Chapter- II

Performance review relating to Government companies

2.1 Performance Review on Project implementation and generation performance of Bihar State Hydroelectric Power Corporation Limited

Highlights

The Company was incorporated in March 1982 to plan, promote and develop hydroelectric power in the State. The Company increased capacity of small hydroelectric power by 2 MW (0.85 *per cent*) against 23.5 MW proposed to be increased during tenth five year plan.

(Paragraphs 2.1.1 and 2.1.9)

Annual financial budget assessment under Revenue Receipt and Revenue Expenditure, Capital Receipt and Capital Expenditure was unrealistic, resulting in poor resource mobilisation and consequent delay in execution of the ongoing projects.

(Paragraph 2.1.8)

Due to failure of the State Government to release its contribution in time for execution of 17 Small Hydroelectric Power Projects, the Company was unable to complete even a single project within the time schedule. The Company was, thus, deprived of envisaged potential revenue of Rs 23.64 crore per annum due to loss of generation.

(Paragraph 2.1.15)

Time overrun in execution of Agnoor (61 months) and Dhelabagh (25 months) Small Hydroelectric Power Projects resulted in cost overrun of Rs 5.43 crore (Agnoor) and Rs 2.94 crore (Dhelabagh).

(Paragraphs 2.1.18, 2.1.19 and 2.1.27)

Ignoring the short completion period *i.e.* 27 months instead of 48 months of Triveni Link Canal Power Station, Valmikinagar, resulted in extra expenditure of Rs 4.61 crore in the award of the work.

(Paragraph 2.1.28)

Due to non-construction of escape channels, water could not be utilised during non-irrigation season and generation units remained closed resulting in loss of potential generation of 175.17 MU valued at Rs 35.03 crore during 2002-07.

(Paragraph 2.1.33)

Owing to non-automation of gate at cross regulators, the projects were never fed with required water discharge due to apprehension that the gate might not be operated manually within very short time in emergency and might cause canal breach. Thus resulted in loss of potential generation of 314.37 MU valued at Rs 62.87 crore during 2002-07.

(Paragraph 2.1.33)

Auxiliary consumption in projects was more than the norms fixed by Central Electricity Authority resulting in excess auxiliary consumption to the extent of 8.76 MU valued at Rs 1.75 crore.

(Paragraph 2.1.34)

In the absence of any agreement with Bihar State Electricity Board regarding terms and conditions for payment of energy bills, the outstanding revenue ranged between Rs 3.65 crore and 28.24 crore which resulted in loss of interest of Rs 2.40 crore during 2002-07.

(Paragraph 2.1.37)

Introduction

2.1.1 The Bihar State Hydroelectric Power Corporation Limited (Company) was incorporated (March 1982) as a wholly owned State Government Company under the Companies Act, 1956. The main objects of the Company were to plan, promote and to carry on all activities connected with the power projects for development of hydroelectric power in the State. At the time of formation of the Company the hydroelectric power potential was assessed to be 1,890 MW (Big Hydel: 1700 MW and Small Hydel 190 MW). With the formation (November 2000) of Jharkhand State out of Bihar State the available hydel potential between Bihar and Jharkhand was as below:

(In MW)

Category	Bihar	Jharkhand	Total
Big	450	1,250	1,700
Small	150	40	190
Total	**600**	**1,290**	**1,890**

Source : Annual Reports of the Company.

Small Hydroelectric Power Projects allocated (150 MW) to Bihar State include 20 MW power project at Kataiya, the administrative and technical control of which was transferred (June 2003) to the Company by the Bihar State Electricity Board (BSEB).

The Management of the Company is vested in a Board of Directors (BoD) comprising not less than four and not more than seven directors, including the Managing Director, who is appointed by the State Government. As on 31 March 2007, there were five directors including the Managing Director. The Managing Director is the Chief Executive of the Company, and is assisted by the Chief Engineer (Electrical), Superintending Engineer (Civil), Financial Advisor and the Director (Personnel & Administration).

The performance of the Company was last reviewed and featured in Audit Report (Commercial) of the Comptroller & Auditor General of India - Government of Bihar, for the year ended 31 March 2002. The Committee on Public Sector Undertakings has, however, not discussed the Report so far (September 2007).

Scope of Audit

2.1.2 The present review covers implementation of the completed/ongoing projects and generation performance of six operating projects for the five-year period ended 31 March 2007. The activities of the Company were reviewed during the period February 2007 to May 2007, covering headquarters office, all six[1] operational projects, and five[2] (out of 24[3]) under construction projects which were selected on the basis of expenditure booked and extent of completion of the projects .

Audit objectives

2.1.3 The performance audit of Project implementation and generation performance of Bihar State Hydroelectric Power Corporation Limited was carried out to assess whether:

- the generating stations are being operated and maintained economically and efficiently;
- operation and maintenance of generating stations and evacuation of energy generated is efficient;
- the execution of the hydroelectric power projects has been done effectively, efficiently and economically;
- a proper and effective monitoring system has been designed and followed in respect of execution of Hydroelectric Power Projects**;**
- the internal control mechanism was efficient and effective.

Audit criteria

2.1.4 The criteria considered for assessing the achievement of audit objectives were as follows :

- norms given in Detailed Project Reports;
- prescribed purchase procedures of the Company;
- technical evaluation/guidelines issued by Central Electricity Authority (CEA), Ministry of Non conventional Energy Sources (MNES) *etc*;
- PERT chart/Revised Pert chart, if any;
- generation targets fixed by management;
- terms and conditions of the agreement with BSEB for sale of energy.

Audit methodology

2.1.5 The following mix of methodologies was adopted for attaining the audit objectives and comprised the examination of:

- DPRs, agreements with the contractors, minutes of the purchase committees,
- agenda and minutes of Board's Meetings and observation of funding agencies,
- monthly generation reports, defect register, maintenance contracts and agreement with BSEB for sale of energy,
- issue of audit queries and interaction with the Management at various levels.

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[1] Agnoor, Barun, Dehri-on-Sone, Dhelabag, Kataiya and Valmikinagar
[2] Chandil, Jainagara, Nasariganj, Tenu Bokaro and Triveni
[3] (17 NABARD Projects- One commissioned + eight projects located in Jharkhand)

Audit findings

2.1.6 The Audit findings on the project implementation and generation performance of the Company were reported to the Government/Management in May 2007 and discussed in the meeting of the Audit Review Committee for State Public Sector Enterprises (ARCPSE) held on 27 August 2007 which was attended by the Managing Director of the Company. The views expressed by the Management have been taken into consideration while finalising the review.

The audit findings are discussed in the succeeding paragraphs:

Planning of projects

2.1.7 On the basis of survey and investigation, the Company gets the Detailed Project Reports (DPRs) prepared from outside agencies. After inviting tenders, the bidders were asked to study the ground realities before quoting their rates. On receipt of bids, Alternate Hydro Energy Centre (AHEC), IIT Roorkee (being Company's consultant) evaluates the bids both technically and financially. Thereafter, the Company awards the contract. After awarding the contract the drawing for each activity is also approved by AHEC.

Financial Budget

2.1.8 The Company prepared annual budget to keep a watch over revenue/capital receipts and expenditure. The details of the projected revenue receipts, actual revenue receipts, projected capital expenditure and actual capital expenditure, for the five years ended March 2007 are given in the **Annexure-11.**

Annexure-11 reveals that budget assessment under the Revenue Receipt, Revenue Expenditure, Capital Receipt and Capital Expenditure was unrealistic.

- Revenue Receipt assessment fluctuated in all the years ranging from (-)60.40 and 28.91 *per cent*. For preceding years, the actuals of previous years were not taken into account for assessment of Revenue Receipts. Actual realisation varied from 12.88 and 90.79 *per cent*. As at the end of March 2007, the outstanding revenue was Rs 13.50 crores. This shows that revenue recoveries were poor.
- Revenue Expenditure assessed varied from year to year and ranged between (-) 20.51 and 88.08 *per cent* and was not related to actuals of the previous year. Actual Revenue Expenditure also varied between 46.44 and 52.25 *per cent* which shows inadequate maintenance of existing assets after expenditure on establishment.
- Capital Receipt assessment fluctuated in all the years ranging from (-) 5.26 and 109.51 *per cent*. For preceding years, the actuals of previous years were not taken into account for assessment of Capital Receipt. Actual realisation varied between 6.27 and 61.45 *per cent*. As at the end of March 2007, the outstanding Capital receipt was Rs 47.17 crores. This shows that Capital Receipt was inadequate.
- Capital Expenditure assessment also fluctuated in all the years ranging from (-) 0.98 and 34.70 *per cent* and was not related to actuals of the previous year. Actual Capital Expenditure also varied between 11.11

and 26.17 *per cent* which indicated unsatisfactory planning resulting in slow progress of ongoing projects/ capital works.

Overall physical target and achievement of projects

2.1.9 During the Tenth Five Year Plan (2002-07), the Company proposed to increase the capacity of Small Hydroelectric Power Projects (SHPP) by 23.5 MW by addition/commissioning of new plants and renovation/modernisation of all the three running plants. But by the end of March 2007, the Company could increase capacity by only 2 MW (0.85 *per cent*).

The Management stated (September 2007) that during Tenth Plan period, the Company carried forward its activities which were planned around initiatives taken during eighth and ninth plan period and a total of 16 MW was added to the capacity. The reply is not tenable as the projects carried forward from Eighth and Ninth Plan were not included in the projections for Tenth Plan. The fact, however, remains that addition of only 2 MW capacity was made under Tenth Plan and not of 16 MW.

- None of the 17 NABARD funded projects was completed by scheduled date of the completion (March 2005). Dhelabagh project was completed in August 2006. The physical progress (Civil and Electrical/Mechanical works) of other projects ranged between 6.06 and 96 *per cent* whereas expenditure incurred ranged between 2.24 and 100 *per cent* during five years ending March 2007 as detailed in **Annexure-12.**

The physical progress of projects under the territory of Jharkhand ranged between 20 and 90 *per cent* whereas expenditure incurred ranged between 6.20 and 83 *per cent* to the respective revised cost as detailed in **Annexure-13**. The earliest original scheduled date of completion of the projects was December 1992 and the latest scheduled date of completion was May 2001, however, none of the project was completed upto March 2007, though scheduled date of completion of two projects was revised to December 2001 and March 2002.

Project Implementation

2.1.10 Test check of the process of the project implementation from preparation of the Detailed Project Report (DPR) invitation of tenders, their evaluation, awarding of work order and execution of various projects revealed following deficiencies which are discussed in the subsequent paragraphs:

- Time and cost over run;
- Delay in processing tenders and award of work;
- Inaccurate assessment of tendered quantities;
- Inordinate delay in adjusting mobilisation advances;
- Defective evaluation of tenders.

NABARD funded projects

2.1.11 NABARD sanctioned (May 2003) 17 projects (as detailed in **Annexure-12**) with capital outlay of Rs 90.79 crore (Rs 60.15 crore – loan from NABARD, Rs 28.54 crore State Government contribution, apart from

Rs 2.10 crore already spent by the Company from its own fund) and scheduled date of completion as 31 March 2005.

Audit scrutiny of the implementation of these projects revealed the following:

Funding of projects

2.1.12 NABARD sanctioned loan (May 2003) of Rs 60.15 crore but the State Government delayed according (January 2004) administrative approval (AA) to these 17 projects. Contrary to the terms of the sanction letter, the State Government did not make any provision in its budgets and defaulted in releasing its contribution (2002-03 to 2004-05) amounting to Rs 28.54 crore. The NABARD released (till March 2005) only Rs 26.40 crore against committed amount of Rs 60.15 crore. The following table shows the amount of loan released by the NABARD/State Government and expenditure incurred by the Company, upto November 2006.

(Amount: Rupees in crore)

Sl.No.	Year	NABARD Loan	Amount Received from		Expenditure
			State Govt.	NABARD	
1.	2002-03	6.02	-	-	2.46[1]
2.	2003-04	36.09	-	23.38	2.37
3.	2004-05	18.04	-	3.02	10.31
4.	2005-06	-	8.45	-	11.48
5.	2006-07 (Nov. 06)	-	17.75	4.98	11.80
	Total	**60.15**	**26.20**	**31.38**	**38.42**

Source: Annual Budget/NABARD files

It would be seen from the above that upto the scheduled date of completion (March 2005) only an amount of Rs 26.40 crores was released by NABARD for 17 projects against which the Company spent only Rs 15.14 crores. The Company had not completed any of the 17 projects within the scheduled completion period of March 2005. Only Dhelabagh project was commissioned (August 2006).

Since the Company could not generate revenue from its internal resources such as recovery from BSEB for sale of energy and did not pursue the State Government effectively to fulfill its commitments, financial constrains remained a major impediment in the timely execution of ongoing projects.

Further, the Company had not paid a single installment of interest. Interest of Rs 5.18 crore on the loans obtained from NABARD, was due as of March 2007.

Status of the projects

2.1.13 The physical and financial progress of the 17 projects is given in **Annexure-12**. **Annexure-12** indicates that except for eight[2] projects the financial progress of the remaining projects was very poor and ranged between 2.24 and 37.01 *per cent*.

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[1] Included Rs 2.10 crore incurred by the Company before 1 April 2002.

[2] Arwal, Dhelabagh, Jainagara, Nasariganj, Sebari, Shirkhinda, Tejpura and Triveni SHPPs.

Though, the Company had not analysed reasons for the delay in implementation of these projects. Audit scrutiny, however, revealed that the following factors contributed to the delay in completion of the projects:

- Delay by the State Government in according AA and in accepting terms and conditions as contained in the sanction letter of NABARD.
- Non provision of State share in Budget.
- Delay in releasing State Government contribution.
- Delay in invitation and processing of tenders and finalisation of agreement with the contractors.

The Management stated (September 2007) that there was no delay in according AA by State Government and progress of these projects was reviewed by a Committee presided by the Chief Secretary on second Friday of each month. The Management plans to complete these projects by March 2008. The reply is not tenable as NABARD sanctioned the 17 projects in May 2003 and the State Government accorded AA in January 2004 hence, projects were destined to be delayed. Secondly copy of the minutes of the meetings were neither shown to audit nor found enclosed with the reply.

Time and Cost overrun

2.1.14 As against the estimated cost of Rs 90.79 crore (May 2003), the revised cost (December 2006) was Rs 108.39 crore **(Annexure-12**). Thus, the escalation of Rs. 17.60 crore had to be borne by the State Government out of its budgetary provisions as stipulated by NABARD. The estimated cost in respect of six[1] projects (Rs 31.49 crore) is going to be revised (March 2007) again. This would further escalate the revised cost of the projects.

In view of the miniscule physical progress of 13 projects (**Annexure-12)**, the capital outlay/escalation was bound to increase on completion.

The **Annexure-14** gives details of tenders, agreements and delay in execution of projects:

- **Annexure-14** reveals that even though the DPRs for all the 17 projects were ready before NABARD sanctioned (May 2003) loan, the Management invited tenders after delays ranging between five and 31 months in respect of eight[2] projects. Tenders were invited prior to NABARD's sanction of loan in nine[3] out of 17 projects. The Management also delayed signing agreements with the contractors ranging between eight and 68 months in respect of 15 projects. Letters of Intent (LoI) issued to two contractors were cancelled, and fresh tenders were invited (March 2007). Audit noticed the following points contributing to delay in processing the tenders.
- Tenders invited (April 2001) for Sipaha and Dehra were modified, and dates of opening the tenders were extended 14 times before these were finally opened in May 2003. The LoI in these two cases were issued (August 2004) to Power Vision Limited (PVL), even though it did not participate in the tender. Its sister concern Nippon Power Limited participated in the tenders. Further PVL did not execute the project and

[1] Amethi, Dehra, Natwar, Paharma, Rampur and Sipaha SHPPs
[2] Amethi, Arwal, Belsar, Natwar, Rajapur, Rampur, Tejpura and Walidad SHPPs.
[3] Dehra, Dhelabagh, Jainagar, Nasariganj, Paharma, Sebari, Shirkhinda, Sipaha and Triveni SHPPs.

was not even penalised. The Company cancelled (March 2007) the LoI issued to the contractor, and released Rs 6.50 lakhs on account of pre-construction survey and investigation.

- Tenders were invited (April 2001) for execution of SHPP Paharma and the same were opened (May 2003) and LoI issued (June 2004) to Biecco Lawrie Limited (BLL) (Central PSU). However, BLL refused (September 2005) to execute the work on the plea that the Company had delayed the tender processing resulting in cost escalation, for which there was no provision in the LoI. The Company cancelled (October 2005) the LoI and invited (February 2006) fresh tenders for execution of civil and electrical/mechanical works separately and work was awarded in October/November 2006. There was no increase in the cost of the work due to the delay. The inordinate delay of 61 months in awarding the work would, however, result in consequential delay of the benefits to the targeted population.
- Agreements for execution of four[1] SHPPs were signed (August 2004 to October 2004) after a delay of five months in call of tenders and 16 months in opening and award of work. The work was to be completed within eight months of agreement/ releasing the mobilisation advance. The contractors did not seek mobilisation advance until March 2005. It is pertinent to mention here that the State Water Resources Department (WRD), accorded formal clearance to execute the projects only in January 2006, after a delay of 15 months. These works are in progress, with schedule date of completion ranging between December 2007 and March 2008.

Potential generation loss

Non-completion of NABARD funded SHPPs in time deprived the Company of the envisaged annual revenue of Rs 23.64 crore due to loss of potential generation.

2.1.15 The Company envisaged (March 2001) increasing the hydel generation capacity of 16.75 MW by March 2005 and recovering the capital cost within four years of commercial operation of these 17 projects. The Company, however, was not able to add even a single KW of hydel power from these projects up to July 2006. As such the Company was deprived of the envisaged annual potential revenue of Rs 23.64 crore per annum, due to loss of potential generation (118.24 MU x Rs 2). The social objective of providing electricity to masses at reasonable rates was also defeated.

Capital Subsidy (MNES)

2.1.16 MNES formulated (July 2003) a scheme to promote development of SHPPs. The quantum of capital subsidy for plains and other regions of the States was 40 *per cent* of the project cost, limited to Rs 1.5 crores plus Rs 25 lakh per MW, in respect of projects ranging between one MW and 25 MW. In order to avail the capital subsidy, the Company was required to submit two copies of DPRs not more than two years old (prior to the date of submission) conforming to CEA/CWC guidelines covering various aspects of project implementation, and containing recent cost estimates.

NABARD sanctioned (May 2003) loans amounting to Rs 60.15 crore to execute 17 SHPPs on the basis of DPRs prepared (June 1986 and April 2000) by the Company.

[1] Walidad,Arwal,Sebari and Tejpura

In contravention of MNES norms for claiming capital subsidy, the Company submitted (January 2004) its claim for capital subsidy (Rs 21.33 crores) for all the 17 SHPPs, without revising the cost of projects in the DPRs which were three to 17 years old as of January 2004. Though the MNES sanctioned (October 2004) Rs 6.63 crores as subsidy for four[1] SHPPs on the basis of old DPRs, it released only Rs 4.52 crores uptil March 2007. The reason for not releasing the remaining subsidy of Rs 2.11 crores by MNES was not on record. The Company, however, submitted (December 2006/January 2007) revised claims for capital subsidy (Rs 9.69 crores) in respect of seven[2] SHPPs on the basis of revised DPRs against which MNES sanctioned (March 2007) Rs.9.48 crore and released (March 2007) Rs. 2.38 crore. As regards the other six[3] SHPPs, the Company was updating (September 2007) the cost (Rs 6.11 crores) and the revised claim would be submitted accordingly. Thus, claiming capital subsidy in contravention of MNES guidelines had deprived the Company of Rs 15.52[4] crore (March 2007) assistance.

The Management stated (September2007) that MNES sanctioned and released subsidy for four[5] SHPPs on the basis of the old DPR, but directed the Company to reclaim subsidy for other projects after getting DPRs updated.

The reply is not tenable as the Company didn't receive full subsidy against four projects and for others the Company had to revise the project reports to claim the subsidy. As such, had the Company adhered to the guidelines of MNES, it would have claimed full subsidy in January 2004 itself.

Delayed completion of project

2.1.17 During the period covered under audit, only two projects *viz*. Agnoor (State funded) and Dhelabagh (NABARD funded) were commissioned (January 2006 and August 2006). Audit findings on these projects are discussed in succeeding paragraphs.

Agnoor SHPP (2 X 500 KW)

Delay in completion led to cost overrun of Rs 5.43 crore

2.1.18 For execution of Agnoor SHPP (capacity 2 X 500 KW) the estimated cost was Rs 2.45 crore as per DPR (June 1986). After a delay of nine years (August 1995) the Company invited tenders on turnkey basis, but did not finalise after declaration of policy decision by the State Government that the execution of Agnoor SHPP would be taken up through private entrepreneurs. The State Government, however, did not declare any policy for private participation. The Company re-tendered (December 1997) and an agreement was signed (May 1999) with Nippon Power Limited, Calcutta for Rs 7.97 crore and completion by November, 2000. However, the project was completed (January 2006) at a cost of Rs 13.40 crore resulting in time over run of over five years and cost over run of Rs 5.43 crore. Though the project was ready for commissioning (September 2005) but due to non-completion of transmission line to evacuate power from the project, the plant was formally commissioned only in January 2006.

[1] Dhelabagh, Jainagara, Nasriganj and Triveni
[2] Arwal,Belsar,Rajapur,Sebari,Shirkhinda,Tejpura and Walidad.
[3] Amethi,Dehra,Natwar,Paharma,Rampur and Sipha.
[4] Rs 21.33 crore +Rs 1.09 crore revised claim for seven SHPPs (Rs 9.69 crore – Rs 8.60 crore)– Rs 6.90 crore (Rs 2.38 crore + Rs 4.52 crore).
[5] Dhelabagh, Jainagara, Nasriganj and Triveni

Cost escalation due to delay in completion of the project

Commencement of work after the scheduled completion period resulted in extra expenditure due to cost escalation of Rs 87.22 lakh on account of civil works and electrical/ mechanical equipment

2.1.19 The project was to be executed within 18 months from the release of first mobilisation advance against bank guarantee. After release of first mobilsation advance (May 1999), the project should have been completed by 27 November 2000. The project was however commissioned (January 2006), after a delay of 61 months, due to:

- non-finalisation of layout plan of power house (8 months);
- non-acquisition of private land (20 months);
- delay in approval of drawings (21 months);
- delay in completion of transmission line to evacuate power (56 months).

It was seen that the entire civil work was executed after November 2000, as such, the price variation of Rs 36.62 lakh allowed by the Company on civil works was avoidable, which resulted into escalation of the cost of the project. Similarly the contractor supplied first consignment of Electrical and Mechanical equipment (July 2002) 19 months after the scheduled completion period (November 2000). Correspondingly the cost escalation Rs 50.60 lakh was also avoidable. The price variation on account of civil works and supply of electrical and mechanical equipments contributed to cost overrun of the project to the extent of Rs 87.22 lakh.

Loss due to delay in completion of the project

2.1.20 The Company envisaged generation of 4.489 MUs of energy per annum by November 2000. Since water for generation of power was available, the delay in commissioning the project caused potential loss of revenue of Rs 8.98 crore per annum.

The Management stated (September 2007) that construction was disturbed by anti-social elements on number of occasions and realising the gravity of the situation, the Government decided to locate the police station near the project site itself. The reply is not tenable as the Management was required to apprehend all such situations and take remedial measures at the time of commencement of the project.

Enhancement of tendered quantities

2.1.21 In all major contracts, right from PWD to International Competitive Bids (ICBs), a provision regarding variation in quantities is invariably included in the agreements. Usually the variation in agreed quantities is limited to 25 *per cent*. If any item of work executed by the contractor exceeds the stipulated quantity by more than 25 *per cent* of the estimated quantity, the contractor would be entitled to payment at item rate included in the contract, and no claim for increase in quantities up to 25 *per cent* would be admitted.

It was noticed that the quantity variation clause *i.e.*, capping the variation in the agreed quantities was not included in the contract agreements for execution of SHPPs. Execution of projects with abnormally huge excess quantities not only reflected the perfunctory manner in which the survey/investigation, DPRs and estimates were prepared but resulted in avoidable expenditure as discussed below:

Extra expenditure due to enhancement of tendered quantities

2.1.22 Test check of the running account bills and the quantities incorporated in the agreement with the contractor revealed that the percentage of excess work executed in respect of seven items ranged between 32 and 341 *per cent*.

The absence of an enabling provision for capping the maximum limit of quantity of works in the agreements resulted (September 2006) in payment of Rs 1.05 crore. This was due to abnormal increase in quantities of works which obviously is unreasonable as the contract was a turnkey contract. Moreover, an amount of Rs 7.5 lakh was paid to the contractor for survey and investigation and the contractor had assessed the work (pre-construction) before quoting rates.

The Management stated (September 2007) that the work was awarded on the basis of DPRs which gave a conceptual idea of the project. While awarding the work a provision is made, that the work would be started only on the basis of the construction drawing which was prepared after conducting a fresh survey. The reply is not tenable as the bidders were given opportunity to conduct survey of their own of the ground realities before quoting their rates. As such there should be no variation in quantities offered by the bidders in their bids and those given in the construction drawings. As such, the Company was required to put a cap on the variation of actual quantities in the tender documents.

Extra expenditure on dewatering

2.1.23 In the DPR (June 1986) of Agnoor SHPP, 3 *per cent* of the cost of civil work of the Power House, and 5 *per cent* of the cost of civil work at other locations was provided for as component of dewatering. Accordingly, a provision of Rs 11.40 lakh was made in the agreement (May 1999) for dewatering work. The contractor, however, claimed (May 2004) Rs 92.91 lakh for dewatering works on the grounds that the volume of excavation had increased due to changes in the orientation of Power House, size of power house, tail pool and forebay structures *etc*. The Committee constituted to settle the issue of dewatering allowed (June 2004) dewatering cost up to 12 *per cent* of the total increased value of civil works. It was seen that payment of Rs 56 lakh was released without working out the dewatering cost as decided by the Committee which amounted to Rs 14.40 lakh. Moreover, the change in orientation of the Power House did not justify additional dewatering as there was hardly any change in the location. While quoting the rates, the bidders were expected to consider the water level of the preferred site of the plant. Since, the execution of Agnoor SHPP was done on turnkey basis and there was a specific provision for dewatering, excess payment of Rs 44.60 lakh was not justified.

Extra expenditure on transmission line system

2.1.24 The DPR (June1986) for construction of 11 KV transmission single circuit line from Agnoor Power Station to Daudnagar Power Sub-Station (which was the nearest 33/11 KV substation of Bihar State Electricity Board), estimated the distance between these places as 10 KM instead of actual distance of 14 KM. The work was awarded to a contractor at a value of Rs 20 lakh. The contractor, however, submitted (September 2004 to December 2005) bills for erection of 32 KM transmission line at the cost of Rs 80 lakh[1]. The Company, however, released payment of Rs 46.66 lakhs for erection of 23.33KM. Due to inaccurate estimation of length of transmission line, which worked out to be 14 KM instead of 10 KM as incorporated in DPR (June 1986) and in the agreement with the contractor, the release of payment for additional 4 KM only was justified, but payment of Rs 18.66 lakh for execution of 9.33 KM at the rate Rs 2 lakh per KM was not justified.

Non-performance of contractual liability

2.1.25 For execution of SHPP Agnoor, the agreement (May 1999) made with Nippon Power Limited, Kolkata, included, *inter alia*, the commercial operation and maintenance for one year at no extra cost.

Scrutiny of records revealed that the agency did not perform its obligations and the Company instead of taking action against the contractor, took the services of Associated Engineering Centre, Patna, for the operation & maintenance of the project without inviting tenders, and incurred an extra expenditure of Rs 10.63 lakh (January 2006 to January 2007).

Loss due to belated adjustment of interest free mobilisation advance

2.1.26 Mobilisation advances are released to contractors for execution of big projects. Delayed completion of projects result in belated recovery of mobilisation advances.

In order to safeguard its commercial interests, the Company was required to incorporate a clause for recovery of interest in the agreement for belated execution of work.

As per agreement, 10 *per cent* of contract value was to be given to the contractor as interest free mobilisation advance against Bank Guarantee (BG) after execution of agreement. Further 10 *per cent* of contract value was to be given as advance against the BG after furnishing the detailed drawings of all civil works as well as E & M works.

Scrutiny of records revealed that a sum of Rs 1.58 crore had been released (May 1999 to March 2000) as mobilisation advance. It was further noticed that work valued at Rs 9.05 lakh (upto August 2001*) being* 1.14 *per cent* of agree mental value was measured, as against the scheduled completion period of November 2000. As such, interest free first mobilisation advance of Rs 79 lakh and second mobilisation advance of same amount remained unadjusted for 27 months and 17 months respectively, resulting in loss of interest of Rs 37 lakh at the rate of 13[2] *per cent*.

Dhelabagh SHPP (2 X 500 KW)

2.1.27 For execution of Dhelabagh SHPP (capacity 2 X 750 KW) the estimated DPR (April 2000) cost was Rs 6.87 crore. The Company invited (January 2001) tenders for turnkey execution of project. Accordingly, a contract agreement was signed (April 2002) with Shahabad Engineers Private

[1] The basis for claiming the additional payment was on account of, additional 4 KM distance from the Power Station to BSEB Sub-station, additional work on 2.5 KM due to theft that occurred between October 2004 to December 2005 and re-work on entire transmission line (15.5 KM)

[2] rate charged by State Government on loans to the Company.

Limited, for a total firm price of Rs 6.70 crore, for completion in 24 months from the date of release of first mobilisation advance. After release (July 2002) of first mobilisation advance the project was commissioned in August 2006, at a cost of Rs 9.81crore. This resulted in cost overrun of Rs 2.94 crore, and time overrun of 25 months. The delay in execution of the project was mainly due to change in specifications of E & M equipments for the project.

The Management attributed (October 2007) the delay in execution of the project to strike by transporters, law and order problem and delay in receipt of permission from PWD. The contention of the Management is not tenable as the delay was due to change in the specifications of E&M equipment owing to revised parameters of the project.

Reasons contributing to cost overrun are discussed below:

Loss due to decrease in capacity from 1500 KW to 1000 KW

- The Company envisaged in the DPR (April 2000) installation of two units of 750 KW each at Dhelabagh SHPP so as to generate 11.919 MU per annum. The contract agreement (April 2002) was also signed accordingly. Alternate Hydro Energy Centre (AHEC-consultant of the Company) while finalising (December 2002) the parameters (rated head and discharge of water) for the projects decided (January 2003) to reduce the capacity of the project from 1500 KW to 1000 KW due to change in the parameters. The capacity was reduced (January 2003) in view of the following:

Item	As per tender document	As per actual
(i) Head	3.20 Mtrs.	2.420 Mtrs
(ii) Discharge	54.40 Cusecs	51.80 Cusecs

Source : File regarding execution of Dhelabagh SHPP

Due to change of head and discharge, the dimensions of the power house were changed as follows:

Item	As per tender document	As per actual
(i) Size of Power House	12 X 8 Mtr.	32.24 X 21.32 Mtr.
(ii) Deepest Earth Level of Power House	92.12 Mtr.	89.47 Mtr.

Source :File regarding execution of Dhelabagh SHPP

Poor planning and belated change in the specification of the E/M equipment resulted in extra expenditure of Rs 2.81 crore.

Thus, due to poor planning, the Company had to incur an extra expenditure of Rs 2.81 crore on construction of the project, despite the capacity being reduced from 1500 KW to 1000 KW.

The Management stated (October 2007) that after completion of the maintenance of the Sone canal system by WRD, hydrological parameters of the project were revised, necessitating change in unit size from 2X 750KW to 2X 500KW in the first phase and after observing the performance, third unit of 500KW would be constructed.

The reply of the Management is not relevant as the parameters of head and discharge should have been correctly assessed at the time of preparation of DPR (April 2000) instead of in December 2002 *i.e.* even after the finalisation of contract for construction of 2 x 750 KW SHPP.

Extra expenditure due to enhancement of tendered quantities

- Test check of the running bills and the quantities incorporated in the agreement with the contractor revealed that the percentage of quantities of work executed exceeding the tendered quantities in respect of nine items ranged between 45 and 476 *per cent*.
  The absence of an enabling provision for capping the maximum limit of materials in the agreement had not only rendered the complete process right from survey and investigation to the preparation of DPR futile but had also resulted in payment of Rs 2.05 crore in consumption of material in excess of the material included in the agreement.

Extra expenditure due to cost escalation

- As per agreement (April 2002), the price was firm. Scrutiny of contractors bills, however, revealed that the contractor commenced (April 2005) supply of E & M equipment after the expiry (June 2004) of the scheduled period of the contract. Agreement provided E & M equipment for Rs 3.92 crore whereas expenditure of Rs 5.18 crore has been booked till January 2007. The main reason for delay in supply of E & M equipment was due to change in the specification necessitating changes in the manufacturer of the equipment. On contractor's representation (May 2005), the Company in contravention of the price clause, allowed price variation on E & M equipments amounting to Rs 84 lakh. Similarly, the major civil works were executed (July 2004-July 2006) after the scheduled completion period (June 2004), and price escalation of Rs 31 lakh was allowed to the contractor. The Company, as such, was put to a loss of potential revenue for 7.946 million units per annum valued Rs 1.59 crore, due to delay in completion of the project.

Triveni Link Canal Power Station (2 X 1.5 MW), Valmikinagar

Defective evaluation of tenders

Defective evaluation of tenders resulted in extra expenditure of Rs 4.61 crore in the award of the work.

2.1.28 The Company accorded (December 1992) AA for construction of hydroelectric project of 3 MW capacity (2 X 1.5 MW) on Triveni Link Canal on turnkey basis for Rs 9.15 crores. Tenders were invited (September 1999) for execution of the project on turnkey basis and LOI issued (April 2001) to Pareek Power Limited (first lowest), for Rs 13.50 crores, for completion within 48 months from the date of payment of first mobilisation advance.

It was seen that during evaluation (February 2001) of the bids by the Company's consultants AHEC and the Company, element of scheduled completion of the project and interest liability on loans obtained from NABARD was not considered. Nippon Private Limited the second lowest bidder at Rs 15.94 crores offered to complete the project within 27 months from the issue of the first mobilisation advance. Since the project was to generate 15.77 MU, the potential generation during 21 months (48-27) worked out to 27.59 MU valued at Rs 5.51 crore. After loading the cost of early completion of the project and interest liability Nippon was the first lowest at Rs 15.94 crore as against Pareek at the loaded rate of Rs 20.55 crore, thus resulting in extra expenditure of Rs 4.61[1] crore in award of the work. It was further seen that the contractor had not completed the work till date (September 2007), even though advance (Rs 67.62 lakh) was released on 11 October 2001, and the work was to be completed by 10 October 2005.

The Management stated (September 2007) that it was not clear what was the basis of second lowest tenderer for indicating 27 months as completion period for the project and that too at a higher price. The fact, however, remains that the Management failed to consider the short completion period while evaluating the bids of the tenderers.

Increase in quantities

2.1.29 The quantities of six items included in Power House portion of the project which was almost complete in March 2007, registered an increase ranging between six to 461 *per cent*. The Company incurred Rs 4.13 crores on these items till March 2007, while the work was envisaged to be completed at Rs 2.59 crores, resulting in extra expenditure of Rs 1.54 crores. Similarly the increase in the quantities of three items in the Head Regulator portion of the project ranged between 94 and 4,378 *per cent* resulting in extra expenditure of Rs 84 lakh against agreed amount of Rs.3.51 lakh. The Management regularised the increase in quantities due to requirement of detailed drawings prepared by AHEC. Since, the tenders were invited (September 1999) on turnkey basis and the bids were evaluated by (April 2001) AHEC, the increase in quantities subsequently was not justified.

Kataiya Hydel Power Station

2.1.30 Administrative and technical control of the Kataiya Hydel Power Station (4 X 4.8 MW) constructed and commissioned (November 1970 to October 1973) by BSEB was transferred (June 2003) to the Company at the instance of the State Government. Though 25 to 33 years had passed from the commissioning of turbine, generators and other auxiliary facilities but the average running hours ranged between 907 and 1,993 per annum against available hours of 8,760 in each year. The Company proposed (February 2007) to carry out renovation and modernisation of the plant at a cost of Rs 35 crore.

The terms and conditions of the transfer notification, *inter-alia,* provided that (i) in case the Company generated the same quantum of energy as generated in the previous year (August 2002 to July 2003) by BSEB, it would supply the entire energy free of cost to BSEB. In case the Company generated more energy after renovation, the excess generated energy would be supplied to BSEB at the rate fixed by the State Government, (ii) the entire cost of renovation would be borne by the Company.

In the above background, the following observations are made:

- The main reason for poor performance of the plant besides non-operation of units one and four from October 1995 and October 1993 respectively was non-availability of planned head and discharge, as the headrace canal and tailrace canal were heavily silted. As against 15000

[1] {Rs 13.50 crore + Rs 5.51 crore (generation potential for 21 months) + Rs 1.54 crore (interest on Rs 13.50 crore @ 6.5 per cent for 21 months)} – {Rs 15.94 crore } = Rs 4.61 crore

cusecs of water capacity of the main eastern canal, the actual discharge was 5000 to 6000 cusecs only, due to siltation of 5' to 11' in its bed. Due to heavy siltation of the escape channel, Irrigation Department did not release the required flow of water for running of all the four units. The escape channel could have improved the desiltation process, besides rendering the main canal open during the period of four to five month in a year in which there is no irrigation demand. This escape channel was also not operational. Bhegadhar river, wherein the escape channel landed was also heavily silted. The escape channel continued (September 2007) to remain under the control of WRD. There was no provision for desilting the Bhegadhar river, headrace, tailrace canal and escape channel in the Capital outlay for renovation of the plant being finalised by the Company (February 2007). As such the Company was not likely to get the required discharge of water and the entire investment of Rs 35 crore would prove unproductive.

- The terms of the agreement as regards the supply of energy to BSEB free of cost in lieu of the transfer of plant to the Company were vague. While the Company had adjusted 62.75 lakh and 66.71 lakh units of energy in the account of BSEB during 2003-04 and 2004-05 whereas operating cost for Kataiya Plants was Rs 25.31 lakh and Rs 49.94 lakh respectively, BSEB had been persuading the Company to transfer 8.4 MU of energy every year free of cost. As such, the term of the agreement was not favourable to the Company.
- The issue of liabilities (Rs 16.51 lakh) of the BSEB as on the date of transfer of the project was still unresolved.
- Stores and spares relating to the project had not been transferred to the Company so far (March 2007). The Company had to incur Rs 36.96 lakh on repair and maintenance of the plant during financial year 2003-04 to 2006-07. Had the stores and spares related to the project been transferred to the Company and utilised subsequently, the Company would have incurred reduced cost on repair and maintenance of the plant.
- The Company had spent Rs 19 lakh for residual life assessment testing, survey of the existing equipment, preparation of DPR for all the four units and Rs seven lakh for preparing tender documents for capital overhauling of Units one and four. The Company did not receive any financial assistance from the State Government so far (March 2007).

The transfer of Kataiya Hydel Power Station which was 25 to 33 years old and having operational problems *i.e.* low discharge of water due to siltation and needed a heavy capital investment – was not beneficial for the Company which was facing financial constraints in execution of its on-going projects on time.

Small Hydel Projects in Jharkhand

2.1.31 The Company decided to install five[1] SHPPs for Rs 9.36 crore. Due to delay in placing orders ranging between six and 35 months for the execution of these projects, the cost had to be revised (1999) to Rs 14.10 crore. The

[1] Sadani (July 1994), Lower Ghaghri (December 1994), Nindighagh (December 1996), Netarhat (July 1997), and Jalimghagh (July 1997)

revised estimated cost was to be contributed by State Government (Rs 11.38 crore) and MNES (Rs 2.72 crore). Sadani SHPP was to be completed by July 2002, Lower Ghaghri SHPP by September 2002, Netarhat SHPP by July 2001, Nindighagh SHPP by March 2002 and Jalimghagh SHPP by March 2002.

The Company also decided (May 1984) to install two projects at Tenu Bokaro and Mandal and one project at Chandil (March 1987) at a capital outlay of Rs 37.14 crore. These projects were to be entirely financed by the State Government. The work orders for execution of these projects were placed in January 1991, December 1989 and March 1992 after delays of 81, 68 and 61 months respectively. In the meantime the estimated capital outlay was revised to Rs 91.69 crore. The scheduled dates of completion of Chandil and Tenu Bokaro were July 2001and December 2001 respectively. Due to law and order problems, the work at Mandal was abandoned (August 1997) and no date of completion was fixed as of March 2007.

The State of Jharkhand came into being on 15 November 2000 after reorganisation of Bihar State, and all these eight projects fell in the territory of Jharkhand. The total investment of the Company up to January 2001 was Rs 60.98 crore. MNES sanctioned (January 1995) subsidy of Rs 2.72 crore, it released (uptil March 2007) only Rs 1.32 crore and did not release the balance subsidy of Rs 1.40 crore. The Company did not pursue MNES to release the balance subsidy. With limited resources (after bifurcation of states viz. Bihar and Jharkhand) both the Government of Bihar and the Company were skeptical of investing further funds on these projects at the cost of other projects under development in Bihar.

Section 65 of the Bihar Re-organisation Act, 2000, provided for the Company (being in 9th Schedule of this Act) to continue functioning in the area in which it was functioning immediately before the appointed date of reorganisation of the State of Bihar (15 November, 2000). The Company, as such was required to adopt a realistic approach of transferring these projects to the State of Jharkhand considering the administrative inconvenience, and financial constraints, thus allowing the State of Jharkhand to complete these projects. On the other hand ignoring all the above facts, the Company imprudently preferred to complete these projects on its own.

Non-completion of eight projects located in Jharkhand State in time, the State was deprived of the annual potential energy generation valued at Rs 27.19 crore besides unproductive investment of Rs79.09 crore in these projects.

The fact, however, remains that even after spending Rs 18.11 crore (January 2001 to March 2007) on these projects, not even a single project was completed (March 2007). The physical and financial progress of Jharkhand projects has been given in **Annexure-13**. Since capital subsidy was received against five projects, the Company could not transfer these projects to private firms at the book/assessed value to complete the projects and sell power on its own. As the assets falling in the jurisdiction of each State were to be apportioned, the Company was required to transfer these projects to the State of Jharkhand and consequently could have avoided expenditure of Rs 18.11 crore incurred between February 2001 and March 2007. As regards the other projects financed by the Company/State Government, the Company should have considered inviting private firms to take over the incomplete projects, and recoup its investment (Rs 79.09 crore).

Delay in awarding the work ranging between six and 81 months was the main reason for non-completion of these projects before reorganization of the State

(November2000), and the subsequent approach towards the incomplete projects had not only resulted in unproductive investment of Rs 79.09 crore, but also deprived the States of the potential energy generation of 135.96 MU per annum, valued at Rs 27.19 crore.

The major expenditure of the Company was on procurement of E & M equipment and execution of civil works. Since the equipments were received over 15 years back, their deterioration/obsolescence can not be ruled out. Thus, the entire expenditure proved infructuous.

Generation performance of completed projects

2.1.32 It was noticed that against the projected generation of 1,117.84 MU during 2002-03 to 2006-07 by six[1] completed projects, the actual generation was only 292.81 MU (26.23 *per cent)*. There was shortfall of 825.03 MU valued at Rs 165 crore. The reasons for shortfall in generation have been discussed in the succeeding paragraphs.

Overall performance of the above power projects in operation has been summarised in the following table:

(In million units)

Particulars	2002-03	2003-04	2004-05	2005-06	2006- 07	Total
Projected generation(DPR)	161.25	161.25	260.97	260.97	273.40	1117.84
Projected Auxiliary consumption (DPR) at the rate of 0.5 per cent	0.81	0.81	1.30	1.30	1.37	5.59
Actual power generation	47.29	49.02	54.77	72.58	69.15	292.81
Less: Auxiliary consumption	1.78	1.54	2.05	2.31	2.33	10.01
Less: Transformation and transmission loss deducted by the Board	1.82	1.84	1.97	2.20	1.95	9.78
Net power available for sale	43.69	45.64	50.75	68.07	64.87	273.02
Percentage of actual generation to projected generation	29.32	30.40	20.98	27.81	25.29	

Source: Generation Report/Registers

It would be seen from the above table that the percentage of actual generation as compared to projected generation ranged between 20.98 and 30.40, during last five years ending March 2007.

[1] Agnoor, Barun, Dehri-on-Sone, Dhelabagh, Kataiya and Valmikinagar SHPPs.

Actual generation of project raised between 59.84 and 3.48 percent of the projected generation

The project wise performance has been detailed in the **Annexure-15**. **Annexure-15** shows that actual generation of Barun, Dehri on Sone, Kataiya and Valmikinagar SHPPs ranged between 59.84 and 3.48 *per cent* of the projected generation during the last five years ended March 2007 (except Kataiya whose generation was taken from 2004-05).

The Management stated (September 2007) that target was fixed considering all aspect including condition of the unit and availability of the water, outages in transmission line *etc*. The reply is not relevant as audit worked out actual generation as compared with the projected generation.

Outages

2.1.33 Outages means shut down of power plants or the period during which generating unit is not available for power generation. Outages of power houses during the period of five years ended March 2007 have been classified into two categories, avoidable and unavoidable, as detailed in **Annexure-16**. **Annexure-16** shows that the percentage of avoidable outages to available hours ranged between 34.72 and 48.21 *per cent* at Barun project, 49.21 and 59.54 *per cent* at Dehri, 40.87 and 59.43 at Kataiya and 54.40 and 73.61 *per cent* at Valmikinagar, during last five years ending March 2007 (except Kataiya, whose generation was taken from 2004-05). Reasons of outages, as analysed in audit, are discussed in the subsequent paragraphs.

Delay in installation of reactor

- For the evacuation of power generated at Valmikinagar, two 132 KV feeders were provided (by BSEB). One feeder was connected with Surajpura substation in Nepal, and other feeder with Ramnagar substation of BSEB. Due to mismatch between Ramnagar feeder line voltage and generated voltage, it was not possible to synchronize the power house machines with Ramnagar feeder. Consequently, the power generated at Valmikinagar was being transmitted to Surajpura substation in Nepal, as a temporary measure.

  Many times, the Valmikinagar project was shut down due to lack of requirement of power at Surajpura substation, even when sufficient discharge was available for power generation.

- A team of experts (Company's consultants) visited the power station in August 2001 and recommended installation of a reactor to maintain the desired voltage. The Company, however, installed the reactor in July 2005. Thus, failure to anticipate the problem of mismatch due to high voltage initially, and subsequent delay in installation of reactor caused loss of 2.99 MU valued at Rs 60 lakh during April 2002 to July 2005.

Deficient power evacuation

- The DPR (October 1983) of SHPP Barun envisaged evacuation of generated power to the existing grid sub-station at Barun, through a single circuit 33 KV overhead transmission line. The DPR (R & M) of the project (April 2002) provided extension of the existing 33 KV feeder to nearby 132 KV Sone Nagar sub-station, or construction of a second 33 KV line from the switchyard of the power house to 132 KV Sone Nagar sub-station which was not implemented, till March 2007.

Audit scrutiny revealed that units of the power station remained shutdown for 5,047 hours during the last five years up to March 2007, due to tripping/failure of supply from BSEB, resulting in loss of potential generation of 6.95 MU valued at Rs 1.39 crore.

The Management admitted (September 2007) that since MNES did not sanction any amount for this work, the scheme could not be taken up for execution. The Board is to renovate 33/11 sub- station at Barun and it is expected that, with complete renovation of this sub-station by the Board, the power tripping would decrease.

Non-adherence to provision of DPR regarding evacuation of generated power resulted in loss of potential generation of Rs1.71 crore

Similarly for evacuation of power generated from Dhelabagh Power Station, the DPR (April 2000) proposed connecting the power station through a 14 KM long single circuit, 11 KV line from Dhelabagh to Dehri 33/11 KV grid sub-station. But it was noticed that the power generated at Dhelabagh Power Station was initially evacuated (August 2006) by Nasriganj power sub-station of Bihar State Electricity Board. This was subsequently connected (November 2006) on 11 KV line to Akhothigola power sub-station. Since faults on 11 KV line continue to travel to the distribution sub-station, the plant was shut down for 5,271 hours since commissioning to March 2007, resulting in loss of potential generation of 1.59 MU valued at Rs 31.83 lakh.

The Management admitted (September 2007) that the trippings were mainly due to non-existence of protection system at Akhothigola sub-station of the Board. The Management further added that certain provisions are being made for improving the protection system at Board's sub-station.

Non-construction of Escape Channel

- The generation of power in hydroelectric projects depends on availability of water to the power channel. Three power generating projects[1] were set up (1993-97) on the canals constructed for irrigation purposes at a cost of Rs 114.06 crore. Water discharge in the canal varied due to the seasonal irrigation needs of command area. The canals generally remained closed for two to four months in two stretches every year, as there was no need for irrigation in the command area during those periods. To overcome the problem of non-availability of water during the closure of canal, provision for escape channel was made in the DPR, so that after generation, water may be sent back to the river through such escape channels.
- Due to lack of construction of escape channels in these projects, 175.17 MU of energy valued at Rs 35.03 crore could not be generated for want of water, during the last five years ending March 2007.

[1] Barun, Dehri, and Valmikinagar SHP

Improper cleaning of trash rack caused low generation

- Accumulated debris (organic/floating material) on the upstream of trash rack[1] blocks the water discharge for the turbines. This needs to be cleared continuously. In order to remove debris manually, closure of the concerned unit was essential. In order to avoid the closure of the plant, an annual operation and maintenance contract is given to a contractor which, *inter alia*, stipulates cleaning all organic/floating material from the trash rack at bridge and intake gate, so that plant could run smoothly.

  Test check of records of four[2] hydroelectric projects revealed that during 2002-07, proper cleaning of the trash rack was not carried out by the contractor, for which no penal action against the contractor was taken. This resulted in closure of units for 1,271 hours due to non-cleaning of trash rack. Thus, the Company sustained loss of potential generation to the extent of 1.979 MU valued at Rs 39.58 lakh.

  The consultants of the Company suggested (August 2001) installation of trash rack cleaning machines at Barun, Dehri, and Valmikinagar at an estimated cost of Rs 76 lakh. The Management, however, continued with the manual system of cleaning the trash rack at all the four projects, including Kataiya.

  The Management stated (September 2007) that the outages due to trash rack cleaning was not so alarming yet, the operation and maintenance contractor was regularly reminded to avoid outages of the unit due to this reason. But the fact remains that the Company has already sustained a loss of Rs 39.58 lakh for which no action has been taken against the contractor.

Low discharge of water due to non- automation of gates at cross regulator

Non-automation of gates despite receipt of Rs 1.15 crore (March 2004) from WRD resulted in less availability of water and loss of potential generation valued at Rs 62.87 crore.

- The DPRs in three[3] projects provided, as also subsequently suggested (2001) by the consultants for remodeling the existing manually operated fall gates into electrically operated ones (backed by diesel generators) and linking with the power house gates, so that during emergencies, when power cuts off, the canal fall gates open automatically. Despite receiving Rs 1.15 crore (March 2004) from WRD, for modernisation of Dehri fall gate, and delay of over three years, the work was not initiated (March 2007).

  Consequently, the Irrigation Department did not allow more than 2/3rd of the required discharge in the power channel due to the apprehension that during tripping of the power generating units, the gates provided at cross-regulators of these projects might not open within a short time causing breach of canal. Thus, the powerhouses were never fed with the required water discharge. The Company had to incur loss of potential generation of 314.37 MU valued at Rs 62.87 crore during last five years ending March 2007.

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[1] Trash rack is a net which prevents debris to travel to turbines.
[2] Barun, Dehri, Kataiya and Valmikinagar SHPs
[3] Barun, Dehri and ValmikinagarSHPPs

The Management stated (September 2007) that against an estimate of Rs 2.25 crore for gates of the three projects, a sum of Rs 1.15 crore only was received from WRD for modernisation of Dehri fall gate for which work order was placed. The reply is not acceptable as fund for Dehri fall gate was received three years back and the Company has not completed the work so far (August 2007).

Auxiliary consumption

2.1.34 Some of the energy generated in a power station is consumed in its auxiliaries, and is not available for sale. As per the norms fixed by the CEA for hydroelectric projects, auxiliary consumption of energy should not exceed half *per cent* of the energy generated. The auxiliary consumption in various power projects for the five years ending March 2007 is given below:

(Figures in percentage)

Power projects	2002-03	2003-04	2004-05	2005-06	2006-07
Agnoor	-	-	-	-	3.33
Barun	3.53	3.38	3.57	3.30	3.38
Dehri	3.66	3.57	3.58	3.20	3.14
Kataiya	-	1.75	3.99	2.11	2.53
Valmiki Nagar	3.96	3.97	3.90	3.72	4.17

Source: Generation Report/Registers.

Excess auxiliary consumption resulted in loss of Rs 1.75 crore

The above table reveals that the least auxiliary consumption was 1.75 *per cent*, at Kataiya during 2003-04, and the highest was 4.17 *per cent* at Valmikinagar during 2006-07. The auxiliary consumption in all power projects in all the years had exceeded the norm (half *per cent*) of auxiliary consumption, resulting in excess auxiliary consumption of energy aggregating to 8.76 MU valued at Rs 1.75 crore. The Management had not analysed reasons for excess auxiliary consumption for remedial action.

The Management stated (September 2007) that excess auxiliary consumption was due to canal remaining closed for four months in a year, location of SHPPs in disturbed area, where good lighting is required and colony lighting at Barun being accounted for in auxiliary consumption. The Management further added that it will arrange for the metering arrangement for power station premises which will give a correct picture of the auxiliary consumption.

The contention of the Management is not tenable as while taking the norms of 0.5 per cent, non-availability of water for four months was taken into consideration. As regard consumption of electricity in the colony at Barun being booked against auxiliary consumption, it is a lapse on the part of the Management. The Management in its earlier reply (August 2006) had stated that Barun and Dehri SHPPs were located in naxal affected areas but now (September 2007) contention of the Management that all SHPPs are located in disturbed area, is not sustainable.

Renovation and modernisation of running plants

2.1.35 Barun (1996), Dehri (1993) and Valmikinagar (1995) plants were commissioned with minimum essential operating systems. The Company felt

(September 2001) that these units had the potential to become more viable with incorporation of certain features such as automation of gates, construction of escape channels and maintenance and replacement of machinery/ equipment. Accordingly, the Company proposed to commence the renovation and modernisation during 2003-04 and complete the work by March 2007 at the capital outlay of Rs 58.32 crore. The Company also envisaged (2003-04) to complete capital maintenance of four units *viz*. two units of Dehri and one unit each of Barun and Valmikinagar. As such, the Company proposed to undertake capital maintenance of these units during 2003-04 at a capital outlay of Rs two crore.

It was observed that the Company was neither able to generate funds from its own sources, nor mobilise funds from State Government/financial institutions. As such, the renovation and modernisation of the three plants and the capital maintenance of the four units were not taken up (September 2007).

The Management admitted (September 2007) that the Company did not receive any funds for this purpose and had started replacing governors one by one out of its own funds.

Operation and maintenance of the plants

2.1.36 The Company had engaged (May 1995) private agencies for O & M of its six[1] operational plants on monthly payment basis. Terms and conditions incorporated in the agreements with the private agencies, *inter alia*, stated that the contractors were liable to generate minimum target fixed for each year subject to availability of water. As per the O & M contracts upto 2004-05, in case a contractor failed to achieve the targeted generation, a proportionate deduction was to be made from the bills of the contractor.

It was observed that the O & M contractors at Valmikinagar and Kataiya did not achieve targets for generation fixed by the Company in any of the five years ended March 2007. Similarly, the O & M contractors for Barun and Dehri did not achieve targets for generation for two years each, in the last five years upto March, 2007. As regards Agnoor and Dhelabagh, the Company had not fixed any targets (March 2007). The shortfall in generation as compared to targets worked out to 76.03 MU, valued at Rs 15.21 crores.

The Company did not make any recovery for shortfall in the targeted generation even though enabling provision for such recovery was there in the agreements with the contractors up to 2004-05. The Company included a clause regarding incentive for power generation in excess of the targets in the agreements during 2005-06, but excluded the penalty clause for not achieving the targeted generation.

The Management stated (October 2007) that penalty clause (clause-15) was incorporated in all operation and maintenance agreements. The reply is not based on facts as clause-15 deals with penalty for shortfall in plant availability and damages to plant equipment. The other penalty clause for not achieving the targeted generation was deleted by the Management in all agreements during 2005-06 and onwards.

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[1] Agnoor, Barun, Dehri-on-Sone, Dhelabagh, Kataiya and Valmikinagar SHPPs.

Sale of energy

2.1.37 A Committee, constituted (December 1993) by the State Government for fixation of rates for sale of Electric energy by the Company, decided (14 August 1996) that a flat rate of Rs 2 per unit should be fixed up to March 1999. The Committee did not review unit rate of energy sold by the Company after April 1999, as such sale of energy to BSEB continued at Rs 2 per unit till date (September 2007). Test check of records revealed that monthly bills for supply of power were sent to the Board from head office of the Company/respective power projects, after verification thereof from the concerned Electrical/Transmission divisions of the Board for payment. But neither any agreement nor commercial terms and conditions streamlining the procedure regarding the due date for payment of monthly bills by the Board, deductions on account of transformation and transmission loss, penal clause regarding default in payment of monthly bill/part payments, were finalised by the Management with the Board.

Scrutiny of records revealed that though the monthly bills for sale of power were raised by the Company, the Board was not making regular payment of monthly bills or was making part payments. Details of bills raised, payments received and outstanding recovery at the end of each year, for the five years upto March 2007 are given below:

(Amount: Rupees in crore)

Year	Opening balance	Bills raised	Total dues	Payment received	Outstanding dues
2002-03	6.89	8.73	15.62	4.00	11.62
2003-04	11.62	9.09	20.71	1.50	19.21
2004-05	19.21	10.15	29.36	5.31	24.05
2005-06	24.05	13.62	37.67	14.79	22.88
2006-07	22.88	12.86	35.74	7.50	28.24

Source: Billing Register.

Audit scrutiny of monthly bills raised during the period 2002-03 to 2006-07 revealed that the outstanding dues ranged between Rs 3.65 crores and Rs 28.24 crores as of March 2007.

Non-finalisation of commercial terms with BSEB resulted in huge accumulation of dues and loss of interest of Rs 2.40 crore

Thus, in absence of any contracted terms and conditions for payment of monthly bills/outstanding amount by the Board, the Company had to sustain loss of interest of Rs 2.40 crore during last five years ending March 2007, calculated at the rate of 13 *per cent*[1]. Reasons for not finalising commercial terms and conditions of sales of energy were not on record.

The Management stated (September 2007) that the Company was taking steps to get the tariff fixed by the Bihar State Electricity Regulatory Commission and power purchase agreement with the Board was drafted and was under negotiation.

Excess transformation loss

2.1.38 Power generated at three[2] SHPPs at 6.6 KV was transmitted to BSEB for sale. As per Electricity Act, 2003, meters should be fixed in the premises

[1] Rate charged by State Government on loans to the Company
[2] Barun, Dehri and Valmikinagar

of the consumers, which in this case is the Board. Hence, billing should be done on the basis of meter reading at 33 KV end of the Board. In the process of stepping up of the voltage (33 KV) of the power generated (6.6 KV), some power was lost as transformation loss. The GOI had fixed (March 1992) norms of 0.5 *per cent* of energy generated for transformation loss in hydroelectric power projects. The Company in a meeting held (April 2001) with BSEB, decided that 3 *per cent* would be deducted from the bill on account of transformation loss, till meters were installed by the Company at the receiving end of the Board.

It was noticed (January 2007) that the Company had installed meters at Dehri and Valmikinagar sub-stations of the Board in the months of March/April 2006, but had not got them tested by the Board so far (March 2007). The meter at Barun, was not installed so far (March 2007).

Thus, due to non-installation of meters at the receiving end of the Board, the Company had sustained loss of Rs 1.22 crore during 2002-07, due to transformation loss being in excess of the norms fixed by the Government of India.

The Management stated (September 2007) that the transformation loss agreed with the Board was purely an adhoc arrangement. Once the joint meter reading started, the adhoc arrangement would stop and all previous dues with the Board would be adjusted. The fact as such remains that the Company has been sustaining losses due to excessive transformation losses since commissioning of the SHPPs.

Insurance

2.1.39 Financial prudence demands that a Company obtain insurance cover for its assets and further ensure that timely renewal of insurance policies was done so as to safeguard its assets against theft and natural calamities.

Audit scrutiny of insurance policies relating to assets of various plants located at different places in the State revealed that three insurance claims of Rs 21.75 lakh were dismissed (August 2003) by the National Consumer Commission (NCC) on the grounds that the Company did not submit essential papers in support of the claims. The Company did not file any appeal against the decisions of the NCC. Similarly Company did not get any compensation against four insurance claims of Rs 16 lakh because on the date (7 August 1992, 25 August 1992 and 3 July 1992) of occurrence of damage due to flood/theft, the insurance policies had lapsed as the Company failed to keep the policies live.

The Management did not streamline the process of timely renewal of the insurance policies. It was seen that three insurance covers for various assets at Barun, Chandil and Valmikinagar plants of the Company lapsed on 13/14 February 2004, while insurance covers were obtained on 6 September 2004 (Barun), 21 August 2004 (Chandil), 9 August 2004 (Valimikinagar). Assets at Barun, Chandil and Valmikinagar remained without any insurance cover for periods ranging between 176 days and 205 days, thus exposing the assets to theft and natural calamities.

The Management stated (September 2007) that claims lodged were deliberately delayed/not settled and assurance given by the insurance companies also were not complied with by the insurer only to get the cases timed barred resulting in their dismissal on the ground of limitation only and not on the ground that the Company did not submit the essential paper in support of the claims. The contention of the Management is not tenable as on the date of occurrence of damage due to flood/theft, the insurance policies had lapsed and the Company did not file appeal against the decision of the National Consumer Commission.

Internal Control and Internal Audit

2.1.40 Internal Control System is an integral part of management functions. An efficient and effective internal control system helps the Company in achieving the objectives in a systematic, economical and orderly manner. Audit noticed the following deficiencies /weaknesses in the Internal control system and internal audit of the Company:

- The Company has not prepared any Internal Audit and Accounts manual.
- Physical verification of inventory kept at various hydel projects was never done.
- Generation reports submitted by operating hydel projects were sketchy, and did not give complete details of the outages.
- The post of Company Secretary was never filled in.

Internal Audit, an appraisal activity, is a service to the entity. Its function, *inter alia*, includes examination, evaluation and monitoring the adequacy and effectiveness of the accounting and internal control system. It was noticed that objections raised in the internal audit reports were of a routine nature and compliance thereof was not reported to the Board of Directors.

The above matters were reported to the Government (July 2007); the reply is awaited (October 2007).

Conclusion

The annual financial budget prepared by the Company could not be used as an effective tool of internal control to achieve the purpose of fund management since the estimates not only widely varied from actual but no analysis of variation was also being done. Though the Company envisaged during 10th Five year plan 2002-07 to increase its generating capacity by 23.5 MW and renovate/ modernise its three plants but by the end of March 2007 the Company could increase capacity just by 2 MW. The Company did not complete any of the 17 NABARD funded projects within the scheduled completion period. The fate of eight projects located in Jharkhand was uncertain. Inordinate delay in execution of projects resulted in substantial cost and time overrun besides defeating the social objective of providing power to the targeted masses at reasonable cost. The Company committed delay in inviting and processing tenders and signing of agreement. Inadequate provisions in the agreements led to abnormal increase in actual quantities as compared to tendered quantities and mobilisation advances remained unadjusted for long period. Generation performance of the completed projects was also unsatisfactory causing substantial loss of potential generation due to lack of essential facilities like escape channels, automation of gates and

effective evacuation system. In the absence of agreement for sale of energy and energy meters, the Company was not able to recover the full dues in time from Bihar State Electricity Board.

Recommendations

- **The Company should formulate its budget on realistic basis in accordance with performance.**
- **Improve revenue recovery.**
- **Processing time for inviting and finalising tenders and signing of agreements should be reduced.**
- **Company should review and revise enabling provisions in the agreement in respect of increase in quantities and quick adjustment of mobilisation advances.**
- **Expedite construction of escape channel, automation of gates and effective evacuation of power needs to be put in place to increase the generation capacity.**
- **Agreement for sale of energy, recovery of energy charges and installation of energy meters should be given priority so as to make timely recovery and measure energy charges accurately.**

2.2 Publishing and selling activities of Bihar State Text Book Publishing Corporation Limited

Highlights

The Company delayed placing orders for printing of books as a result books remained unsold and the students did not get the books at the start of academic session.

(Paragraphs 2.2.9)

The failure of the Company to sell the available books resulted in blockage of funds ranging from Rs 3.22 crore to Rs 4.94 crore during the period 2003-06.

(Paragraphs 2.2.10)

Books supplied to BEPC at an inflated price resulted in Company claiming Rs 68 crore against the actual cost of Rs 61 crore.

(Paragraphs 2.2.12)

The Company is not likely to receive subsidy of Rs 40.61 crore from the State Government on the books supplied to BEPC.

(Paragraphs 2.2.13)

Company purchased paper from HPCL at higher rates resulting in extra expenditure of Rs 37.82 lakh.

(Paragraphs 2.2.19)

Allowing excess wastage of paper (2.01 lakh Kg) resulted in undue favour of Rs 58.80 lakh to the printers.

(Paragraphs 2.2.20)

Books (3.80 lakh) valuing Rs 24.16 lakh for general sale and 3.31 lakh for Rs 30.86 lakh for DPEP became obsolete which resulted in loss of Rs 55.02 lakh.

(Paragraphs 2.2.21)

Introduction

2.2.1 The Bihar State Text book Publishing Corporation Limited (Company) was incorporated (April 1965) as a wholly owned State Government Company. The main objectives of the Company are to publish, print, sell and supply text books in all languages for primary, secondary and university education in the State of Bihar at cheaper rates. The Company however, confined its activities to publishing and selling text books for primary and secondary education only.

The activities of the Company therefore are:

- purchase of paper and printing of text books under various State/Centrally Sponsored Schemes, and for general sale (The Company was getting subsidy till May 2005 for selling its books in open market at concessional rates) ;
- printing of text books ;
- storage of printed books in own and hired godowns; and

- arranging and facilitating transportation of text books to different godowns/sales depots, and to the District Superintendents of Education/ District Programme Coordinators.

The Company operates five[1] sales depots and attached godowns. Each sales depot (Centre) is managed by a Centre Superintendent, under the supervision of a Manager (Sales & Marketing) who reports to the Managing Director of the Company.

The Management of the Company is vested in a Board of Directors (BOD) consisting of not more than fifteen and not less than three Directors. As on 31 March 2007 the Board consisted of a Chairman, Managing Director (MD) and three nominee Directors from State Government. The Managing Director is the Chief Executive of the Company who is assisted by five sectional incharges. In addition there are five sale depots under the charge of depot Superintendent. Detailed organisational chart is given in (**Annexure-17**).

The working of the Company was last reviewed in the Report of the Comptroller and Auditor General of India for the year ended 31 March 1998 (Commercial), Government of Bihar, which is yet to be discussed by the Committee on Public Undertakings.

Scope of Audit

2.2.2 The Present performance review conducted during the period from February to May 2007 covers the publishing and selling activities of textbooks by the Company during the period 2002-03 to 2006-07. Records at the Company at its headquarters and all the five centers, alongwith godowns were examined in audit.

Audit objectives

2.2.3 Performance audit of the publishing and selling activities of the Company was carried out to assess whether:

- purchase and consumption of paper was economical and consumption/wastage of paper was within the prescribed norms;
- planning, execution and printing of books were as per target;
- the Company had formulated a reliable marketing policy for optimising the sale of text books;
- realisation of dues and subsidy was prompt and efficient; and
- there existed an efficient internal control system.

Audit Criteria

2.2.4 The following audit criteria were adopted to assess the performance of the Company, with respect to the achievement of audit objectives:

- the mandate for printing of text books;
- system and norms for printing of text books;

[1] Patna, Gaya, Muzaffarpur, Bhagalpur and Purnea.

- rules, procedures, guidelines, Board's instructions, Government directions, *etc.* regarding printing /transportation *etc*;
- delegation of powers, internal control and internal audit systems, *etc* ;

Audit Methodology

2.2.5 The following mix of audit methodologies was adopted for attaining the audit objectives:

- examination of guidelines/directions issued by the State Government with respect to purchase of paper, printing /sale of books;
- examination of cases of purchase of paper and other material;
- study of the agenda and minutes of meeting of the Board of Directors, alongwith rules, procedures and guidelines;
- examination of category wise sale and billing of books, and collection of outstanding dues from sale and subsidy; and
- issue of audit enquiries and interaction with the Management.

Audit Findings

2.2.6 The audit findings were reported to the Government/Management in August 2007 and discussed in the meeting of the Audit Review Committee for Public Sector Enterprises (ARCPSE) held on 27 August 2007, which was attended by the Managing Director of the Company. The views expressed by the members have been taken into consideration while finalising the review.

The audit findings are discussed in the succeeding paragraphs:

Books sold in the Market

Fixation of target

2.2.7 The Company's main objective was to publish textbooks, and provide the same to students of the State at cheaper rates. Prior to 1983 session, the assessment of books to be printed was made on the basis of data collected from the Education Department. The procedure was, however, changed from 1983 due to non-availability of data and the assessment of books to be printed was done on the basis of average sale during the preceding three years with a marginal increase.

The Company failed to formulate or marketing strategy for sale of books

The Managing Director (MD) while finalising the printing order of the books stated (October 2005) that it has been observed by Director Primary Education (DPE) that textbooks printed by the Company are in lesser number than the number of students (Class I to X) enrolled resulting in inflow of pirated books in the market. The students were thus, compelled to buy books published by other publishers at a higher cost. The Company failed to formulate a marketing strategy for optimising the sale of textbooks.

The Management stated (August 2007) that the Company is being run on commercial line and it has not to incur heavy losses by printing of books on the basis of number of students enrolled. The reply of the Company is not tenable as the fact of pirated books being sold in the market was being observed by the DPE.

Printing

2.2.8 The Company prints text books through its own press as well as other private printing presses during July to September each year, so that the books are received at least by third week of December, for making them available to the students at the start of the academic session which is from January every year.

As per the information provided by the Academic wing of Company, the details of books ordered and printed at the Company's own press and at private printing press during the five years from 2002-03 to 2006-07 are indicated below:-

(Number in lakh)

Sl. No.	Year Academic Session	2002-03 2003	2003-04 2004	2004-05 2005	2005-06 2006	2006-07 2007
1.	Target (Printing)	110.00	32.16	165.15	65.75	43.95
2.	Books ordered for printing					
	(a) Own Press	3.00	3.35	--	--	3.90
	(b) Private Printers	118.30	111.25	170.93	71.60	32.78
	(c) Total	121.30	114.60	170.93	71.60	36.68
3.	Ordered quantity in excess of the target	11.30	82.44	5.78	5.85	--
4.	Actual Supply					
	(a) Own Press	2.70	2.44	--	--	--
	(b) Private Printers	126.42	114.26	141.94	83.01	0.24
	(c) Total	129.12	116.70	141.94	83.01	0.24
5.	Books published in excess of :					
	(a) the target	19.12	84.54	--	17.26	--
	(b) the books ordered	7.82	2.10	--	11.41	--

Source: orders/supply registers/information furnished by the Company.

From the above table, it may be observed that :

- ordered quantity of books was in excess of the target fixed by the Management;
- books published were in excess of the books ordered (except for the years 2004-05 and 2006-07);
- a negligible quantity of books (1.09 *percent*) was printed at the Company's own press. The Company stated that this was due to non modernisation of its press;
- the BOD while fixing the targets made a mention that MD was authorised for placing order for printing of additional books as per requirement. The MD ordered for printing of 1.05 crore additional books without seeking approval of the Board;

- due to non maintenance of proper records for receipt of books from printers, quantities of textbooks shown to have been received from printers could not be vouchedsafed in audit.

The Management stated (August 2007) that printing programme is placed before the BOD for approval, and it is provided in the printing programme that whenever necessary, the MD will be getting the books printed and as regards Company's own press it was stated that the machines which are merely productive for name sake, are not being run because the percentage of wastage of these machines are more. The reply of the Management is not tenable as approval of BOD was required for the books printed in excess of the targets approved by the BOD and as regards its own press, there is a need to take a decision whether to run the press or not.

Delay in placing order

2.2.9 A test check of printing orders placed by the Company on various printers revealed that the Company did not place printing orders within the prescribed period of June-July, and there had been delay ranging from one to ten months, resulting in delayed printing of books.

It was observed that orders for printing of 67.84 lakh, 1.10 crore and 2.65 crore books were placed after a delay of one month, three months and more than three months respectively, during the five years period ending 2006-07 which has been tabulated below:

(Number in lakh)

Year	One Month	Three Months	More than three months
2002-03	1.25	3.90	14.95
2003-04	0.80	0.50	187.25
2004-05	48.64	80.61	24.77
2005-06	17.15	25.10	5.05
2006-07	Nil	Nil	32.78
Total	**67.84**	**110.11**	**264.80**

Source:- Order register

The Company delayed in placing orders to printers

The Company delayed in placing orders to the printers as a result of which the books remained unsold and the students did not get the books at the start of academic session.

The Management stated (August 2007) that tenders are invited on National basis and it delays in finalising the tender papers and printing programmes. The reply is not tenable as printing programmes should have been chalked out well in advance for timely receipt of printed books and distribution to students.

Delay in printing of books

2.2.10 A test check of records revealed that a substantial number of books had been supplied by private printers after delays ranging from one month to four months and on an average 66 *percent* books were printed and delivered late, after the start of the academic session. It was observed that during the period 2002-03 to 2005-06, 2.70 crore books were printed after the start of academic session. The value of closing stock of books (after excluding writing off of obsolete books) increased from Rs 3.22 crore in 2003-04 to Rs 4.71 crore in 2004-05 and to Rs 4.94 crore in 2005-06. During this period obsolete books

Delay in printing, resulted in books being obsolete and students not getting the books in time

valuing Rs 27.61 lakh were written off. Thus, delay in printing of books not only resulted in increase in the value of closing stock, but also deprived the students of getting these books at the start of the academic session.

The Management accepted (August 2007) that stock is bound to remain at the end of financial year. The fact, however, remains that because of delays in placing orders, delays in receipt and distribution, value of closing stock is increasing year after year resulting in avoidable blocking of substantial funds of the Company.

Sales Performance

2.2.11 The Company does not sell books in the market directly. The sale of books in the market was done through agents. The agents are paid commission at the rate of 17 *percent* on the value (selling price) of the books sold through them. The table below indicates the position of sale of books to the agents *vis-à-vis* total availability of books as provided by the Marketing wing of the Company during the five years from 2002-03 to 2006-07.

(Number in lakh)

Year	Opening Balance	Receipt	Total (2+3)	Sale	Transfer to Project	Total sale (5+6)	Closing Balance (4-7)	Percentage of total sales to total availability of stock	Percentage of closing stock to total sale
1	2	3	4	5	6	7	8	9	10
2002-03	45.33	140.35	185.68	83.17	14.91	98.08	87.60	52.82	89.31
2003-04	87.60	51.36	138.96	87.68	5.85	93.53	45.43	67.31	48.57
2004-05	45.44	140.22	185.66	78.04	55.00	133.04	52.62	71.66	39.55
2005-06	52.62	56.60	109.22	61.19	0.82	62.01	47.21	56.78	76.13
2006-07	47.20	2.42	49.62	6.92	9.33	16.25	33.37	32.75	205.35

Source: Information furnished by the Company.

It is evident from the above details that although the books are printed according to the assessment of the Company, it could sell books ranging from only 32.75 to 71.66 *percent* of total books available during the period 2002-03 to 2006-07, leaving huge balances of closing stock. The receipt of books, as shown above, does not tally with the figures of actual supply as shown in Paragraph 2.2.8 *supra*. The reasons for discrepancy were repeatedly called for (May and September 2007) from the Management, however, the same were not furnished. The reasons of discrepancy were neither analysed nor reconciled by the Company. The failure of the Company to sell all the available books resulted in avoidable blocking of funds ranging from Rs 3.22 crore to Rs 4.94 crore in the shape of closing stock of books during the period from 2003-06. This shows lack of accountability within the Company as there was no relationship between text books ordered, received, distributed, sold and closing balances.

The Management stated (August 2007) that a large number of free books (under various schemes of the State Government) are available to the students, therefore the general sale of the Company has come down from 150 lakh books per year to 40 lakh books per year. It was also stated by the Management that for finalisation of printing plan, the closing stock is taken into consideration and in future closing stock will come down and blocking of fund will also be reduced. From the reply it can be derived that despite Management being aware of free books being distributed in other schemes, the Management was not regulating quantities of books being published annually or coordinating with these agencies for distribution of their text books by debiting cost to these schemes. Further, the closing stock increased year after year, indicating that printing plan was prepared without taking into account the value of closing stock and the anticipated consumption.

Pricing of books

2.2.12 In fixing the price of textbooks (March 2006) of all sizes (1/8 DC, A-4 and A-5) in single, double and quadruplicate colours the elements of cost of paper, printing charges and 60 percent overhead charges on paper and printing charges are taken into account. It was observed that the Company while furnishing the details of the cost of books printed to Bihar Education Project Council (BEPC) for the year 2006-07, inflated the cost of printing *vis-à-vis* actual cost of printing and overheads of 60 *per cent* were also claimed on the enhanced cost of printing. As against the actual cost of printing of Rs 61 crore (for printing 3.81 crore books under SSA and LS schemes of BEPC for the year 2006-07), the Company claimed Rs 68 crore from BEPC. Thus, by furnishing false details of cost of printing, the Company claimed Rs seven crore from BEPC, to which it was not entitled to.

The Company gained Rs 7.00 crore by inflating the bills

The Management stated (August 2007) that surplus fund is generated for developmental programmes and other activities of the Company. The reply of the Management is an acceptance of the facts that the Company received an amount of Rs seven crore from BEPC, though not rightfully. So far as generating of funds for developmental programmes are concerned, the Company should have resorted to proper means for the same.

Books sold under schemes of Bihar Education Project Council

Non receipt of subsidy

2.2.13 District Primary Education Project (DPEP) was executed (1999 to 2005) for students of Classes I to V in 11 academic districts (20 Revenue Districts). The textbooks for DPEP were supplied to Bihar Education Project Council (BEPC) at full price with the proviso that the Company on receipt of subsidy of 50 *per cent* from the State Government, the amount would be passed on to BEPC. The Company claimed subsidy of Rs 19.55 crore from the State Government during the period 1999-2000 to 2002-03.

Sarva Shiksha Abhiyan (SSA), another Central/State Government sponsored scheme was implemented since the academic year 2002, under this scheme books were supplied at half price to BEPC and subsidy of 50 *per cent* amounting to Rs 21.06 crore was claimed from the State Government for the period 2002-03 to 2004-05.

The State Government ordered (July 2003) that as the books were distributed free to the students under DPEP/ SSA schemes, the subsidy on books is not payable by the State Government since the implementation (1999) of DPEP

Subsidy of Rs 40.61 crore denied by the State Government

Scheme and SSA Scheme from 2002 onwards. Hence the subsidy claim of Rs 19.55 crore on DPEP from 1999 to 2005, and Rs 21.06 crore on SSA from 2002-05 was not receivable. Thus, the possibility of the Company receiving subsidy of Rs 40.61 crore from the State Government appeared remote.

The Management stated (August 2007) that BEPC did not agree to buy books at full price as it is sold in the market at half price, accordingly the books were sold to BEPC at half price (till 2005-06) and now (from the year 2006-07) the books are sold at full price. It was further stated that State Government has not refused to pay the subsidy. The reply is not acceptable as the Government had already ordered (July 2003) that subsidy was not payable on the books distributed under DPEP/ SSA schemes.

Payment of commission

The Company lost Rs 23.07 crore due to payment of irregular commission to BEPC

2.2.14 The books, as per requirement of BEPC are printed by the Company and are supplied to BEPC. It was noticed that, although there was no provision in the scheme, yet the Company paid 17 *per cent* commission on the value of books supplied to BEPC. Further, the payment of commission was neither approved by the BOD nor by the State Government.

Thus, the Company paid an irregular commission of Rs 23.07 crore on the books supplied to BEPC during the period 2002-03 to 2006-07. The payment of such commission resulted in loss of Rs 23.07 crore to the Company.

The Management stated (August 2007) that they have not allowed the commission of 17 *per cent*, rather BEPC is making payment after deducting the commission. The reply is not tenable as the matter should have been taken up by the Company with Government/BEPC *abinitio.*

Under billing of books.

The Company lost Rs 18.75 lakh in sale of books during 2002-05

2.2.15 The Company sold text books of mathematics in Urdu for Class V for academic sessions 2002 to 2005 under SSA to BEPC during the year 2002 to 2005 at a price of Rs 21.20 against the price of Rs 30.50. Similarly under DPEP scheme, the Urdu books of mathematics for Classes III, IV and V were also sold at lesser price at Rs 18.80, Rs 28.20 and Rs 21.20 respectively for academic sessions 2002 and 2004 which were priced at Rs 23.10, Rs 40.70 and Rs 30.50 respectively. The reasons for selling the books at a price less than the selling price were not on record. For sale of 2,11,440 books in Urdu for Classes III, IV and V during the period 2002 to 2005, the Company should have realised an amount of Rs 65.42 lakh against the amount of Rs 46.67 lakh actually realised resulting in loss of Rs 18.75 lakh (**Annexure – 18**) to the Company.

The Management stated (August 2007) that on verification of records it was found that bill for book of Mathematics in Urdu for Class V for the year 2002-03 was correctly prepared and issued. As regards other classes, it was stated that inadvertently, the bills were prepared on old rates for which supplementary bill of Rs 13.07 lakh has been issued. Though the Company has stated that supplementary bill has been issued it neither stated when it was issued nor endorsed copy to audit for verification. Further, reason for this going unnoticed was not stated.

Wasteful expenditure in printing of textbooks for Lok Shikshan 2006

2.2.16 BEPC placed (December 2005) an order on the Company for supply of 34.15 lakh books to Lok Shikshan Kendra (LSK) for Classes I to V, for the academic year 2006. On receipt (December 2005) of requisition for books from BEPC, the Company placed (April-May 2006) order with private printers for printing of 22.25 lakh books, and for the remaining 11.90 lakh books it was decided to stamp the already stocked books meant for general sale.

It was noticed that 11.60 lakh books out of available stock of books were stamped and 22.25 lakh books were printed (June-September 2006) by private printers. Out of 33.85 lakh books ready for supply to LSK only 33.30 lakh books were supplied. The remaining 0.55 lakh books including 0.26 lakh books printed for LSK and 0.29 lakh stamped books remained unutilised.

Books valuing Rs 10.52 lakh became useless

As the stamped/printed books were not suitable for sale anywhere and the scheme was only for one year, the non-supplied books for Lok Shikshan 2006 numbering 0.55 lakh valued at Rs 10.52 lakh became useless causing a loss of Rs 10.52 lakh to the Company.

The Management stated (August 2007) that only 22.25 lakh books were printed and 11.90 lakh books were supplied out of stocked books for general sale. The reply is not tenable as 33.30 lakh books were supplied and 0.55 lakh books remained unutilised.

Delay in supply of textbooks under Sarva Shiksha Abhiyan.

2.2.17 SSA was launched in 2001-02 by the GOI to provide useful and relevant elementary education to the children in the age group of six to fourteen years by 2010. Under the scheme, textbooks are to be provided to focused groups of students of Classes I to VIII. The BEPC, the nodal agency to execute the scheme, places orders on the Company for printing and supply of textbooks.

The table below shows the books for which orders were placed for printing and books supplied to BEPC over the last five years ended 31 March 2007.

(Number in lakh)

	Year	2002-03	2003-04	2004-05	2005-06	2006-07
1.	Academic year	2002	2003	2004	2005	2006
2.	Date of order by BEPC	April 02	March 03	December 03	December 04	August 05
3.	No. of books required	104.92	200.79	194.11	188.50	351.10
4.	No. of books supplied	104.92	201.27	196.79	178.25	347.21
5.	Date by which supply started	May 02	April 03	February 04	January 05	May 06
6.	Date of completion of supply	November 02	November 03	November 04	June 05	August 06
7.	Total time taken (months)	1 to 8	1 to 9	2 to 11	1 to 7	10 to 13

Source:- SSA file and supply stock register.

The Company failed to supply the books in the beginning of the season

It is evident from the above table that textbooks were supplied to the District Programme Coordinator (DPC) towards the middle or end of the academic sessions. The students were thus deprived of getting the books in time. Apart from the delay by the BEPC in placing orders, there were delays in every subsequent stage – placing orders on private printers, printing by private printers, and supply of books to district headquarters. The Company took upto 13 months to supply books to DPC during the academic sessions 2002 to 2006. The number of books supplied to BEPC did not always match the order for printing. In some districts, books were supplied in excess and in some districts there was short supply. The Company, thus, failed to execute the scheme of supplying books in the beginning of academic session each year depriving the students in getting the books in time.

The Management stated (August 2007) that after inviting tender for obtaining printing materials such as paper, cover paper and after following procedures of printing, the printing work is done as a result of which delay is obvious. The reply is not tenable because the Company in engaged in the business of printing of books for the last four decades and by now it should have gained enough experience to plan its printing programmes in such a manner that there are no delays.

District Primary Education Project (DPEP)

2.2.18 The BEPC placed orders on the Company to procure and supply text books to the disadvantaged group of students of primary schools of 20 districts in the State as envisaged in the project agreement of DPEP-III.

The table below indicates the details of books ordered by BEPC and supply there against for the academic sessions 2002 to 2005.

(Number in lakh)

Sl. No.	Year	2002-03	2003-04	2004-05	2005-06
1.	Academic Sessions	2002	2003	2004	2005
2.	Date of order by BEPC	May 01	--	December 03	July 05
3.	No. of books required	89.18	--	118.89	127.71
4.	No. of books supplied	88.94	--	117.25	Scheme closed (March 2006) and merged under SSA due to delay in project implementation
5.	Date by which supply started	October 02	--	January 05	
6.	Date of completion of supply	March 03	--	December 05	
7.	Total time taken (Months)	17-22	--	13-24	

Source: DPEP file and supply/stock register

The orders for supply of books were received (May 2001) from BEPC, and the books were to be made available by the end of December 2001, for academic session 2002.

Schemes under DPEP could not be implemented due to failure of the Company to supply the books in time

The Company took two years (May 2001 to March 2003) for procurement and supply of books, for the academic session 2002. Viewing the delay in supply of books, the BEPC utilised these books for the academic sessions 2003. As the books were supplied for the academic session 2003, the books for the year DPEP-2003 were not requisitioned. Again for academic session 2004 (DPEP-2004), order was placed in December 2003 by BEPC for procurement and supply of books. The books were supplied during the period January 2005 to December 2005 after the end of academic session 2004. The books required for DPEP-III-2005 for the academic session 2005 were requisitioned in July 2005. The Company could not supply the books. In the meanwhile the project was closed (March 2006) and this scheme (DPEP III-2005) was merged with SSA Scheme. Thus implementation of schemes under DPEP adversely affected the supply of books to the students due to failure of the Company in procurement and supply of books in time.

The Management while giving reply (August 2007) discussed the procedure for getting the books printed from the printers and, *interalia*, it was also mentioned that Company took eight months in providing requisite certificate to the printers enabling them to claim excise duty exemption in purchase of paper, besides a printer had also filed a writ in the High Court. The reply of the Management in not tenable as it was the failure of the Company to maintain proper liaison with the printers that led to delay in getting the books printed from them.

Purchase of paper at higher price

2.2.19 The Company floated open tenders (February 2004) for supply of 8000 MT of water marked 'White Cream Wove' paper of 56/60 GSM, and 800 MT of White cover paper of 130 GSM. Two tenders were received, (March 2004) from Hindustan Paper Corporation Ltd. (HPCL), and from Andhra Pradesh Paper Mills Ltd. (APPML), through their authorized distributor, Shree Gopal Bagwan Das.

It was noticed that both HPCL and APPML had quoted rates for water marked as well as non water marked paper. The rate of APPML's water marked paper was lower than that of HPCL. APPML also offered to customize the water mark, as specified by the Company. The Company decided (April 2004) to purchase (paper 1,000 MT of water and, 5,880 MT of non-water marked paper) from HPCL at higher rates, resulting in extra expenditure of Rs 37.82 lakh. Purchase of non water marked paper was irregular as same was not mentioned in tender notice. The Company also took no action to call for fresh tender. In fact purchase was made without calling for competitive rates. Thus contract was vitiated. Further, the Company compromised the security feature against piracy by placing order for non water marked paper.

The Management stated (August 2007) that purchase from HPCL was made at rates lower than the rates of APPML and the rate of APPML which had been considered by the Audit is of CP Unit of APPML. The CP Unit was a small unit and the committee found its sample to be of poor quality. HPCL had been supplying good quality paper for the last 15 years. Moreover, as per GOI direction, CPSEs were to be given purchase price preference, if their quoted rates were within 10 *per cent* of the lowest rate. Since HPCL's rate was only five *per cent* higher than that of APPML, there was 'no loss' to the Company. No negotiations were held with HPCL to reduce prices.

The Company incurred an extra expenditure of Rs 37.82 lakh in purchase of paper

In this regard, it is worth mentioning, that, to say now that CP unit is a small unit and its sample was of poor quality is only an after thought as no such reasons were recorded for not considering the offer of CP unit of APPML. So far as GOI's directions are concerned, these are issued to departments of GOI undertaking and are not applicable to State Government departments or undertakings. Even in the case of GOI organisations, purchase preference was to be given to CPSEs, only after negotiating with them, to supply at the lowest valued price bid. Moreover, the provisions relating to purchase preference were to be specified in the tender notification. Even if the GOI's directions were followed by the Company, these were not followed in their entirety as orders to HPCL were not placed at the lowest quoted rate for water marked paper, which would have ensured economy in purchase and security aspect of the paper. Thus, the reply of the Management is untenable, and the purchase at five *per cent* higher rates (resulting in extra expenditure of Rs 37.82 lakh) ignoring security aspect of the paper cannot be justified.

Excess wastage of printing paper

2.2.20 The textbooks for Classes I to X are printed by private printers and the printing papers is supplied (except for the Books supplied under DPEP-III) by the Company.

Excess wastage of paper worth Rs 58.80 lakh resulted in undue favour to printers

A test check of consumption of paper, in respect of five textbooks (Hindi, Mathematics, English, Social Study and Social Science) for Classes I to X for the four years 2002-03 to 2005-06 revealed that, for printing 714.25 lakh books, the printers were supplied 141.36 lakh kg of paper. It was further observed that the Company supplies paper to printer on the basis of size of the book to be printed. The paper supplied by the paper manufactures is of standard size. For printing of a book of the size of 1/8 DC, the size of paper supplied to the printer is of the size of 74 X 101.6 cm/75 X 102 cm. For printing of books of the size of A-5 and A-4, the size of paper is of the size of 86 X 57.8 cm. As per the size of the finished books, the paper is trimmed. As per calculations of Audit, the wastage on account of trimming ranged between six to eight *per cent,* depending upon the size of the book. The Management, however, quoting percentages allowed by NCERT for trimming, stated (September 2005) that a percentage of 10 *per cent* for trimming and 2.5 to 3.5 *per cent* towards colour printing wastage may be considered as normal wastage. Taking the percentage of wastage as per the norms followed by the Management, the Company should have supplied 139.35 lakh Kg of paper for printing of 714.25 lakh books. As against this the Company supplied 141.36 lakh Kg of paper to the printers. Thus, allowance of excess wastage of 2.01 lakh kg of paper, valuing Rs 58.80 lakh, resulted in undue favour to the printers.

The Management in its reply reiterated (August 2007) the norms of 10 *per cent* and 2.5 to 3.5 *per cent* and remained silent on the allowance of excess wastage valuing Rs 58.80 lakh to the printers.

Obsolete Books

2.2.21 The State Government introduced new books (December 1997 to October 2000) in a phased manner *w.e.f.* 1997-98. Due to introduction of new books, 3.80 lakh books valuing Rs 24.16 lakh for Classes I to V, and X remained unsold and became obsolete. These books would not have remained in the stock of the Company had the Company made timely supply of these books, prior to introduction of new books by the State Government.

Failure to distribute the books in time resulted in loss of Rs 31 lakh due to books being sold as scrap.

It was further observed that 3.31 lakh text books printed from private printer for the academic session 1999 and 2000 for Class I to V in Hindi, Bangla, Urdu and Tribal languages under DPEP Scheme were not supplied to BEPC and remained in stock. These books valuing Rs 33.30 lakh were sold between September and December 2006 as scrap for Rs 2.44 lakh. Thus, failure to print and distribute the books in time resulted in loss of Rs 30.86 lakh. The books valuing Rs 24.16 lakh have also become obsolete and the loss due to obsolescence of books would further increase, when these are sold as obsolete or are written off.

Modernisation Scheme of Press

2.2.22 The installed capacity of the press established in 1972 was to print 100.50 lakh books in a year by working two shifts a day for 300 days. The capacity of press has gone down due to (a) old age of machines (b) lack of proper maintenance (c) non-replacement of worn out parts (d) heavy breakdown and (e) interrupted running due to substandard production. A project report for modernisation of the press was prepared by National Productivity Council (NPC) in 1999. After a lapse of seven years, the NPC was again consulted for submission of revised report and was appointed nodal agency (August 2006) for assessment of revised requirement and finalisation of machine specification, preparation of implementation plan, preparation of tender documents for purchasing machines, recommendation of suitable supplier for purchase and installation of equipments, periodic review of progress, preparation of training module for employees, development and conducting the programmes. The NPC submitted its report and was paid Rs 1.50 lakh (October 2006). In its report the NPC estimated that Rs 7.58 crore would be required for purchase of machines in the first phase. The report submitted by the NPC was accepted and approved (November 2006) by the BOD. The BOD also approved the proposal for purchase of machines out of the Companies own resource.

Due to non-implementation of modernization scheme, the Company is still (October 2007) operating the uneconomical printing press with large number of employees, who have been deployed for other works and are under employed.

The Management stated (August 2007) that tender will be invited for purchase of new printing machine.

Internal Control/Internal Audit

2.2.23 Internal control is a Management tool used to provide reasonable assurance that the objectives are being achieved in an economical, efficient and orderly manner. It was noticed that the Internal Control System of the Company was deficient as detailed below:-

- the Company has not devised any comprehensive Management information system, for collection and consolidation of information/data for effective governance.
- printing paper weighing 115.03 quintals valued for Rs 3.31 lakh was not taken as opening stock for the year 2004-05. The reason for non accountal was not analysed by the Management.
- the stock register (printing paper) was not properly maintained as closing balances were shown in minus figure on several occasions. Stock registers were never checked by the supervisory staff;
- no physical verification report for verification of stores was provided to audit, indicating that physical verification of stores was not conducted;
- stock register for text books was also not maintained properly as receipt of books for general sale and SSA from private printers was not entered in the register. The stock register reflected only the issue of books and did not give the closing balance;
- lack of internal controls was one of the main reasons for books becoming obsolete;
- the Company did not have any Internal Audit Wing. The Company had not prepared any Internal Audit Manual. The firms of Chartered Accountants were appointed for compilation of accounts, Bank Reconciliation, Physical Verification Report, and Valuation of books. Even these firms did not conduct the physical verification of stores comprising of printing paper, text books *etc.*

The Management stated (August 2007) that stock of printing paper was shown as a minus figure due to recording of weight sometimes on the basis of gross weight and sometimes on the basis of net weight. As regards stock register for books, it was stated that for DPEP-III, stock registers were maintained by Central Warehousing Corporation. As regards physical verification of printing paper it was stated that stock of printing paper is physically verified by the Internal Auditors. The reply of the Management clearly establishes that internal control system of the Company are not functioning properly and Company failed to provide the physical verification report of printing paper.

The above matters were reported to the Government (July 2007); the reply is awaited (October 2007).

Conclusion

The Company has failed in getting the textbooks printed in time for general sale in the Market. There was delay in supply of books to BEPC under schemes such as Sarva Shiksha Abhiyan (SSA) and District Primary Education Project (DPEP). The consumption/wastage of paper for printing of books was not within the norms. The pricing of the books supplied to BEPC was inflated resulting in receipt of payments to which it was not entitled to. The non realisation of dues and subsidy on the sale of books adversely affected the financial position of the Company. The Company had not formulated any marketing policy for optimising the

sale of textbooks. Internal Control System was not efficient as physical verification of stores was not conducted, stock registers were not maintained properly *etc.*

Recommendations

The Company needs to:

- **set their house in order in respect of assessing quantities of text books to be published, fix time schedule for printing and distribution before start of academic period;**
- **expedite modernisation of the press, cost of which can be recovered in a short period being equivalent to losses being made by the Company.**
- **do costing of text books on realistic terms;**
- **try public private partnership to reduce their liabilities;**
- **realise dues and subsidy promptly and efficiently;**
- **formulate a marketing policy for optimizing the sale of books;**
- **conduct physical verification of stores and maintain stock register properly.**