

## Chapter V Decentralisation of procurement of stores in Indian Railways

### 5.1 Highlights

- **Railway Board placed reliance on the soundness of their vendor management system (Research Designs and Standards Organisation approved sources list) for the success of the decentralised procurement. However, vendors formed cartels in a number of tenders and railways were unable to control the vendor behaviour. Due to deficiencies in the vendor management system zonal railways/Railway Production Units failed to ensure reliable and timely supplies in the decentralised environment.**  
*(Paras 5.7 and 5.8)*
- **Decentralisation was expected to expedite the procurement process and ensure timely availability of material by bringing the procuring authority closer to the end user. Though the tendering process had been expedited in the decentralised scenario, the benefits of the time gained were eroded due to the long time taken to consolidate user's indents by the stores department and long extensions of delivery periods granted to the suppliers.**  
*(Paras 5.8.1 and 5.8.2)*
- **Railway Board directives (September 1999) for establishing Vendor Development Cells and maintenance of quality files have not been implemented so far by most of the zonal railways/ Railway Production Units.**  
*(Para 5.8.5)*
- **In respect of ten items the variation between the maximum and minimum rates finalised over various zonal railways/ Railway Production Units ranged between 97 per cent and 171 per cent. Wide variations noticed in rates for the same item in the same year between various zonal railways/ Railway Production Units indicated that the system for sharing of information between various procuring organisations was unable to deliver the advantage of lower rates.**  
*(Para 5.10)*

### 5.2 Gist of recommendations

- Railways need to modernise their supply chain management techniques and consider the possibility of entering into long-term tie-ups with vendors to ensure timely availability of the materials required.
- Railways need to ensure that a specific time frame for the complete procurement process from indent to supply is set and adhered to.

- Railway Board needs to strengthen the systems for registration of vendors by making a detailed assessment of the vendor's technical, financial and manufacturing capability. Systems for elimination of vendors from the approved list in case of misbehaviour should also be strictly enforced.
- The information sharing mechanism in respect of rates finalised by various zonal railways/ Railway Production Units should be streamlined and made effective use of for achieving the most competitive rates.

### **5.3 Introduction**

Indian Railways procure stores items for a variety of requirements such as manufacture of rolling stock, operations, repairs and maintenance, track materials, fuel and construction. During 2003-04 the total procurement of stores items by the Railway Board, zonal railways and Railway Production Units (RPU) were valued at Rs.11,372 crore<sup>24</sup> approximately. While the Railway Board retains the powers for procurement of certain high value items, General Managers (GMs) of the zonal railways and Railway Production Units procure various items as per the powers delegated to them. Some of the items are also procured through Director General (Supplies & Disposals).

For items delegated to zonal railways and Railway Production Units, the users/consignees analyse their annual requirements of stores items, which are then consolidated and procured by respective Controllers of Stores. Where the amount involved exceeds the financial powers of GMs, the approval of the Railway Board is required.

For items not delegated to zonal railways and RPU, the requirements are sent to the Railway Board, which consolidates the indents and floats tenders for the consolidated requirements. The Railway Board awards contracts to successful tenderers who supply individual zonal railways/ RPU requirements directly to the consignee/indenter. Member Mechanical (MM) is the overall incharge of procurement in the Railway Board. He is assisted by Additional Member/ Railway Stores. Around ten directorates of Railway Board are involved in the process of tendering and finalising contracts for procurement of stores of different types and the concerned Directors/Executive Directors report to Additional Member/Railway Stores. Some of the items such as Track, Track fittings and Track machines are procured by Track Directorate which functions under Additional Member/ Civil Engineering who also reports to the Member Engineering (ME).

Reports of the Comptroller and Auditor General of India submitted to Parliament during earlier years have been highlighting common deficiencies in stores procurement as well as material management such as deficiencies in planning for procurement and lack of synchronization with production schedules of railway production units or schedule of maintenance requirements of user departments. Failure of inspecting authorities leading to

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<sup>24</sup> Source: Year Book 2003-04

poor quality of material and subsequent rejection of goods procured, poor vendor evaluation, award of contracts to firms with unsatisfactory past performance and poor financial background, deficient assessment of reasonableness of rates, procurement of stores items through works contract at higher rates, poor contract management including delay in finalisation of tenders, wrong assessment of quantities etc have been commonly noticed. To address these issues railways have initiated a number of corrective steps and issued directives for streamlining the procurement processes to bring about efficiency in material management.

Advantages of bulk purchase and better management of vendors/ suppliers in the centralised system of procurement have been counter-balanced by the long time taken in processing and finalization of tenders at the apex level, delaying supply of material to the field units. Through decentralisation of procurement for selected items the Railway Board has attempted to address problems faced in centralised procurement. Decentralised procurement is expected to give the zonal railways/ RPU's a better control over the procurement process resulting in reduced lead-time, timely availability of material and better post-contract and inventory management. In 2001, Railway Board decentralised procurement of 45 stores items and gave powers to GMs of zonal railways and Railway Production Units to procure items at their level. By the same order, centralised procurement of a few other items was delegated to other identified field units.

#### **5.4 Audit methodology and scope**

An assessment of the rationale and benefits expected from the decentralisation was taken up in audit. For this purpose audit carried out a comparative study of the procurement and inventory management systems during 2000-01 to 2004-05 covering both pre and post decentralisation period. The procurement and inventory management in respect of a selected set of 19 items was examined at Railway Board<sup>25</sup> as well as the zonal railways and RPU's<sup>26</sup>.

The sample for comprehensive review/evaluation, data collection and evidence gathering was selected on the basis of the following three criteria:

- Money value involved at the time of decentralisation
- Criticality/ necessity/ importance of the item (i.e., the extent to which its availability affects production/ repairs and maintenance and hence the business operations); and
- Past audit experience.

The sample of 19 items belonging to various departments covered sixty-three per cent of the total cost of these 45 items decentralised in the year 2001. Two out of the 19 items were those for which centralised procurement was delegated to Central Organisation for Railway Electrification.

<sup>25</sup> These 19 items were procured through 31 tenders and 505 contracts valuing Rs.717.79 crore of which audit reviewed 30 tenders and 332 contracts.

<sup>26</sup> Zonal railways/RPU's finalised 755 tenders and 2393 contracts valuing Rs.1519.95 crore, for procuring these 19 items.

### **5.5 Audit objectives**

The rationale behind the decentralisation for specific items was recorded as availability of sufficient number of RDSO approved sources, reduction in the requirement of the identified items and value of some items being low and within the purchase power of zonal railways and RPU. The decentralisation was expected to achieve cost-effectiveness, better quality control and faster processing of procurements, resulting in increased efficiency and availability of material.

This performance review is primarily focused on examining whether the decision was based on appropriate feedback and consultations and whether it resulted in improved procurement and better inventory management systems in the field offices of the railways. This objective was divided into the following sub-objectives:

- whether the need to change the centralised system of procurement was established through consultation and necessary studies;
- whether the systems and structures available to the field organisations were adequate for undertaking the responsibility devolved; and
- whether the decision has resulted in improved procurement and better inventory management in the field offices.

### **5.6 Acknowledgement**

In order to ascertain the auditee concerns on the issue, the audit plan including the audit objectives were discussed by Deputy Comptroller and Auditor General of India (Railways) with Additional Member (Railway Stores) at an entry conference held in July 2005. Respective Principal Directors of zonal Railway Audit Offices in meetings with the respective Controllers of Stores/Chief Engineers discussed the audit conclusions over various zonal railways/ RPU. The co-operation of the Ministry of Railways during the meetings and in the course of audit is acknowledged. Audit recommendations were discussed by Deputy Comptroller and Auditor General of India (Railways) with the Chairman Railway Board and other Board Members. The review note was issued to the Ministry of Railways in December 2005.

### **5.7 Decentralisation not on needs basis**

Railway Board decided to decentralise procurement of 45 items in August/September 2001. Audit observed that the reasons for decentralisation of specific items were recorded as availability of sufficient number of RDSO approved sources, reduction in the requirement of the items and the fact that the value of some items was low and within the purchase power of zonal railways and RPU. It was seen that no formal consultations were held with the field offices nor was any assessment of needs of different systems viz. operation and maintenance systems of zonal railways or production systems of Railway production units undertaken before selecting the items to be decentralised so as to make the decentralisation need based. It was also seen that no assessment of preparedness of field units for undertaking this

requirement in terms of manpower or training needs was carried out. Instead the Railway Board placed reliance on the soundness of their vendor management system (Research Designs and Standards Organisation approved sources list) for the success of the decentralised procurement.

### **5.8 Deficiencies in vendor management systems affecting decentralised procurement**

The Research, Design and Standards Organisation (RDSO) has been entrusted with the work of vendor development and quality assurance in respect of vital and safety related stores items used in railways. Certain items have also been entrusted to the zonal railways/ RPU's for the same purpose. The system of registration is expected to ensure the technical credentials, manufacturing capability, quality control systems, past performance, after sales service etc of the registered suppliers. Initially RDSO places vendors in Part II list for restricted supply of a specified item after prototype testing. The firms can be upgraded to regular supply category i.e., Part I list only after fulfilment of minimum time limit of 18 months for ISO 9000 certified firms (two years for others) and where the firm has a valid approval on the date of application and its performance has been satisfactory.

Rail India Technical and Economic Services Limited, RDSO representatives, railways' own representatives and some other government approved inspection agencies have been assigned the responsibility of inspection/testing of material supplied by vendors. RDSO maintains individual files for each approved vendor. The users (zonal railways/ RPU's) as well as the RDSO watch the performance and conduct of the registered vendors. Registered vendors are liable to be removed from the approved list if they fail to abide by the terms and conditions of the registration, fail to supply the goods in time or supply sub-standard goods.

As seen from the rationale for selection of items for decentralisation the success of decentralisation of procurement was dependent on the correct functioning of the vendor management system. Audit examined the actual procurements carried out during the post-decentralisation period at zonal railways/ RPU's in respect of the selected 19 items and observed that the procedures followed for procurement by railways as well as in the vendor management system were unable to ensure reliable and timely supplies in the decentralised environment as brought out in the following paragraphs.

#### **5.8.1 Long lead-time for supplies**

Prior to decentralisation, supplies to the user departments were often delayed due to the long time taken in consolidation of indents received from various zonal railways/ RPU's and delays in processing of tenders at the Railway Board. Audit compared the lead-time pre and post decentralisation to assess whether the decentralisation had improved the timeliness in supply of stores. The following table shows the average time taken from placing of indent by consignees to supply by the vendor, over the past five years, in respect of the selected items over all zonal railways/ RPU's:

Year	Average time taken from placing of indents to supply by the vendors to the consignee (number of days)	
	Minimum	Maximum
2000-01 <sup>#</sup>	504	879
2001-02 <sup>#</sup>	434	626
2001-02	395	760
2002-03	398	669
2003-04	429	685
2004-05	389	552

Though the average number of days in which the consignee received supply after placing indents came down after the decentralisation, the total duration was still unconscionably long for a one-year procurement cycle. The various components of the total lead-time were also studied in audit to examine the reasons for delays.

- It was observed that despite being directly in control of the procurement of decentralised items, Controllers of Stores at zonal railways/ RPU's took, on an average 114 days to consolidate the user's indents.
- The following table shows the minimum and maximum average time taken from the date of advertisement to issue of purchase orders over the past five years:

Year	Average time taken from date of advertisement to placing of purchase order	
	Minimum	Maximum
2000-01 <sup>#</sup>	276	304
2001-02 <sup>#</sup>	313	339
2001-02	174	200
2002-03	163	214
2003-04	176	215
2004-05	169	193

For centralised procurement of selected items the Railway Board on an average took 276 to 339 days from the date of advertisement to issue of purchase orders during 2000-01 and 2001-02. Similar processing of tenders and issue of purchase orders took zonal railways/ RPU's on an average 163 to 215 days from the date of advertisement to issue of purchase orders. A period of 76 days has been prescribed by the Railway Board for processing of tenders from the date of opening to issue of purchase orders. Taking into account a period of 7 to 45 days from the date of advertisement to the opening of tenders, the average time taken for processing in the decentralised scenario was much higher. Thus, while the tender processing had been expedited in the decentralised scenario, the benefits of the time gained in this activity were eroded due to the long time taken by the Controller of Stores to consolidate users' indents.

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<sup>#</sup> Pre-decentralisation period

**5.8.2 Routine extensions of delivery period leading to delay in supply of stores**

Availability of stores of the right quality at the right time at the right place is critical for railways operations. Audit observed that long extensions of delivery periods were granted to the suppliers, which also diluted the benefits of time gained in the processing of tenders.

- The rate at which extensions in delivery period were granted to the suppliers increased considerably after decentralisation. As against extensions in delivery period ranging from 3 to 1031 days granted by the Railway Board in 12 per cent of the contracts (64 out of 505 contracts) the zonal railways/ RPU's granted extensions in 32 per cent of the contracts (767 out of 2393 contracts), with periods ranging from 1 to 1095 days. The age-wise break-up of cases where extensions were granted post-decentralisation was as follows:

<i>Duration of extensions granted</i>	<i>Number of contracts</i>
<i>Less than 10 days</i>	48
<i>More than 10 days but less than 3 months</i>	318
<i>More than 3 months but less than 6 months</i>	196
<i>More than 6 months but less than 9 months</i>	106
<i>More than 9 months but less than 1 year</i>	49
<i>More than 1 year but less than 2 years</i>	46
<i>More than 2 years but less than 3 years</i>	4
<b><i>Total</i></b>	<b>767</b>

- Extensions of delivery period were being granted in a routine manner and in some cases supplies were allowed to be made even upto three years after the initial delivery period.
- Audit also examined 2393 post-decentralisation period contracts comparing the quantity supplied by the vendors within the initial delivery period vis-à-vis the quantity ordered. In 513 contracts less than 50 per cent of the ordered quantity was supplied within the initial delivery period. Of these, in 348 cases no material was delivered by the suppliers within the initial contracted delivery period. It was also seen that the same firms defaulted in supplying the same item during a particular year over a number of zonal railways/ RPU's. The default was indicative of inadequate assessment of the vendor capacity for supply along with his commitments elsewhere, as well as inadequate/non-sharing of information between different zonal railways/ RPU's.

**5.8.3 Maintenance of buffer stock and Inventory Turnover Ratio**

As railways were not sure of timely supply of material by the suppliers, they were maintaining high levels of buffer stock<sup>27</sup> in the store depots, which was also reflected in the high inventory turn over ratios of stock items.

<sup>27</sup> Buffer stocks are maintained to provide for emergency requirements in case of default by the supplier and to take care of fluctuations in consumption.

- Consequent upon decentralisation, it was expected that the amount of buffer stock would decrease in view of improved availability of stores. A comparison of levels of buffer of stock items pre and post decentralisation revealed that for ten<sup>28</sup> of the 19 items selected for detailed review the buffer stock levels remained the same in Western Railway (WR), Northern Railway (NR), Chitranjan Locomotives Works (CLW), Diesel Loco Modernisation Works (DMW), Patiala and East Central Railway (ECR). It was also seen that in one case [Northeast Frontier Railway (NFR)] the level of buffer stock was increased from six-month requirement to eight-month requirement in respect of 25 KW brushless alternators. Similarly, South Central (SCR) Railway increased the buffer stock limit from two months to three months for items such as brushless alternators and train lighting batteries. For certain items like EPM brushless alternators, train lighting batteries, VRLA batteries, air brake kits and underground signalling cables, for which there was no provision of buffer stock before decentralisation, North Eastern (NER), South Eastern (SER) and Central (CR) Railways made provisions to the extent of 2 to 3 months' requirements after decentralisation.
- An attempt was made in audit to calculate inventory turn over ratios<sup>29</sup> of selected stock items viz., knuckles, draft gears, brushless alternators, loco batteries and train lighting batteries over various zonal railways/ RPU's. The maximum closing balances observed over various zonal railways/ RPU's in respect of these five items, before and after decentralisation are shown below:

<i>Item</i>	<i>Closing balance in terms of months' requirement</i>	
	<b>Pre-decentralisation</b>	<b>Post-decentralisation</b>
<i>Knuckles</i>	16	32
<i>Draft gears</i>	8	60
<i>Brushless alternators</i>	2.5	12
<i>Loco batteries</i>	6	28
<i>Train lighting batteries</i>	12	83

Provision of high levels of buffer stock and high closing balances were indicative of deficient assessment of requirements as well as lack of confidence in the ability of the vendor management system to assure supply on need.

#### **5.8.4 Cartel formation and risk purchases due to supply failures**

Cartel formation by suppliers is a risk area in railway purchases. Railway Board issued directives (Aug 2002) to include certain conditions in the tender documents warning the vendors against cartel formation and reserving

<sup>28</sup> Brushless alternators, loco batteries, train lighting batteries, VRLA batteries, draft gears, knuckles, vacuum circuit breakers, optic fibre cable, underground signalling cables and HDGCC wire.

<sup>29</sup> Inventory turnover ratio is the percentage ratio of physical closing balances to material issued during the year and is an important parameter to measure the efficiency of inventory management.



railways' rights in cases where such a practice was noticed. A number of cartel cases were noticed where firms quoted similar high rates. In some cases where railways floated fresh tenders or risk cost tenders, none of the approved firms quoted against the tender.

- Audit noticed that cartels had been formed in nine<sup>30</sup> tender cases out of 31 cases examined for pre-decentralisation period. Cartel formation was noticed in 47 tender cases issued by zonal railways/ RPU's for the same items after decentralisation. Out of these in seven cases the special conditions regarding cartel formation were not incorporated.
- In the case of two items<sup>31</sup>, despite there being a large number of approved suppliers the zonal railways/ RPU's did not receive any tenders against successive tender notices. In twelve tenders of elastic rail clips, the tenders were discharged due to nil response from the suppliers.
- Audit noticed twenty-seven cases in respect of five items<sup>32</sup>, where RDSO approved suppliers failed to supply material and railways were forced to procure the items against risk-purchase tenders. As the railway procurements are restricted to suppliers registered with the RDSO even in the cases of risk and cost purchases, often the vendors take undue advantage of railways policy of having to make bulk quantity procurement only from approved sources. It was seen that in five out of the 27 cases railways could not procure the risk and cost items eventually, as the risk purchase tenders did not materialize. In five other cases risk-purchase contracts were placed on the defaulting firms themselves at the same price, in effect extending their initial delivery period.

#### **5.8.5 Non-establishment of Vendor Development Cells**

The Railway Board issued directives (September 1999) to establish Vendor Development Cells (VDC) in all zonal railways/ RPU's to carry out vendor rating for assessing the technical and financial capability of firms both in terms of quality and quantity and to strengthen the control over vendors and suppliers. In addition, the source approving authorities were required to maintain files containing records of quality and delivery performances of the vendors. These files were to form inputs to the Tender Committees/tender accepting authorities at the time of consideration of tenders.

It was observed that VDC had been created only in four zonal railways/ RPU's (NER, CLW, East Coast Railway and Integral Coach Factory) out of 23. No quality files were being maintained at any zonal railways/ RPU's except at Integral Coach Factory. As quality files were not being maintained, Tender Committees depended on vendor lists maintained by RDSO/ RPU's.

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<sup>30</sup> Loco batteries, train lighting batteries, VRLA batteries, air brake kits, brushless alternators, 4-Quad cables, optic fibre cables, elastic rail clips and draft gear

<sup>31</sup> Elastic rail clips and grooved rubber sole plates

<sup>32</sup> Underground signalling cables, elastic rail clips, grooved rubber sole plates, draft gears, electric point machines and HDGCC wire

### **5.8.6 Deficient monitoring of vendor management system**

It was observed that no structures had been created at the ministry level for regular monitoring/feedback on the procurement activity undertaken at the field offices. The Controllers of Stores and Chief Engineers of various zonal railways/ RPU intimate the problems being faced by them through Periodical Principal Confidential Demi-Official letters (PCDOs) to respective Members or in the COS and GM conferences. It was observed that Controllers of Stores have been bringing out several deficiencies in the performance of RDSO with respect to proper vendor assessment and inspection procedure. RDSO response to specific complaints about material failures and cartel formations brought to its notice by various zonal railways/ RPU was not verifiable. The Railway Board also limited its response to issuing guidelines on certain issues raised but did not play a proactive role in ensuring the efficacy of the vendor management system.

Thus while the world over the concept of 'Just in time' supplies was being used, the railways continued to be dependent on the traditional supply systems. They were also unable to control the vendor behaviour. During discussions the Ministry stated that the vendor registration system is in place with responsibility on RDSO and RPU for evaluating the technical capabilities of the manufacturer. They also stated that the capability of the vendor is the basis for upgrading a vendor for bulk supplies. Ministry also stated that the Vendor Development Cells and maintenance of quality files will be ensured. Audit observed that though technical capability of vendors was being examined by the RDSO and the RPU, the financial capability and the overall manufacturing capacity of suppliers was not ascertained, which may also be a contributory factor in supply failures in a decentralised scenario.

#### ***Recommendations***

- Railways need to modernise their supply chain management techniques and consider the possibility of entering into long-term tie-ups with vendors to ensure timely availability of the materials required.
- Railways need to ensure that a specific time frame for the complete procurement process from indent to supply is set and adhered to.
- Railway Board needs to strengthen the systems for registration of vendors by making a detailed assessment of the vendor's technical, financial and manufacturing capability. Systems for elimination of vendors from the approved list in case of misbehaviour should also be strictly enforced.

### **5.9 Procurement of stores items through works contracts**

The rules provide for procurement of certain work specific non-stock items by Chief Engineers. In Para No.5.3.10 of Railway Audit Report of the Comptroller and Auditor General of India for the year 2001, a comment was made on purchase of underground signalling cables through works contracts at higher rates in case of Hajipur-Bachhwara gauge conversion work on North Eastern Railway. As a remedial action, the General Manager of the zonal

Railway issued (May 2002) a joint circular directing that procurement of cable be done through stores department only. Supply for such items as a part of works contract was to be taken subject to personal clearance of Controller of Stores, Financial Advisor & Chief Accounts Officer and Additional General Manager/ General Manager.

Audit reviewed 66 contracts where stores such as underground signalling cables, 4-quad cables and optic fibre cables were procured by various zonal railways/ RPU through works contracts during 2002-03 to 2004-05. The rates in case of 50 contracts were higher than those received for the same items procured by the stores departments in the same year as shown in the table below:

<i>Percentage variation</i>	<i>Number of contracts</i>
<i>Upto 10 per cent</i>	32
<i>More than 10 per cent and less than 20 per cent</i>	15
<i>More than 20 per cent and less than 30 per cent</i>	1
<i>More than 30 per cent and less than 65 per cent</i>	2
<i>Total</i>	50

It was also seen that these cables were categorised as stock items over some railways, whereas some others railways procure them as non-stock items.

#### **5.10 Variations in price consequent to decentralisation**

To evaluate the financial impact of decentralisation, audit examined the price trends for items procured after decentralisation. For the 19 items reviewed, the prices showed a mixed trend after decentralisation. In respect of ten items<sup>33</sup> the variation between the maximum and minimum rates finalised over various zonal railways/ RPU ranged between 97 per cent and 171 per cent. In the remaining nine items, this difference ranged between 25 per cent and 89 per cent.

Wide variations noticed in rates for the same item in the same year between various zonal railways/ RPU indicated that the system for sharing of information between various procuring organisations was unable to deliver the advantage of lower rates.

During discussion the Ministry stated some of the price increases during the past few years could be attributed to the fluctuations in steel prices. However, the Ministry agreed that the instructions for information sharing between railways need to be further reinforced so as to avail best competitive rates.

#### **Recommendations**

- The information sharing mechanism in respect of rates finalised by various zonal railways/ RPU should be streamlined and made effective use of for achieving the most competitive rates.

<sup>33</sup> Grooved rubber sole pads (T-3711), elastic rail clips, knuckles, electric point machine, draft gears, air brake kits, vacuum circuit breaker, train lighting batteries, brushless alternators, HGDC wire

**5.11 Conclusion**

Railways took the decision to decentralise procurement of stores items in order to overcome the problems faced in the centralised system. Although decentralisation did result in some improvement in procurement and inventory management, full benefits of decentralisation could not be availed due to deficiencies in the procurement procedures followed and a deficient vendor management system.

**New Delhi  
Dated:**

**(KANWAL NATH)  
Deputy Comptroller and Auditor General**

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Comptroller and Auditor General of India**