Haryana, Agriculture Department have been incorporated at appropriate places.

Water Supply and Sanitation Department

3.2 Urban and Rural Water Supply Schemes

Highlights

Performance Audit of Urban and Rural Water Supply Schemes brought out weaknesses in planning and implementation of schemes, execution of works, deficiencies in supply of quality water and water testing arrangements. Priority was not given to supply water to villages deficient in water supply. Though there were 1,971 villages deficient in water supply in December 2004 yet 510 villages covered were those villages which were not deficient in water supply. For 868 villages deficient in water supply, supply of potable drinking water still remained a distant dream. Further, the Department had not formulated any plan for water source sustainability although there was indiscriminate extraction of ground water in the State. Monitoring and surveillance arrangements over planning and implementation of schemes were not efficient.

- **Out of 1,971 villages deficient in water supply in December 2004, 868 villages remained deficient as of March 2007. Priority was not given to supply water to deficient villages as 510 those villages were covered during 2005-07 which were not deficient in water supply.**

(Paragraph 3.2.7.2)

- **Taking up of the water supply schemes of Narnaul town, Makrana group of villages and Nangal Dargu group of villages without ensuring availability of raw water resulted in wasteful expenditure/blocking of funds of Rs 5.47 crore.**

(Paragraphs 3.2.7.3 and 3.2.7.7)

- **Delay in taking up the matter of outlet of raw water with Irrigation Department deprived the habitants of Kalayat town of supply of safe drinking water despite spending Rs 4.99 crore.**

(Paragraph 3.2.7.8)

- **Eighty seven water supply schemes completed 4 to 37 months back at a cost of Rs 15.59 crore remained non-functional for want of electric connections.**

(Paragraph 3.2.8.5)

- **Against the norms of installation of 24,179 stand posts in eight districts test checked, 91,779 stand posts were provided leading to wastage of water and substantial loss to Government.**

(Paragraph 3.2.8.8)

- **Against the target of testing 1.62 lakh samples of water, only 0.48 lakh (29 *per cent*) samples were collected and tested in seven laboratories, of which 14 *per cent* were found unfit. Further, as per data of Health Department, out of 35,671 samples checked, 11,661 samples (33 *per cent*) were found unfit for human consumption.**

(Paragraph 3.2.10.1)

- **Monitoring, surveillance and information system for planning and to watch the implementation of various water supply schemes was not effective in the Department.**

(Paragraphs 3.2.11.1 and 3.2.11.2)

3.2.1 Introduction

Water is essential to sustain life and has a direct bearing on the health of human beings. Success of socio-economic development depends on the availability of safe and potable drinking water. Main source of drinking water in the State is ground water and surface water in areas where ground water is not potable. Norms of supply of water in rural area were 40 LPCD[10] where water was supplied through stand posts and 70 LPCD for supply through house service connections. The norms were increased in August 1986 to 70 LPCD in rural areas of desert prone districts[11] to take care of water supply to cattle also. In urban areas, the norms were 110 LPCD for smaller towns and 180 LPCD for towns with population more than 30,000.

Out of 6,759 villages in the State, 2,695 villages were deficient in water supply to a minimum level of 40 LPCD as of April 2002. During 2002-07, water supply facilities were upgraded in 3,379 villages. However, 868 villages still remained deficient in water supply.

Water supply schemes in villages were being implemented under centrally sponsored Accelerated Rural Water Supply Programme (ARWSP), Desert Development Programme (DDP) and State funded Minimum Needs Programme (MNP). Besides, loans were availed from National Agriculture Bank for Rural Development (NABARD) and National Capital Region Planning Board (NCRPB). For water supply facilities in towns having population of less than

[10] Litres per capita per day.

[11] Bhiwani, Fatehabad, Hisar, Jhajjar, Mohindergarh, Rewari, Rohtak and Sirsa.

20,000 (as per 1991 census), centrally sponsored Accelerated Urban Water Supply Programme (AUWSP) was introduced in March 1994.

3.2.2 Organisational set up

The Haryana State Sanitary Board (the Board) looks after the formulation of policies/schemes and allocation of funds relating to water supply and monitoring their implementation. The Commissioner and Secretary to Government Haryana, Water Supply and Sanitation (WSS) Department is the administrative head at Government level and is responsible for implementation of policy decisions, programmes, schemes, etc. The Engineer-in-Chief (EIC), WSS Department, Panchkula is over all incharge of the schemes and is assisted by 3 Chief Engineers (CE), 16 Superintending Engineers (SE) and 59 Executive Engineers (EE).

3.2.3 Audit objectives

The audit objectives were to assess whether:

- the funds received were utilized in economical and efficient manner and for the intended purposes;
- the planning was efficient and effective;
- the targets for completion of works were achieved in time;
- the coverage under drinking water supply schemes was adequate and feasible;
- the rules, regulations/instructions of Government regarding execution of works were strictly followed;
- the quality control standards for providing safe drinking water to inhabitants were maintained; and
- the monitoring and information mechanism was in place.

3.2.4 Audit criteria

For the achievement of audit objectives following criteria were adopted:

- adherence of provisions of budget manual and financial rules;
- adherence of scheme guidelines;

- State Government's policy for drinking water and targets fixed;
- rules, regulations and instructions of Government for execution of work; and
- reports of water testing laboratories.

3.2.5 Scope of Audit and methodology

Implementation of the various programmes/schemes for the period from April 2002 to March 2007 was reviewed through test-check of records in the offices of the Board, the EIC and 13[12] (out of 44) divisions located in 10[13] (out of 20) districts. Divisions for test-check were selected on the basis of geographical location and expenditure incurred. An introductory meeting was held in February 2007 with Commissioner and Secretary, Government of Haryana, Water Supply and Sanitation Department in which important issues regarding implementation of various water supply schemes, audit objectives and audit criteria were discussed. Exit conference was held in August 2007 with the Engineer-in-Chief to discuss the audit findings and their views were considered while finalising the review report.

Audit findings

3.2.6 Financial management

3.2.6.1 Funding pattern

ARWSP is fully financed by GOI while for AUWSP, GOI finances 50 *per cent* of the estimated cost of the schemes and the State Government contributes balance 50 *per cent*. Under NABARD aided projects sanctioned under Rural Infrastructural Devolvement Fund (RIDF) - VI to IX, 90 *per cent* of the cost was released by NABARD as loan and 10 *per cent* was contributed by the State Government as State share whereas under RIDF-X started in October 2004, the ratio was changed to 85:15. In NCRPB aided projects, 75 *per cent* of the project cost is released as loan and the State Government contributes 25 *per cent* of the cost. Minimum Needs Programme (MNP) is fully funded by State Government.

[12] Water Supply and Sanitation Division, Ambala, Bhiwani I & II, Gurgaon, Hansi, Hisar I, Kaithal, Karnal-I, Narnaul, Naraingarh, Panchkula, Rewari and Sirsa-I.

[13] Ambala, Bhiwani, Gurgaon, Hisar, Kaithal, Karnal, Mahendragarh, Panchkula, Rewari and Sirsa.

3.2.6.2 Financial outlay and expenditure

Year-wise position of budget provision and expenditure incurred was as under:

Year	Rural Water Supply			Urban Water Supply			Total		
	Budget allotment	Expenditure	Excess(+)/ Savings(-)	Budget allotment	Expenditure	Excess(+)/ Savings(-)	Budget allotment	Expenditure	Excess(+)/ Savings(-)
	(Rupees in crore)								
2002-03	115.57	118.68	3.11	35.19	52.26	17.07	150.76	170.94	20.18
2003-04	136.24	131.99	(-)4.25	60.32	122.91	62.59	196.56	254.90	58.34
2004-05	134.21	184.26	50.05	59.10	44.36	(-)14.74	193.31	228.62	35.31
2005-06	165.50	232.22	66.72	48.06	94.58	46.52	213.56	326.80	113.24
2006-07	274.05	274.50	0.45	70.55	77.78	7.23	344.60	352.28	7.68
Total	**825.57**	**941.65**	**116.08**	**273.22**	**391.89**	**118.67**	**1,098.79**	**1,333.54**	**234.75**

The expenditure exceeded the budget provision to the extent of Rs 234.75 crore during 2002-07. The excess expenditure was partly due to levy of seven *per cent* PWD charges on the works, three *per cent* storage charges on the material issued from the reserve stock which were not taken into account while framing budget estimates.

3.2.6.3 Avoidable payment of interest

Augmentation of water supply and sewerage scheme for Hisar town was approved (September 2002) by the National Capital Region Planning Board (NCRPB) at a cost of Rs 15.93 crore (Rs 11.95 crore as loan and Rs 3.98 crore as State share). Haryana Urban Development Authority (HUDA) was nominated as nodal agency for receiving and repayment of loan. The terms of loan inter-alia provided rebate in interest at 0.25 *per cent* if interest was paid on due date and penal interest at 2.75 *per cent* on interest payable for delay in payment.

Non-release of State share led to payment of interest without utilisation of loan.

It was noticed that the department failed to deposit the State share amounting to Rs 75 lakh in time (nine months delay) as a result of which HUDA did not release the amount to the department. Consequently the department had to pay interest amounting to Rs 21.82 lakh without utilising the loan. Besides, the department could not avail the rebate of Rs 2.20 lakh and paid a penal interest of Rs 0.99 lakh.

The EE, Water Supply and Sanitation Division-I, Hisar stated (July 2007) that the State share and payment of loan instalment could not be released due to delay in release of funds by the Finance Department. Thus, there was a need to streamline the system of release of funds by the Finance Department to avoid loss to the Government.

3.2.6.4 Blocking of funds

Funds of Rs 1.07 crore of Central assistance were not utilised.

In order to provide 70 LPCD water to the inhabitants of village Bhavdeen, Nagoki group of three villages and Kirarkot, the Board approved (March 2003) estimates for independent water works. All the works were approved under DDP and Rs 1.07 crore were received between March 2003 and February 2004. However,

the entire amount remained unutilised (May 2007), and the project was taken up under a loan from NABARD for Rs 2.29 crore and the funds from GOI remained unutilised. Taking up the scheme under NABARD also involved payment of Rs 24.66 lakh as interest.

The Member Secretary of the Board intimated (July 2007) that as the funds available under DDP were not sufficient, the above mentioned independent water works schemes were taken up under NABARD. The reply was not tenable as work on these schemes was not started and the allotted funds remained unutilised.

3.2.7 Planning and survey

3.2.7.1 Non-adoption of water sustainability measures

According to study undertaken by Department of Drinking Water Supply, Ministry of Rural Development, Government of India, about 85 *per cent* of the drinking water needs are met from ground water although only five *per cent* ground water extraction is needed for domestic water supply. Rising demand for water is putting enormous stress on easily and economically exploitable water resources especially ground water. The State is in a disadvantageous position with regard to rainfall, surface water quantum and ground water quality. The ground water exploitation is highest in six[14] districts. It, therefore, becomes necessary to focus attention on projects relating to source sustainability through rainwater harvesting, artificial recharging, etc.

It was noticed that the department had not formulated any plan for water source sustainability and Rs 9.48 crore (five *per cent* of ARWSP funds) earmarked exclusively for such projects by GOI were not used for the purpose.

3.2.7.2 Physical targets and achievements

Details of physical targets vis-à-vis achievements in terms of number of villages to be covered under various rural water supply schemes during 2002-07

[14] Jhajjar, Karnal, Kurukshetra, Panipat, Rewari and Yamunanagar.

are tabulated below:

(Number of villages)

Name of Scheme	2002-03		2003-04		2004-05		2005-06		2006-07		Total	
	T	A	T	A	T	A	T	A	T	A	T	A
Augmentation Water Supply*	-	-	-	-	50	71	90	191	50	180	190	442
NABARD	200	184	210	186	250	127	350	142	200	96	1,210	735
Prime Minister Gramodya Yojana	40	18	25	12	20	10	0	0	0	0	85	40
ARWSP	150	178	120	146	130	120	80	78	100	235	580	757
DDP	50	35	45	38	45	19	20	14	25	25	185	131
ACA (earlier MNP)	210	321	70	175	30	103	60	72	100	199	470	870
NCR*	-	-	-	-	0	23	240	215	250	166	490	404
Total	**650**	**736**	**470**	**557**	**525**	**473**	**840**	**712**	**725**	**901**	**3,210**	**3,379**

Note: 'T' – Targets, 'A' – Achievements.

*** State funded Augmentation Water Supply and NCR (Rural) Schemes were started from 2004-05.**

NABARD aided schemes indicated declining trend in achievement.

As evident from the above table, there was a declining trend in achieving the targets under NABARD aided schemes. The shortfall in achievement which increased from 8 *per cent* in 2002-03 to 52 *per cent* in 2006-07 despite availability of funds was attributed to shortage of pipes and cement, slow progress of works, non-release of electricity connections by electricity supplying companies, etc.

The shortfall in achievement of targets under Prime Minister Gramodaya Yojna (PMGY), DDP and NCRPB aided projects was 53, 29 and 18 *per cent* respectively. Audit scrutiny disclosed that shortfalls in achievements were mainly due to less allocation of funds, delay in execution of works by the Divisions, non-release of electric connections by electricity supplying companies.

Priority was not given to deficient villages for providing potable drinking water.

As per records of the department, 1,971 villages were deficient in water supply (below the designated norm of 40 LPCD) in December 2004, out of which 868 villages remained deficient as of March 2007. The majority of these villages were from the water starved areas of desert prone districts. It was observed that water supply was provided to 1,613 villages during 2005-07, out of which 510 villages were those which were not deficient in water supply. Thus, priority was not given to those 868 villages which were deficient in water supply.

In order to ascertain reliable information on the status of supply of drinking water, GOI directed the State Government (October 2001) to conduct a survey of habitations to be completed by March 2003. It was noticed that neither the DCs nor the *panchayats* whose involvement was essential were consulted/involved in conducting the survey. The work was started in November 2002 but the survey report had not yet been finalised (July 2007) by the State Government. The data

of drinking water deficient villages with the department, on which the entire planning of water supply programme was based, therefore, lacked a reliable basis.

Yearly targets were not fixed under AUWSP. However, period for completion of schemes was three years. Out of 52 eligible towns under the scheme, GOI approved schemes for 38 towns at an estimated cost of Rs 79.69 crore, against which Rs 75.19 crore were spent and only 22 schemes were completed. While seven were completed within stipulated period of three years, remaining 15 were completed in a time span of 4 to 11 years leading to cost over run of Rs 2.32 crore. Among balance 16 schemes, 9 remained incomplete even after 4 to 7 years of their commencement on which Rs 22.93 crore had been spent against the estimated cost of Rs 23.76 crore.

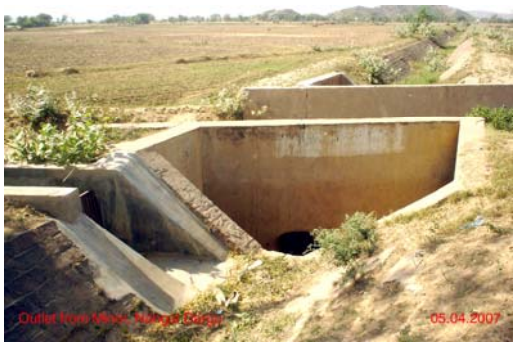
Rural Water Supply Schemes

3.2.7.3 Taking up of schemes without ensuring availability of raw water

An expenditure of Rs 1.18 crore rendered wasteful because of non-commissioning of scheme due to wrong selection of source of water.

In order to supply 70 LPCD water to the Makrana group of villages in Bhiwani district, a water supply scheme was started in June 2000 and completed in July 2004 at a cost of Rs 81.59 lakh. Thereafter, the Irrigation Department showed their inability to provide raw water as the scheme was constructed at tail end of minor where water was not reaching. In February 2006 another estimate for Rs 30 lakh was sanctioned to obtain water from an other channel. After incurring an expenditure of Rs 9.78 lakh, the work was stopped due to resistance from inhabitants of nearby villages.

Similarly, another scheme of water supply to Nangal Dargu group of 6 villages in Narnaul district was completed in March 2001 at a cost of Rs 98.12 lakh. The scheme could not be made functional due to non-availability of raw water. The above audit finding was also included in the Comptroller and Auditor General's Report for the year ending March 2001. Thereafter, an expenditure of Rs 24.28 lakh was incurred on the work to obtain raw water from another point of the same minor. Even then the scheme could not be made functional as no water was available at that point also. Though the scheme was not functional, a sum of Rs 2.64 lakh had been spent on payment of minimum electricity charges upto March 2007.



Dry outlet for water works at Nangal Dargu

Empty storage and sedimentation tank at Nangal Dargu water works

Thus, construction of water works without ensuring actual availability of raw water in the channels had resulted in non-commissioning of the schemes, besides rendering the entire expenditure of Rs 1.18 crore wasteful.

3.2.7.4 Improper survey and design of structures

Improper survey and design of structures led to abnormal delay in commissioning the scheme.

The Board approved (April 1999) the work of augmentation of the Water Supply Scheme of Bass Group of four villages for Rs 1.77 crore. The work of construction of water works was allotted (November 2000) for Rs 68.80 lakh with completion time of 12 months. The scope of the work was enhanced (September 2003) to Rs 90.72 lakh due to change in design of inlet channel and increase in size of structures because of rise in spring level. The agency completed the work worth Rs 0.79 crore upto September 2005. Further, the work of laying of partial distribution line allotted in January 2005 had also been lying incomplete after spending Rs 0.73 crore. After incurring an expenditure of Rs 1.52 crore the scheme remained unoperative (March 2007). Thus, improper survey and design and not taking action against the contractor for not completing the work in time had rendered the expenditure of Rs 1.52 crore unfruitful, besides depriving the inhabitants of the benefits of the scheme even after seven years of its approval.

The EE, WSS Division, Hansi stated (May 2007) that the scheme had been commissioned in February 2007. The reply was not correct as the division applied for release of electric connection only in May 2007, the work of construction of water works was incomplete and almost half of the distribution lines were to be laid.

3.2.7.5 Under-utilisation of structures due to defective planning

Due to defective planning structures created at a cost of Rs 88.16 lakh could not be utilised fully.

The Board approved (November 1999) a scheme to supply potable drinking water to Jatai and Dhani Sukhpura villages for an estimated cost of Rs 56 lakh which was revised to Rs1.21 crore (February 2004) due to increase in scope of work and rise in prices. An expenditure of Rs 88.16 lakh was incurred on the work upto January 2007.

Water supply was released to Jatai village but water to Dhani Sukhpura could not be released as main distribution line from water works Jatai to Dhani Sukhpura was not laid. The EE, WSS Division, Bhiwani stated (February 2007) that due to long distance between the two villages the pipeline was not laid and water supply to Dhani Sukhpura was given through tubewell. The reply was not tenable as the department at the time of framing the estimate knew the distance between the two villages. Thus, due to defective planning, the structures could not be fully utilised and Dhani Sukhpura village was, thus, still being supplied non-potable water.

Urban Water Supply Schemes

3.2.7.6 Extra burden on State exchequer due to unrealistic estimate

GOI approved a canal based water supply scheme for Ambala Sadar and released (November 2001) Rs 15.03 crore as Special Central Assistance for construction of

water works. Only Rupees five lakh were provided in the detailed project report for payment to Railways for making causeway against the actual estimated cost of Rs 3.45 crore. Inordinate delay in execution of the works led to cost escalation with the result that the estimate had to be increased by Rs 9.10 crore.

Due to unrealistic estimates and inordinate delay in execution of works, the State had to bear extra financial burden of Rs 9.10 crore.

For making causeway, the matter was taken up with Railways in August 2005 and a sum of Rs 2.22[15] crore was deposited with the Railways during 2005-07. However, the Railways had not executed the work (April 2007). An expenditure of Rs 18.58 crore had been spent on the work upto April 2007 but the scheme was lying incomplete. Thus, due to preparation of unrealistic estimate coupled with delay in execution of works and in taking up the matter for construction of causeway with Railways late, State exchequer had to bear additional burden of Rs 9.10 crore as the GOI would not provide any additional central assistance for this scheme. The residents, too, were deprived of the benefits of this scheme.

3.2.7.7 Taking up of schemes without ensuring availability of raw water

Taking up schemes without ensuring availability of raw water and permission from Forest Department led to blocking of funds of Rs 4.29 crore.

The Board approved (July 1996) a canal-based scheme for renovation of water supply of Narnaul town for Rs 2.50 crore. The work of construction of Storage and Sedimentation Tank was awarded (September 2002) to an agency for Rs 86.20 lakh with a completion period of 12 months. Due to change in design, the scope of work was enhanced to Rs 1.05 crore which was not approved by EIC (April 2007). The agency had executed the work of Rs 86.17 lakh upto July 2006. The estimate of the scheme was revised (May 2006) to Rs 4.85 crore due to change of source of raw water. The work of construction of inlet channel started in July 2006 and Rs 22.36 lakh were spent on the work but it could not be completed in the absence of permission from the Forest Department. An expenditure of Rs 4.29 crore was incurred on the scheme (February 2007) but it remained non-functional as of April 2007.

Incomplete inlet channel from Neerpur Minor to Narnaul water works

Empty storage and sedimentation tank at Narnaul water works

[15] February 2006: Rs 2.42 lakh; June 2006: Rs 55.08 lakh; and September 2006: Rs 164.87 lakh.

The EE, WSS Division, Narnaul stated (April 2007) that source of raw water had to be changed as the capacity of minor from where raw water was initially planned was not adequate. Thus, the scheme was taken up without ensuring the availability of water in adequate quantity.

3.2.7.8 Delay in taking up the matter of outlet for raw water

Delay in taking up the matter of outlet for raw water deprived the habitants of supply of safe drinking water.

As the underground water of the area contains excessive fluorides and is unfit for drinking, a scheme, Augmentation Water Supply, Kalayat town was sanctioned (September 2002) by GOI at a cost of Rs 5.44 crore. The work was started (February 2003) and an expenditure of Rs 4.99 crore was incurred upto March 2007 by EE, WSS Division, Kaithal but the works of construction of structures at water works and laying of distribution system were not completed (May 2007).

It was noticed that the site of the work was changed before execution of works, as the original site was flood prone and required a lot of earth filling and EE concerned requested the Irrigation Authorities (February 2004) for change of raw water outlet. To carry additional discharge from the changed site, the irrigation authorities demanded Rs 98.56 lakh for remodelling the distributory, payment of which was made in December 2005. The work of remodelling had not been completed by the Irrigation Department (June 2007). Thus, delay in taking up the matter of outlet for raw water for the changed site coupled with delay in completion of works resulted in non-commissioning of the water supply scheme even after more than four years of the start of the scheme.

3.2.8 Implementation of schemes and execution of works

Rural Water Supply Schemes

3.2.8.1 Non-availing of Central assistance due to non-participation of community

To institutionalise community participation in rural water supply programme to ensure sustainability of systems and resources, a Sector Reform project was introduced by GOI in April 1999. Under the project, 10 *per cent* capital cost was to be contributed by the users and 90 *per cent* by the GOI. On completion of scheme, operation and maintenance cost was to be borne by the users. A project was sanctioned (February 2000) by GOI for Karnal district to cover all the 415 villages of the district. Rupees 8.45 crore out of central share of Rs 14.09 crore was released to District Water and Sanitation Mission in March 2000 and June 2003. Further, users contributed Rs 83.43 lakh and interest amounting to Rs 42.22 lakh was also earned.

It was noticed that out of 415 villages, work in only 93 villages was taken up, for which Rs 7.86 crore were released to the Village Water and Sanitation

Committees (VLC) and Rupees one crore was kept in the bank which remained unutilised (April 2007). However, the works were completed in 90 villages as of March 2007. The GOI had not released the balance grant of Rs 5.64 crore due to slow progress of work.

The EE, WSS Division No. II, Karnal intimated (March 2007) that only 93 villages could be covered and rest of the villages did not agree to adopt the scheme. Thus, failure of the department to involve the users in implementing the scheme had resulted in partial implementation of the scheme, besides non-availing of central assistance of Rs 5.64 crore.

3.2.8.2 Swajaldhara programme was introduced by GOI in 2002 on the pattern of Sector Reform Project. Under this project, 148 Drinking Water Schemes were approved during 2002-06 at an estimated cost of Rs 14.68 crore. Rupees 6.97 crore were released by GOI during 2002-06, out of which Rs 6.89 crore were spent and only 25 schemes were completed (July 2007) at a cost of Rs 2.34 crore. No further funds were released by GOI due to non-submission of utilisation certificates and audit and inspection reports by VLCs. The Department stated that the inhabitants did not prefer the scheme in which users had to contribute the share of expenditure. However, in other villages water was being supplied by the department free of cost.

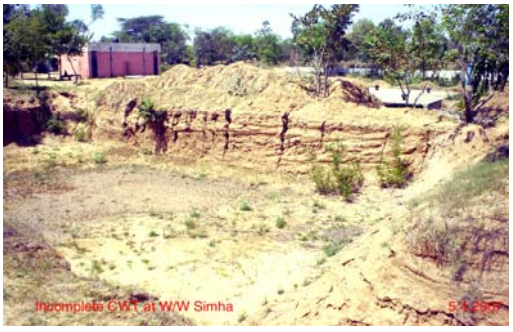
3.2.8.3 Sub-standard execution of work

Sub-standard execution of works deprived the inhabitants of safe drinking water.

To supply potable drinking water to three villages of Seehma group (Mahendragarh district), a water work was completed in December 2003 at a cost of Rs 1.39 crore. The water tank developed defects after commissioning and finally collapsed (August 2004). Departmental investigation found that the tank was not constructed as per structural design and drawings. The work for re-construction of the tank was awarded (January 2006) at the risk and cost of the contractor but the second agency had not started the work till March 2007.

No action for substandard work was taken against any official at fault. The EE, WSS Division, Narnaul stated (April 2007) that water supply was being made through direct pumping to one village while no supply was made to other villages. Thus due to substandard work, benefits of the scheme could not be derived fully.

Collapsed clear water tank at water works Seehma



Incomplete second clear water tank at water works Seehma

3.2.8.4 Blocking of Government money on unproductive scheme

A water supply augmentation scheme for five villages of Rojhuwas group was approved (July 2002) for Rs 1.44 crore, for overcoming the acute water shortage faced by them. The work of construction of water works structures was completed (March 2005) and distribution lines were partially laid. Neither the work of construction of Overhead Service Reservoir (OHSR) was taken up nor the electricity connection was obtained. Thus, even after passage of five years from the approval of the project the benefits have not reached the inhabitants, though Rs 98.68 lakh were spent (February 2007).

Due to non-completion of scheme as per design, it remained non-functional.

The EE, WSS Division, Rewari stated (May 2007) that the scheme had been commissioned with a generating set. The reply was not tenable as it would not serve the desired purpose without the construction of OHSR and laying of distribution line. Moreover, a scheme of this magnitude cannot be sustained with a generating set for long.

3.2.8.5 Delay in commissioning of schemes in the absence of electric connections

Eighty seven schemes completed at a cost of Rs 15.59 crore remained non-functional for want of electric connections.

Eighty seven augmentation/new water supply schemes completed between February 2004 and November 2006 at a cost of Rs 15.59 crore could not be made functional for want of electric connections as detailed below:

Water Supply and Sanitation Division	Number of schemes	Connection applied between the period	Expenditure (Rupees in lakh)	Period for which connections are pending (in months)
Rewari	20	February 2004 to May 2006	508.81	10 to 37
Hisar –II	16	December 2005 to July 2006	550.71	9 to 15
Naraingarh	50	October 2005 to November 2006	476.57	4 to 18
Ambala Cantt.	1	October 2006	23.08	6
Total	**87**		**1,559.17**	

No efforts at the higher level seems to have been made to get the connections released though a period of 4 to 37 months had passed since the divisions concerned applied for the release of electric connections. As a result of this the schemes remained non-functional, thereby, depriving the inhabitants of supply of safe drinking water.

3.2.8.6 Failure to supply potable water due to delay in the completion of the scheme

The Board approved (June 1997) a canal based water supply scheme to Baproli group of 11 villages in Mahendragarh district for Rs 1.05 crore. Due to non-availability of assured raw water the scheme could not be started. In December 2002, the scheme was bifurcated in two parts (Jakhani group of six villages and Khatoti Khurd group of five villages). The work of construction of structures at

water works of Jakhani group was completed (August 2006) at a cost of Rs 44.63 lakh. In May 2006 the estimate of the work was revised to Rs 1.73 crore mainly due to cost escalation against which an expenditure of Rs 1.75 crore had been incurred but the scheme remained non-functional till April 2007 due to non-completion of works of distributing system.

There was inordinate delay in completing the work despite the fact that the water which was being supplied to inhabitants contained excessive fluorides. Besides, no proposal was made for water supply for remaining five villages of Khatoti Khurd group. The EE, WSS Division, Narnaul stated (April 2007) that the work of laying distribution system was in progress and the scheme would be made functional shortly.

3.2.8.7 Execution of works without technical sanctions and excess expenditure over estimates

Provision of Para 2.89 of the PWD Code provides commencement of works only after detailed cost estimates are technically sanctioned by the competent authority after satisfying that the proposals are structurally sound and estimates are correct. In 10[16] divisions test checked, an amount of Rs 54.97 crore was spent on 52 works during 2002-07 without getting the estimates sanctioned.

Audit in 11[17] divisions test-checked further revealed that an expenditure of Rs 7.89 crore was incurred in 58 works in excess of sanctioned estimates. The revised estimates for these works were neither prepared nor were approvals obtained from the competent authority.

In six water supply schemes under AUWSP, an excess expenditure of Rs 2.41 crore was incurred. As the excess expenditure was not shared by GOI (50 *per cent* share), the State Government had to bear the entire excess expenditure from its own resources. The EIC intimated (November 2006) that action would be taken against the defaulters.

3.2.8.8 Excess installation of stand posts

Against the norm of providing 24,179 stand posts, 91,779 stand posts were provided leading to wastage of water and substantial loss to Government.

As per norms of the department, a stand post was to be provided for an average population of 100 persons. A review of the position of stand posts required as per

[16] Water Supply and Sanitation Divisions: Ambala Cantt. (1 work): Rs 0.54 crore; Bhiwani-I (1 work): Rs 1.15 crore; Bhiwani-II (12 works): Rs 4.22 core; Hansi (6 works): Rs 5.13 crore; Hisar-I (2 works): Rs 1.29 crore; Kaithal (1 work): Rs 2.59 crore; Narnaul (9 works): Rs 13.07 crore; Panchkula (3 works): Rs 3.32 core; Rewari (10 works): Rs 11.46 crore and Sirsa-I (7 works): Rs 12.20 core.

[17] Water Supply and Sanitation Divisions: Ambala Cantt. (12 works): Rs 0.60 crore; Bhiwani-I (3 works): Rs 0.81 crore; Gurgaon (2 works): Rs 0.46 core; Hansi (5 works): Rs 0.71 crore; Hisar-I (3 works): Rs 0.36 crore; Kaithal (3 works): Rs 0.44 crore; Karnal-II (5 works): Rs 0.13 core; Naraingarh (3 works): Rs 0.34 crore; Narnaul (2 works): Rs 0.44 crore; Rewari (11 works): Rs 1.20 crore and Sirsa-I (9 works): Rs 2.40 core.

norms vis-à-vis actually installed in respect of eight[18] divisions disclosed that against the requirement of 24,179 stand posts, 91,779 stand posts were provided, which was about 280 *per cent* more than the norms.

The excess installation of stand posts not only caused short supply of drinking water at the tail end, drainage problem and unhygienic conditions but also caused wastage of drinking water worth Rs 100 crore (approx.) annually as 70 *per cent* of potable water supplied through stand posts goes waste. Besides this, the water supply schemes had to be augmented involving huge expenditure as due to excess stand posts the supply at the last end of scheme decreased considerably.

Urban Water Supply Schemes

3.2.8.9 Defective execution of work

GOI sanctioned (June 2002) augmentation of Water Supply Scheme for Punhana town (District Gurgaon) at a cost of Rs 1.65 crore. The scheme was to be completed within two years. The work on the scheme was started in August 2002 and was shown as completed at a cost of Rs 1.86 crore in August 2005 after incurring an excess expenditure of Rs 0.21 crore. Audit observed that though the SE, Mewat circle had reported (June 2006) major defects in execution of works and heavy leakages in the rising main, the EE, WSS Division, Nuh in response to audit observations claimed (April 2007) that the scheme had been commissioned. The reply was not tenable as another estimate for Rs 86.20 lakh was prepared for completion of balance work and to make the scheme functional as per design.

3.2.9 Other points

3.2.9.1 Extra expenditure on electricity charges

Due to non-following the instructions of Electricity Company, the department had to pay additional energy charges of Rs 3.12 crore.

As per instructions of the electricity company, a High Tension (H.T.) connection for load above 70 KV is required to be obtained by the consumer on 11 KV pressured (H.T.) supply. In the event of failure to adhere to the instructions, a surcharge (called LT surcharge) of 25 *per cent* of the energy charges was payable by consumer. Further, in case, the demand of a consumer exceeded by more than five *per cent* of his agreed contract demand, a surcharge of 25 *per cent* on energy charges was charged (MDI penalty). A consumer was also required to maintain a power factor equal to 90 *per cent*, failing which penalty at the rate of one *per cent* for each one *per cent* fall in power factor was to be imposed upto 80 *per cent* and at the rate of two *per cent* for each one *per cent* falling power factor below 80 *per cent* of energy charges was to be levied.

[18] Water Supply and Sanitation Divisions, Ambala Cantt., Bhiwani-II, Hansi, Hisar-I, Hisar-II, Kaithal, Naraingarh and Narnaul.

It was noticed that the instructions of the electricity company were not adhered to and the company levied additional LT surcharge and penalty on various electric connections as a result of which four divisions had to pay additional energy charges amounting to Rs 3.12 crore as detailed below:

Name of WSS Division	Period	Energy charges	MDI Penalty	LT Surcharge	PF Penalty	Extra payment
		(Rupees in lakh)				
Ambala Cantt.	August 2002 to December 2006	242.05	64.84	20.32	52.66	137.82
Sirsa	March 2003 to November 2006	68.29	14.85	17.07	5.61	37.53
Bhiwani-II	May 2005 to September 2006	302.91	32.66	75.72	24.65	133.03
Kaithal	September 2005 to August 2006	20.14	0.00	0.00	3.12	3.12
		633.39	**112.35**	**113.11**	**86.04**	**311.50**

The extra expenditure could had been avoided had the connections been taken on HT (11 KV pressure) supply, contract demand been got extended and power factor been maintained by installation of capacitors as per instructions of the electricity company.

3.2.9.2 Excess consumption of pipes

The works of augmentation of water supply scheme in Birhera and Mushaidpur group of villages were sanctioned (May 2002) under NABARD loan. Work on the schemes was started in January 2004 and expenditure of Rs 2.39 crore and Rs 3.08 crore was incurred on respective schemes upto February 2007. Estimates provided laying of distribution lines in the villages. Quantity of pipe to be used was assessed as per detailed hydraulic survey of the area.

It was noticed that pipes of various diameters were used in excess of the provisions made in the sanctioned estimates. Excess pipes valuing Rs 9.24 lakh and Rs 11.31 lakh were used in Birhera group and Mushaidpur group respectively. The EE, WSS Division, Gurgaon stated (May 2007) that the pipelines were laid as per site requirements and in public interest. The reply was evasive as the quantities of pipes provided in the estimates were on the basis of hydraulic survey of the area. Therefore, excess utilisation was not justified.

3.2.9.3 Purchase of cement at higher rates

Director, Supplies and Disposals, Haryana placed two supply orders with a firm in July 2004 and September 2005 for supply of cement to WSS Department. According to terms of supply order, the consignee was to send photocopies of the demand drafts for 100 *per cent* payment of the value of the cement before 31 July 2005 and 31 March 2006. It was noticed that four[19] divisions did not

[19] Water Supply and Sanitation Divisions: Bhiwani-II, Hisar-I, Narwana and Tosham.

prepare the demand drafts within the prescribed period though the LOC for purchase of cement was released by EIC well before the due date. As such photocopies of the drafts could not be sent to the cement company within the prescribed period and the company did not supply cement. Thereafter rates of cement increased and divisions purchased the cement at higher rates which resulted into an excess expenditure of Rs 13.38 lakh.

3.2.9.4 Inventory of assets

A complete inventory of drinking water sources created under different programmes like ARWSP, MNP, etc. was to be maintained by each village *panchayat*, block and district. But in the test checked divisions, inventory was neither being maintained by village *panchayats* nor by the divisions. In the absence of inventory of assets, the actual availability of the assets created could not be vouchsafed in audit.

3.2.10 Quality control assessment

3.2.10.1 Water quality and testing

According to guidelines of World Health Organisation (WHO), every effort was to be made to achieve drinking water quality as high as practicable. Protection of water supplies from contamination was the first line of defence. Failure to provide adequate protection and effective treatment would expose the community to the risk of outbreaks of intestinal and other infectious diseases.

In order to provide safe drinking water, the department set up water testing laboratories in each district with the financial assistance of GOI. A target of testing of 20 water samples per day per laboratory was fixed. As such minimum of 4800 (20 x 240 working days) water samples were required to be checked by each laboratory in a year. Water samples tested and those not found potable during the period 2002-07 in seven[20] laboratories test checked was as under:

Laboratory situated at	Samples to be checked	Samples checked	Shortfall	Percentage shortfall	Found unfit	Percentage unfit samples
Narnaul	24,000	1,072	22,928	96	262	24
Rewari	24,000	2,932	21,068	88	849	29
Gurgaon	23,600	7,223	16,377	69	1,163	16
Bhiwani	23,200	14,421	8,779	38	1,985	14
Ambala	22,800	13,988	8,812	39	2,111	15
Kaithal	22,000	1,665	20,335	92	0	0
Hisar	22,400	6,271	16,129	72	109	2
Total	**1,62,000**	**47,572**	**1,14,428**	**71**	**6,479**	**14**

[20] Ambala, Bhiwani, Gurgaon, Hisar, Kaithal, Mahendragarh and Rewari.

Overall shortfall in testing of water samples was 71 *per cent* with 88 and 96 *per cent* in fluoride affected districts of Rewari and Narnaul.

Against the target of testing 1.62 lakh samples, only 0.48 lakh samples were tested during 2002-07. The shortfall in testing of samples was 88 and 96 *per cent* in fluoride affected districts of Rewari and Narnaul respectively. Further, out of 47,572 samples tested, water in 6,479 samples was found unfit for human consumption.

No system for collecting of water samples was evolved so that samples of all the water supply schemes could be tested. Samples for checking were collected only from the water treatment plant of Kaithal town in Kaithal district.

Acute shortage of chemists resulted in shortfall in testing of water samples.

In 19 laboratories of the department in the State, only seven chemists were covering all the laboratories in the State by rotation. Shortage of chemists was also a constraint in testing the samples as per targets.

Thirty three *per cent* samples checked by Health Department, were found unfit for human consumption.

Health Department also conducts tests of water samples from time to time. Chief Medical Officers of five[21] districts test checked, reported that out of 35,671 samples checked, 11,661 samples (33 *per cent)* were found unfit for human consumption and 2,28,269 cases of Diarrhea, 1,474 cases of Jaundice, 2,209 cases of Enteric Fever and five cases of Meningitis were noticed due to consumption of contaminated water during 2002-05.

The high percentage of unfit samples indicated supply of poor quality of water which resulted in high incidence of water borne diseases. Thus, there was a need to bring about improvement in the quality of water supply for human consumption. Further, system of collecting water samples needed to be evolved so that samples of all the water supply schemes are collected and tested to ensure supply of safe and potable drinking water throughout the State.

3.2.11 Monitoring, information system and evaluation

3.2.11.1 Monitoring and Surveillance Programme

According to guidelines of WHO, the goal of water supply programmes is to ensure that convenient and year round access to adequate quantities of good quality water is available to all. To achieve this, water supply programmes need to contain a component of consumer information and education, which should aim to create proper surveillance of sources, an awareness of water quality and its relationship to health among those served by the water supply system. For this purpose and to provide effective water quality monitoring and surveillance programme including HRD activities, GOI released a sum of Rs 1.27 crore to the State Government in 2005-06. Further, the Board allocated these funds to various divisions in March 2006 (Rs 83.98 lakh) and May 2006 (Rs 43.49 lakh).

[21] Bhiwani, Hisar, Kaithal, Karnal and Sirsa.

No action plan was prepared by the divisions test checked for monitoring and surveillance activities and the funds were not spent for the purpose except by WSS Division, Kaithal which spent Rs 1.72 lakh for the purpose.

3.2.11.2 Monitoring and evaluation

The monitoring and investigation cell was functioning in the department in the office of EIC. The periodical progress reports received by the cell from the field officers were neither scrutinised nor any remedial measures taken in respect of schemes showing deficient progress. Further, the Board had not fixed any time frame for completion of schemes with the result a large number of schemes had been lying incomplete for long. No evaluation was conducted to ascertain the impact of water supply schemes in the State.

3.2.12 Conclusions

Main aim of the water supply schemes was to provide safe and potable drinking water. The Department had not formulated any plan for water source sustainability although there was indiscriminate extraction of ground water in the State. Besides, there were cases of preparation of unrealistic estimates, taking up of schemes without ensuring availability of raw water, improper survey and design of structures, underutilisation of structures, etc. leading to non/delay in commissioning of schemes. Deficiencies in implementation of schemes and execution of works led to non-availing of central assistance, extra expenditure, blocking of funds, delay in commissioning of schemes, supply of non-potable water, deprival of inhabitants of safe drinking water, etc. Stand posts for water supply installed were about three times of the norms leading to wastage of water and substantial loss to Government. The quality of water supply was not ensured as only 30 *per cent* of the targeted samples were collected and tested, of which 14 *per cent* were found unfit while Health Department reported 33 *per cent* of samples unfit for human consumption.

3.2.13 Recommendations

- The Department should formulate proper plan for water source sustainability;
- Planning should consider giving priority to supply water to those villages which are deficient in water supply;
- Schemes should be taken up only after proper survey and design and ensuring the availability of raw water from the source to avoid cost escalation and delays in commissioning;

- The vigilance mechanism and monitoring system should be strengthened to avoid defective/sub-standard and delayed execution of works;

- Installation of stand posts should be controlled to keep them within the norms;

- The matter regarding electricity connections needed to be pursued with the electricity supplying companies at higher level so that water works do not remain un-commissioned for want of electricity connections; and

- Water quality testing system needed to be geared up to ensure supply of safe and potable drinking water to inhabitants.

These points were demi-officially reported to Commissioner and Secretary to Government of Haryana, Water Supply and Sanitation Department in June 2007; their reply had not been received (August 2007).

Environment Department
(Haryana State Pollution Control Board)

3.3 Waste Management

Highlights

Performance Audit on "Waste Management" brought out department's/Board's failure in assessing the updated quantity of waste being generated in the State, non-projection of growth of waste based on growth of population, consumption pattern and industrial growth, absence of strategy to prevent or to reduce generation of waste, etc. Only 24 per cent of the hazardous waste generation units, 40 per cent of bio-medical wastes facilities and none of the municipal solid waste operators had obtained authorisation for the disposal of wastes from the State Pollution Control Board. Large quantities of hazardous waste was being piled up in pits, bio-medical waste was not being segregated, stored and disposed off by health institutions as per prescribed Rules. Municipal solid waste, sewage and treated effluent was being disposed of on the banks of a Nallah, in drains and in the open causing pollution. The Board had not taken effective steps against the defaulting individuals/organisations and there was little deterrence against violations.

- **The Environment Department and the State Pollution Control Board had neither assessed the latest figure of waste being generated nor projected the growth of waste based on growth of population, consumption patterns and industrial growth. Further, no strategy existed to prevent or to reduce the generation of waste.**

(Paragraph 3.3.7)

- **Out of 106 operators of municipal solid waste, none had qualified for authorisation under Municipal Solid Waste (Management and Handling) Rules 2000.**

(Paragraph 3.3.8.1)

- **Solid waste of Udyog Vihar, Gurgaon was disposed of on the bank of a Nallah, while waste of industrial estate, Barwala, Kundli and Manesar was being disposed of in the open at unauthorised places. Sewage of Hisar town was being thrown in the unauthorised places while treated effluent of Panipat was being discharged in Nohra Drain causing water and air pollution.**

(Paragraph 3.3.8.3)

- **A project 'Modernisation of Municipal Solid Waste Management' for 16 towns of National Capital Region was left incomplete after spending Rs 20.98 crore for want of funds.**

(Paragraph 3.3.8.4)

- **For disposal of bio-medical waste, out of 1,709 health care facilities, 682 (40 *per cent*) were not granted authorisation by the State Pollution Control Board. Segregation, storage and disposal of waste was not being done in health institutions as per prescribed Rules.**

(Paragraphs 3.3.9.1 and 3.3.9.2)

- **Out of 1,342 hazardous waste generating units, only 322 (24 *per cent*) units were granted authorisation for disposal of waste. 26,870.4 tonnes of hazardous waste had been piled up in pits in the absence of common treatment, storage and disposal facility.**

(Paragraphs 3.3.10.1 and 3.3.10.2)

3.3.1 Introduction

Wastes are threat to the environment and human health if not handled or disposed off properly. Surface water contamination takes place when wastes reach water bodies while ground water gets contaminated when residues from waste percolate into the ground water. Soil contamination as a result of waste can harm plants on taking up contaminants from their roots. Emissions from incinerators or other waste burning devices and landfills can also cause air contamination. For the protection and improvement of environment and to prevent hazards to human beings, other living creatures, plants and property, the Parliament enacted the Environment (Protection) Act in 1986 (the Act). Relevant rules were framed under the Act to manage and handle different kinds of wastes viz. hazardous waste, bio-medical waste and solid waste, in the years 1989, 1998 and 2000 respectively.

3.3.2 Organisational set up

The Commissioner and Secretary to the Government of Haryana, Environment Department is the administrative head in the Government for formulating the policies. The Director, Environment Department is responsible for implementation of policies, programmes, etc. The Haryana State Pollution Control Board (the Board), constituted in September 1974, was entrusted with the responsibility of implementation of the provisions of the Act and Rules. The Commissioner and Secretary to the Government of Haryana, Environment

Department is also the Chairman of the Board. The Board has a Member Secretary and five members representing the State Government. Nine Regional Environmental Engineers also assist the Chairman for smooth functioning of the Board.

3.3.3 Audit objectives

The Audit Objectives were to assess whether:

- the quantum of waste being generated in the State has been accurately assessed and have the risks to environment and health posed by waste been identified;
- the policies on waste management reflected the priority of waste reduction and waste minimisation as against waste disposal;
- the various agencies involved in the process were identified and allocated clear responsibility and accountability for waste management;
- the compliance to laws regulating municipal solid waste, bio-medical and hazardous waste was taking place and whether the monitoring mechanism was effective in checking non-compliance; and
- the funding and infrastructure was adequate for the implementation of rules on waste management and whether the funds/infrastructure had been used economically, efficiently and effectively.

3.3.4 Audit criteria

To achieve the Audit objectives, following audit criteria were adopted:

- Adherence to rules relating to the bio-medical waste, hazardous waste and municipal solid waste;
- Policies, directions, legislation and practices for management of waste; and
- Adherence to system of periodic monitoring in the Board relating to management of waste.

3.3.5 Audit coverage and methodology

Records for the period 2002-07 were test checked during March 2007-May 2007 in the offices of the Board, Directors of Environment and Urban Development Departments, Chief Administrator of Slum Clearance Board, Managing Director, Haryana State Industrial Infrastructure Development Corporation (HSIIDC), Director General Health Services (DGHS) and 24[22] field offices (out of 135 offices). An introductory meeting was held in March 2007 with senior officials of the Board in which important issues regarding audit plan, audit objective and audit criteria were discussed. Results of the test-check are embodied in the succeeding paragraphs.

Audit findings

3.3.6 Financial arrangement and expenditure

Negligible expenditure was incurred on waste management

The Board spent Rs 47.11 crore on various activities such as water pollution control, air pollution control and waste management against the receipt of Rs 91.76 crore during 2002-07. Of the total expenditure, Rs 31.05 crore (66 *per cent*) were spent on establishment and office expenses, Rs 1.40 crore (three *per cent*) on items such as vehicles, computers, furniture, laboratory equipments, etc. and Rs 12.66 crore (27 *per cent*) on construction of building, loans and advances and Rupees two crore (four *per cent*) on waste management activities.

Against the budget provision of Rs 1.85 crore, the Environment Department spent Rs 1.76 crore during 2002-07. Out of this, Rs 1.16 crore (66 *per cent*) were spent on salaries, Rs 0.50 crore (28 *per cent*) on installation of Common Effluent Treatment Plant, Rs 0.06 crore (three *per cent*) on environment education and awareness and Rs 0.04 crore (three *per cent*) only on waste management.

Thus, the Board and the Department spent negligible funds on waste management during 2002-07.

[22] Municipal Councils: Karnal, Panipat, Thanesar and Yamunanagar; Municipal Committees: Pinjore, Kalka, Ladwa, Jagadhari, Nilokheri, Taraori, Gharounda and Samalkha; Industrial Estates: Barwala and Yamunanagar; Estate Offices of HUDA: Kurukshetra, Jagadhari and Panipat; Civil Surgeons: Ambala, Panipat, Panchkula and Yamunanagar; Regional Offices of the Board: Panchkula, Panipat and Yamunanagar.

3.3.7 Assessment of waste and risks associated with it

As per Environment Report of Haryana State, the Environment Department had assessed the following quantity and type of waste generated during the year 2004-05:

i)	Municipal Solid Waste	3,578.30 tonnes per day
ii)	Industrial Hazardous Waste	63,707 tonnes per year
iii)	Bio-Medical Waste	311 tonnes per year

The Environment Department and the Board had not assessed correctly the quantity and type of waste generated during the year 2005-06 and 2006-07. No system to assess the quantity of waste being generated during these years was in place. Further segregation of waste, for example segregation of municipal waste into biodegradable, plastic, etc. was not being done which was essential to determine the method of treatment/disposal of such waste. No projections about the growth of waste based on growth of population, consumption patterns and industrial growth had been made. Besides no assessment had been made to determine the current capacity to handle waste or the capacity that needed to be created for handling the increasing quantity of the waste.

Further, risks to surface and ground water, ambient air and soil as a result of improper management of waste had also not been assessed. More importantly, no strategy had been made to reduce the generation of waste so that waste disposal is manageable according to provisions of the 'Act'.

3.3.8 Solid waste management

3.3.8.1 Grant of authorisation

Out of 106 operators of municipal solid waste, none had qualified for authorisation.

The Municipal Solid Waste (Management and Handling) Rules 2000 provide that the Municipal Authority or an operator of a facility shall obtain authorisation for setting up of Waste Processing and Disposal facility including landfills from the Board. The Rules further provide the method to be adopted by the authorities for proper storage, collection, segregation, processing, transportation and final disposal of municipal solid waste.

It was noticed that there were 106[23] units working as operators of the facilities, but none of them qualified for authorisation for the purpose. Audit further observed that though the Municipal Committees (MCs) had submitted the application forms but criteria for scientific method of collection, transportation and disposal had not been fulfilled by any of the MCs. Show cause notices were issued to MCs but no legal or other action had been taken against them for

[23] 75 Municipal Authorities, 14 units of HSIIDC and 17 Estate Offices of HUDA.

non-compliance of rules. Further, the Board sent (November 2006) a case for prosecution against the responsible officers/persons in respect of MC, Thanesar to the Government in Environment Department but the Government had not taken any decision (May 2007).

Out of 75 MCs, only Sirsa MC had sanitary landfill and compost plant.

Schedule I of the Rules *ibid* prescribed time schedule for improvement of existing landfill sites as per provisions of these rules, identification of landfill sites for future use and making site(s) ready for operation, setting up of waste processing and disposal facilities by 31 December 2001, 31 December 2002 and 31 December 2003 respectively. Twenty three out of 75 MCs had not even identified the sites for landfills, 20 MCs had identified the sites but had not acquired the land and 31 MCs had acquired the sites but had not constructed sanitary landfill and compost plant. Sanitary landfill and compost plant was in operation only in Sirsa municipal area.

3.3.8.2 Non-compliance of Solid Waste Management Rules

For the disposal of solid waste, the municipal bodies were required to obtain authorisation from the Board, prepare action plan and to make compost to process waste, installation of bins, provision for transportation of waste, notify a schedule for collection of waste, conducting of awareness programme, etc.

None of 17 units test checked had obtained authorisation for disposal of waste from the Board. Sixteen units had not prepared any action plan for disposal of solid waste and also did not process waste into compost. Fifteen units handled the waste manually and had not identified places for installation of bins. Fourteen units did not possess sufficient facilities for transportation of waste, had not notified a schedule for collection of waste and had not conducted awareness programmes for segregation of wastes and promotion of recycling of wastes. Thirteen units did not paint the bins according to the prescribed scheme while 10 units were not collecting waste from house to house. In ten units, waste was stored in the open and covered vehicles were not being used for transportation of waste. Seven units had not provided disposal sites. Thus, non-compliance of Municipal Solid Waste Rules led to unhygienic and unsanitary conditions. The Board also failed to enforce the rules in this regard.

3.3.8.3 Unauthorised disposal of waste

In the absence of an integrated and concerted strategy to collect, transport and dispose off waste in a scientific way, solid waste was being managed in most places in an *ad hoc* manner resulting in its disposal at unauthorised sites. Some of the cases noticed were as under:

Solid waste of Udyog Vihar, Gurgaon was being disposed of on the bank of nallah.

* The sub-office of HSIIDCL at Gurgaon, which was responsible for Solid Waste Management in the Industrial Estate at Gurgaon, emphasised the need of land for disposal of solid waste generated by industrial units of Udyog Vihar, Gurgaon. The space was to be provided by HUDA. However, the solid waste was being disposed of on the bank of a Nallah at Delhi-Haryana Border near

National Highway–8. Though residents of surrounding areas objected the dumping of solid waste at unauthorised sites which was posing health risks, the Board did not initiate any action against the defaulters for not making arrangements for disposal of solid waste as per Rules.

Solid waste/garbage of Industrial Estates, Barwala, Kundli and Manesar was being disposed of in the open at unauthorised places.

* Non-biodegradable/inert waste was to be dumped at a designated landfill site and biodegradable waste was to be treated by composting in a systematic and scientific manner while disposing. However, in the Industrial Estate, Barwala (district Panchkula) the solid waste/garbage was being disposed of in pits/holes near Tangri River. Similarly, in Industrial Estates, Kundli (district Sonipat) and Manesar (district Gurgaon), the Solid waste was being disposed of in low lying vacant areas. The Board had not initiated any action against the defaulters for disposal of solid waste/garbage in the open areas.

Sewage of Hisar town was being thrown in unauthorised places.

* The work of providing external sewerage for disposal of sewage of Sectors 27 and 28-A, Hisar to abandoned Deva Distributary was allotted (April 2004) to a contractor. The work was to be completed within six months. Upto July 2005, approximately 35 *per cent* work was completed at a cost of Rs 55.59 lakh. Thereafter, the work of laying of pipe line was stopped by the villagers as the land from where the pipe line was passing belonged to them.

Despite objections of nearby residents, the sewage continued to be thrown along Balsamand Distributary and along Hisar-Bhiwani Railway line in the open which was polluting the environment and possibility of breakout of epidemics in the surrounding areas could not be ruled out. The Executive Engineer of the Division intimated (May 2007) that approval for alternate alignment was pending (May 2007) with the Engineer-in-Chief, HUDA, Panchkula. Thus, the work was held up due to improper planning.

* The treated effluent from the 10 MLD Sewage Treatment Plant (STP) in Panipat was being discharged into the Nohra Drain despite the stay order obtained by the villagers of Binjhol from the district court Panipat against the discharge of treated effluent. Upstream of the point where treated effluent was joining Nohra Drain, the drain was being polluted by dying units also. The Board had not initiated any action against the defaulters to prevent pollution.

* Out of three test checked regional offices of the Board, in two[24] regional offices, only 285.50 tonnes of solid waste was collected against generation of 347.50 tonnes per day. The shortfall in collection of solid waste by 18 *per cent* in these two regions is likely to lead to piling of garbage at unauthorised sites.

3.3.8.4 Incomplete projects and unfruitful investments

Projects undertaken for the creation of facilities and infrastructure are marred by half hearted resolve besides the lack of a proper system for managing waste, and

[24] Panipat and Yamunanagar.

investments made could not bear fruition. The following cases are illustrative of this.

A project for modernisation of municipal solid waste management was left incomplete after spending Rs 20.98 crore.

* National Capital Region Planning Board (NCRPB) had sanctioned the Project for modernization of solid waste management and repair of roads in 16[25] towns falling under NCR at a cost of Rs 56.56 crore with loan component Rs 42.42 crore (75 *per cent*) and the municipal share Rs 14.14 crore (25 *per cent*). The project which started in March 2001 was to be completed in June 2002. Loan amounting to Rs 21.21 crore was released between March 2001 and July 2002 (Rs 4.24 crore in March 2001 and Rs 16.97 crore in July 2002) against which an expenditure of Rs 20.98 crore was incurred up to September 2006. Physical progress reports (upto June 2006) showed that construction work of road was completed up to 60 *per cent*, purchase of vehicles and equipments for transportation of solid waste upto 80 *per cent*. Land was purchased in five urban centres for installation of treatment plant. Thereafter, there had been no further progress of the project work as the Board did not take the balance loan amounting to Rs 21.21 crore. The Chief Administrator, Slum Clearance Board informed (September 2005) the Chief Co-ordination Planner NCR Cell, that there was no possibility to raise the balance loan for the project as the Municipal Committees were not in a position to repay the loans. The project remained incomplete (July 2007) and also the objective of the project could not be achieved.

In six MCs, 921 hand carts and 38 tricycles costing Rs 44.43 lakh had been lying unused since their purchase in 2003-04.

* The Chief Administrator, Slum Clearance Board Haryana, Chandigarh purchased hand carts (wheel barrows) and tricycles for transportation of garbage during the year 2003-04 without obtaining the requisition from the MCs. These items were to be distributed to MCs under Municipal Solid Waste Management Scheme.

In six[26] MCs, 921[27] hand carts and 38[28] tricycles valuing Rs 44.43 lakh had been lying unused since their purchase. The MCs, Thanesar and Yamunanagar replied (May 2007) that the matter to transfer the surplus equipments to other MCs was taken up with the Slum Clearance Board in January-February 2005 but no action had been taken by the Board so far (May 2007).

* The State Government sanctioned grant of Rs 54 lakh to two Municipal Committees (Yamunanagar: Rs 14 lakh in June 2005 and Taraori: Rs 40 lakh in March 2006) for development of Vermin Composting and Segregation Yard and Sanitary Landfill sites for urban solid waste management. However, even after lapse of more than one to two years, the grant had not been utilised (May 2007).

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25 Bahadurgarh, Bawal, Gannaur, Gohana, Gurgaon, Hodel, Jhajjar, Meham, Nuh, Palwal, Panipat, Samalkha, Sohna, Sonipat, Rewari and Rohtak.

26 Jagadhari, Karnal, Panipat, Samalkha (Panipat), Thanesar (Kurukshetra), and Yamunanagar.

27 Jagadhari: 145; Karnal: 136; Panipat: 186; Samalkha (Panipat): 17; Thanesar (Kurukshetra): 195; and Yamunanagar: 242.

28 Jagadhari: 16; and Thanesar (Kurukshetra): 22.

3.3.9 Bio-medical waste management

3.3.9.1 Grant of authorisation

As per provisions of Bio-Medical Waste (Management and Handling) Rules 1998, every occupier generating, collecting, receiving, storing, transporting, disposing or handling bio-medical waste was to obtain authorisation from the Board. The occupier was to submit an annual report to the Board in Form 2 by 31 January every year stating the categories and quantities of bio-medical wastes handled during the preceding year.

682 health care facilities were denied/ refused authorisation for disposal of bio-medical waste.

Out of 1,709 Health Care Facilities (HCFs) identified as of 31 March 2006 by the Board, 1,708 HCFs (except one) applied for authorisation but the Board had not granted authorisation to 682 HCFs due to non-compliance with Rules. Out of 1,709 HCFs, 1,037 were utilising services of Common Bio-Medical Waste Treatment Facility (CBWTF) provided by private service providers. Besides, 33 HCFs had installed incinerators but these were without Air Pollution Control Device (APCD). The Board was not aware of the status of disposal of bio-medical waste generated by remaining 639 units. The Board had issued show cause notices to the 683 defaulting HCFs. No penal action/ prosecution was initiated against the defaulters (May 2007).

3.3.9.2 Non-segregation, storage and disposal of bio-medical waste

Segregation, storage and disposal of bio-medical waste was not being done in health institutions as per Rules.

Rule 5 of Bio-Medical Waste (Management and Handling) Rules 1998 provides that bio-medical waste shall be treated and disposed of in accordance with the provisions of Schedule-I and in compliance with the standards prescribed in Schedule-V. In schedule-I various kinds of treatments such as incineration, deep burial, local autoclaving, micro-waving, disinfection, etc. have been prescribed for various categories of wastes i.e. human anatomical waste, animal waste, micro-biology and bio-technology waste, etc. It was noticed that the bio-medical waste was not being managed in accordance with the rules in health institutions. As the segregation, storage and disposal of bio-medical waste was not done properly, Director General Health Services (DGHS) issued (February 2005) instructions to all the health institutions in the State for compliance of rules in this regard. The District Health Officers in each district were made nodal officers for bio-medical waste management and were required to send the consolidated report by seventh eighth of every month. As no compliance was made, the DGHS reiterated these directions in December 2005.

Further, Advisory Committee, constituted for management of bio-medical waste, also pointed out (July 2006) that bio-medical waste was not being handled properly by Health Institutions. The DGHS conveyed (July 2006) to all the Civil Surgeons in the State that the Board during inspection of various health institutions in six[29] districts had pointed out that: (a) proper segregation system was not being followed as could be seen from the fact that containers of different

[29] Ambala, Bhiwani, Hisar, Kaithal, Panchkula and Yamunanagar.

colours were available but were not placed properly with the result all types of waste was being disposed of in the same container; (b) needle destroyers were found locked in the *almirahs* of staff nurses/pharmacists and were not being used; (c) at some places staff nurses were not aware of the need to segregate waste; (d) direction for proper disposal of Bio-Medical Waste was not found displayed at the point of generation of waste; and (e) in the laboratories needle destroyers were not being used, slides were not disinfected and one slide was being used for preparing many smears without being washed/discarded, sputum collecting containers were not being treated as per directions.

Thus, management of these institutions did not ensure proper handling of bio-medical wastes. The Board during surprise check (October 2006) of Health Institutions again observed these shortcomings. The DGHS reiterated (April 2007) the instructions regarding the compliance of guidelines for bio-medical wastes. The Board, however, did not take action against the defaulting institutions. Thus, there was a need to bring about improvement in compliance of Rules to control pollution in Health Institutions.

3.3.9.3 Non-compliance in disposal of treated needles and broken vials

Government of India decided to introduce Auto Disposable (AD) syringes, under Universal Immunization Programme (UIP) instead of glass or disposable syringes to minimize the risk of reuse of syringes that might transmit infections. Such waste generated in urban areas was to be conveniently treated. The CPCB in a case study in September 2004 concluded that the treated needles/broken vials ought to be disposed of in a circular or rectangular pit. However, no clause in this regard was included in the contract agreement with the service provider for collection and disposal of waste. As such proper disposal of treated needles/broken vials had not been ensured by the Health Department.

3.3.9.4 Advisory Committee on Bio-Medical Wastes

The State Government constituted an Advisory Committee on bio-medical waste in July 1999 to monitor the compliance of Rules. The MOEF recommended (July 2004) participation of the representative of people's body, *Panchayats*, etc. in the Advisory Committee for close monitoring of the implementation of Rules.

However, no such member of the *Panchayats*/representatives of people's body had been included in the Committee.

3.3.10 Hazardous waste management

Certain industries generate wastes that are highly toxic in nature and requires adequate control and careful handling. These are termed hazardous waste.

3.3.10.1 Authorisation for disposal of hazardous waste

Out of 1,342 hazardous waste generating units, only 322 units were granted authorisation for disposal of waste.

Hazardous Waste (Management and Handling) Rules 1989 provide that the hazardous waste shall be collected, treated, stored and disposed of only in such facilities as may be authorised for the purpose. Every occupier generating hazardous waste and having disposal facilities was required to obtain authorisation from the Board. Rule 9 of the Rules *ibid* further provided that occupier was to maintain records of such disposal operations at the facility and submit annual return to the Board.

The Board had identified 1,342 units as hazardous waste generating units upto March 2006, of which 1,176 units had applied for authorisation, but 441 units were refused/denied authorisation due to non-compliance with Rules. The cases for grant of authorisation of 413 facilities were under process with the Board and the remaining 166 units had not applied for authorisation. Three hundred twenty two units to whom authorisation was granted had not submitted annual returns to the Board as required under the Rules.

The Board had not initiated any legal or other action against the defaulters for enforcing compliance with the Rules.

3.3.10.2 Unsafe storage of hazardous waste

Huge quantities of hazardous waste had been piled up the pits.

There is no Common Treatment, Storage and Disposal Facility (TSDF) in the State. As per datasheet sent (January 2004) to Central Pollution Control Board by the Board, 26,870.4 tonnes of hazardous waste had piled up in the State which was stored in the pits temporarily within the premises of hazardous waste generating units. The temporary storage of hazardous waste in the storage pits of the units was unsafe and might lead to environmental degradation.

At the behest of the Board, Environment Management Society was formed in January 2002 by the industrial units generating waste for setting up hazardous waste common treatment, storage and disposal facility over an area of 31 *acres* of Faridabad Municipal Corporation at village Palli in Faridabad district. The Board released (2005-06) Rupees two crore to the society for the purpose. There was, however, no progress (July 2007) due to pendency of a land dispute case in Punjab and Haryana High Court.

3.3.10.3 Sale of used oil to unauthorized dealer

DHBVNL sold used transformed oil to unregistered recycler in violation of Rules.

Rule 20 of the Hazardous Wastes (Management and Handling) Amendment Rules 2002 provide that major users of transformer oil shall auction/sell used oil only to the registered recyclers and were required to maintain a record of such sale and make these records available to the Board apart from submitting a half yearly return of sale by 30 June and 31 December every year.

The Board had neither evolved any system to identify the major oil users generating waste nor were those units filing half yearly returns to the Board.

Dakshin Haryana Bijli Vitran Nigam Limited (DHBVNL), Hisar sold 510 kilolitres used oil to a Meerut based firm through auction in July 2005 in which 19 bidders participated. As the firm was not registered as a recycler/re-processor under the Rules, the sale of used oil to the unregistered unit was objected to by the GOI in August 2005. The Environment Engineer, Hisar region in response to the Board's query reported (August 2005) that the firm did not have the proof regarding registration under Rule 19 of the Rules *ibid.* The Board had not taken any legal or other action against DHBVNL so far (June 2007). Thus, the Board had not exercised adequate control to implement the provisions of the Act and Rules in this regard.

3.3.10.4 Inadequate inspection of industries/units

The Environment (Protection) Act, 1986 and Rules framed thereunder lay down that the officers of the Board were required to visit industrial units regularly and ascertain that the programmes of Waste Management were being implemented satisfactorily. GOI too issued guidelines for regular inspection of industries/units from time to time. But the Board had not fixed norms/targets for inspection of industries. Further, inspection of industrial units was not conducted regularly. Only four units were inspected by the Board during 2005-06.

3.3.11 Ineffective co-ordination among various departments

Effective implementation of Environmental Pollution Act 1986 and rules thereunder called for co-ordination among the various departments/organisations viz. Urban Local Bodies and Industries and Commerce Departments, HUDA, HSIIDCL for ensuring the enforcement of the provisions of the Act and Rules. The Board responsible for maintaining pollution free environment did not co-ordinate with these departments/organisations to obtain the upto date information for waste management. The Board confined its activities to only communicating the Government orders/instructions to various departments but failed to take follow up actions for the control of pollution.

3.3.12 Training and orientation

According to National Conservation Strategy and policy statement on Environment and Development, the available management resources in the enterprises/projects would be oriented towards environment considerations and expertise to be developed through appropriate programme. Formal education and training programme in specialized areas of pollution control and environment management would be a continuing need.

Against the budget allocation of Rs 61 lakh, only Rs 6.30 lakh were spent during 2002-07 (upto January 2007) on training. The year-wise total number of seminars

and trainings proposed and actually held were not made available to audit though called for (March 2007).

Thus, the Board had paid little attention towards training programme and as such the requisite expertise in the field of waste management could not be developed.

3.3.13 Evaluation

Though the Board was functioning since 1974, no internal or external evaluation study of the activities relating to waste management was ever conducted by the Board.

3.3.14 Conclusions

Waste management in the State was neither efficient nor effective. The Department/Board failed in assessing the updated quantity of waste being generated in the State, projecting the growth of waste based on growth of population, consumption pattern and industrial growth and to formulate the strategy to prevent or to reduce generation of waste. Only 24 *per cent* of the hazardous waste generation units, 40 *per cent* of bio-medical waste facilities and none of the municipal solid waste operators had obtained authorisation from the State Pollution Control Board. Large quantities of hazardous waste was being piled up in pits while the bio-medical waste was not being segregated, stored and disposed of by health institutions as per prescribed Rules. Municipal solid waste, sewage and treated effluent was being unauthorisedly disposed of on the banks of a Nallah, in drains and in the open, causing pollution. The Board failed to take action against the defaulting individuals/organizations to make the implementation of the provisions of Environment Protection Act 1986 and Rules framed thereunder effective.

3.3.15 Recommendations

- The Department and the Board should assess the amount of different kinds of wastes being generated and formulate strategy for reduction in generation of waste and management considering environmental hazard of different types of waste;

- Hazardous waste common treatment, storage and disposal facilities needs to be set up by involving industrial units;

- A proper system should be put in place to ensure proper disposal of bio-medical waste by health institutions;

- A comprehensive plan should be prepared for disposal of municipal solid waste as per Rules in consultation with Urban Development Department; and

- The Board should take appropriate action against the persons/ organisations contravening the provisions of the Act, Rules, Orders, Directions, etc.

These points were demi-officially reported to the Commissioner and Secretary to Government in Environment Department in July 2007; their reply had not been received (August 2007).

Education Department
(Directorate of Elementary Education)

3.4 Nutritional Support to Primary Education

Highlights

The main objective of the National Programme for Nutritional Support to Primary Education to boost universalisation of primary education was not achieved as there was no improvement in enrolment of students in primary classes. Performance audit of the programme brought out deficiencies in financial management and programme implementation as there were cases of unspent funds being kept in banks, incorrect reporting of enrolment figures to Government of India, providing of meals in inadequate quantities to students, non-supply of meals to students on all the school days, lack of infrastructure such as pucca kitchen, cooking gas facility, utensils for serving meal, etc. Most of the schools reported that the programme had affected teaching and learning. Besides, little attention was paid towards training to inculcate the habit of hygiene and cleanliness. The programme was also not monitored properly as Steering-cum-Monitoring Committees were not formed in most of the districts and blocks.

- **Programme funds amounting to Rs 5.72 crore remained unspent in bank accounts in five test checked districts.**

(Paragraph 3.4.6.2)

- **There was no noticeable improvement in overall enrolment of students in primary classes during 2002-07.**

(Paragraph 3.4.7.1)

- **In four test checked districts, students were provided 42 to 49 grams of foodgrains against the norm of 100 grams during 2004-07. Besides 364 Alternative and Innovative Education Centres in three districts test checked were not providing meals to students.**

(Paragraphs 3.4.8.1 and 3.4.8.2)

- **Out of 2,476 schools test checked, 2,185 schools were not served meals for two to five days in a month of 20 days during 2004-07.**

(Paragraph 3.4.8.4)

- **Eighty eight *per cent* of the schools test checked reported that serving and consumption of meals took more than the prescribed time of 40 minutes while 92 *per cent* schools reported that the programme was affecting teaching and learning.**

(Paragraph 3.4.8.5)

- **In 98 *per cent* of test checked schools, *pucca* kitchens were not available while in 82 *per cent* schools meal was prepared in the open.**

(Paragraph 3.4.9)

- **Block level Steering-cum-Monitoring Committees to monitor the implementation of the programme were not formed in test checked districts while district level committees were formed in two out of five districts.**

(Paragraph 3.4.11)

3.4.1 Introduction

The National Programme for Nutritional Support to Primary Education (NSPE) popularly known as Mid-Day Meal Scheme was launched as a centrally sponsored scheme on 15 August 1995 across the country for providing cooked meals to students of all primary schools run by Government, local bodies or aided by Government. Distribution of cooked meals was stopped in the State from July 1996 as the State Government viewed the scheme as having an adverse effect on the studies of children since most of the time of teachers was being consumed in making arrangements for preparation and serving of cooked food. Thereafter, the Department began to distribute foodgrains to students. However, distribution of cooked meals to students was restarted from August 2004 in compliance of the Hon'ble Apex Court's directions dated 20 April 2004.

The main objective of the programme was to boost universalisation of primary education by increasing enrolment, retention and attendance, and simultaneously impacting on nutrition of students in primary classes. The scheme provided for free meals with 300 calories and 8-12 grams of protein which was increased (September 2006) to 450 calories, 12 grams of proteins and adequate quantities of micronutrients like iron, folic acid, vitamin A, etc.

3.4.2 Organisational set up

The Financial Commissioner and Principal Secretary to Government of Haryana, Education Department was administrative head of the Department and was responsible for implementation of Government's policies and programmes. The Director, Elementary Education (DEE) was in overall charge for implementation

and monitoring of the programme and was assisted by an Additional Director and an Assistant Director at Directorate. District Elementary Education Officers (DEEO) at district level, Block Education Officers (BEOs) at block level and Head Teachers at school level were responsible for providing cooked meals to students.

3.4.3 Audit objectives

The main objectives of audit were to assess whether:

- Funds provided under the scheme were utilised economically and efficiently;
- The scheme achieved its principal objective of supporting the universalisation of primary education by improving enrolment, attendance and retention for the children in general and in particular belonging to disadvantaged sections apart from improving the nutritional status of the children;
- The scheme contributed to enhancement in the learning level of the children where the nutritional support was provided;
- Implementation of the programme was carried out through well designed implementation procedure, determination of norms for expenditure met from other centrally sponsored schemes; and
- Efficient reporting, inspection and monitoring system was in place.

3.4.4 Performance indicators and audit criteria

To achieve the Audit objectives, following performance indicators and audit criteria were adopted:

- Statistics on enrolment, retention and attendance in schools;
- Meals served to students had nutrient value as per norms;
- Utilisation of funds as per prescribed norms; and
- Relevant guidelines of the Government.

3.4.5 Audit coverage and methodology

Records relating to the implementation of the programme for the period 2002-07 were test checked during February-June 2007 in the offices of DEE, five[30] of the 20 DEEOs, 32[31] of 119 BEOs and 2,476[32] of 9,343 primary schools in the State. An introductory meeting was held in February 2007 with senior officials of the Elementary Education Department in which important issues regarding audit plan, audit objectives and audit criteria were discussed.

Audit findings

3.4.6 Financial management

3.4.6.1 Funding pattern

The programme provided for 100 *per cent* central assistance to meet economic cost of foodgrains and their transportation from Food Corporation of India (FCI) godown to schools at the prescribed rates[33]. Central assistance at the rate of Rupee one per child per school day to meet cooking cost from 1 September 2004 to 15 June 2006 and thereafter at the rate of Rs 1.50 per child per school day was provided. Apart from the above, assistance for management, monitoring and evaluation at the rate of 1.8 *per cent* of total assistance on free foodgrains, transport cost and cooking cost was provided with effect from 16 June 2006.

State Government prescribed norms for cooking cost at the rate of Rs 1.43 per child per school day that was revised (June 2006) to Rs 2.07 per child per school day. Balance of the cooking cost, after deducting central assistance, at the rate of Rs 0.43 per child per school day upto 15 June 2006 and thereafter at the rate of Rs 0.57 per child per school day was to be met by the State Government from its own resources.

3.4.6.2 Budget provision and expenditure

Budget estimates, revised estimates and expenditure during the period 2003-07

30 Faridabad, Hisar, Jind, Karnal and Yamunanagar.
31 Faridabad (5), Hisar (8), Jind (7), Karnal (6) and Yamunanagar (6).
32 Faridabad (432), Hisar (459), Jind (465), Karnal (495) and Yamunanagar (625).
33 Rupees 50 per quintal revised to Rs 75 per quintal from 1 October 2004.

was as under:

Year	Budget provision				Expenditure*
	Centre		State		
	Original estimates	Revised estimates	Original estimates	Revised estimates	
	(Rupees in crore)				
2003-04	-	-	50.00	2.89	2.89
2004-05	-	-	35.00	41.24	41.24
2005-06	21.89	34.64	35.63	21.00	55.64
2006-07	35.00	49.59	22.52	21.00	70.59
Total	**56.89**	**84.23**	**143.15**	**86.13**	**170.36**

*** The expenditure does not include the cost of foodgrains.**

The savings during the year 2003-04 were mainly due to non-distribution of cooked meals to the students during the year. Scrutiny of the records of DEEOs test checked further revealed that funds were drawn in lumpsum by them and kept in bank accounts for further disbursements to BEOs and schools. The entire funds were shown as having been spent. In these districts a sum of Rs 5.72 crore was lying unspent in bank accounts as on 31 March 2007 as detailed below:

Details of offices	2003-04	2004-05	2005-06	2006-07
	(Rupees in lakh)			
Five DEEOs	81.95	402.93	403.10	429.87
18 BEOs[34]	1.74	12.94	15.73	54.30
2,086 schools[35]	1.09	12.83	62.48	87.98
Total	**84.78**	**428.70**	**481.31**	**572.15**

A sum of Rs 5.72 crore was lying unspent in bank accounts in test checked districts.

Unspent balances with the implementing agencies had been increasing and rose to Rs 5.72 crore at the end of 2006-07 from Rs 0.85 crore in 2003-04 as the DEE had taken the entire allocations granted to districts as expenditure incurred and also reported the same to GOI because DEEOs failed to furnish the information regarding district wise expenditure vis-à-vis number of beneficiaries under the programme. Further, of the total allocations of Rs 35.62 crore to test checked districts during 2003-07, 16 *per cent* of allocations remained unspent and expenditure was inflated by that amount. The DEEOs concerned while admitting the fact stated (March-June 2007) that the amounts were kept in the bank accounts and would be deposited in treasury at the end of the financial year in future. Keeping of funds in bank accounts outside the Government Account was in violation of Rule 2.10 (b) 5 of Punjab Financial Rules, which stipulate that any unspent amount which is not required for immediate disbursement should immediately be deposited in the Government Account.

[34] Faridabad (2), Hisar (7), Jind (1), Karnal (4) and Yamunanagar (4).

[35] Faridabad (295), Hisar (429), Jind (327), Karnal (435) and Yamunanagar (600).

3.4.6.3 Incorrect reporting of enrolment leading to excess claim of central assistance

Incorrect reporting of enrolment led to excess claim of central assistance of Rs 99.20 lakh.

A test-check of the records of primary Government aided schools including Alternative and Innovative Education (A&IE) centres of three[36] districts revealed that enrolment of students was shown in excess of actual enrolment while sending demand to GOI for funds to meet the cooking cost as detailed below:

	Karnal	Yamunanagar	Jind	Total	Attendance rate (in *per cent*)	Number of child days excess shown (in lakh)	Financial assistance excess claimed (Rs in lakh)
(Enrolment of students)							
01 September 2004 to 31 March 2005 (149 days)							
As per DEE	1,02,647	66,257	1,10,138	2,79,042			
As compiled from school records	86,919	63,810	1,02,006	2,52,735	87	34.10	34.10
Excess shown	15,728	2,447	8,132	26,307			
01 April 2005 to 31 March 2006 (230 days)							
As per DEE	93,332	67,370	1,12,837	2,73,539			
As compiled from school records	86,767	63,440	1,01,255	2,51,462	87	44.18	44.18
Excess shown	6,565	3,930	11,582	22,077			
01 April 2006 to 15 June 2006 (37 days)							
As per DEE	88,131	65,501	1,08,065	2,61,697			
As compiled from school records	83,682	64,902	1,06,345	2,54,929	87	2.18	2.18
Excess shown	4,449	599	1,720	6,768			
16 June 2006 to 31 March 2007 (205 days)							
As per DEE	88,131	65,501	1,08,065	2,61,697			
As compiled from school records	83,682	64,902	1,06,345	2,54,929	90	12.49	18.74
Excess shown	4,449	599	1,720	6,768			
Total							**99.20**

Enrolment of students was shown in excess of actual enrolment which led to excess claim of assistance of Rs 99.20 lakh from GOI.

3.4.7 Impact on universalisation of primary education

3.4.7.1 No improvement in enrolment

There was no improvement in enrolment of students as a result of implementation of the programme.

One of the objectives of the programme was to support the universalisation of the primary education by increasing enrolment and bringing dropout rate to a minimum and attendance to a maximum level. Position of enrolment of students

[36] Jind, Karnal and Yamunanagar.

for the period 2002-07 was as under:

Year	Enrolment of students (in lakh)	Percentage increase (+) decrease (-) in enrolment over the preceding year's enrolment
2002-03	15.38	(-) 5
2003-04	15.79	(+) 3
2004-05	16.28	(+) 3
2005-06	16.46	(+) 1
2006-07	16.13	(-) 2

The position of enrolment during 2002-07 had remained nearly the same. According to Census 2001, total population of children in the age group of 6-11 years was 31.65 lakh in the State whereas enrolment of children during 2002-07 was around 16 lakh. Thus, a large number of children were out of school in the State. As such the programme had not made a noticeable contribution towards increasing the enrolment of the students.

Audit observed from the records of Jind, Karnal and Yamunanagar districts that there were variations in enrolment of students as per records maintained by DEE, DEEOs and actual number worked out by audit on the basis of records of schools as detailed below:

Enrolment of students in various districts (In lakh)

District	As per DEE	As per DEEOs	As compiled from school records
2004-05			
Jind	1.10	1.10	1.02
Karnal	1.03	0.83	0.87
Yamunanagar	0.66	0.67	0.64
Total	**2.79**	**2.60**	**2.53**
2005-06			
Jind	1.13	0.97	1.01
Karnal	0.93	0.77	0.87
Yamunanagar	0.67	0.67	0.63
Total	**2.73**	**2.41**	**2.51**
2006-07			
Jind	1.08	0.95	1.06
Karnal	0.88	0.83	0.84
Yamunanagar	0.66	0.62	0.65
Total	**2.62**	**2.40**	**2.55**

The matter is a cause of concern as in the absence of reliable data, adequate planning and effective implementation of the scheme is hampered.

3.4.7.2 Retention

There was no any improvement in retention of students as dropout rate remained almost the same during 2002-07.

The percentage of dropout of students in primary classes in a few schools of Karnal, Yamunanagar, Hisar and Jind districts are detailed below:

	Jind	Karnal	Yamunanagar	Hisar	Total
2002-03					
Number of schools	18	56	15	38	127
Enrolment at the beginning of the year	3,325	9,438	1,921	8,917	23,601
Enrolment at the end of the year	2,955	8,325	1,762	8,394	21,436
Percentage of dropout	11	12	8	6	9
2003-04					
Number of schools	30	53	11	45	139
Enrolment at the beginning of the year	5,965	9,299	1,034	10,085	26,383
Enrolment at the end of the year	5,601	8,584	989	9,050	24,224
Percentage of dropout	6	8	4	10	8
2004-05					
Number of schools	33	67	16	36	152
Enrolment at the beginning of the year	6,408	13,281	1,734	8,736	30,159
Enrolment at the end of the year	5,789	12,122	1,572	7,939	27,422
Percentage of dropout	10	9	9	9	9
2005-06					
Number of schools	26	62	18	36	142
Enrolment at the beginning of the year	4,328	11,431	2,058	6,965	24,782
Enrolment at the end of the year	4,051	10,403	1,924	6,185	22,563
Percentage of dropout	6	9	7	11	9
2006-07					
Number of schools	15	73	15	47	150
Enrolment at the beginning of the year	3,301	13,461	1,410	8,575	26,747
Enrolment at the end of the year	3,011	12,451	1,347	7,717	24,526
Percentage of dropout	9	8	4	10	9

The objective of the scheme was to increase the retention of students by arresting growth of the dropout rate. However, the data indicate that there has not been any improvement in retention as the dropout rate has remained almost same in all the years.

3.4.8 Implementation of the programme

3.4.8.1 Meals not provided in adequate quantity

Students were provided 42 to 49 grams of foodgrains against the norm of 100 grams during 2004-07.

The scheme provided for supply of foodgrains from the nearest godown of Food Corporation of India (FCI) at the rate of 100 grams of wheat/rice per student per day, cost of which was to be borne by GOI.

Scrutiny of the records of four[37] DEEOs showed that consumption of foodgrains was in excess of norms in the years when foodgrains were distributed and far below the norms from the year when supply of cooked meals was started as detailed below:

Year	Number of school days	Beneficiaries under the scheme (In lakh)	Foodgrains (In metric tonnes)			Quantity of food grains per child per school day (In grams)
			Requirement	Allotment	Utilised	
2002-03	240	3.38	8,112	10,366.8	9,713.10	120
2003-04	240	3.39	8,136	11,395.60	9,981.70	123
2004-05	240	3.39	8,136	8,810.60	3,951.70	49
2005-06	230	3.13	7,498	5,139.70	3,415.80	47
2006-07	242	3.30	7,986	5,868.30	3,357.20	42

While there was excess consumption of 3,446.8 metric tonnes of foodgrains during 2002-03 and 2003-04, during 2004-07 foodgrains utilised/lifted were far less than the norms of 100 grams per child per school day prescribed by the GOI indicating supply of inadequate quantity of meals as compared to the norms.

3.4.8.2 Non-distribution of meals in Alternative and Innovative Education Centres

In three districts 364 A&IE centres were not provided mid-day meal.

The Director reported (March 2007) to GOI that the programme had been implemented in all the 1,106 A&IE centres in the State. A test-check of the records of three DEEOs[38] showed that out of 403[39] A&IE centres in these districts, provision for Mid-Day Meal was not made in 364[40] centres (90 *per cent*) with enrolment of 9,794 students. The DEEOs concerned stated (February-May 2007) that cooked meals for A&IE centres was to be prepared at Government schools but since these centres were far away from Government schools, cooked meals could not be served to the students of these centres. The reply was not tenable as cooked meals were to be prepared and served at the centres as per GOI guidelines.

[37] Hisar, Jind, Karnal and Yamunanagar.
[38] Hisar, Karnal and Yamunanagar.
[39] Hisar (242), Karnal (36) and Yamunanagar (125).
[40] Hisar (242), Karnal (36) and Yamunanagar (86).

3.4.8.3 Non-introduction of revised recipe

Recipe with 450 calories though reported to have been introduced from January 2007 was not started.

The recipe to provide cooked meals with 300 calories was revised (September 2006) to provide 450 calories in accordance with GOI guidelines. In the evaluation report submitted (March 2007) by the DEE to GOI, it was stated that revised recipe was started from January 2007. In test checked districts (except Faridabad block), revised recipe had not been started as of March 2007. The BEOs concerned replied (March-June 2007) that instructions regarding revised recipe were received only in March 2007. Thus, the DEE instead of monitoring the implementation of the programme as per GOI guidelines intimated incorrect information to GOI.

3.4.8.4 Interruption in serving meals to students

As per instructions of GOI, States were to ensure that a minimum of one month's buffer stock of foodgrains was available in each school to avoid interruption in serving cooked meals. The Supreme Court directed the State Governments to provide cooked meals to every child in every Government and Government aided primary school for each day of school for a minimum of 200 days in a year.

Out of 2,476 schools test checked, 2,185 schools were not served meals for two to five days in a month of 20 school days.

A scrutiny of the records in test checked districts revealed that supply of foodgrains was made on monthly basis. One month's buffer stock of foodgrains was not kept with the schools. The BEOs of test checked districts replied (March-June 2007) that there were no separate stores in their schools. Therefore, buffer stock could not be kept. Scrutiny of the records of 32[41] blocks in the test checked districts further revealed that there was interruption in supply of Mid-Day Meal in schools due to irregular supply of foodgrains. Even fruits were not supplied to the students during these days. The details are given below:

District	Number of schools	Average Number of days per school in a month when cooked meals was not provided			Average Number of days[42] in a month when cooked meals was not provided during 2004-07
		2004-05	2005-06	2006-07	
Faridabad	350	6	4	2	4
Hisar	429	3	5	2	3
Jind	398	2	3	1	2
Karnal	395	3	4	2	3
Yamunanagar	613	6	7	2	5

On an average the cooked meals were not served for two to five days in various districts in a month of 20 days in 2,185 schools out of 2,476 schools test checked. Further, data of individual schools revealed that meal was not served for 1 to 226 days in various schools in a year. Out of 2,476 schools, 1,408 schools (57 *per cent*) reported irregular supply of foodgrains. In 1,589 schools (64 *per cent*) mid-day meal was not provided for a minimum of 200 days as per directions of the Supreme Court. The directions of the Supreme Court were

[41] Faridabad (5), Hisar (8), Jind (7), Karnal (6) and Yamunanagar (6).

[42] Average number of school days in a month 20.

not complied with in 796 schools (50 *per cent*) for one year, in 574 schools (36 *per cent*) for two years and in 219 schools (14 *per cent*) for all the three years.

3.4.8.5 Adverse effect on teaching and learning

As per instructions from GOI (December 2004), the programme was to be implemented in such a manner that it did not effect the duration or quality of actual teaching and learning in schools. Further, teachers were not to be assigned responsibility connected with the programme except testing of food and supervision of actual serving so that students consumed their meals hygienically. It was to be so organised that the entire process of serving and consumption of meals did not take more than 30-40 minutes.

Eighty eight *per cent* schools reported serving and consumption of meals took more than the prescribed time of 40 minutes.

A scrutiny of the records of schools in the test checked districts, however, showed that head teachers were assigned responsibilities of receipt and safe storage of foodgrains and other ingredients and maintenance of their records in all the schools. Out of 2,476 schools, 2,190 schools (88 *per cent*) reported that process of serving and consumption of meals took more than 40 minutes and 2,288 schools reported (92 *per cent*) that the programme was affecting teaching and learning.

3.4.8.6 Unauthorised utilisation of mid-day meal packets

A Non-Government Organisation (NGO) started centralised kitchen for 72 primary schools in urban areas of Faridabad district. The NGO prepared 11.04 lakh packets of lunch out of 539.01 quintals of foodgrains provided by the State Government during December 2006 to March 2007 and distributed 10.13 lakh packets to students resulting in excess preparation of 0.91 lakh packets of packed lunch which were reportedly distributed to the poor persons. Thus, 42.86[43] quintals of foodgrains supposedly consumed for preparation of 0.91 lakh packets of packed lunch was not utilised for mid-day meal for students.

Besides the NGO used only 47 grams of foodgrains in preparation of one day's meals per student against the norm of 100 grams. Thus, the NGO had not prepared the meals in requisite quantity and as a result the students were not served meals with proper nutrition.

3.4.9 Inadequate Infrastructure

Infrastructure includes kitchen cum store, cooking device, container for storage of foodgrains and utensils for cooking and serving. As per GOI instructions (December 2004), smokeless chullahs were to be used to the extent possible.

[43] 51,725 KG = 47 gram X 91,199= 42,86,353 i.e. 42.86 quintals.
11,04,000

Further, use of firewood was to be discouraged in the interest of environmental protection.

Out of 9,343 schools in the State only 267 schools had *pucca* kitchen sheds.

The second Mid-Day Meal Programme Approval Board (the Board) under the Chairmanship of Secretary, Elementary Education and Literacy, GOI in its meeting held in April 2006 pointed out that lack of *pucca* kitchen sheds was the main issue affecting the programme as out of 9,343 schools in the State only 267 schools had *pucca* kitchen sheds. Firewood was the main source for preparation of meals in the schools despite the instructions of GOI to discourage its use in the interest of environment protection.

***Pucca* kitchens were not available in 98 *per cent* schools while in 82 *per cent* schools meals was prepared in the open.**

Pucca kitchen was not available in 2,420 schools (98 *per cent*) in test checked districts and in 2,034 schools (82 *per cent*) food was prepared in the open while cooking gas facility was available only in 128 schools. Utensils for cooking were available in the test checked districts (except 31 schools in Yamunanagar district) but spoons and plates were not provided to students for taking meals in a proper manner in Faridabad, Jind, Karnal and Yamunanagar districts. Separate store room was not available in any of the schools in test checked districts. Storage containers for foodgrains were provided to 1,088 schools in Yamunanagar and Hisar districts, of which 863 schools reported that storage capacity of containers was inadequate. Thus, there was lack of adequate infrastructure in schools for smooth implementation of the programme.

Further, due to absence of separate storerooms, buffer stock of foodgrains could not be kept leading to interruption in supply of cooked meals.

3.4.10 Health and hygiene

No training camps were organised for the persons engaged in implementation of the programme to inculcate hygienic habits.

An objective of the scheme was to provide nutrition to students in primary classes. Guidelines of GOI (December 2004) envisaged that State Government would issue detailed guidelines for administration of six monthly dose for de-worming and vitamin 'A' supplementation, weekly iron and folic acid supplement, zinc and other appropriate supplementation depending on common deficiencies found in local areas. Guidelines also emphasised that all persons engaged in handling ingredients and in cooking and serving the mid-day meal should be trained in hygienic habits. The Board in its meeting held in April 2006 also stressed the need for developing manuals for training the teachers on issues of hygiene, cleanliness, quality, etc.

A test-check of the records of DEEOs revealed that no weekly iron and folic acid supplements were provided in any of the schools while monthly dose for de-worming was provided from 2005-06. No training camps were organised to train cooks, helpers and other functionaries in hygienic habits and no manuals were framed for training of teachers for the programme.

3.4.11 Management, monitoring and evaluation

District and block level Steering-cum-Monitoring Committees were not formed except district level committees in Faridabad and Jind.

To oversee the management and monitoring of the programme, the scheme envisages setting up of Steering-cum-Monitoring Committees (SMCs) at State, district and block levels. The DEE in the evaluation report to GOI (March 2007) confirmed the formation of SMCs at district and block levels in the entire State. Test-check of records, however, disclosed that SMCs at State level had been set up but no SMCs at block level had been formed and district level SMCs were formed only in Jind and Faridabad districts of the test checked districts.

Targets for inspections to watch effective implementation of the programme were not fixed.

State Government was required to issue guidelines for inspection of overall quality of mid-day meal including nutrition status, attendance status and retention status at various levels such as *panchayat*, municipality, officers of State Government, nutrition experts, etc. State Government was also to fix monthly targets of inspections to watch implementation of the programme in the schools in a proper manner. Suitable inspection rosters were to be prepared for each block/town/city and their implementation was to be monitored in every meeting of SMC at block, district and State level. No targets were fixed for the inspection at various levels to watch the effective implementation of programme. Even inspection rosters were not prepared. Guidelines and modalities for inspection of quality of programme implementation were also not framed by State Government.

Further, Financial Commissioner and Principal Secretary to Government of Haryana had not evolved any management information system in the form of periodical returns from field offices to have a control over the implementation of the programme.

3.4.12 Conclusions

The programme implementation was weak. Main objective of universalisation of primary education was not achieved as there was no noticeable improvement in overall enrolment of students. There were cases of deficiencies in financial management such as keeping of unspent funds in banks, incorrect reporting of enrolment figures to Government of India leading to excess claim of central assistance, etc. Besides, there were cases of providing of meals in inadequate quantities to students, non-supply of meals to students on all the school days, lack of infrastructure such as *pucca* kitchen, cooking gas facility, utensils for serving meals, etc. which indicated tardy implementation of the programme. Arranging of cooked meal by school authorities had affected teaching and learning. Little attention was paid towards training to inculcate the habit of hygiene and cleanliness. The programme was also not monitored properly as SMCs were not formed in most of the districts and blocks.

3.4.13 Recommendations

- Regular supply of meals in adequate quantity should be ensured. Buffer stock of foodgrains for one month's meals should be kept in schools to avoid interruption in providing meals to the students.

- Adequate infrastructure viz *pucca* kitchen, store, storage container, utensils, etc. should be provided to schools.

- District and block level Steering-cum-Monitoring Committees should be formed in all the districts to effectively monitor the implementation of the programme.

These points were demi-officially reported to the Financial Commissioner and Principal Secretary to Government of Haryana, Education Department in July 2007; their reply had not been received (August 2007).